## NORTH CAROLINA SUPREME COURT



ANTON S. KAWALSKY, trustee for ) the benefit of Anton S. Kawalsky ) Trust UA 9/17/2015, CANYON )
BLUE CREDIT INVESTMENT ) FUND L.P., THE CANYON VALUE ) REALIZATION MASTER FUND, ) L.P., CANYON VALUE ) REALIZATION FUND, L.P., ) AMUNDI ABSOLUTE RETURN ) CANYON FUND P.L.C., CANYON- ) SL VALUE FUND, L.P., PERMAL ) CANYON IO LTD., CANYON ) VALUE REALIZATION MAC 18 )
LTD.,
Defendants. )

## DEFENDANTS-APPELLANTS' BRIEF

## INDEX

TABLE OF CASES AND AUTHORITIES ..... i
ISSUES PRESENTED ..... ix
INTRODUCTION ..... 1
STATEMENT OF THE CASE ..... 20
STATEMENT OF THE GROUNDS FOR APPELLATE REVIEW ..... 22
STATEMENT OF FACTS ..... 22
I.BAT's Ownership and Influence Over RAI ..... 22
II.The U.S. Tobacco Market ..... 24
A.RAI's Transformational Lorillard Acquisition ..... 25
B.RAI Determines that its Stock is Worth at Least $\$ 65$ Per Share ..... 28
C.RAI Reports a "Step Change" in Cash Flow Growth at Strategy Day ..... 29
D.RAI Prepares for a BAT Offer ..... 35
III.RAI's Stock Price Declines and BAT Makes its Offer ..... 37
A.RAI Management Withholds Its Ten-Year
Projections from the Financial Advisors ..... 40
B.The Value of RAI Increases Between January and July 2017 ..... 50
IV.The Appraisal Action ..... 54
A.Relevant Pre-Trial Events ..... 54
B.The Opinion Below ..... 57
ARGUMENT ..... 58
I.Standard of Review ..... 58
II.The Business Court Erred By Failing to Make an Independent Determination of the Fair Value of RAI as of the Transaction Date, as Required by the North Carolina Appraisal Statute ..... 59
A.The North Carolina Appraisal Statute ..... 59
B.The Business Court Erred in Failing to Value RAI as of the Transaction Date ..... 64
C.The Business Court Erred by Failingto Make an Independent Determination ofFair Value using "Customary andCurrent Valuation Concepts andTechniques Generally Employed" to ValueCorporations72
D.The Business Court Erred in its Interpretation of Delaware Law to Rely on Deal Price Absent a Market Check ..... 74
1.Under Controlling Delaware Law, There is No Deference to Deal Price Without A Robust Market Check ..... 76
2.The Business Court Improperly Confused the Statutory Appraisal Remedy with Common Law Claims for Breach of Fiduciary Duty ..... 84
E.The Business Court Erred By Relying On Gompers' "Adjusted Unaffected Stock Price" Analysis ..... 89
F. Even if the Business Court Could Have Relied on Gompers' "Adjusted Unaffected Stock Price" Analysis, the Business Court Erred by Failing to Include a Control Premium in its Valuation of RAI ..... 99
III.The Business Court Erred in Finding Defendants' DCF to be Unreliable Evidence of Fair Value ..... 106
A.RAI Management's Cash Flow Projections Were Sufficiently Reliable for a Valuation Analysis ..... 107
B. Appellants' Expert Used the Most Appropriate Long-Term Growth Rate Because it was Based on the Ten-Year Projections ..... 114
IV.THE BUSINESS COURT ERRED BY RELYING ON GOMPERS' TESTIMONY IN VALUING RAI ..... 118
A.The Business Court Erred By Failing To Apply The "Missing Witness Rule" Against RAI ..... 119
B.The Trial Court Erred In Permitting Gompers To Vouch For The Work Of Others And To Insert Hearsay Into The Record ..... 126
V.THE BUSINESS COURT ERRED IN ITS DETERMINATION OF THE INTEREST DUE THE APPELLANTS ..... 135
CONCLUSION ..... 138
CERTIFICATE OF SERVICE ..... 142
APPENDIX
N.C.G.S. § 55-13-01 et seq ..... App. 1-12
Excerpted testimony of Thomas Wajnert ..... App. 13-38
Excerpted testimony of Maxence de Gennaro ..... App. 39-64
Excerpted testimony of Andrew Gilchrist ..... App. 65-91
Excerpted testimony of Debra Crew ..... App. 92-97
Excerpted testimony of Paul Gompers, Ph.D ..... App. 98-148
Excerpted testimony of
Ron Price ..... App. 149-155
Excerpted testimony of Fredrick Flyer, Ph.D ..... App. 156-167
Excerpted testimony of Mark Zmijewski, Ph.D ..... App. 168-174
Excerpted testimony of John Clark ..... App. 175-199
Excerpted testimony of Joseph Fragnito ..... App. 200-201
Excerpted testimony of

Daniela Constantino .App. 202-207
Excerpted testimony of Bilge Yilmaz, Ph.D.

App. 208-219
Excerpted deposition testimony of Paul Gompers, Ph.D. App. 220-221
Piper Jaffray, "Initiating at Overweight; RAI Deal Helps Drive Expected Cash Build"
(May 24, 2017)
.App. 222-236
Briefing on Motion for Issuance of
Letters of Request ................................ App. 237-252
Letter from P. Shindel to the Court ...........App. 253-255 ADDENDUM

## TABLE OF CASES AND AUTHORITIES

## Cases

Appeal of N. Carolina Sav. \& Loan League, 302 N.C. 458 (1981) ..... 57
Ash Grove Cement Co. v. Employers Ins. of Wausau, 246 F.R.D. 656 (D. Kan. 2007) ..... 126
Barkan v. Amsted Indus., Inc., 567 A.2d 1279 (Del. 1989) ..... 84
Beck's Office Furniture \& Supplies, Inc. v. Haworth, Inc., 1996 WL 466673 (10th Cir. Aug. 16, 1996) ..... 92
Blueblade Capital Opportunities LLC v. Norcraft Cos., Inc., 2018 WL 3602940 (Del. Ch. July 27, 2018) ..... 74
Cede \& Co. v. JRC Acquisition Corp., 2004 WL 5366085 (Del. Ch. Feb. 10, 2004) .. 108, 115
Cede \& Co. v. Technicolor, Inc., 2003 WL 23700218 (Del Ch. Dec. 31, 2003) ..... 107
Cede \& Co. v. Technicolor, Inc., 542 A.2d 1182 (Del. 1988) ..... 59
Corwin v. British Am. Tobacco plc, 371 N.C. 605 (N.C. 2018) ..... 16, 87, 102
Craig ex rel. Craig v. New Hanover Cty. Bd. of Educ., 363 N.C. 334, 337 (2009) ..... 58
Cuthrell v. Greene,
50 S.E.2d 525 (N.C. 1948) ..... 119
Dell, Inc. v. Magnetar Glob. Event Driven Master Fund ..... 80Ltd, 177 A.3d 1 (Del. 2017).
DFC Glob. Corp. v. Muirfield Value Partners, L.P., 172 A.3d 346 (Del. 2017) ..... 75, 79
Diaz v. Div. of Soc. Servs., 628 S.E.2d 1 (N.C. 2006) ..... 134
Doft \& Co. v. Travelocity.com, 2004 WL 5366732 (Del. Ch. May 20, 2004) ..... 107
Dura Auto. Sys. of Ind., Inc. v. CTS Corp., 285 F.3d 609 (7th Cir. 2002) ..... 126
Factory Mut. Ins. Co. v. Alon USA L.P., 705 F.3d 518 (5th Cir. 2013) ..... 129
Farm Bureau v. Cully's Motorcross Park, 366 N.C. 505 (2013) ..... 57
Fosmire v. Progressive Max Ins. Co., 277 F.R.D. 625 (W.D. Wash. 2011) ..... 92
FrontFour Capital Grp. LLC, v. Taube, 2019 WL 1313408 (Del. Ch. Mar. 11, 2019) ..... 127
Gannett Co., Inc. v. Kanaga, 750 A.2d 1174 (Del. 2000) ..... 129
Gearreald v. Just Care, Inc.,
2012 WL 1569818 (Del. Ch. Apr. 30, 2012) ..... 107
Glob. GT LP v. Golden Telecom, Inc., 11 A.3d 214 (Del. 2010) ...................................passim
Gray v. Cytokine Pharmasciences, Inc.,

2002 WL 853549 (Del. Ch. Apr. 25, 2002) ............ 108

$$
\begin{aligned}
& \text { GT LP v. Golden Telecom, Inc., } \\
& 993 \text { A.2d } 497 \text { (Del. Ch. 2010) ...........................passim } \\
& \text { GWTP Invs., L.P. v. SES Americom Inc., } \\
& 2007 \text { WL } 7630459 \text { (N.D. Tex. Aug. 3, 2007) ........... } 92
\end{aligned}
$$

Halliburton Co. v. Erica P. John Fund, Inc., 573 U.S. 258 (2014) ..... 94, 95
HCA Crossroads Residential Centers, Inc. v. N.C. Dep't of Human Res., Div. of Facility Svcs., 398 S.E.2d 466 (N.C. 1990) ..... 134
HealthOne of Denver, Ind. v. UnitedHealth Grp. Inc., 2012 WL 94678 (D. Colo. Jan. 12, 2012). ..... 126
Huff Fund Inv. P'ship v. CKx, Inc., 2013 WL 5878807 (Del. Ch. Nov. 1, 2013) ..... 82
In re Adam K,
110 A.D.3d 168 (NY App. Div. 2013) ..... 121
In re AOL, Inc.,
2018 WL 1037450 (Del. Ch. Feb. 23, 2018) ..... 75, 80
In re Appraisal of Ancestry.com, Inc., 2015 WL 399726 (Del. Ch. Jan. 30, 2015) ..... 82, 85
In re Appraisal of Jarden Corp., 2019 WL 3244085 (Del. Ch. July 19, 2019) ..... 74, 93
In re Appraisal of Solera Holdings, Inc., 2018 WL 3625644 (Del. Ch. July 30, 2018) ..... 81, 93
In re Federal Home Loan Mortg. Corp. Sec. Litig., 281 F.R.D. 174 (S.D.N.Y. 2012); ..... 97
In re Imperial Credit Indus., Inc. Sec. Litig., 252 F. Supp. 2d 1005 (C.D. Cal. 2003) ..... 96
In re Orchard Enter.,
88 A.3d 1 (Del. Ch. 2014) ..... 85
In re Stillwater Mining Co., 2019 WL 3943851 (Del. Ch. Aug. 21, 2019). ..... 79, 93
In re Wagner, 2007 WL 966010 (E.D. Pa. Mar. 29, 2007) ..... 126
J.B. Hunt Transport, Inc. v. Gen. Motors Corp., 243 F.3d 441 (8th Cir. 2001) ..... 91
JRL Enters., Inc. v. Procorp Assocs., Inc., 2003 WL 21284020 (E.D. La. June 3, 2003) ..... 92
Lane v. Cancer Treatment Ctrs. of Am., Inc., 2004 WL 1752847 (Del. Ch. July 30, 2004) ..... 100
Loeffel Steel Prods. v. Delta Brands, 387 F.Supp.2d 794 (N.D. Ill. 2005)) ..... 126
LongPath Capital, LLC v. Ramtron Int'l Corp., 2015 WL 4540443 (Del. Ch. June 30, 2015) ... 82, 107
M.G. Bancorporation, Inc. v. Le Beau, 737 A.2d 513 (Del. 1999) ..... 99
Matthew v. Laudamiel, 2015 WL 5723985 (Del. Ch. Sept. 28, 2015) ..... 111
McLain v. Taco Bell Corp., 527 S.E.2d 712 (N.C. Ct. App. 2000) ..... 119
Merion Capital L.P. v. Lender Processing Servs., Inc., 2016 WL 7324170 (Del. Ch. Dec. 16, 2016) ..... 81, 85
Merion Capital LP v. BMC Software, Inc., 2015 WL 6164771 (Del. Ch. Oct. 21, 2015) ..... 82
Merlin Partners LP v. AutoInfo, Inc., 2015 WL 2069417 (Del. Ch. Apr. 30, 2015) ..... 75
Midrex Techs., Inc., v. N.C. Dep't of Rev., 369 N.C. 250 (2016) ..... 134
O\&M Indus. v. Smith Engineering Co., 360 N.C. 263 (2006); ..... 57
Osher v. Ridinger, 162 N.C. App. 155 (2004) ..... 58
Owen v. Cannon, 2015 WL 3819204 (Del. Ch. June 17, 2015) ..... 107
People v. Gonzalez, 502 N.E.2d 583 (N.Y. 1986) ..... 124
Reis v. Hazelett Strip-Casting Corp., 28 A.3d 442 (Del. Ch. 2011) ..... 85
Sec. \& Exch. Comm'n v. Bankatlantic Bancorp, Inc., 2013 WL 12009694 (S.D. Fla. Nov. 14, 2013) ..... 129
Tellabs, Inc. v. Makor Issues \& Rights, Ltd., 551 U.S. 308 (2007) ..... 94
Simmons v. Univ. of Chicago Hosp. \& Clinics, 642 N.E.2d 107 (Ill. 1994) ..... 123
State v. Bullock, 2010 WL 4290134 (N.C. Ct. App. Nov. 2, 2010) ..... 125
State v. Johnson, 282 N.C. 1 (1972) ..... 65
State v. Robinson, 409 S.E.2d 288 (N.C. 1991) ..... 129
Torrington Research Co. v. Marvin, 2010 WL 1667580 (Conn. Super. Ct. Apr. 6, 2010) ..... 135
Towerview LLC v. Cox Radio, Inc., 2013 WL 3316186 (Del. Ch. June 28, 2013) ..... 115
Union Illinois 1995 Inv. Ltd. P’ship v. Union Fin. Grp.,Ltd., 847 A.2d 340 (Del. Ch. 2004)82
United States v. Ron Pair Enters., Inc., 489 U.S. 235 (1989) ..... 134
Va. Power Energy Mktg., Inc. v. EQT Energy, LLC, 2012 WL 13034278 (E.D. Va. May 9, 2012); ..... 126
Verition Partners Master Fund Ltd. v. Aruba Networks, Inc., 210 A.3d 128 (Del. 2019) ..... 75
Statutes
N.C.G.S. § 55-13-01 et seq ..... passim
15 Pa . C.S. § 1579 ..... 135
8 Del. C. § 262 ..... 60, 74

## Other Authorities

Lawrence A. Hamermesh \& Michael L. Wachter, TheShort and Puzzling Life of the "Implicit MinorityDiscount" in Delaware Appraisal Law, 156 U. Pa. L.Rev. 1 (2007).......................................................... 101
McCormick on Evidence (7th ed. 2016) ..... 119, 124
Model Bus. Corp. Act § 13.01 (1969) ..... 61
Piper Jaffray, "Initiating at Overweight;
RAI Deal Helps Drive Expected Cash Build"(May 24, 2017)51

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REYNOLDS AMERICAN INC., )
Plaintiff-Appellee, )
v.
THIRD MOTION EQUITIES )
MASTER FUND LTD, MAGNETAR )
CAPITAL MASTER FUND, LTD., )
SPECTRUM OPPORTUNITIES )
MASTER FUND LTD, MAGNETAR )
FUNDAMENTAL STRATEGIES )
MASTER FUNDS LTD, )
MAGNETAR MSW MASTER )
FUND LTD, MASON CAPITAL )
MASTER FUND, L.P., BLUE )
MOUNTAIN CREDIT )
ALTERNATIVES MASTER FUND )
L.P., BLUEMOUNTAIN )
FOINAVEN MASTER FUND L.P., )
BLUEMOUNTAIN GUADALUPE )
PEAK FUND L.P.,
BLUEMOUNTAIN SUMMIT )
TRADING L.P., BLUEMOUNTAIN )
MONTENVERS MASTER FUND )
SCA SICAV-SIF, and BARRY W. )
BLANK TRUST, )
    Defendants-Appellants, and )
    ANTON S. KAWALSKY, trustee for
the benefit of Anton S. Kawalsky

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Trust UA 9/17/2015, CANYON ) BLUE CREDIT INVESTMENT ) FUND L.P., THE CANYON VALUE ) REALIZATION MASTER FUND, ) L.P., CANYON VALUE ) REALIZATION FUND, L.P., ) AMUNDI ABSOLUTE RETURN ) CANYON FUND P.L.C., CANYON- ) SL VALUE FUND, L.P., PERMAL ) CANYON IO LTD., CANYON ) VALUE REALIZATION MAC 18 ) LTD.,
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Defendants. )

\section*{DEFENDANTS-APPELANTS' BRIEF}
\(* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ~\)

\section*{ISSUES PRESENTED}
1. Did the Business Court err in failing to value RAI as of 25 July 2017 (the date the British American Tobacco plc and Reynolds American Inc. merger closed), as required by N.C.G.S. § 55-13-01 et seq.?
2. Did the Business Court err in failing to conduct a valuation, as required by N.C.G.S. § 55-13-01 et seq.?
3. Did the Business Court err in concluding that deal price was the appropriate measure of fair value given the lack of any market check and announced refusal of BAT to sell its stock at any price?
4. Did the Business Court err in concluding that the "adjusted" market price of RAI could serve as a "check" on the fair value derived from the deal price?
5. Did the Business Court err by failing to account for the control premium, as required by N.C.G.S. § 55-13-01 et seq.?
6. Did the Business Court err in concluding that DefendantsAppellants' DCF analysis was unreliable?
7. Did the Business Court err in admitting, and relying on, Appellee's expert's testimony?
8. Did the Business Court err in its determination of the statutory interest to which Defendants-Appellants are entitled?

\section*{INTRODUCTION}

Reynolds American Inc. ("Reynolds" or "RAI") was one of two domestic tobacco companies whose primary business was the sale of cigarettes in the United States. British American Tobacco ("BAT") was a UK-based international tobacco company that did not sell cigarettes in the United States. BAT was a \(42 \%\) shareholder of Reynolds and five BAT officers sat on the Reynolds board of directors (the "RAI Board"). As a result of prior transactions between BAT and Reynolds, BAT was subject to a ten-year standstill that prohibited BAT from attempting to purchase additional RAI shares until 2014.

In 2015 Reynolds engaged in a major acquisition, purchasing Lorillard Tobacco Company ("Lorillard") (then the smallest of the three remaining US tobacco companies). As a result of that transaction (the "Lorillard Transaction"), the second-largest US tobacco company (Reynolds) acquired the third largest (Lorillard) in a transaction that had a transformational impact on Reynolds. The final integration of Reynolds and Lorillard operations occurred in the summer of 2016, and in July of 2016, management prepared to share the results of the consolidation
with the RAI Board (including its BAT members) in a private, off-site two-day board meeting dubbed "Strategy Day."

Reynolds senior management had good news. As a result of the Lorillard Transaction, Reynolds acquired strong new cigarette brands and divested several weak, underperforming brands. In addition, combining the two companies resulted in staggering cost savings across all operations including manufacturing, sales and administration. Finally, despite overall slowing demand for cigarettes, Reynolds had been able to increase prices in amounts that more than offset slowing demand and therefore increased profits and margins. In the words of Reynolds' CEO, the change was "transformational," and Reynolds projected high single-digit (7-8\%) growth for the next ten years-well in excess of the long-term growth rates expected by public market analysts.

Three months later, in October 2016, BAT made an unsolicited offer to buy the remaining shares of Reynolds it did not already own and simultaneously announced that it would not support another transaction-even at a higher price-and would not sell its shares to a competing bidder. In light of this announcement, a subset of the RAI Board (the "Transaction Committee") negotiated exclusively with BAT,
did not solicit any bids from other companies, and three months later, on 16 January 2017 (the "Deal Date"), reached an agreement to sell BAT the remaining shares in RAI for \(\$ 59.64\) per share. The merger consideration was comprised of cash and shares of BAT common stock.

The transaction closed six months later on 25 July 2017 (the "Transaction Date"). Between the agreement date in January and the closing date in July 2017, US equities soared in response to the expectation of substantially lower corporate tax rates and decreased regulation of tobacco and other regulated industries. Between October 2016 and July 2017, the S\&P 500 rose \(17 \%\) and the other remaining major US tobacco manufacturer, Altria Group Inc. ("Altria"), rose \(20 \%\). As a result, the value of the merger consideration rose from \(\$ 59.64\) in January 2017 to \(\$ 65.87\). Every single shareholder of Reynolds who tendered their shares received \(\$ 65.87\) at the July 2017 closing.

Appellants did not tender their shares and instead elected to have their shares appraised independently by the Business Court to determine the "fair value" of the shares using "customary and current valuation concepts and techniques," as required by the North Carolina appraisal statute. Rather than conduct an independent appraisal, however, the

Business Court below simply deferred to the value of the merger consideration negotiated by BAT in January 2017 and concluded that it was a "fair price." As a result, Appellants were awarded \(\$ 59.64\) per share-substantially less than even the \(\$ 65.87\) merger consideration paid to all other stockholders at closing.

This case thus calls into question whether the appraisal statute enacted by the North Carolina legislature must be applied in accordance with its plain terms or can instead be ignored through application of a judge-made rule to dispense with conducting any valuation at all, deferring entirely to the deal price struck with an insider in the transaction at issue.

As set forth in greater detail below, the North Carolina General Assembly provided appraisal as a remedy for stockholders of an acquired company who are unwilling to sell their shares at a deal price negotiated with an insider. Although such stockholders are forced to surrender their equity position at the closing date of the transaction, they have the right to petition the court for an independent judicial determination of the fair value of their shares using customary and current valuation concepts and techniques. In this respect, a stockholder appraisal remedy is akin to a
condemnation proceeding-the property is taken against the will of a property owner who is then entitled to a judicial determination of the fair value of the property. Implicit in the statutory scheme is that a sale price negotiated with an insider should be measured objectively because, among other things, insiders invariably know more about the company than outsiders, and investors can reasonably rely upon "fair value" determined by an independent, neutral judge based upon customary valuation techniques.

However, by simply deferring to a deal price negotiated by the insider and awarding a price set six months prior to the closing, the Business Court failed to carry out its statutory duty and made fundamental errors of law. To start, it improperly borrowed from-and then extended-a judge-made rule in Delaware that is based upon a Delaware appraisal statute that is substantively different from the North Carolina appraisal statute. Specifically, the Delaware appraisal statute applies to all mergers, not just mergers with insiders, and thus includes "arm's length" sales to independent third parties after a robust auction or market check. In these limited circumstances, the Delaware Supreme Court has recently penned a series of decisions that allow deference to
deal price because the existence of a real-world market check in the form of bids from other would-be purchasers can be evidence of fair value. However, here, there was no market check in the form of third-party bids—and there was no auction—because BAT foreclosed such a process by asserting that it would not support (with its votes) or sell its shares to any bidder who might come in with a higher bid to top its price. In light of BAT's position, Reynolds and its financial advisors concluded that there was no point in soliciting other bids and did not do so.

Moreover, while the judicially-created exception to conducting a valuation might make sense under the Delaware statute-which applies to all mergers including mergers with unaffiliated, independent third parties who compete in an auction-the North Carolina statute applies only to mergers with insiders. The limited scope of the North Carolina statue and its remedial purpose suggest that shareholders should not be forced to accept a price determined through such a transaction and should instead be permitted to have accepted valuation techniques used to determine fair value. If the underlying deal price negotiated by the insider is itself sufficient evidence of fair value-as the Business Court
held—it is difficult to see what purpose is to be served by the appraisal statute.

That the purpose of the appraisal statute is compromised by simply deferring to the price set in the underlying transaction was recently the law even in Delaware. Just ten years ago, the Delaware Supreme Court correctly observed that "[r]equiring the Court of Chancery to deferconclusively or presumptively-to the merger price, even in the face of a pristine, unchallenged transactional process, would contravene the unambiguous language of the statute . ...." Golden Telecom, Inc. v. Glob. GT LP, 11 A.3d 214, 218 (Del. 2010) ("Golden Telecom II").

Thus, here, the Court applied a judge-made rule of law forged in Delaware that is based on a Delaware statute that is substantively distinguishable from the North Carolina statute, and it then extended the rule-beyond the scope of Delaware decisions-to cover a transaction that had no market check whatsoever to support the deal price. Such an approach has no place under the North Carolina appraisal statute. This Court should reject deference to deal price in a transaction involving an insider and instead uphold the legislative intent as evidenced by the plain language of the North Carolina statute.

The approach used by the Busines Court also does violence to many of the clear, unambiguous requirements in the appraisal statute. For example, the North Carolina statute clearly and unambiguously requires that "fair value" be determined "immediately before the effectuation of the corporate action as to which the shareholder asserts appraisal rights," i.e., the closing date of the transaction. That is the date on which shares are acquired. Here, the closing date of the transaction was 25 July 2017. However, the court below never even attempted to determine the value of Reynolds as of that date. Instead, the Court deferred to a deal price that was struck in January 2017.

Yet much had changed over the intervening months prior to the closing in July 2017. Among other things, RAI had another six months of operating results and freshly updated financial projections that had been prepared just a month before. These financial results were never considered by the Business Court and (since they obviously were not yet in existence) could not be considered by the RAI Board, its Transaction Committee, or the financial advisors upon whom they relied. In addition, impending tax reform was expected to substantially lower corporate tax rates and deregulation was expected to lower costs for highly regulated
companies and industries such as tobacco. These macroeconomic changes resulted in a dramatic rise in both the \(S \& P 500\) and the value of Reynolds' closest competitor—Altria—by \(17 \%\) and \(20 \%\) respectively. The Business Court ignored these macroeconomic events even though they were reflected in the value of the merger consideration itself-which increased from \(\$ 59.64\) to \(\$ 65.87\) on the date of the closing. In deferring to a deal price struck in January and failing to determine fair value on the date of the closing, the Business Court failed to obey to the plain language of the statute and committed clear legal error.

By adopting the price negotiated by RAI and BAT, the court also failed to conduct an independent valuation using customary and current valuation techniques. As noted above, until recently, the Delaware courts construing Delaware's appraisal statute did not require courts to defer to deal price even if there was a "pristine" transaction. Now, Delaware has allowed some deference to deal price, but only in circumstances where there is a reliable and robust market checkwhether in the form of an auction or other bidding process that elicits the views of other would-be purchasers. This Court need not consider whether or not such market evidence would be sufficient to constitute a
"customary" or "current" valuation concept or technique under the North Carolina statute because, in this case, there was no market check. BAT prevented such a check by refusing to support a sale to another bidder and refusing to sell its shares in such a transaction. Without the support of the \(42 \%\) owner, the RAI Board and its advisors concluded that it made no sense to solicit bids and did not do so. Indeed, the lead financial advisor was informed that one bidder-who successfully outbid BAT in Reynolds' 2016 sale of one of its major cigarette brands-was prepared to bid on Reynolds but decided against it given BAT's stated position. Since BAT intentionally blocked any market check, the price it negotiated could not be a "customary [or] current valuation concept[] [or] technique[]" and the failure to deploy such a technique was another clear violation of the statute.

The failure to conduct a valuation based upon customary and current valuation techniques had a substantial negative impact on the determination of fair value because it meant Reynolds' projected longterm growth rates were ignored. Indeed, in July 2016, BAT was given information about Reynolds' projected long-term ten-year growth rates that was not known (and was never known) by public shareholders,
analysts, and the financial advisors who advised the Board-each of which were never provided the detailed projections that supported them. Those ten-year detailed projections were critically important because although tobacco is in long-term secular decline (with long-term growth rates at or near zero), Reynolds had just finished integrating its massive consolidation with Lorillard and was successfully increasing prices of cigarettes and other tobacco products. As a result, despite the expected long-term secular decline in the cigarette industry, BAT knew Reynolds projected high single-digit (7-8\%) growth over the next ten years and that Reynolds had created a detailed set of ten-year projections that supported that outlook.

The financial advisors knew that ten-year projections were the most appropriate tool to use to value a tobacco company and had used Reynolds' ten-year projections in prior work for Reynolds, including in its acquisition of Lorillard. Accordingly, the financial advisors asked for RAI's detailed ten-year projections, expected them, but never received them. Instead, they were directed by management to use five-year projections followed by low \(0-1 \%\) growth rates in years six through ten. For example, Lazard Freres \& Co., LLC ("Lazard") knew that RAI
prepared detailed ten-year projections in the ordinary course of business because it received them in connection with advising the Board in the Lorillard Transaction. Expecting to receive detailed ten-year projections again, Lazard created a pro-forma ten-year cash flow statement, having every intention of performing a discounted cash flow ("DCF") valuation of RAI based on ten years' worth of projections. Lazard used the growth rate projected by management in years six through ten and only after the tenth year did they reduce growth to the long-term rate of \(0-1 \%\). However, Lazard received "clear confirmation and direction from management" "to use a . . . five-year set of projections" and then imposed a low-growth \(1 \%\) rate for years six through ten. This meant that Lazard's projected cash flow was substantially lower than Reynolds' actual tenyear projections. J.P. Morgan Securities, LLC's ("JPM's") standard preference is to use ten-year forecasts and they initially planned to use either "10-year projections based on management forecast" or an "extrapolation[] if necessary." Despite JPM's explicit request for the detailed ten-year projections, RAI never sent them.

As a result, both financial advisors used growth rates of \(0-1 \%\) for years six through ten of the cash flow projections, instead of the \(7-8 \%\)
growth rates in the detailed ten-year projections. Relying upon these much lower growth rates-and never advising the RAI Board that they requested but were denied access to the detailed ten-year projectionsboth financial advisors calculated substantially lower values for Reynolds. Relying on those opinions, the Board concluded that the price BAT offered was fair. Had any of the financial advisors used the growth rates contained in Reynolds' detailed ten-year projections, they would have produced valuations virtually identical to the valuation of Appellants' expert. Of course, BAT (as an insider on the board) knew that the projected cash flows used by the financial advisors and presented to the Board reflected much lower growth rates than Reynolds actually expected after the completion of the Lorillard Transaction. BAT's own internal projections of Reynolds' long-term growth rates were never disclosed—BAT refused to provide discovery of its own internal valuation of Reynolds and instead elected to hide behind the discovery protections provided by its UK citizenship.

Had the Business Court conducted an actual valuation using accepted valuation techniques, it would have had to account for the actual growth Reynolds projected for years six through ten. It is
undisputed that the failure to account for the expected growth in years six through ten reduced the fair value of RAI by \(\$ 20\) per share.

The very rationale behind providing an appraisal for transactions involving insiders is that they have unfair advantages that may prevent the payment of fair price. Here, BAT had at least two such advantagesits \(42 \%\) stake in Reynolds that prevented a bidding process that could elicit a market check, and its possession of inside, non-public information about Reynolds' expected growth rates in years six through ten. Both of those inside advantages had to have had an impact on the deal price BAT agreed to pay-and a "fair value" could have been ferreted out if the Business Court had done what the statute instructs and conducted an independent valuation using customary and current valuation concepts and techniques. The DCF technique used by Appellants' expert Dr. Mark Zmijewski is by far the most widely-accepted valuation technique in corporate valuation and produced a fair value meaningfully in excess of the price BAT agreed to pay. That fair value determination specifically captured the actual growth projected by Reynolds for years six through ten.

Compounding its failure to abide the plain language of the statute, the Business Court fundamentally failed to understand the difference between its role in a statutory appraisal case and its role in a breach-of-fiduciary-duty case. The Business Court cited and relied upon Delaware breach-of-fiduciary-duty cases-not recognizing that the legal standard applied in such cases has nothing to do with statutory appraisal. The Business Court ultimately rendered a decision rooted in the concept that the RAI Board had a sound basis for agreeing to the transaction. But that is not the proper inquiry. A board of directors has fiduciary duties of care and loyalty, and individual directors are personally liable for any breach. The potentially ruinous reach of personal liability has been balanced with a broad judicial deference to board decisions. If the board makes an informed "business judgment," its decisions will not be subjected to judicial review. The broad protection afforded by the business judgment rule may lead a board to deal exclusively with a preferred buyer or to conclude that an auction is too time consuming or unlikely to be productive. They might conclude that in a consolidating industry, a combination makes good business sense. These business judgments and will ordinarily not be second-guessed in a court of law to
impose personal liability on directors in a fiduciary duty litigation. However, the appraisal statute is not intended to provide a remedy for the breach of a fiduciary duty. It pre-supposes that the decision to sell has been properly made, but provides investors with a different kind of remedy. It allows them to have an independent remedy against the company (and indirectly the buyer) and to have a valuation conducted whenever the underlying transaction is with a corporate insider. To confuse the two bodies of law is to undermine the statutory remedy and to leave shareholders with no protection at all where a price is negotiated by an insider who owns a substantial stake in the company.

The danger of confusing statutory appraisal with breach-of-fiduciary-duty law is manifest from this Court's prior consideration of the very issue that gives rise to this case-BAT's \(42 \%\) ownership of Reynolds. In Corwin, this Court considered whether BAT's \(42 \%\) ownership of Reynolds created any fiduciary duties on the part of BAT to act fairly with respect to the remaining shareholders. Corwin as Tr. for Beatrice Corwin Living Irrevocable Tr. v. British Am. Tobacco PLC, 371 N.C. 605 (2018). In that case, this Court concluded that although BAT's \(42 \%\) stake gave it leverage and advantages not shared by other shareholders, those
benefits were property rights that BAT owned and created no fiduciary duty to shareholders. As a result of Corwin, BAT was given the "green light" to use the substantial leverage it had without any concern over potential liability to the other shareholders. Given this Court's ruling, the protection provided by the appraisal statute became even more important, because it provided the only legal remedy to Reynolds' remaining shareholders to get a fair price for their stock when BAT exercised its leverage to buy RAI and stifle any competitive bids. By simply deferring to the price BAT agreed to pay, the Business Court removed the only remaining protection realistically available to shareholders and contravened the expressed will of the legislature.

Finally, the other "persuasive" evidence the Business Court relied on to justify its deferral to deal price was inconsistent with both this Court's decision in Corwin and the plain language of the appraisal statute. Among other things, the Business Court looked to the "unaffected stock price" of RAI stock prior to the offer by BAT and, based on analysis done by Reynolds' expert Dr. Paul Gompers, "adjusted" that price to take into account the dramatic increases in the S\&P 500 and tobacco stocks between the time of the offer and the closing date in July
2017. The Business Court concluded that the unaffected stock price, even as adjusted, "would still have traded \(7 \%\) to \(10 \%\) below the deal price," further evidencing the fairness of the deal price. However, implicit in such an analysis is that the unaffected stock market price of RAI stock is indicative of its fair value to begin with. That is surely not the case as the unaffected stock price does not include material nonpublic information that BAT had, but public investors did not (including knowledge of RAI's \(7-8 \%\) projected growth rate for years 6 through 10 and that the RAI Board had authorized the purchase of up to \(\$ 2\) billion of RAI stock at prices up to \(\$ 65\). It also ignores the fact that the timing of BAT's offer was "opportunistic" (in the words of RAI's own financial advisors) to take advantage of a recent sell-off of RAI stock that decreased its public trading price by twelve percent. But even putting these many issues aside, the unaffected market price of RAI stock does not include a control premium. A control premium is the value that having "control" of a corporation conveys, including, for example, the right to withdraw cash from the company, change management, sell assets or even sell the company. These are valuable rights that a buyer obtains when it purchases more than \(50 \%\) of the outstanding shares of a corporation. In
contrast, when an individual purchases stock on a public stock market, he or she purchases shares that do not confer control. Accordingly, such shares trade with an inherent minority discount (i.e., without the value of control). The North Carolina appraisal statute specifically directs that "fair value" must be calculated "without discounting for . . . minority status." This allows the court to use a valuation method (like DCF) that does not incorporate a minority discount (because the DCF represents the present value of future cash flows). If the court instead uses the publicly-traded stock price to determine fair value, it has to add a control premium to eliminate the effect of the inherent minority discount. In Corwin, shareholders argued that BAT had obtained control of RAI without payment of a control premium. This Court disagreed and noted that while BAT owned \(42 \%\) it did not have control and accordingly did not have to pay for it. In this transaction, BAT undoubtedly gained control, but by simply using the unaffected stock price as further "evidence" of fair value, the Business Court did not make BAT pay for it. This was not only unfair but violated the plain language of the statute.

For all of these reasons, and those that follow, the Business Court's decision should be reversed.

\section*{STATEMENT OF THE CASE}

Defendants-Appellants Third Motion Equities Master Fund Ltd, Magnetar Capital Master Fund, Ltd, Spectrum Opportunities Master Fund Ltd, Magnetar Fundamental Strategies Master Fund Ltd, Magnetar MSW Master Fund Ltd, Mason Capital Master Fund, L.P., Blue Mountain Credit Alternatives Master Fund L.P., BlueMountain Summit Trading L.P., BlueMountain Montenvers Master Fund SCA SICAV-SIF, BlueMountain Foinaven Master Fund L.P., BlueMountain Guadalupe Peak Fund L.P., and the Barry W. Blank Trust (collectively, "Appellants") are former RAI shareholders who exercised their judicial appraisal rights in connection with the \(\$ 65\) billion takeover of America's second-largest domestic tobacco company, RAI, by UK-based BAT, through a merger effectuated on 25 July 2017 (the "Merger"). (R p 11).

This action was commenced by RAI's filing of a complaint for judicial appraisal pursuant to N.C.G.S. § 55-13-30 on 29 November 2017 (R pp 3-14), which required the Business Court to determine the fair value of Appellants' shares on the Transaction Date. This matter came on for trial before the Honorable Louis A. Bledsoe, III, Chief Business Court Judge, and was tried by the court, sitting without a jury, from 10

June 2019 through 25 June 2019. (T pp 1-2041). On 27 April 2020, the Business Court issued Findings of Fact, Conclusions of Law, and Final Judgment, concluding, inter alia, that "the fair value of RAI's shares as of the Transaction Date [was] no more than \(\$ 59.64\) per share." (R. 142314). Appellants filed and served timely notices of appeal on 21 May 2020. (R. 331-43). The record was deemed settled on 6 August 2020, filed in the Supreme Court on 21 August 2020, and docketed 24 August 2020. (R. 356-60).

\section*{STATEMENT OF THE GROUNDS FOR APPELLATE REVIEW}

Judge Bledsoe's 27 April 2020 Findings of Fact, Conclusions of Law, and Final Judgment is a final judgment, and appeal therefore lies to the Supreme Court pursuant to N.C. Gen. Stat. § 7A-27(a).

\section*{STATEMENT OF FACTS}

\section*{I. BAT'S OWNERSHIP AND INFLUENCE OVER RAI}

BAT is a large multinational tobacco company whose principal product is the manufacture and sale of cigarettes. In 2004, BAT's U.S. subsidiary Brown \& Williamson Tobacco Corporation merged with U.S.based R.J. Reynolds Tobacco Company ("RJRT") to form RAI, and as a result acquired a \(42 \%\) ownership interest in RAI. (R p 175-76; T p 60:521; App. 14). Contemporaneous with that merger, BAT and RAI entered into a Governance Agreement that included a "standstill" that prevented BAT from seeking to acquire the balance of RAI's shares for a ten-year period, gave BAT the right to appoint directors to the RAI Board, and afforded BAT certain veto powers and approval rights not available to public shareholders. (R pp 176-79; see Doc. Ex. 5439, 5746). At the time of the Merger, five RAI Board members were appointed by BAT and two were BAT executives. (R p 177 बी \(\|\) 80-81; T p 146:6-14; App. 31). As a
result, BAT was privy to material non-public information regularly shared at RAI Board meetings, including detailed management presentations relating to RAI's long-term financial prospects and a summary of RAI's ten-year projections presented annually at RAI's Board "Strategy Day." (R p 177 ब| 81; see, e.g., T pp 146:15-149:15 (discussing Doc. Ex. 2070); 395:14-23, 405:2-19; App. 31-34, 69-70). \({ }^{1}\)

RAI publicly acknowledged that its \(42 \%\) ownership, board appointments, and voting rights gave it substantial influence over RAI. (R pp 176-77 ๆ 79; see also, e.g., Doc. Ex. 3115-17 (disclosing, inter alia, that "BAT"s significant beneficial equity interest in RAI could be determinative in matters submitted to a vote by RAI shareholders" and that BAT's ownership and influence "could have a negative effect on the price of RAI common stock"). BAT's position also provided it with a significant informational advantage over any other would-be buyer and made it virtually impossible for any other buyer to purchase RAI without BAT's consent. (T pp 1931:10-1935:8; App. 215-219). If BAT determined

\footnotetext{
\({ }^{1}\) Three members of this Court have previously concluded that these facts supported a conclusion that BAT had actual control over RAI. Corwin, 371 N.C. at 626.
}
to vote its \(42 \%\) stake against any proposed transaction, it would require an overwhelming \(88 \%\) of remaining shareholders to carry the vote-a practical impossibility since only \(30 \%\) of eligible shareholders typically vote on any proposed transaction. (Doc. Ex. 7379, 7617-18 (acknowledging that, based on Broadridge data, "[if] BAT was not supportive of [third party acquirer], it would be very difficult for the third party to achieve the vote"); see also R p 177 © 81). BAT's ability to deter other purchasers of RAI generated an "overhang," depressing RAI's trading price. (T p 1901:5-18; App. 212). Stated differently, while the stock of most publicly-traded companies trade with the expectation that there may one day be a competitive takeover bid for the company, RAI's stock traded with a diminished expectation of any such competitive bid. The only likely bidder for RAI was BAT itself.

\section*{II. THE U.S. TOBACCO MARKET}

The U.S. tobacco market is highly regulated, has specific restrictions on marketing, distribution and points of sales, and is subject to excise taxes. (See R p 152 ब 21; T pp 1087:6-1088:15; App. 158-59). Among other restrictions, tobacco companies cannot advertise and are subject to regulation by the Food \& Drug Administration ("FDA"). (R p

165 ब48; T pp 1087:6-1088:15; App. 158-59). These restrictions act as significant barriers to entry, preventing competitors from entering the U.S. market to take away market share, and have created an oligopolistic marketplace with only three major U.S. tobacco companies. (See R p 154【 25; see also T p 1087:4-1089:18; App. App. 158-60). As a result, while cigarette volumes have been declining since 1982, and notwithstanding threats of enhanced regulation, the U.S. cigarette industry has remained highly profitable. (See R pp 150-51; see also T p 1092:20-24, 1095:17-22; App. 161-62). The inelasticity of demand for cigarettes-fueled in large part by nicotine addiction-has allowed the industry to raise prices, while cigarette consumers continue to pay those higher prices. (See R p 158 ब 32; T p 1101:11-17; App. 163).

\section*{A. RAI's Transformational Lorillard Acquisition}

Although BAT's standstill agreement expired in 2014, BAT did not move forward with an acquisition of RAI at that time because RAI had entered into a \(\$ 30\) billion agreement to acquire Lorillard. (R p 176 § 78). At that time, RAI and Lorillard were the second and third largest US, tobacco companies respectively, and with Altria were the three dominant players in the U.S. tobacco market. (See R pp 133 ब 8,154 ब 25,176 ब

78; T p 1156:14-20; App. 167). In June 2015, RAI completed the acquisition and became the owner of Lorillard's product, the premium menthol cigarette, Newport. (R pp 154 ब 26, 176 ब 78; T p 120:10-22, 130:17-19; App. 25, 28). \({ }^{2}\) Antitrust concerns over the proposed RAILorillard combination required RAI to divest certain brands to another company who might substitute for Lorillard as the third material competitor in the U.S. market. (R p 176 ๆ 78 \& n.20; T p 1114:3-21; App. 164). Thus, RAI acquired Newport, divested four weaker "tail brands" (Winston, Salem, Kool, and Maverick) to Imperial Tobacco Group ("Imperial"), and "traded up" to improve its overall product portfolio and growth profile. (R p 176 ब 78 \& n.20; T pp 259:9-260:10, 496:2-497:1, 499:15-500:2, 1115:16-25, 1143:3-8; App. 47-48, 76-77, 79, 165-66; see also Doc Ex. 5334 (describing post-Lorillard Transaction performance as a "step change from pre-acquisition performance")).

To evaluate the Lorillard Transaction (and the value of RAI on a standalone and pro-forma, post-merger basis), RAI retained Lazard, who conducted, among other things, a discounted cash flow ("DCF") valuation.

\footnotetext{
\({ }^{2}\) In connection with the Lorillard Transaction, BAT invested approximately \(\$ 5\) billion in order to maintain its \(42 \%\) ownership stake. (R p 179 ब 86; T p 192:13-18; App. 41).
}
(T pp 131:7-10, 134:17-23, 195:10-16; App. 29-30; Doc. Ex. 4749; see also R pp 151 \| 19 n.10, 211 © 158). In doing so, RAI management provided Lazard with a set of detailed ten-year projections that were prepared by RAI in the ordinary course of business. Lazard relied on those projections as "the best currently available estimates and judgments as to the future financial performance of" RAI. (T pp 260:20-24, 262:23-263:11, 364:8365:4; App. 48-49, 63-64; R p 211 ब 158; see also Doc Ex. 1435-36). RAI’s ten-year cash flow projections also were published in the Company's SEC filings for that merger. (Doc Ex. 4999).

The combination of Lorillard and RAI was "transformational." (T p 684:4-6; App. 94). Upon the merger close, RAI immediately realized \(\$ 500\) million of operational synergies, and extracted another \(\$ 300\) million over the ensuing twelve months, and RAI emerged from the transaction with much stronger growth. (T pp 677:16-678:4, 215:7-12, 259:9-24, 341:5-14, 243:19-23, 496:2-497:1, 1114:8-15; App. 41-42, 47, 62, 76, 164; see also R p 156 ब 28). And, despite the divestiture to Imperial, the U.S. cigarette market became more concentrated, with RAI and Altria accounting for about \(85 \%\) of cigarette sales. ( R p 154 ब 25 ; T p 1089:21-25; App. 160). As a result, RAI emerged from the Lorillard Transaction with stronger
brands, greater pricing power and substantially reduced costs in manufacturing, sales and administrative costs.

\section*{B. RAI Determines that its Stock is Worth at Least \(\$ 65\) Per Share}

The Lorillard Transaction also resulted, indirectly, in an unexpected billion-dollar cash surplus for RAI. In an effort to reduce a portion of the acquisition financing incurred in connection with the Lorillard acquisition, RAI decided to sell the international rights to its super-premium Natural American Spirit cigarette to Japan Tobacco International ("Japan Tobacco" or "JTI"). (R p 181 ब 90; T pp 91:13-92:14, 1812:7-20; App. 17-18, 207). The proposed sale triggered a bidding war between BAT and Japan Tobacco in which BAT was ultimately outbid for a staggering and unprecedented \(\$ 5\) billion sale that closed in January 2016. (R p 181 ब 90; T p 64:12-18; App. 15). The unexpected cash infusion allowed RAI to not only reduce the substantial debt RAI had incurred to finance the Lorillard Transaction, but left RAI with substantial excess cash. (See R p 181 \| 90). As a result, in summer of 2016, the RAI Boardwith BAT's knowledge-authorized RAI management to use up to \(\$ 2\) billion in excess cash to purchase RAI stock on the open market at a price of up to \(\$ 65\) per share. ( R pp 212-14; T pp 149:8-150:3; App. 34; Doc. Ex.
2072). This same Board would-just months later-approve the sale of RAI to BAT at \(\$ 59.64\) per share. In other words, BAT was allowed to purchase RAI stock at a price lower than RAI itself was willing to pay. \({ }^{3}\) That is significant because a share repurchase program can only be a valid exercise of business judgment if the Company is buying the stock at a price that is lower than its real value. If the Company is paying more for the stock than it is really worth, it would constitute a waste of corporate assets and a breach of fiduciary duty. (See T p 128:11-18; App. 26; Doc. Ex. 7692-93).

\section*{C. RAI Reports a "Step Change" in Cash Flow Growth at Strategy Day}

As July 2016 approached, RAI had extraordinarily good news to report to BAT and the RAI Board. RAI was flush with cash from the sale of Natural American Spirit to Japan Tobacco and had successfully extracted a final \(\$ 300\) million (of a total of \(\$ 800\) million) in synergies from the Lorillard Transaction. (See R pp 155-56, ब 28, 181 \| 90). It had lowered costs, increased market share, acquired strong new brands and

\footnotetext{
\({ }^{3}\) The Board derived its price ceiling from a "conservative" DCF valuation of RAI conducted by management that used management projections and assumed a \(3.0 \%\) perpetuity growth rate. (R p 214 ब 165 , 215 ब 168; T pp 542:2-548:24, 149:8-15; App. 82-88, 34).
}
had divested weak brands. The bottom-line impact of these remarkable, game-changing transactions were presented to BAT and the Board for the first time at on off-site, two-day "deep dive" into RAI's business outlook known as Strategy Day. (R pp 201-05).

The results were remarkable: RAI management reported at the July 2016 Strategy Day that RAI had experienced a "transformational" change. (T p 684:4-6; App. 94). Management presented, for the first time, the ten-year projected revenue and income growth for RAI after the Lorillard Transaction (with synergies fully captured). (T pp 497:23499:14; App. 77-79). Materials from that Strategy Day revealed to the RAI Board, including its BAT members, that the Lorillard Transaction was in fact game-changing, and created a "step change" in RAI's projected ten-year, annual free cash flow growth of 7-8\%. (R pp 194 ब 121, 205 ब 144; T p 499:15-500:14; App. 79-80; Doc Ex. 5334).

The ten-year outlook presented to BAT and the other members of the Board at the July Strategy Day was the result of an exceedingly arduous, detailed process that RAI undertook in the ordinary course of its business and financial planning. In October of every year, RAI prepared detailed five-year projections known as the "Operating Plan"
and in June of every year it prepared detailed projections for a ten-year "Strategic Plan". (R pp 195 II 123, 198-205; Doc. Ex. 327-29; T pp 375:1724; App. 66). RAI created each of those forecasts in a rigorous, bottomsup process that involved the input of hundreds of RAI employees. (Doc. Ex. 7573-74 (Q. "So all ten years would be a brand-new bottoms-up forecasts?" A. "Yes."), 7578-79 ("Many, many individuals [input data into system for forecasts] . . . . I don’t now, 180 folks."); T p 941:21-24; App. 149).

RAI also prepared monthly updates, which it called "Latest Estimates" or "LEs," in which it typically updated the first three years of its forecasts. (R p 198; T pp 374:23-375:12; App. 65-66; see also Doc Ex. 330). These forecasts were generated and discussed monthly by the RAI Financial Planning \& Reporting Department, and variances from the plan were presented to RAI executive management and the Board. (See R p 198; Doc Ex. 330). Summaries of the ten-year Strategic Plan projections were presented to BAT and the Board at the annual "Strategy Day" in July, and the detailed ten-year projections themselves were used for long-term resource and capex planning by RAI management. (See R
p 205 【 143; see, e.g., Doc. Ex. 464-69; Doc. Ex. 5308-42). \({ }^{4}\)
Management projections, created by management in the ordinary course of business-and relied upon by management in the conduct of its business-are generally regarded as the best projections for purposes of business valuation. (T p 884:2-16; App. 147). That is because management is presumed to be in the best position to project its future business and financial performance. In addition, because such projections are actually used to make business decisions, management has an incentive to "get it right." RAI spent enormous resources attempting to create reliable projections for use in its business and actually developed an entire financial planning process to develop the best projections possible. (T pp 457:24-459:9; App. 73-75). It dubbed the output of its financial planning and projection process the "one version of the truth." (T pp 458:25-459:9; App. 74-75).

Knowing that its ten-year projections showed annual 7-8\% growth

\footnotetext{
\({ }^{4}\) Importantly, RAI's detailed financial planning and forecasting process did not come to a halt when its Board approved the BAT merger. Between January 2017 and 25 July 2017, RAI continued to prepare monthly LE forecasts based on Reynolds as a standalone entity. (See, e.g., Doc. Ex. 1945-2069). Accordingly, the most up-to-date management projections prior to the Transaction Date were RAI's July 2017 LE ("July 2017 LE Forecast") updated in the very month the Merger closed. (T p 541:616; App. 81).
}
in years six through ten, and that the Board and its financial advisors assumed growth of \(0-1 \%\) in those same years, RAI attempted to disown its projections at trial. In support of that argument, RAI argued that the projections failed to account for the possibility of enhanced regulation of menthol flavoring by the FDA. \({ }^{5}\) Arguing that there might one day be a "menthol ban," RAI asserted that its projections assumed "business as usual" and were therefore unreliable. (R pp 167-68, 254-55). However, the evidence at trial showed that the threat of increased menthol regulation was unknowable, unquantifiable and entirely speculative.

Before consummating a \(\$ 30\) billion acquisition of Lorillard, whose primary asset was a mentholated cigarette, RAI became comfortable that any risks of enhanced menthol regulation were manageable and unlikely to materialize in the near term. (T pp 128:22-129:2, 130:10-25, 1048:14-

20; App. 26-28). Indeed, prior to instituting any enhanced menthol regulation, the FDA must first engage in a comprehensive rulemaking process that could take "multiple years." (T pp 1083:25-1084:16; App.

\footnotetext{
5 The FDA began regulating tobacco in 2009 with the enactment of the 2009 Family Smoking Prevention and Tobacco Control Act (the "Tobacco Control Act"). (R p 165 I 48). Having the Tobacco Control Act in place created the risk of regulation of flavors of tobacco product that might make tobacco products more attractive to the consumer, such as menthol. (R p 166-67 ब 52 ).
}

156-57). To justify regulation of menthol cigarettes, the FDA must produce scientific evidence of increased harm from menthol use (which does not yet exist), to be followed by hearings, debates, and likely litigation. (Id.; see also T pp 1799:2-1800:6; App. 202-03). Opposition to that regulation would come not only from the tobacco companies and consumers, but also from states who rely on excise taxes from the sale of tobacco products for revenue. (T pp 1772:6-1773:3; App. 200-01).

Ultimately, in preparing its projections, RAI management only quantified "upside" or "downside" risks that were knowable, quantifiable and not unduly speculative. (See R pp 252 ब 246 , 255, \(\mathbb{T} 252\) ). For example, the projections included increases in federal excise taxes which, although not yet levied, were reasonably likely to occur. (T pp 975:20977:5; App. 152-54; Doc. Ex. 1685 ("In the long-term outlook, there is also a potential Federal Excise Tax (FET) . . . slated to occur in 2022. At this time, there are no tangible indicators that this tax will come to fruition; however, we will continue to monitor this closely . . . ."); T p 969:3-23 (discussing Doc. Ex. 1292-1358 (June 2016 LE) showing 7.7\% volume decline in 2023 due to assumption of FET); App. 151). For those potential risks or rewards that were unknown, unquantifiable and speculative,

RAI would identify them but would not attempt to project them because doing so would make projections less reliable. The projections prepared by RAI management in the ordinary course-and relied upon in the conduct of its business-were the best evidence of expected future performance and were not driven by litigation. \({ }^{6}\)

\section*{D. RAI Prepares for a BAT Offer}

Knowing that BAT's \(42 \%\) stake would effectively deter any other bidders for RAI and that BAT's standstill expired in July 2014, RAI management prepared for the possibility of an acquisition offer from BAT. Although BAT's standstill expired in July 2014, RAI and BAT were at that time coordinating the acquisition of Lorillard, which required BAT to make a cash infusion of more than \(\$ 5\) billion to maintain its \(42 \%\) ownership. (T pp 244:4-245:3; see id. 497:7-22; App. 43-44, 77). RAI and BAT had to borrow heavily to fund the transaction and the transaction
\({ }^{6}\) T pp 377:23-378:5 (Forecasts "were intended to be the best estimate [of] the future performance based on the assumptions that [the Company] had."); 963:16-24 (Forecasts were RAI's "best estimate, assuming that the industry remains . . . where it is."); 701:18-22 (The forecasting "numbers at all times reflected the best estimates and the best judgments of the actual people in the business for putting them together."); App. 67-68, 150, 95; Doc Ex. 7708 ("Our objective is . . . to provide the best estimate that we can, most accurate - 'best' meaning most accurate . . . with the information we have at hand."); Doc. Ex. 7689-90 (The instructions to the forecasting team were to "take what information you have and do the best you can, at projecting" reasonable numbers).
itself had to clear antitrust hurdles. (T pp 1804:12-1806:18; App. 204206). Moreover, it was unknown whether the merger would transform RAI, produce expected synergies, or improve future growth. (See T p 497:7-22; App. 77).

By the summer of 2016, however, the results were in. Strategy Day 2016 revealed to BAT that the Lorillard Transaction had positively transformed RAI's brand portfolio and growth profile. (T pp 497:23500:14; App. 77-80). The multi-billion-dollar sale of Natural American Spirit to JTI allowed RAI to de-lever its balance sheet, and the Board had authorized RAI to buy up to \(\$ 2\) billion of its stock at prices up to \(\$ 65\) per share. (R pp 181 \| 90,214 ब 165, T pp 542:2-548:24, 149:8-15; App. 8288, 34). Management announced a transformational "step change" in expected future growth and projected \(7-8 \%\) for the next ten years. From its insider position, BAT was privy to all of this material non-public, value-relevant information. (See R pp 177 || 81, 213 ब 164; T pp 496:7500:14, 541:23-543:19; App. 76-84; see also id. 1903:5-1904:22; App. 21314).

Immediately following Strategy Day—and the presentation of the ten-year growth rates, Reynolds' CFO Andrew Gilchrist and then-CEO

Susan Cameron met with representatives from JPM to determine how much BAT could afford to pay for RAI. (R p 183 ब 95; Doc. Exs. 552-71; T pp 1460:24-1470:13; App. 176-86)). \({ }^{7}\) In a September 2016 presentation, JPM explained: (i) what financing BAT needed to purchase RAI and (ii) that there were restrictions on BAT's ability to borrow to fund the transaction. (Doc. Ex. 559). Ultimately, the amount the BAT could afford to pay-and not the value of RAI-would become the determining factor in the agreement to sell RAI. (Doc. Ex. 7698).

\section*{III. RAI'S STOCK PRICE DECLINES AND BAT' MAKES ITS OFFER}

The Strategy Day presentations and the 7-8\% ten-year growth rate for RAI after the completion of the Lorillard Transaction were not known to public investors. Indeed, less than two months after Strategy Day, RAI stock suddenly experienced a sell off and precipitously declined by 12\%. (Doc. Ex. 7200). Almost immediately thereafter, on 20 October 2016, BAT informed RAI that it would be making an offer to purchase the \(58 \%\) of RAI it did not already own. (R p 186 ब 103 ; T p 65:17-22; App.

\footnotetext{
7 After the expiration of the standstill, RAI management occasionally met with bankers to discuss, among other things, a potential transaction with BAT. (R p 182 - \(\mid\) - \(92-93\) ).
}

16; Doc. Ex. 5669). In its public announcement of its bid, BAT stated that it would neither sell its shares to a higher bidder, nor support any alternative transaction. (R p 188 § 108; Doc. Ex. 5671). Though it could have conducted an auction or insisted that it would not entertain the possibility of a sale unless BAT would agree to support a higher bid, if one materialized, the Transaction Committee (which consisted of the independent directors on the RAI Board) did not do so. (R p 218 § 174). Nor did the Transaction Committee authorize the three Financial Advisors-Goldman Sachs Group, Inc. ("Goldman") (retained on behalf of the Transaction Committee) and JPM and Lazard (retained on behalf of RAI and its Board)—to "solicit any expressions of interest from any other parties with respect to the sale of all or any part of the Company or any other alternative transaction." (Id.; Doc. Ex. 6333; see also id. at Doc. Ex. 6331, 6336). One obvious potential bidder-Japan Tobacco-which had outbid BAT to purchase the Natural American Spirit brand for \(\$ 5\) billion ten months earlier, was never solicited or invited to make a bid. This is true despite that JTI informed Goldman that "they would have made a play for RAI" but for BAT's stated position. (Doc. Ex. 1897; see R p 294 【 340 ).

BAT offered a combination of cash and BAT stock and the negotiations between BAT and the Transaction Committee focused primarily on determining how much BAT could afford to pay. The cash portion of any offer was severely limited by BAT's borrowing constraints. Following tepid back-and-forth between RAI's Transaction Committee and BAT, 8 on 20 January 2017 the parties announced a merger agreement (the "Merger Agreement"), providing that BAT would acquire RAI for a mix of cash and BAT stock then valued at \(\$ 59.64\) per share. ( \(R\) p 218 \| 173). The Merger Agreement included various "deal protections," including a "no shop" provision and a \(\$ 1\) billion termination fee. (R p 294 - 4 341).

Each Financial Advisor was given a financial incentive to support a sale to BAT. The two "lead" advisors would be paid more than \(\$ 40\) million each in fees only if the transaction with BAT was consummated. \({ }^{9}\)

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8 The negotiations were designed to extricate from BAT the most it was willing to pay, which was not much more than its initial unsolicited bid. See T pp 95:16-96:10 (With only one buyer, the Transaction Committee could do nothing more than "get the price [they] could out of BAT or not do the deal."); App. 19; see also id. pp 617:2\(20,1592: 9-15\) ("[BAT's] ability to pay should not impact the value of the company . . . th[os]e are independent thoughts and ideas.").
\({ }^{9}\) The Financial Advisors received fees of \(\$ 46.3\) million (Goldman), \(\$ 41.1\) million (JPM), and \(\$ 11.1\) million (Lazard), nearly all of which was contingent upon the completion of the Merger. (R p 193 ๆ 119 n.29).
}

Not surprisingly, they delivered "fairness opinions" to the Board (which relied principally on DCF valuations) opining that the price on the Deal Date was fair "from a financial point of view." (R pp 222 ब \| 183-84; see T pp 332:16-20, 896:20-22; App. 61, 148). \({ }^{10}\) As set forth in greater detail below, the Board was not told that the Financial Advisors assumed growth rates in years six through ten of \(0-1 \%\), rather than the \(7-8 \%\) projected by management in its ten-year projections. The Financial Advisors also failed to inform the Board that they asked for the ten-year projections and were not provided with them.

\section*{A. RAI Management Withholds Its Ten-Year Projections from the Financial Advisors}

As noted above, RAI management had already met with the Financial Advisors-prior to BAT's offer-to determine how much BAT could afford to pay for RAI. Once BAT made its offer, RAI management made arrangements to retain the Financial Advisors to advise the Board and decided what financial information they should be provided.

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\({ }^{10}\) As Maxence De Gennaro (a member of the Goldman deal team) explained, one does not generate a "point value" from, for example, a comparable companies analysis because "there's a judgment element to it:""There's some art to picking -- picking the peer set and then evaluating the information to arrive at a range for valuation purposes. And that's why we look at a range." (T p 332:16-20; App. 61).
}

Knowing what BAT could afford to pay, RAI management determined to provide only five-year cash projections. Accordingly, RAI management gave the Financial Advisors the five-year Operating Plan (i.e., the October 2016 LE), as adjusted with certain "Top-Side Adjustments" or "Management Overlays" to account for updated information and highlevel financial decisions that had not yet been made public. (R p 206 ब 146). Included in the adjustments were certain sales staff reductions that were of an obviously sensitive nature and had not even been disclosed to RAI employees. (R p 206 ब 146). Those adjustments had the effect of adding roughly \(\$ 300\) million in income before tax to each year of the October 2016 LE projections (or approximately \(\$ 1.4\) billion in total). (Id.) Despite litigation-driven arguments that a potential "menthol ban" made RAI projections unreliable, RAI management represented to the Financial Advisors and to the public that its projections were the best estimates of RAI’s future performance. (Doc. Ex. 6329-6337 ("[W]e have assumed with your consent that the Forecasts, including the Synergies, have been reasonably prepared on a basis reflecting the best currently available estimates and judgments of the management of the Company." (emphasis added)); see also T pp 295:19-295:24, 710:15-19 (Q. But you
would never give the financial advisors projections that were - that you thought were unreliable . . . . A. Well, no. We're going to be very transparent with everything we can. We disclose all of this."); Doc. Ex. 7579 (No suggestion in the six months before merger closed that proxy projections unreliable).

Although management gave the Financial Advisors only five-year projections, the evidence at trial made clear that the Financial Advisors asked for RAI's detailed ten-year projections, expected them, but were never given them. (See R pp 207-11). The Financial Advisors needed detailed projections in order to calculate "cash flow" which is the critical metric for a DCF analysis-the most widely used and accepted corporate valuation technique. To calculate cash flow, the Advisors would start with earnings or EBITDA and make required adjustments to calculate cash flow. \({ }^{11}\) Lazard, for example, knew that RAI prepared ten-year projections because it received them-and used them to value RAI—in connection with the Lorillard Transaction. (See R p 209 ब 153; T pp

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11 EBITDA is an acronym for earnings before interest, taxes, depreciation and amortization. To convert EBITDA to cash flow one must, among other things, subtract interest and taxes and add depreciation and amortization (which are noncash expenses).
}

262:10-263:11; App. 49-50). Lazard wanted to use detailed ten-year projections again, so that it could calculate ten years of cash flow, and even created a pro-forma ten-year cash flow statement (based on "guesstimates" derived from the high-level Strategic Plan summary) for discussion with Mr. Gilchrist at a November 7, 2016 meeting. (Doc. Ex. 1513-35; T p 277:1-6; App. 51). \({ }^{12}\) In internal emails exchanged on the day of that meeting, it was clear that Lazard had every intention of calculating a DCF on ten years' worth of cash flow projections; in fact, a junior Lazard team member was instructed to "run a DCF on the[] 10year plan" right before a fellow team member left for the meeting. (Doc. Ex. 1536; see also Doc. Ex. 1537-39). Later that day, Lazard's junior team members were instructed (without explanation) that "[t]he [cash flow] models (standalone and merger) should be based on a 5 -year set of projections." (Doc. Ex. 1538). At trial, Mr. DeGennaro admitted on crossexamination that the decision to abandon the request for ten-year

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\({ }^{12}\) The plan summary indicated that the Lorillard transaction has created a "step change" and that growth in years six through ten would be \(7-8 \%\). However, the summary did not contain the detailed information needed to project cash flow, which starts with EBITDA and then makes adjustments to derive actual cash flow. That detailed information was, however, contained in the ten-year projections. (T p 1504:5-18; App. 189).
}
projections-and to calculate ten years of cash flow-and use only the five-year projections (and five years of cash flow) was because, at that point, Lazard had received "clear confirmation and direction from management," "to use a . . . five-year set of projections," and he had "no impression or understanding that there was some other set of numbers somewhere." (T pp 289:8-10, 294:7-295:16 ("Q. But with respect to the five-year projections, you got clear confirmation and direction from management to use those five-year projections, correct? A. Yes.")). RAI management (aware of the limits on the amount BAT could afford to pay) never informed Lazard that it had ten-year projections created in the ordinary course of business. Similarly, Lazard never informed the Board that it had assumed growth in years six through ten in the range of \(0-1 \%\) rather than the \(7-8 \%\) projected in the RAI plan or that the manner in which it "cut off" growth after year five was inconsistent with the analysis it had done for RAI in connection with the Lorillard transaction (where it imposed a low long-term growth rate only after ten years of cash flow).

Like Lazard, JPM's standard preference was to use ten-year management cash-flow forecasts to ensure its "analytical work [is] as accurate as possible." (T p 1432:16-18; see R p 209-10 【 154). It initially
planned (as evidenced in its shell fairness presentation) to use either "10year projections based on management forecast" or an "extrapolation[] if necessary." (Doc. Ex. 859). However, like Lazard, JPM had received only a five-year set of cash-flow projections from RAI management. JPM thus promptly requested RAI's "long range" cash flow projections, which "Andrew [Gilchrist] mentioned he would send" on October 31, 2016. (Doc. Ex. 620). Instead, JPM (as well as each of the other Financial Advisors) received only the RAI Board materials from its most recent Strategy Day. (Doc. Ex. 627). While that document contained a chart summarizing the expected income growth of \(7-8 \%\) in years six through ten, it did not contain the information necessary to convert income to cash flow. \({ }^{13}\) Recognizing that that document contained insufficient information to calculate a DCF (as it omitted the information necessary to calculate expected cash flow) JPM explicitly asked a member of Mr. Gilchrist's team, Steven Holland, to send the "detailed 10-year projection[s]." (Doc. Ex. 622; see also T pp 598:3-16 (Mr. Holland was a member of Mr. Gilchrist's team "providing information to the financial advisors"), 1504:5-18 (the 2016 Strategy Day presentation did not provide "sufficient

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\({ }^{13}\) See notes \(10-11\) infra.
}
underlying detail to perform a DCF" as "creating an accurate discounted cash flow analysis from [the Adjusted Operating Income Outlook] chart alone [would not be] reasonable"). Despite JPM's request for ten-year projections that could be used to calculate ten years of expected cash flow, RAI never sent them. (See R p 211-12 ब 159).

Without management's 10-year forecast, JPM tried to extrapolate ten-year cash flow projections. In anticipation of a November 3, 2016 meeting with RAI management, JPM developed an extrapolation that reasonably assumed continued growth after year six. (T pp 1536:-1538:2, 1538:23-1539:4; App. 191-94; Doc. Ex. 811). The agenda for the November 3 meeting included a request that RAI "[p]lease provide guidance on 10 year financial projections." (Doc. Ex. 802). According to JPM deal team member John Clark, a discussion on that topic did take place at that meeting, and, ultimately, management informed JPM that RAI had no "up-to-date" ten-year projections because the projections associated with the "the ten-year strategic plan . . . w[ere] stale or outdated." (T p 1603:8-15; App. 199). \({ }^{14}\) After further discussion with
\({ }^{14}\) See also T pp 1541:14-19, 1518:12-21, 1496:19-1497:4 ("Q. So according to your testimony here today, you're saying that you asked Andrew Gilchrist and Ron Price if they had ten-year projections and they said they didn't have them or that they have
management, JPM became "comfortable" with management's direction that they use five-year projections, in part, because they were told (falsely) that they "were the only advisor that was requesting ten years of projections." (T pp 1570:23-1571:4; App. 196-97).

The Financial Advisors' use of five-year projections coupled with a near-zero perpetuity growth rate ("PGR") in years six through ten had the effect of "cutting off" five years of robust cash flow that were forecast by management. (R p 205 ब 144 (RAI's projections "reflected 7\% to 8\% compound annual growth over the next ten years"). It reduced the DCF valuation by about \(\$ 20\) per share and generated a "fair value" at or near deal price and at or near the maximum amount BAT could afford to pay. However, the drop from 7-8\% growth in year five to the near-zero growth in year six created a cash flow "cliff" that was so pronounced that it was

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them but they were out of date. A. We asked if they had up-to-date ten-year projections. . . And we understood that they did not. There was the ten-year strategic plan that we had referenced in a prior document, but those were six or seven months dated at that point."). An argument that the ten-year projections were somehow "stale" is belied by the record. The June 2016 Strategy Day projections were the most recent ten-year projections. When the ten-year projections in the Lorillard Transaction became "stale," Lazard merely reduced the projection period to nine years. (T pp 309:18-311:18, 312:24-313:7). That staleness argument is further inconsistent with the fact that the Financial Advisors based their opinions on October projections-three months "stale" by January 2017 and nine months "stale" by the Transaction Date. (R p 205-07).
}
questioned by both JPM's internal tobacco expert, Emre Eler, and JPM's fairness committee. (Doc. Ex. 623-26, 830-32). Mr. Eler informed JPM that dropping growth to zero after year 5 "is not fair" because "years 510 should be more in lin[e] with the previous years than the perpetuity [growth]." (Doc. Ex. 623-24). Eler explained that while cigarette sales are in slow decline (by volume), very low "perpetuity" growth rates should not be imposed until after ten years. ("The reason people tend to use negative perp[etuity] growth is that there is always the argument that cigarettes may not be there in x years time. But . . . that " x " is further out th[a]n 10 yrs.") (Doc. Ex. 623-24). Given the realities of the tobacco industry, Mr. Eler believed that JPM "needed to have the management numbers for those yrs." (Doc. Ex. 624 (emphasis added)). JPM's fairness committee-which ensures the reasonableness of valuations supporting a fairness opinion-likewise expressed concern about the "cliff effect between the fifth year of projections and [the sixth] terminal year" and questioned whether JPM "attempt[ed] to get sign off on an extrapolation." (Doc. Ex. 830 (emphasis added)). In response, Kedar Muley (a JPM deal team member) stated that, while the team "push[ed] for an extrapolated period early on . . . management guided [the team]
instead to a range of TVG's [Terminal Value Growth Rates]." (Id. (emphasis added)). In other words, like Lazard, they were guided to use 5 -year projections followed by a low growth rate. \({ }^{15}\)

None of the Financial Advisors were ever provided with RAI's detailed ordinary-course ten-year projections. Accordingly, unbeknownst to the Financial Advisors, this meant that their evaluations of the fairness of the \(\$ 59.64\) January deal price were based on inputs that contradicted management's financial projections for growth in years six through ten. Thus, the Financial Advisors, the Transaction Committee, and the RAI Board all relied on DCF valuations that omitted critical value-relevant information-namely expected growth of between \(7-8 \%\) in years six through ten. Appellants' expert Dr. Zmijewski quantified that impact: the difference in output under the DCF model (all else being equal) of applying a \(0 \%\) growth rate after only five years of projections rather than ten was \(\$ 20\) per share. (T p 1267:16-18; App. 170).
\({ }^{15}\) A "negative" perpetuity growth rate is any rate below the long-term rate of inflation. The long-term rate of inflation is at least \(2 \%\), so a growth rate between 0 \(1 \%\) is a negative growth rate and means the Company is shrinking.


Thus, had the Financial Advisors been given the ten-year projections they repeatedly sought, their DCF valuations would have yielded results in the \(\$ 80\) per share range. (T p 1277:1-9; App. 171). Instead, the valuations were closer to \(\$ 60\) per share-the proposed deal price and price RAI management knew was near the top of what BAT could afford to pay.

\section*{B. The Value of RAI Increases Between January and July 2017}

There is no doubt that the value of RAI increased between the date the Board approved the deal (January 2017) and the date the transaction
closed (July 2017). Between the October 20 offer and the 25 July 2017 Transaction Date, Donald Trump had been elected President of the United States, and the Republican Party held a majority in both the Senate and the House of Representatives. (R. p 236 ๆ 209). Market participants believed there was an increased likelihood of corporate tax reform and a more benign regulatory climate for the US tobacco industry. (R pp 227, 『| 188, 236 § 209 (emphasis added). \({ }^{16}\) Evidence at trial made clear that "from BAT"s October 20 Offer until the Transaction Date in July 2017, the S\&P 500 . . . rose \(\mathbf{1 7 . 1 5 \%}\)," "Altria, the only other major U.S. tobacco company, rose 20.44\%." (R p 227 ๆ 188 (emphasis added)). However, since RAI stock was subject to a merger agreement with BAT, the price of the stock hovered around the merger price and did not increase with the rise in the market. ( R p 236 ब 209 ("events took place that may have affected RAI's standalone value and been reflected in RAI's stock price had BAT not made its October 20 Offer")).

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16 The Financial Advisors recognized this fact, too. See Doc. Ex. 7095 (listing as potential upside "U.S. Corporate tax reform"), 7356 (noting that U.S. election increased attractiveness of RAI-BAT deal for BAT), 7366 (discussing macro changes with effect on value, including corporate tax reform and less burdensome US regulatory environment).
}

While no formal tax plan was proposed or implemented prior to the Transaction Date, the likelihood that the Republican-led Congress would pass a tax bill that lowered the corporate rate and be less burdensome on the US tobacco industry unquestionably increased in the days and months leading up to the Transaction Date. (R. p. 236 ब 209; see T pp 1279:11-1281:17; App. 172-74). \({ }^{17}\) Indeed, although excluded from their January analyses, the Financial Advisors calculated the value of the impact of corporate tax reform at between \(11 \%\) and \(30 \%\) per share (in dollar terms, an impact of anywhere from \(\$ 5.54\) to \(\$ 19.06\) per share). ( T pp 1279:11-1281:17; App. 172-74).

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\({ }^{17}\) In fact, by May 2017, the market projected a \(65 \%\) likelihood of corporate tax reform before the end of the calendar year. Piper Jaffray, "Initiating at Overweight; RAI Deal Helps Drive Expected Cash Build" (May 24, 2017), p. 3 (estimating 65\% probability of tax reform passing); App. 224.
}


Although the cash portion of the offer was fixed, the offer also included a percentage of a share of BAT stock. Any increase in the value of RAI would—after the merger agreement—be reflected in the value of BAT. \({ }^{18}\) In light of the increase in the value of RAI, the value of BAT stock increased and accordingly on the Transaction Date, the actual Merger Consideration paid to RAI shareholders was \(\$ 65.87\) per share. (R p 227 - 191).
\({ }^{18}\) An illustration demonstrates this point. If corporation A has a contract to buy an asset for \(\$ 100\) and the value of that asset increases to \(\$ 150\) after the contract is signed but before the closing, the stock of Corporation A will increase to reflect the \(\$ 50\) gain in asset value.

\section*{IV. THE APPRAISAL ACTION}

\section*{A. Relevant Pre-Trial Events}

It was clear that the price BAT agreed to pay-and that the Transaction Committee agreed to accept-was driven by how much BAT could afford to pay. It was equally clear that valuations of RAI used only five-year cash projections followed by negative growth. Accordingly, during the course of discovery, Appellants sought to determine what value BAT placed on RAI and whether it had used ten-year cash flow projections. Appellants requested documents from BAT as both the acquirer of RAI and a \(42 \%\) interest holder of RAI at the time of the Merger. In an effort to exhaust all options, Appellants both issued subpoenas to US-based affiliates of BAT and approached RAI's counsel (who also represented BAT in the Corwin matter) about accepting a subpoena on behalf of BAT or otherwise producing relevant information voluntarily. RAI's counsel refused to accept a subpoena on behalf of BAT. (R pp 395-98). As such, Appellants were forced to go through the Hague Convention to seek discovery from BAT, ultimately receiving a voluntary production of approximately 79 documents and leaving Appellants
without the benefit of BAT's own internal valuation of Reynolds at the time of the Merger. BAT never produced its valuations of RAI.

RAI was aware that the value of U.S. equity and tobacco stocks rose between the deal date and the closing date. However, it argued that if one started with the "unaffected" public trading price of RAI stock (prior to the announcement of BAT's offer)—and assumed that it would rise with the market-it would have been very near the deal price. Of course, there were two glaring deficiencies with this argument. First, it assumed that BAT could purchase control of RAI without paying a "control premium" in violation of the N.C. appraisal statute. \({ }^{19}\) Second, it assumed that the unaffected market price of RAI stock represented its "fair value." In support of this proposition, RAI would have to demonstrate that the stock traded efficiently and that there was no material non-public information about RAI. To assist in proving that dubious proposition, Plaintiff initially retained Dr. Anil Shivdasani (and paid him \$900 per hour) to conduct "event studies" to provide empirical support for the

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\({ }^{19}\) See Section II. F., infra.
}
proposition that RAI traded in a semi-strong efficient market. \({ }^{20}\) Dr. Shivdasani authored both an opening and rebuttal expert report and provided testimony at a deposition. On 4 June 2019, after including Dr. Shivdasani on its initial list of witnesses to be called at trial, RAI disclosed to Appellants-for the first time and approximately two hours prior to the deadline for submission of the parties' pretrial briefs, proposed findings of fact and conclusions of law, and Proposed Joint Pretrial Order-that RAI no longer intended to call Dr. Shivdasani as part of RAI's case-in-chief. (See R p 681; App. 253). Appellants' request for leave to file a motion in limine in light of this change was denied. ( R
p 117). As a result, Plaintiff's trial argument with respect to the efficiency of the market-an assumption on which its reliance on unaffected stock price as a reflection of "true value" was predicated—was based on a weak smattering of lay opinion testimony and legal argument, which, as discussed in greater detail below, was insufficient.

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\({ }^{20}\) RAI's remaining expert, Dr. Paul Gompers, did not render an opinion on the efficiency of the market for RAI stock, and instead relied entirely on Dr. Shivdasani's conclusions. Professor Gompers admitted that his opinions related to the market price of RAI's stock are based on Dr. Shivdasani's work. See Section II.E., infra.
}

\section*{B. The Opinion Below}

After a nine day trial, post-trial briefing and post-trial oral argument, on 27 April 2020, the trial issued Findings of Fact, Conclusions of Law, concluding that the fair value of RAI's shares as of the Transaction was no more than \(\$ 59.64\) per share. ( R p 313 ब 382 ; see also id. p 142-330). The Court did not conduct any independent valuation but relied entirely on the price negotiated by BAT as evidence of "fair value."

\section*{ARGUMENT}

\section*{I. STANDARD OF REVIEW}
"When a trial court sits without a jury, findings of fact are conclusive on appeal if supported by any substantial evidence, while conclusions of law are reviewed de novo." Farm Bureau v. Cully's Motorcross Park, 366 N.C. 505, 512 (2013) (internal quotation marks and citation omitted). The principal issue in this appeal is the Business Court's interpretation and application of N.C.G.S. § 55-13 et seq-a broad, remedial statute created by the North Carolina General Assembly to provide shareholders in transactions involving insiders the opportunity for an independent judicial determination of the "fair value" of their shares. As a remedial statute it should be broadly construed to effectuate its remedial purposes and the Business Court's interpretation is subject to de novo review. See O\&M Indus. v. Smith Engineering Co., 360 N.C. 263, 268 (2006); Appeal of N. Carolina Sav. \& Loan League, 302 N.C. 458, 464 (1981) ("Any error made in interpreting a statute is an error of law . . . ."). "Under a de novo review, the court considers the matter anew and freely substitutes its own judgment for that of the lower
tribunal." Craig ex rel. Craig v. New Hanover Cty. Bd. of Educ., 363 N.C. 334, 337 (2009) (internal quotation marks and citation omitted).

\section*{II. THE BUSINESS COURT ERRED BY FAILING TO MAKE AN INDEPENDENT DETERMINATION OF THE FAIR VALUE OF RAI AS OF THE TRANSACTION DATE, AS REQUIRED BY THE NORTH CAROLINA APPRAISAL STATUTE}

The Business Court determined "the fair value of RAI's shares as of the Transaction Date to be no more than \(\$ 59.64\) per share"-the value of the consideration RAI's Transaction Committee agreed to accept from BAT on 16 January 2017-approximately six months prior to the 25 July 2017 Transaction Date. (R p 313 【 382). For the reasons that follow, the Business Court's fair value "determination" was not made in accordance with the North Carolina appraisal statute and its decision should therefore be reversed.

\section*{A. The North Carolina Appraisal Statute}

A stockholder who is not convinced that a deal struck between a company and an insider is at a fair price, must nevertheless surrender its shares and its only remedy is a judicial appraisal. Osher v. Ridinger, 162 N.C. App. 155, 157 (2004) ("[a]ppraisal is the exclusive remedy for a shareholder who wishes to exercise a dissenter's rights" in connection with a merger.); see also Cede \& Co. v. Technicolor, Inc., 542 A.2d 1182,

1186 (Del. 1988) ("An appraisal proceeding is a limited legislative remedy intended to provide shareholders dissenting from a merger on grounds of inadequacy of the offering price with a judicial determination of the intrinsic worth (fair value) of their shareholdings.").

Although North Carolina courts often look to Delaware courts for guidance on questions of corporate law, the two states have very different appraisal statutes. Appraisal rights under North Carolina law are set forth in Article 13 of the North Carolina Business Corporation Act, which itself is divided into four distinct Parts:

Part 1. Right to Appraisal and Payment for Shares (N.C.G.S. §§ 55-13-01 - 19);

Part 2. Procedure for Exercise of Appraisal Rights (N.C.G.S. §§ 55-13-20 - 29);

Part 3. Judicial Appraisal of Shares (N.C.G.S. §§ 55-13-30-39); and

Part 4. Other Remedies Limited (N.C.G.S. §§ 55-13-40).

Under Part 1, the North Carolina appraisal statute creates a right substantially different than the right provided under the Delaware statute. The Delaware statute provides an appraisal remedy for virtually all mergers, including mergers with independent third-party purchasers
who have no preexisting relationship with the company. See 8 Del. C. § 262. In contrast, the North Carolina statute does not create a general right to appraisal for stockholders in a corporation like RAI but narrowly limits such rights only to "the holders of any class or series of shares where the corporate action [at issue] is an interested transaction." N.C.G.S. § 55-13-02(b)(4) (emphasis added).

An "interested transaction" under the statute is "[a] corporate action . . . involving an interested person"-defined to include a "[a] person . . . [who is] the beneficial owner of twenty percent (20\%) or more of the voting power of the corporation, or [who] "[h]ad the power, contractually or otherwise . . . to cause the appointment or election of twenty-five percent (25\%) or more of the directors to the board of directors of the corporation." Id. §55-13-01(7)(a) (emphasis added). In other words, the North Carolina statue is limited to mergers between a company and one of its insiders-whether by share ownership or board membership. Here, the Merger unquestionably qualifies on two separate grounds: (i) BAT's 42\% shareholder stake and (ii) its right under the Governance Agreement to appoint five out of fourteen directors to the RAI Board.

Once appraisal rights are exercised, Part 2 of the North Carolina appraisal statute sets forth the intricate "Procedure for Exercise of Appraisal Rights," which affords dissenting shareholders with the opportunity to obtain "fair value" from the company and avoid the time and expense of a judicial proceeding. N.C.G.S. § 55-13-20 - 29; see also (Model Bus. Corp. Act § 13.01 cmt .1 (1969) (noting that the appraisal statute seeks "to motivat[e] the parties to settle their differences in private negotiations without resort to judicial appraisal proceedings"). Where, as here, the parties' dispute over fair value remains "unsettled" after exercise of those procedures, the corporation is required to "commence a proceeding . . . to determine the fair value of the shares and accrued interest" and "[e]ach shareholder made a party to th[at] proceeding is entitled to judgment . . . for the amount, if any, by which the court finds the fair value of the shareholder's shares, plus interest, exceeds the amount paid by the corporation to the shareholder for the shareholder's shares . . ." N.C.G.S. § 55-13-30 (emphasis added). The court's determination of fair value under \(\S 55-13-30\), and its determination of costs and expenses under § 55-13-31, are the only issues for the court to decide under Part 3 of the statute.

Part 3 of the North Carolina appraisal statute provides the permissible methods the Business Court may employ to make an independent determination of fair value. Specifically, there are three criteria for the determination of "fair value." First, the Business Court must determine the "fair value" of the corporation at the closing date "immediately before" effectuation of the merger. Second, the Business Court must use "customary and current valuation concepts and techniques generally employed" to value the corporation. Finally, the Business Court must value the shares "without discounting" for the minority status of the stockholder. Specifically, the statute provides for valuation:
(i) immediately before the effectuation of the corporate action as to which the shareholder asserts appraisal rights, excluding any appreciation or depreciation in anticipation of the corporate action unless exclusion would be inequitable, (ii) using customary and current valuation concepts and techniques generally employed for similar business in the context of the transaction requiring appraisal, and (iii) without discounting for lack of marketability or minority status... .
N.C.G.S. § 55-13-01(5). Thus, here, the court was required to (i) determine fair value as of the 25 July 2017 Transaction Date-not when
the merger agreement was signed in January 2017, (ii) using "customary and current valuation concepts and techniques generally employed for [corporations]"-not simply defer to the price negotiated by the Company and its insider shareholder and (iii) determine fair value without a discount for "minority status"-all of which it failed to do. Its decision thus violated the clear mandates of the statute in at least three independent ways that warrant reversal of its decision as a matter of law.

\section*{B. The Business Court Erred in Failing to Value RAI as of the Transaction Date}

The appraisal statute requires that RAI be valued as of the Transaction Date. Instead, the Business Court determined fair value of RAI to be no more than the amount of the merger consideration determined six months earlier when the deal was struck on the underlying transaction. ( R p 313 ๆ 382). The Business Court's failure to value RAI as of the Transaction Date is an error of law warranting reversal of the decision below.

The Business Court relied on the deal price to determine "fair value." (R pp 280-98 【 \| 316-48). Leaving aside the issue of whether deal price, in these circumstances, was an appropriate measure of fair value (it was not), the Business Court committed legal error by failing to value

Appellants' shares based on the deal price as of the Transaction Date, as required by the appraisal statute. The merger consideration consisted of 0.5260 of a BAT share and \(\$ 29.44\) in cash. There is no dispute that, as of the Transaction Date, the value of that consideration was \(\$ 65.87\) per share. The increase in value relative to the \(\$ 59.64\)-per-share value of the consideration as of the January 2017 Deal Date is attributable to an increase in the value of BAT stock. As explained in detail below, that increase in value is largely, if not wholly, attributable to the increase in RAI's value over that same time period. Regardless of the source of the increase, given that the Business Court elected to value RAI based on the value of the deal price, Appellants were due that value as of the Transaction Date (the same amount paid to every other shareholder). This is no different than if, for example, the consideration consisted of cash and a debt instrument bearing a fixed rate of return. If interest rates declined between the Deal Date and the Transaction Date, making the market value of the fixed rate instrument increase, investors should be entitled to that increased value. The Business Court's failure to even award the value of the merger consideration on the Transaction Date was a violation of the statutory mandate and therefore legal error.

An appraisal proceeding can be likened to a condemnation proceeding for stockholders: shares are taken against the shareholder's will pursuant to an action (with which that stockholder disagrees) and, in exchange, the stockholder receives an independent judicial determination of fair value. Like in a condemnation proceeding, the operative question in determining fair value in an appraisal proceeding is what the shares are worth in their "existing condition" (i.e., without the Merger) "on the date of the taking" (i.e., the Transaction Date) because that is the date on which, and condition in which, the individual is deprived of his or her property (without any ability to benefit from the value of the asset going forward). See State v. Johnson, 282 N.C. 1, 15 (1972).

Embedded in the requirement that fair value be judicially determined as of the Transaction Date is an understanding that operative moment for the determination of value is not when the company agrees to the merger-which may be months or years before a transaction is closed—but on the date when the property is taken. In this respect, the focus is not on whether the board or its directors acted properly (a question of fiduciary duty), but the value of the shares taken.

The Business Court continuously confused questions of fiduciary duty and statutory appraisal by attempting to determine whether the board acted reasonably. However, that inquiry is at odds with the basic structure of the appraisal statute, which is focused solely on a determination of value at closing. Obviously, a board can never determine what value its company may have months or years after a deal is struck (without a crystal ball) and neither microeconomic nor macroeconomic affects remain in stasis for extended periods. That is why the statute requires that the value of the shares be independently determined at the closing date.

The Business Court's failure to value RAI as of the Transaction Date is significant: the Merger was agreed to in January 2017 but did not close until 25 July 2017-a six-month period in which equity markets in the US rose at a blistering pace and the value of other major domestic tobacco companies in the US did as well. Indeed, the Business Court found, as a factual matter, that "[t]he merger consideration on [the Transaction Date] had a cash value of \(\$ 65.87\)," as compared to the Deal Date merger consideration value of \(\$ 59.64\). (R. 227 § 191). The reason for that increase in value was obvious: BAT had an agreement to
purchase RAI at a fixed price. As the value of U.S. equities rose-and the value of RAI increased-that value was reflected in an increased price of BAT stock. Indeed the Court below recognized that the \(\$ 6\) increase was at least in part attributable "to the increase in the BAT share price" but failed to appreciate that the increase in BAT's price was attributable to the increase in value of RAI. ( \(\mathrm{R} \mathrm{pp} 227-28\) ब 191). The Court also attributed part of the increase to "favorable changes to the British pound/U.S. dollar exchange rate." However, there was no evidence in the record about the exchange rates, how they might impact the value of RAI and BAT—and particularly how or why they would impact cash flows projected over five or ten years. Moreover, even if the relative value of future cash flows changed over that period, the Court provided no discussion or analysis for why dissenting shareholders were not entitled to any portion of that increase in value. To the extent the Business Court implicitly concluded that there was no increase in the value of RAI between the January 2017 and the Transaction Date, that finding was not based on any evidence in the record and was clearly erroneous in light of the admitted rise in the S\&P 500 Index, Altria's stock price, and the merger consideration itself over that period.

Evidence at trial—advanced by both parties and accepted by the Business Court—proved that＂from BAT＂s October 20 Offer until the Transaction Date in July 2017，the S\＆P 500 ．．．rose 17．15\％，＂＂Altria，the only other major U．S．tobacco company，rose \(20.44 \%\) ，＂and＂events took place that may have affected RAI＇s standalone value and been reflected in RAI＇s stock price had BAT not made its October 20 Offer．＂（R pp 227，『 188， 236 『 209 （emphasis added））．In particular，the increased likelihood of corporate tax reform and an accommodative regulatory climate for the US tobacco industry fueled price increases．（R pp 227 I 188， 236 【 209）．While no formal tax plan was proposed or implemented prior to the Transaction Date，the likelihood that the Republican－led Congress would pass a tax bill that lowered the corporate rate－an action that would substantially increase future cash flows for \(\mathrm{RAI}^{21}\) —and be less burdensome on the US tobacco industry unquestionably increased in the days and months leading up to the Transaction Date．（R．p． 236 ब 209；see T pp 1279：11－1281：17）．Indeed，the market projected a \(65 \%\)

\footnotetext{
\({ }^{21}\) The DCF calculates the present value of future cash flow and cash flow is determined by subtracting taxes from income．Accordingly，a reduction in taxes increases future cash flow and the fair value as determined by DCF．
}
likelihood of corporate tax reform before the end of the calendar year, and the Financial Advisors calculated the value of the impact of corporate tax reform at between \(11 \%\) and \(30 \%\) per share (though they admittedly completely excluded that value from their January analyses). ( T pp 1279:11-1281:17; App. 172-74).

It thus follows that, if the value of RAI cash flows increased prior to the Transaction Date as a result of the above-described events, and the value of RAI correspondingly increased, the value of BAT common stock—which traded with the expectant value of RAI after the Merger was approved in January 2017-and thus the value of the merger consideration, increased. Indeed, once BAT agreed to acquire Reynolds at a fixed price in January 2017, the stock price of Reynolds was tied solely to that fixed price, discounting only to take into account the low probability that the deal might not close. (See \(\mathrm{R} \mathrm{pp} 235-36\) ब 208). The merger consideration as of the Deal Date effectively put a cap on the market price such that any increase in the value of Reynolds as a standalone company would necessarily manifest itself only in an increase in the value of BAT, its acquirer. Logically, BAT would not have separately benefited from changes to US tax laws as it had no sales in or
income from the US markets. The increase in the value of BAT stock was a direct result of the increased value of Reynolds-and every single shareholder of RAI got the benefit of that increased value as the total value of the merger consideration increased from \(\$ 59.64\) to \(\$ 65.87\). By awarding Appellants the \(\$ 59.64\) value of the merger consideration in January, it singled them out as the only shareholders not to receive the value as of the closing date in violation of the express requirements of the statute.

Importantly, the record presented at trial contained no evidenceand there could be no evidence-that the increase in the value of the merger consideration was solely the result of an increase in the value of BAT on a standalone basis that did not include the value of RAI. As noted above, once BAT had a contractual right to purchase RAI at a fixed price, increases in the value of RAI would manifest as increases in the value of BAT. The Business Court's apparent contrary conclusion was attributed to two pieces of evidence in the record, each of which supported only that the final value of the compensation the shareholders received as of the

Transaction Date was \(\$ 65.87\), nothing more. ( R pp 227-28 | 191). \({ }^{22}\) With that record, the Business Court was obligated to determine the fair value of RAI as of the Transaction Date, taking into account this increase in value; it did not do so.

\section*{C. The Business Court Erred by Failing to Make an Independent Determination of Fair Value using "Customary and Current Valuation Concepts and Techniques Generally Employed" to Value Corporations}

The North Carolina appraisal statute requires a judicial determination, "using customary and current valuation concepts and techniques generally employed for a similar business in the context of a transaction requiring appraisal." N.C.G.S. § 55-13-01(5). However, the Business Court did not value RAI at all, and instead relied solely on the value of the merger consideration agreed upon by RAI and its insider, BAT, six months prior to the Transaction Date. The Court's failure to

\footnotetext{
\({ }^{22}\) Specifically, the Business Court cited to (1) RAI's 25 July 2017 8-K stating that " \([b]\) ased on the per share closing price of BAT ADS . . . on July 24, \(2017 \ldots\). . the implied per share value of the Merger Consideration was approximately \$65.87," (Doc. Ex. 4044-45), and (2) the testimony of Appellants' expert, Dr. Zmijewski, that \(\$ 65.87\) was "the value of the compensation the shareholders received as of the transaction date, July 25, 2017," (T pp 1241:24-1242:10; App. 168-69).
}
conduct an independent valuation using generally accepted valuation techniques is an error of law warranting reversal.

The importance of an independent judicial determination is made abundantly clear by the factual record of this case. The Transaction Committee and the Financial Advisors who conducted the valuations supporting the merger consideration on the Deal Date (the sole participants in the negotiation process with BAT) were not in possession of material, value-relevant information: RAI's detailed ten-year cash projections. The absence of those projections in the Financial Advisors' DCF Valuations had a \$20-per-share impact. (T p 1277:1-9; App. 171; R p 250 ब 240 ). That is because RAI's projections showed growth rates of \(7-8 \%\) in years six through ten and the Financial Advisors assumed nearzero growth for those years. With the benefit of those management projections-which the Transaction Committee and its Financial Advisors did not have-the Business Court could have, and should have, conducted its own, independent valuation of RAI that accurately reflected the financial performance RAI management expected.

Separately, complete deferral to the transaction price negotiated between a company and its insider does violence to the intent of the
appraisal process under North Carolina law. The state requires an independent judicial appraisal only when the merger price is negotiated in an "interested transaction," N.C.G.S. § 55-13-02(b)(4). The limitation of the appraisal remedy to interested transactions demonstrates that the price negotiated by the insider must be back-checked using generally accepted valuation techniques and cannot itself be a substitute for a judicial determination of fair value. The narrow class of "interested transactions" subject to appraisal in North Carolina contains, by definition, situations in which the deal price is inherently untrustworthy, and, as such, requires a separate, independent valuation using "customary and current valuation concepts and techniques generally employed [to value corporations]."

Because the Business Court failed to conduct an independent valuation, as it was statutorily required to do, its decision should be reversed.

\section*{D. The Business Court Erred in its Interpretation of Delaware Law to Rely on Deal Price Absent a Market Check}

In concluding that the fair value of RAI as of the Transaction Date was the value of the merger consideration on the Deal Date, the Business

Court also incorrectly applied Delaware law to the North Carolina appraisal statute. The Delaware statute is much broader than the North Carolina statute in two respects that are inter-related. First, the Delaware statute applies to all merger transactions, including armslength transactions with completely independent unrelated third parties. \({ }^{23}\) As a result of the statute's broad reach, the court has a similarly broad license to take into account "all relevant factors." 8 Del . C. § \(262(\mathrm{~h})\). As explained in greater detail below, that broad and permissive statutory language (not present in the North Carolina statute) and has been interpreted by Delaware courts to defer to deal price only in circumstances involving a robust market check by independent third-party purchasers. \({ }^{24}\)
\({ }^{23}\) The Delaware statute does not apply only to a small group of transactions, not applicable here, such as stock-for-stock transactions of publicly-traded companies. \({ }^{24}\) The Delaware courts have specifically relied on the breadth of Delaware's appraisal statute and the distinction between customary or "traditional valuation methodologies" and "market indicators" like deal price and trading price. In re Appraisal of Jarden Corp., 2019 WL 3244085, at *2 (Del. Ch. July 19, 2019); see also Blueblade Capital Opportunities LLC v. Norcraft Cos., Inc., 2018 WL 3602940, at *2 (Del. Ch. July 27, 2018) (adopting "a 'traditional valuation methodology,' a [DCF] analysis" after rejecting deal price as a relevant factor indicative of fair value).

\section*{1. Under Controlling Delaware Law, there is No Deference to Deal Price Without A Robust Market Check}

Under Delaware appraisal law, "there is no presumption in favor of the deal price." DFC Glob. Corp. v. Muirfield Value Partners, L.P., 172 A.3d 346, 349 (Del. 2017); accord Verition Partners Master Fund Ltd. v. Aruba Networks, Inc., 210 A.3d 128, 135 \& n. 41 (Del. 2019). To be considered, deal price must result from an "unhindered, informed, and competitive market." In re AOL Inc., 2018 WL 1037450, at *1 (Del. Ch. Feb. 23, 2018) (emphasis added); see also Merlin Partners LP v. AutoInfo, Inc., 2015 WL 2069417, at *11 (Del. Ch. Apr. 30, 2015) ("The dependability of a transaction price is only as strong as the process by which it was negotiated.").

As such, the controlling Delaware law (which the Business Court should have applied to the extent it deemed Delaware law persuasive) is that where a large inside stockholder makes an offer and refuses to allow a market check of the price, deal price cannot be relied upon as evidence of fair value. Golden Telecom II, 11 A.3d at 218. While the Business Court made passing reference to Golden Telecom in its decision, it failed to acknowledge it as the only Delaware Supreme Court case that is
factually analogous to the RAI-BAT transaction. Glob. GT LP v. Golden Telecom, Inc., 993 A.2d 497 (Del. Ch.) ("Golden Telecom I"), aff'd, 11 A.3d 214 (Del. 2010). In Golden Telecom, two stockholders collectively owning \(44 \%\) of the appraised corporation's stock prevented the corporation from seeking other bidders. Id. at 503. Despite that, the corporation argued that "deference should be given to the merger price . . . because the Special Committee, assisted by outside advisors, was able to determine for itself the fair price of Golden, and because no other interested bidders came forward." Id. at 507. The Delaware Court of Chancery (the trial court that decides appraisal proceedings in Delaware) unequivocally rejected that argument. Id. at 508. The similarities are striking:
\begin{tabular}{|l|l|}
\hline \multicolumn{1}{|c|}{ Golden Telecom } & \multicolumn{1}{c|}{ RAI } \\
\hline\(>\) "[T]he Special Committee & \(>\) Transaction Committee did \\
did not engage in any sales \\
efforts at all and instead \\
concentrated solely on \\
getting as good a deal as it \\
could from [the acquiring \\
company]." Id. at 508.
\end{tabular}\(\quad\)\begin{tabular}{l} 
Advisors to shop the \\
Company.
\end{tabular}\(\quad\)\begin{tabular}{l} 
With only one buyer, the \\
Transaction Committee \\
could do nothing more than \\
"get the price [they] could \\
out of BAT or not do the \\
deal."
\end{tabular}
\begin{tabular}{|c|c|}
\hline shareholders-who collectively held a 44\% ownership stake-were also the largest stockholders in the acquiring company. Id. at 503, 508. & \(42 \%\) ownership stake in RAI. \\
\hline Golden's two largest stockholders "not only had board representatives on the [acquiring company's] board, but also had appointed members of the Golden Board." Id. at 503. & BAT had five appointees on the RAI Board. \\
\hline \begin{tabular}{l}
Altimo, which owned \(26 \%\) of Golden's outstanding common stock, made a public announcement that it would not sell its \(26 \%\) stake in another transaction. Id. at \(505,508\). \\
Telenor, which owned 18\% of Golden's outstanding common stock, "was more coy, but gave no affirmative indication that it would sell to another bidder, and its representative on the Golden Board had voted for the merger." Id. at 505.
\end{tabular} & BAT publicly announced that it "ha[d] no interest in selling any of the Reynolds shares it owns, nor would BAT support any alternative sale, merger or similar transaction involving Reynolds." \\
\hline The merger agreement provided for an \(\$ 80\) million termination fee and did not contain an active go-shop provision. Id. at 505, 508. & The Merger Agreement provided for a \(\$ 1\) billion termination fee and contained a no-shop provision. \\
\hline
\end{tabular}
\(\square\)
Against this backdrop, then-Vice Chancellor Strine stated the obvious:

The reality is that any bidder peering in from the outside was confronted by a merger agreement that did not contain an active go-shop provision, and by a public statement by Golden's largest stockholder, Altimo, that it would not sell its 26\% stake in another transaction. . . . The idea that a rational third-party bidder would make a blind expression of interest in a situation where the economic interests of Golden's largest stockholders was more heavily weighted toward doing what was best for [the acquiring company] . . . is not one that I accept.

Id. at 508 (emphasis added).
Any potential third-party bidder faced precisely this scenario in the RAI-BAT transaction. The Business Court's focus on the fact that "no third-party bidders expressed interest or submitted a bid during the Merger negotiations or in the six-month post-agreement signing period despite widespread public awareness of BAT's October 20 Offer soon after it was made" (R p 292 I 338) ignores the obvious. First, the fact that bidders did not come forward-no matter what the reason-means there was no market check. Second, the fact that no bidders came forward was a direct result of BAT's intentional strategy to suppress market bids.

BAT made clear in its 20 October offer that it would not support an alternative transaction. As Goldman explained to the Board, if BAT was not supportive of an alternative transaction, one would be nearly impossible to achieve. (Doc Ex. 7617-18, 7379). Nearly 90\% of non-BAT shareholders would have to show up to a shareholder meeting and vote in favor of a competing transaction and on average only \(30 \%\) of shareholders vote. (Doc. Ex. 7379). "In a situation such as this, . . . if [the Transaction Committee] was relying on a market check . . . , [it] should have affirmatively sought guarantees from [BAT] that [it] would support a higher bid and used those guarantees to attract
bidders." Golden Telecom I, 993 A.2d at 508 (emphasis added).
The Delaware Supreme Court reaffirmed Golden Telecom in its decisions in \(D F C^{25}\) and Dell, \({ }^{26}\) and, as such, it remains controlling law. \({ }^{27}\)

Dell, in particular, provides a stark contrast with the record in this
\({ }^{25}\) DFC, 172 A. 3 d at 366.
\({ }^{26}\) Dell, Inc. v. Magnetar Glob. Event Driven Master Fund Ltd, 177 A.3d 1, at 21-22 (Del. 2017).
\({ }^{27}\) One recent Court of Chancery opinion, now on appeal, contains dicta speculating about how the Delaware Supreme Court might decide an exclusive-dealing situation with a single third-party bidder, however, even in that case there was a robust prenegotiation market check and the ultimate bidder was an independent third party. See In re Stillwater Mining Co., 2019 WL 3943851 (Del. Ch. Aug. 21, 2019). No recent opinions have changed the operative law.
action. In Dell, the large inside stockholder seeking to acquire the company (Michael Dell) pre-committed to support any better, alternative bid and the corporation pursued a detailed market canvass to search for alternative bidders. See 177 A.3d at 35 (holding that, "when the evidence of market efficiency, fair play, low barriers to entry, outreach to all logical buyers, and the chance for any topping bidder to have the support of Mr. Dell's own votes is so compelling," deal price should have significant weight). Of course, each of these factors points in the opposite direction here: (i) RAI's own expert on market efficiency conducted studies showing that the market for RAI stock was not efficient (so RAI declined to call him at trial); (ii) BAT's offer was opportunistic and based on material, non-public, value-relevant information; (iii) there are incredibly high barriers to entry in the tobacco industry; (iv) RAI conducted no outreach to any logical buyers; and (v) BAT announced that it would oppose any competing bid. Simply put, even assuming that Delaware criteria for relying on deal price as a determinant of "fair value" apply in North Carolina, those criteria when applied to the facts of this case dictate that deal price should be given no weight. In Delaware parlance, the BATRAI transaction process was not "Dell compliant," and accordingly the
deal price should be given no weight in an appraisal valuation. See, e.g., In re AOL, Inc., 2018 WL 1037450, at *1-2, *8-9.

Even a cursory review of Delaware case law, including recent decisions in the Court of Chancery, reveals that no Delaware court has deferred to deal price without a market check, and certainly none have done so where there is a large insider shareholder who has expressed that it will not support an alternative transaction. See, e.g., In re Appraisal of Columbia Pipeline Grp., Inc., 2019 WL 3778370, at *25 (Del. Ch. Aug. 12, 2019). ("[D]uring the first pre-signing phase, [the company] contacted other potential buyers . . . ."); Verition Partners Master Fund Ltd. v. Aruba Networks, Inc. ("Aruba I"), 2018 WL 922139, at *10 (Del. Ch. Feb. 15, 2018) ("[T]he Aruba Board authorized [its financial advisor] to contact other potential buyers to gauge their interest."), rev'd on other grounds and remanded, 210 A.3d 128 (Del. 2019); In re Appraisal of Solera Holdings, Inc., 2018 WL 3625644, at *1 (Del. Ch. July 30, 2018) ("The merger was the product of a two-month outreach to large private equity firms followed by a six-week auction . . . ."); In re PetSmart, Inc., 2017 WL 2303599, at *28 (Del. Ch. May 26, 2017) ("By the time the gavel fell, JPM had contacted 27 potential bidders . . . ."); Merion Capital L.P. v. Lender

Processing Servs., Inc., 2016 WL 7324170, at *18 (Del. Ch. Dec. 16, 2016) ("[A]fter the Board receive[d] five unsolicited indications of interests, . . . [it] decided to solicit bids . . . ."); Merion Capital LP v. BMC Software, Inc., 2015 WL 6164771, at *14 (Del. Ch. Oct. 21, 2015) ("[T]he Company conducted a robust, arms-length sales process, during which the Company conducted two auctions . . . ."); LongPath Capital, LLC v. Ramtron Int’l Corp., 2015 WL 4540443, at *23 (Del. Ch. June 30, 2015) (The Company "authorized . . . its financial advisor, to market the Company to other potential acquirers and . . . contacted twenty-four third parties . . . ."); In re Appraisal of Ancestry.com, Inc., 2015 WL 399726, at *3 (Del. Ch. Jan. 30, 2015) ("Given the board's go-ahead, the auction process commenced . . . [and the financial advisor] reached out to a group of potential strategic buyers and financial sponsors . . . ."); Huff Fund Inv. P'ship v. CKx, Inc., 2013 WL 5878807, at *13 (Del. Ch. Nov. 1, 2013) ("The Board and its advisors successfully instigated a bidding war for CKx and also canvassed the market for other potentially interested bidders."), aff'd, 2015 WL 631586 (Del. Feb. 12, 2015); Union Illinois 1995 Inv. Ltd. P’ship v. Union Fin. Grp., Ltd., 847 A.2d 340, 350 (Del. Ch. 2004) ("The evidence supports . . . an active auction . . . to an array of
logical bidders.").
The bottom line: absent a robust market check (which was not present here), even Delaware law would not allow reliance on the deal price as evidence of fair value, and the Business Court's decision to do so should be reversed.

\section*{2. The Business Court Improperly Confused the Statutory Appraisal Remedy with Common Law Claims for Breach of Fiduciary Duty}

The Business Court further erred by confusing the statutory appraisal remedy with common law remedies for breach of fiduciary duty. The statutory appraisal requires an insider who has purchased (and now owns) the corporation to pay dissenting shareholders a price independently determined by generally accepted valuation techniques. \({ }^{28}\) A breach of fiduciary duty occurs when a director has engaged in conduct so egregious that he or she will have personal liability to shareholders. In a transaction the size of BAT's acquisition of RAI, it could mean billion-dollar personal judgments against individual directors. Because of the potentially ruinous personal liability, directors are given wide
\({ }_{28}\) Although the statute imposes the payment obligation on the Company that has been purchased, that price is paid indirectly by the insider who now owns the Company in question.
latitude in their conduct, which is protected by the "business judgment" rule. That a transaction may be a reasonable exercise of business judgment that does not give rise to liability to stockholders for breach of fiduciary duty does not mean the transaction is exempt from a statutory "fair value" determination.

The Business Court confused these fundamental legal principles. Relying on Delaware law, the Business Court concluded that "even without more aggressive outreach and a competitive auction, the resulting deal price is reliable evidence of RAI's fair value." (R pp 297-98

ब 347). In doing so, the Business Court summarized Delaware law by distinguishing an appraisal decision and relying on a breach-of-fiduciary duty opinion,
[a]lthough some Delaware decisions [such as Golden Telecom] have suggested that, in certain circumstances, unless there is a robust auction involving well-informed and unconstrained bidders, the transaction price is not a reliable indicator of fair value, the Delaware Supreme Court has not retreated from its long-held view that when 'the directors possess a body of reliable evidence with which to evaluate the fairness of a transaction, they may approve that transaction without conducting an active survey of the market.'
(R pp 287-88 『 329 (citing, inter alia, Barkan v. Amsted Indus., Inc., 567 A.2d 1279, 1287 (Del. 1989)). That is not an accurate statement of Delaware law as it applies to appraisal. The only Delaware Supreme Court decision cited by the Business Court to support that proposition was Barkan-a fiduciary duty case involving alleged breaches of the duty of loyalty and duty of care. Fiduciary duty cases do not, and cannot, control appraisal matters because while it is entirely possible that a board of directors can discharge its fiduciary duties without conducting a market check, a negotiation without a market check cannot provide sufficient evidence of fair value to justify dispensing with an independent valuation. \({ }^{29}\) That is, fiduciary duty cases are concerned with directorial wrongdoing, while in appraisal cases the sole question is one of valuation. See, e.g., Reis v. Hazelett Strip-Casting Corp., 28 A.3d 442, 455-56 (Del. Ch. 2011) ("A stockholder need not plead or prove any wrongdoing to

\footnotetext{
\({ }^{29}\) See Merion Capital L.P., 2016 WL 7324170 , at *15 ("Because the two inquiries are different, a sale process might pass muster for purposes of a breach of fiduciary claim and yet still constitute a sub-optimal process of an appraisal.") (emphasis added); In re Appraisal of Ancestry.com, 2015 WL 399726, at *16 (whether corporate directors satisfied fiduciary duties "is not dispositive of . . . whether that sale generated fair value" for appraisal); In re Orchard Enter., 88 A.3d 1, 30 (Del. Ch. 2014) ("A price may fall within the range of fairness for purposes of the entire fairness test even though the point calculation demanded by the appraisal statute yields an award in excess of the merger price.").
}
obtain the fair value determination."). In rendering its decision, then, the Business Court impermissibly confused conduct that withstands "breach of fiduciary duty" with conduct sufficient to dispense with an independent appraisal valuation.

Indeed, in holding that a transaction that does not constitute a breach of fiduciary duty need not be independently appraised, the Business Court effectively rendered the North Carolina appraisal statute superfluous. The Business Court's decision relies entirely on the process by which the \(\$ 59.64\) deal price was reached and not the substance of valuation. The Court defers to deal price-not because it is consistent with prices derived by independent valuation techniques, but because, inter alia, it "was negotiated at arm's length by independent, fully informed, and deeply knowledgeable directors with the assistance of independent and experienced advisors." ( R p 297 || 347). While such a process may be sufficient to protect against claims of fiduciary duty, it says nothing about whether the price was fair and whether the insider was privy to material information not available to other stockholders. If all that was required was process, then the North Carolina appraisal statute would have required that process and allowed appraisal only
when such a process was ignored. Instead, the statute requires appraisal whenever a transaction qualifies as an "interested transaction," and provides a statutory remedy that is not already available under common law.

The distinction between fiduciary duty law and appraisal rights law is particularly important here, where the Court has already opined on the impact of BAT's \(42 \%\) ownership of Reynolds in the fiduciary duty context in Corwin, 371 N.C. 605 (2019). There, this Court concluded that although BAT's \(42 \%\) stake gave it leverage and advantages not shared by other shareholders, those benefits were property rights that BAT owned and created no fiduciary duty to shareholders. Id. at 622. After Corwin, BAT was given the "green light" to use the leverage inherent in its large position and presence on the board without any fear of fiduciary duty to other shareholders. It did not shrink from the opportunity to flex its substantial muscle and announced-the day it made its offer-that it would not support any competing offers, even at higher prices. Having suppressed competitive bidding, BAT negotiated exclusively with the Board and ensured that the price was not higher than BAT was willing or able to pay. After Corwin, those advantages belonged to BAT and it
was entitled to their financial benefits. However, Corwin did not purport to eviscerate the protection provided by the appraisal statute, which provided the only legal remedy to shareholders to get a fair price for their stock when BAT exercised its leverage to buy RAI and stifle any competitive bids. By simply deferring to the price BAT agreed to pay, the Business Court below effectively removed the only remaining protection realistically available to shareholders after Corwin and contravened the expressed will of the legislature.

\section*{E. The Business Court Erred By Relying On Gompers’ "Adjusted Unaffected Stock Price" Analysis}

At trial, RAI presented the testimony of Dr. Paul Gompers in support of its valuation contentions. Gompers was the sole expert called by RAI, and he performed multiple analyses for RAI on which the Business Court relied. Among them, Gompers purported to "adjust" RAI's public trading price from the date BAT's acquisition proposal was announced through the Transaction Date and used that so-called "adjusted unaffected stock price" as a check on the valuation implied by the deal price. This testimony was fundamentally flawed at the outset for at least three reasons.

First, it assumed that the "unaffected" market price of RAI stock was an appropriate measure of fair value. As noted above, the unaffected market price of RAI stock could never have been a fair measure of inherent value because it failed to incorporate material non-public information that BAT had and the investing public did not. Specifically, BAT knew that RAI management-after the successful integration of Lorillard—was projecting strong 7-8\% growth in years six through ten of its ten-year projections. Moreover, BAT knew that RAI management had been authorized to purchase up to \(\$ 2\) billion of RAI stock on the public markets at prices up to \(\$ 65\) per share.

Second, the timing of BAT's offer appeared timed to take advantage of a \(12 \%\) sell-off in the price of RAI stock that occurred immediately prior to the offer. As RAI's own Financial Advisors observed, the timing of the offer was "opportunistic." (Doc. Ex. 6976, 7200)

Third, the unaffected market price did not reflect a control premium. The purchase of more than \(50 \%\) of a corporation's stock confers the valuable rights of control that inhere in a corporation including, for example the right to remove cash from the company through dividends
and the right to sell the company. For all of these reasons, the unaffected stock price of RAI stock was not a reliable measure of fair value.

However, even if one assumed that the unaffected market price of RAI stock could be used to determine fair value-and it should not-there remained substantial reasons to disregard it. In the first instance, even the unaffected market price reveals nothing about value unless and until one can demonstrate that it efficiently incorporates all available public information. Economists refer to such stocks as "semi-strong efficient". However, Gompers himself did not opine on the efficiency of the market for RAI stock. That task was supposed to be handled by Dr. Shivdasani, a different expert retained by RAI. At the last minute, RAI elected not to call Shivdasani at trial, stripping Gompers' conclusions regarding market price of any proper foundation.

In its Evidentiary Rulings, the Business Court held that Gompers' testimony on this point was admissible because (i) expert testimony is not necessary to establish market efficiency and (ii) Gompers did not in fact rely on Shivdasani's testimony. These conclusions are erroneous.

Taking the second point first, Gompers admitted in his deposition that he performed no independent analysis of RAI's market efficiency and in fact relied on Shivdasani:
Q. And you did not conduct your own analysis of the efficiency of the market for RAI's stock; is that correct?
A. That's correct.
Q. Okay. And you're relying entirely on Professor Shivdasani's opinions concerning the efficiency of that market, correct?
A. That's correct.
(R pp 690-91; App. 220-21). Gompers confirmed this fact at trial:
Q: Do you have an opinion, Professor, as to whether or not the market for RAI stock was efficient at the time of BAT's first offer?
A. No.
(T p 784:24-785:2; App. 140-41).
Accordingly, the Business Court was simply wrong in holding that "Gompers did not present any testimony regarding market efficiency that relied on another expert." (R p 323 【 12). Gompers' "adjusted unaffected stock price" analysis is relevant if and only if the efficiency of the market for RAI stock has been established. Otherwise, the trading price of RAI stock (adjusted or otherwise) has no connection to the fundamental value
of RAI. Given Gompers' own admissions regarding the predicate for his testimony, coupled with RAI's failure to introduce any testimony from Shivdasani, it was error for the Business Court to accept and rely on Gompers' "adjusted unaffected stock price" analysis. See, e.g., J.B. Hunt Transport, Inc. v. Gen. Motors Corp., 243 F.3d 441, 444-45 (8th Cir. 2001) (affirming exclusion of testimony by expert whose testimony was "inextricably linked" to testimony from a different expert whose testimony had been excluded by the trial court); Beck's Office Furniture \& Supplies, Inc. v. Haworth, Inc., 1996 WL 466673, at *7 (10th Cir. Aug. 16, 1996) (holding that experts "may not merely parrot the opinions of other experts whose conclusions are not themselves in the record"); Fosmire v. Progressive Max Ins. Co., 277 F.R.D. 625, 630 (W.D. Wash. 2011) ("[The] rules do not permit an expert to rely upon opinions developed by another expert for purposes of litigation without independent verification of the underlying expert's work."); GWTP Invs., L.P. v. SES Americom Inc., 2007 WL 7630459 , at *5 (N.D. Tex. Aug. 3, 2007) ("An expert may rely upon figures calculated by another expert so long as he conducts an independent investigation of those figures."); JRL Enters., Inc. v. Procorp Assocs., Inc., 2003 WL 21284020, at *5 (E.D. La.

June 3, 2003) (excluding testimony where expert testified that "he conducted no independent investigation of the[ ] numbers" provided to him).

The Business Court also erred when it concluded that expert testimony was unnecessary to demonstrate market efficiency. The Business Court cited Delaware case law indicating that there are various criteria that other state courts have considered in analyzing market efficiency. (R pp 322-23 【 11). But the Business Court omitted the fact that Delaware courts have held that expert testimony is required to establish market efficiency. See, e.g., Stillwater, 2019 WL 3943851, at *50 ("Assessing the reliability of the trading price for [the company's] common stock . . . is one such place where law-trained judges should not go without the guidance of experts trained in these disciplines.") (internal citation and quotations omitted). In each of the appraisal decisions cited by the Business Court, expert testimony was used to establish market efficiency. See Jarden, 2019 WL 3244085, at *27 (discussing testimony of Dr. Glenn Hubbard); Solera, 2018 WL 3625644, at *24 n. 319 (discussing expert report of Dr. Glenn Hubbard). The Business Court's
conclusion that market efficiency in an appraisal case can be established without resort to expert testimony appears to be unprecedented.

Equally problematic are the factors on which the Business Court relied in accepting RAI's contention that the Company traded in an efficient market (and, in consequence, overruling Appellants' objections to Gompers' market-based testimony). RAI pointed to the so-called "Cammer Factors" as supporting market efficiency, and the Business Court applied the Cammer Factors. But the Cammer Factors are illsuited to determine whether a corporation's trading price accurately reflects its intrinsic value, which is the focus of appraisal litigation. The Cammer Factors were developed in connection with the "fraud on the market" theory ("FOTM") in federal securities fraud litigation, which assumes that "the market price of shares traded on well-developed markets reflects all publicly available information" such that "whenever the investor buys or sells stock at the market price, his reliance on any public material misrepresentations may be presumed." Halliburton Co. v. Erica P. John Fund, Inc., 573 U.S. 258, 267-68 (2014) ("Halliburton \(I I^{\prime}\) ). If successfully employed, FOTM triggers a rebuttable presumption of reliance at the class certification stage. Id. FOTM was adopted as a
policy matter to encourage private securities fraud suits; without it, class certification would be virtually impossible and without the possibility of class treatment, fraudulent activity would go unaddressed. Halliburton II, 573 U.S. at 267-68; see also Tellabs, Inc. v. Makor Issues \& Rights, Ltd., 551 U.S. 308, 321 n. 4 (2007) ("[P]rivate securities litigation [is] an indispensable tool with which defrauded investors can recover their losses-a matter crucial to the integrity of domestic capital markets") (internal citation and quotations omitted).

Unlike in an appraisal, courts addressing securities fraud claims are not concerned with whether stock prices reflect fundamental value. Instead, they are focused on whether the market is reacting in some form or fashion to new information that enters the market to correct a previously false or misleading statement. That inquiry sheds no light whatsoever on what the "true value" or "fair value" of the stock is. Accordingly, the Cammer Factors are not designed or intended to identify markets in which trading price is a reliable proxy for fundamental value. Halliburton II, 573 U.S. at 272 ("the precise degree to which stock prices accurately reflect public information" is irrelevant to FOTM). FOTM requires only that information affects market prices-
not that market prices are accurate or react "correctly" to new information. See Halliburton II, 573 U.S. at 271-72 (FOTM does not "adopt any particular theory of how quickly and completely publicly available information is reflected in market price") (citation omitted); Brief of Securities Law Professors as Amici Curiae in Halliburton II, 2014 WL 507165, at *15-18 (discussing academic debate over market efficiency and concluding: "That prices may be inaccurate does not detract from the fact that false information affects those prices, which is all that [FOTM] requires."). In short, the Cammer Factors are not a reliable tool for identifying the type of market efficiency that matters in appraisal litigation, and the Business Court's use of the Cammer Factors to justify reliance on Gompers' market-based testimony and conclusions was erroneous. The limitations of the Cammer Factors are why they are not used in the damages phase of securities fraud litigation (i.e., when the plaintiff must prove that defendants' misrepresentations in fact affected the market price). Instead, expert testimony sufficient to establish actual class-wide harm is necessary to prove damages in securities fraud litigation. See, e.g., In re Imperial Credit Indus., Inc. Sec. Litig., 252 F. Supp. 2d 1005, 1014-15 (C.D. Cal. 2003) ("Because of the need 'to
distinguish between the fraud-related and non-fraud related influences of the stock's price behavior,' a number of courts have rejected or refused to admit into evidence damages reports or testimony by damages experts in securities cases which fail to include event studies or something similar." (citations omitted)), aff'd sub nom. Mortensen v. Snavely, 145 F. App’x 218 (9th Cir. 2005).

Notably, even when used at the appropriate stage of securities fraud cases to establish FOTM, the Cammer Factors must be predicated on expert testimony-most typically, an event study showing that the trading price of a particular security immediately (and with the correct magnitude) incorporated any new news released into the public sphere. See, e.g., In re Federal Home Loan Mortg. Corp. Sec. Litig., 281 F.R.D. 174, 178-79 (S.D.N.Y. 2012); (T pp 1878:21-1881:17 (uncontroverted trial testimony of Appellants' expert explaining the use of event studies to examine market efficiency and key elements of price movements in the "correct" direction and immediate incorporation of new information); App. 162-65). Shivdasani performed an event study, but as noted above, RAI strategically declined to present him at trial. All RAI offered to establish market efficiency was Mr. Wajnert's testimony that he
"observe[d] over time the Reynolds stock price reacting to decisions that the board had taken in a positive way or negatively" and Mr. de Gennaro's unremarkable testimony that there was "[n]o indication that the market wasn't absorbing news on a regular basis." (T pp 59:10-17, 215:15-23; App. 13, 41). This testimony failed even to establish that RAI's stock price moved in the correct direction in response to new information or that the information was incorporated quickly. Tellingly, Gompers admitted that such observations are insufficient to establish market efficiency—an undisputed fact that the Business Court simply ignored. (T pp 833:23-834:22; App. 145-46).

For all of these reasons, Gompers' "adjusted unaffected stock price" analysis was castle built on air-a conclusion without the necessary predicate evidence-that never should have been admitted, let alone relied on by the Business Court in determining the fair value of RAI as of the Transaction Date.

\section*{F. Even if the Business Court Could Have Relied on Gompers' "Adjusted Unaffected Stock Price" Analysis, the Business Court Erred by Failing to Include a Control Premium in its Valuation of RAI}

As noted above, RAI's unaffected stock price did not reflect a control premium. The Business Court's failure to account for that premium is
particularly inappropriate here, where the North Carolina appraisal statute mandates that fair value be determined without "discounting for lack of marketability or minority status." N.C.G.S. § 55-13-01(5). Public stocks trade with an inherent minority discount because shares purchased in the market cannot confer the substantial benefits of corporate control. Such benefits include the power to extract cash from the corporation (through dividends), the power to hire management, the power to sell assets and even the power to sell the corporation itself. Accordingly, any market-based appraisal valuation must correct for the implicit minority discount by adding back a control premium to arrive at going concern value. See, e.g., M.G. Bancorporation, Inc. v. Le Beau, 737 A.2d 513, 523 (Del. 1999) (rejecting market-based valuation approach in Delaware appraisal action that failed to account for inherent minority discount); Prescott Grp. Small Cap, L.P. v. Coleman Co., Inc., 2004 WL 2059515, at *23 (Del. Ch. Sept. 8, 2004) (holding that implicit minority discount must be accounted for in appraisal valuations by adding back a control premium and noting that the Delaware courts typically employ a premium around \(30 \%\) ). Indeed, RAI's own expert conceded at trial that
the "minority discount" is the "flip of the control premium." (T p 786:1518; App. 139).

The Business Court, however, ignored Gompers' concession and the prior judicial decisions from North Carolina's sister states that address the issue, concluding (with citation to an irrelevant snippet of Gompers' testimony and a law review article) that the implicit minority discount does not exist in publicly-traded corporations. (R pp 300-01 ब 354). This was erroneous.

The portion of Gompers' testimony cited by the Business Court discussed whether a discounted cash flow valuation must be adjusted to take account of an implicit minority discount. (T p 787:1-9; App. 140). A DCF valuation is not a metric based upon the price of publicly-traded stock, and so it does not need to take account of the inherent minority discount that exists in the prices of publicly-traded shares. The Delaware decisions addressing the implicit minority discount have long recognized this distinction. Compare, e.g., Lane v. Cancer Treatment Ctrs. of Am., Inc., 2004 WL 1752847, at *23 \& n. 160 (Del. Ch. July 30, 2004) (holding that valuation based on "streams of income," such as a DCF valuation, need not be adjusted to eliminate a minority discount) with id. at *35
(holding that a comparable companies valuation, which is based on the prices of publicly-traded stock "suffers from an inherent minority discount" and must be adjusted to add back a control premium). In short, the Business Court's conclusion is based on an apples-and-oranges comparison of cash-flow or income-based valuations (which do not need to be adjusted to remove a minority discount) and publicly-traded-stock-price-based valuations (which do). The market-based valuation metrics adopted by the Business Court (trading price and adjusted trading price) reflect a minority discount that, under the express terms of N.C.G.S. § 55-13-01(5), must be accounted for.

The Business Court's reliance on Professors Hamermesh and Wachter's article chronicling the history of Delaware's treatment of the implicit minority discount is equally mistaken. In Delaware, the appraisal statute provides only that stockholders seeking appraisal are entitled to "fair value." The specifics of what "fair value" means have been developed over the years through judicial precedent, not filled in by the Delaware General Assembly. See, e.g., Lawrence A. Hamermesh \& Michael L. Wachter, The Short and Puzzling Life of the "Implicit Minority Discount" in Delaware Appraisal Law, 156 U. Pa. L. Rev. 1, 13-15 (2007).

The Delaware courts have held that appraisal "fair value" means a stockholders' pro rata share of the "going concern" value of a corporation. See id. at 25-30. To the extent certain Delaware decisions have backed away from including a control premium in market-based appraisal valuations, they have done so on the theory that "going concern" value should reflect whatever minority discount inheres in the market price of a corporation's stock. See id. at 53. Accordingly, whatever one may think of the merits of the evolution of Delaware appraisal jurisprudence, the North Carolina appraisal statute prohibits Delaware's embrace of a concept of appraisal "going concern" value that permits a minority discount to be included in the valuation.

The Business Court also failed to take account of the import of this Court's prior decision in Corwin v. British Am. Tobacco plc, 371 N.C. 605. There, this Court upheld the dismissal of claims that, inter alia, alleged that BAT had taken control of RAI without payment of a control premium. See id. at 624. This Court concluded that BAT was not actually RAI's controller as of 2018, and was unconcerned about the nonpayment of a control premium in connection with BAT's maintenance of its \(42 \%\) stake in RAI after the Lorillard Transaction (and other alleged
fiduciary violations) as a result. See id. By refusing to add back a control premium to its market-based valuation of RAI below, the Business Court deprived RAI's stockholders of ever obtaining the control premium to which they would have been entitled in a true arm's length transaction in a sale to take RAI private. That is, the Business Court's approach to valuing RAI in the appraisal action is exactly what the Corwin dissenters were concerned with—and what the Corwin majority predicted would not occur-that BAT was able to "get the milk without buying the cow." See id. at 754.

The Court below found that BAT did not have to pay a control premium under the statute because "control" constituted "appreciation or depreciation in anticipation of the corporate action," which must be excluded from the valuation. That is nonsense. Control is inherent in the corporation and does not come into existence as a result of the transaction at issue. For example, control includes the ability to declare dividends and withdraw cash from the corporation, the power to replace management or to sell assets. Corporations have the power to do each of these valuable acts without the necessity of an impending takeover. The corporation always has these powers but an individual shareholder
cannot exercise them because it is ordinarily represents only a small minority of outstanding shares. In order to illustrate the point, assume a shareholder owned 48 shares of a 100 -share corporation. To purchase the \(49^{\text {th }}\) share, the shareholder would not pay a premium, because he or she would have no greater power to control the corporation. However, the \(50^{\text {th }}\) share would be much more valuable and the buyer would be willing to pay a premium to purchase it. "Control" of the corporation is always present, but is simply widely diffused among a populous shareholder base.

The idea that a corporation should be valued without consideration of the appreciation or depreciation in anticipation of the corporate action," is meant simply to value the company without regard to any increase or decrease in the value of the company that arises by virtue of the transaction. A typical example of such a value is the value of synergies. In RAI's acquisition of Lorillard, it expected (and obtained) over \(\$ 800\) million of decreased costs as the two companies combined and eliminated duplicative manufacturing plants, sales forces and administrative expenses. Obviously, in valuing RAI one would not take into account the synergies that would be saved in the expected
transaction. However, corporate control does not arise by virtue of an expected transaction-it is always present. To suggest that the appraisal statute directs the Court to exclude a control premium makes no sense at all. It would mean that every shareholder of a publicly-traded company would get a control premium in the context of a merger, but dissenting shareholders would forfeit such a right. If that were the law, it would be difficult to understand why any shareholder would exercise his or her appraisal right.

\section*{III. THE BUSINESS COURT ERRED IN FINDING DEFENDANTS' DCF TO BE UNRELIABLE EVIDENCE OF FAIR VALUE}

Both parties' valuation experts agreed that a DCF is the most widely accepted corporate valuation technique and is the generally accepted method used to value a corporation. (R p 301 ब 357). It is used by \(100 \%\) of stock analysts and financial advisors rendering fairness opinions to public companies. Despite the uniform agreement that it is the most widely accepted valuation technique, only Appellant's expert actually conducted a DCF. Moreover, while each of the Financial Advisors performed a DCF, they used only five-years of cash flow and valued the Company only as of the deal date and not the Transaction

Date. Appellants put forth a valuation expert who conducted a DCF valuation to value RAI, as statutorily required, as of the Transaction Date. At trial, "[t]he parties \(\mathrm{d}[\mathrm{id}]\) not dispute that a DCF is a reliable methodology, and no evidence was introduced . . . that a DCF is not a 'customary and current valuation technique." (R p 250 ब 240 (citing
N.C.G.S. § 55-13-30(c)(5)). The Business Court nevertheless found Appellants' expert's DCF valuation unreliable based on an assessment that finds no basis in the evidence in the record. \({ }^{30}\)

\section*{A. RAI Management's Cash Flow Projections Were Sufficiently Reliable for a Valuation Analysis}

The DCF is an extraordinarily simple and straightforward valuation. It starts with the assumption that any corporation is worth the present value of its expected future cash flows. Accordingly, a DCF analysis calculates the future cash flows and discounts them to present value. It then divides the present value by the number of shares outstanding to arrive at a per share value.

\footnotetext{
\({ }^{30}\) Before the Business Court, there was no dispute as to the inputs for the standard DCF valuation model: (1) the magnitude and timing of the expected free cash flows for a finite period; (2) the weighted average cost of capital ("WACC"); and (3) the anticipated long-term growth rate of the free cash flows after the finite period. ( R p 250 ब 240). Further, the WACC was not materially disputed. (R pp 268-69 ब 285).
}

The first step in every DCF is thus to calculate expected future cash flows for a finite period. The best evidence of such cash flows is projections prepared by management and relied on in the ordinary course of business. Since such projections are used to make actual business judgments, management has an incentive to project financial performance and cash flow as accurately as possible. Moreover, when such projections are not made in the context of a litigation, they are more reliable. For this reason, when performing DCF valuations, Delaware courts uniformly evince a strong preference for "contemporaneously prepared management projections," because management "ordinarily has the best first-hand knowledge of a company's operations." Doft \& Co. v. Travelocity.com, 2004 WL 5366732, at *5 (Del. Ch. May 20, 2004); see also, e.g., Cede \& Co. v. Technicolor, Inc., 2003 WL 23700218, at *7 (Del Ch. Dec. 31, 2003) ("When management projections are made in the ordinary course of business, they are generally deemed reliable."). Delaware courts have consistently rejected projections created for litigation. See, e.g., LongPath, 2015 WL 4540443, at *18 (management projections unreliable where they were prepared in "anticipation of future disputes"); Owen \(\quad\). Cannon,

2015 WL 3819204, at *21-22 (Del. Ch. June 17, 2015) (rejecting "after-the-fact projections" that were "tainted by hindsight bias," including due to post-litigation interviews of corporate management by the testifying expert) (collecting cases); Gearreald v. Just Care, Inc., 2012 WL 1569818, at *4 (Del. Ch. Apr. 30, 2012) (projections not credible where made "outside of the ordinary course of business" "when the possibility of litigation, such as an appraisal proceeding, was likely"). Ordinary-course management projections are consistently used over those created for use in appraisal proceedings. See, e.g., Cede \& Co. v. JRC Acquisition Corp., 2004 WL 5366085, at *2 (Del. Ch. Feb. 10, 2004) ("[T]his Court prefers valuations based on management projections available as of the date of the merger and holds a healthy skepticism for post-merger adjustments to management projections or the creation of new projections entirely."); Gray v. Cytokine Pharmasciences, Inc., 2002 WL 853549, at *8 (Del. Ch. Apr. 25, 2002) ("In sum, I cannot accept that [the expert] . . . was better equipped to make future financial projections than [the company's] management. Consequently, I find [the expert's] litigationdriven projections to be unreliable and, thus, disregard his DCF analysis.) Any other result would "condone allowing a company's
management or board of directors to disavow their own data in order to justify a lower valuation in an appraisal proceeding." Id.

The record showed that RAI invested an enormous amount of time and energy creating its projections and regularly updating them to ensure they were the very best view it had in connection with the future financial performance of the Company and expected cash flow. (See R pp 195 § 123, 198-205). On an annual basis, it prepared detailed projections supporting its five-year Operating Plan and its ten-year Strategic Plan. RAI created each of those forecasts in a rigorous, bottoms-up process that involved the input of hundreds of RAI employees. (Doc. Ex. 757374). And, RAI management actually used and relied upon its projections in the conduct of its business, including when it decided to pay up to \(\$ 65\) per share in its \(\$ 2\) billion share buy-back approved just months before BAT launched its offer. (R pp 212-14; T pp 149:8-150:3; App. 34; Doc. Ex. 2072).

The Financial Advisors performed DCF valuations that the Business Court concluded were "reliable and . . . persuasive evidence" of the fair value of RAI, (R p 305 § 363 ) —even though (i) they were based on only five years of projected cash flow and assumed growth rates for
years six through ten that were far lower than the cash flows projected by RAI for those years and (ii) they calculated "present value" at the deal date, not the closing date. \({ }^{31}\) After RAI entered into the merger agreement, it continued to update its financial projections in the ordinary course of business. Accordingly, the Company created an LE (latest estimate) in July 2017-the same month as the closing. Although Appellants' expert calculated RAI's free cash flows for the period 2017-

\section*{2022 using management's most recently updated financial} projections at the time of the closing, RAI's July 2017 LE, the Court concluded-without analysis or explanation-that his DCF was based on "projections unsuited for valuation analysis." (R p 305 ब 364).

In doing so, the Business Court found that RAI's projections were not probability-weighted to account for certain downside risks that "would have a dramatic, negative effect on the Company's growth and profitability" if they materialized. (R pp 251 ब 244,256 © 254). Those "downside risks"-including the potential for adverse regulation on
\({ }^{31}\) Management gave the Advisors five-year projections (the October 2016 LE created in the ordinary course) and updated them with certain "Top-Side Adjustments" or "Management Overlays." RAI management represented to the Financial Advisors and to the public that those projections were the best estimates of its future performance over the next five years (see R pp 206 ब 146, 254 ब 249).
menthol cigarettes, increased taxes, or other competitive effectshowever, were both unknown and unquantifiable. (See T pp 730:21731:3). By definition, no projections could be "probability-weighted" to account for these possibilities, but that does not undermine a valuation that uses them as an input. See Matthew v. Laudamiel, 2015 WL 5723985, at *18 (Del. Ch. Sept. 28, 2015) ("[T]he Court does not factor in events or facts unknowable as of the relevant date for valuation purposes[.]") All businesses face "headwinds," including legal and regulatory uncertainty and competitive pressures. And all forecasts are uncertain, because they project future cash flows. That is true of every forecast used in every DCF; their "uncertainty" does not render them unreliable or biased.

Moreover, the threat of enhanced regulation (including of menthol and nicotine) has been present in the industry for at least ten years. Despite those headwinds, RAI continued to experience robust growth because the actual impact of regulation has been to erect barriers to entry, protecting the U.S. market from competition and allowing the formation of oligopoly pricing. The tobacco industry has historically demonstrated the ability to increase profits despite increased regulation.

A key part of that resilience is that cigarettes are addictive, making demand very inelastic. Indeed, despite the convenient refrain that its projections were not reliable-and were instead optimistically and unrealistically assuming that it would be "business as usual"-four years have passed since BAT made its offer and there has been no increased regulation of menthol or disruption of the tobacco industry. In other words, it has been "business as usual."

Finally, the unknowable and unquantifiable risks and sensitivities not included in RAI's ordinary course projections included both downside risks and upside opportunities. (See, e.g., Doc. Ex. 5328). Among the "upside" opportunities was the likelihood of corporate tax reform, which was not reflected in the projections. Unlike the unquantifiable prospect of, for example, increased menthol regulation, the probability of corporate tax reform as of the Transaction Date was an estimated 65\% (a probability-weighted value of \(\$ 14\) per share). (T p 1279:11-1281:17; App. 172-74). The upside of corporate tax reform, then, supplied a significant counterweight to any increased possibility of regulation and undermines the Business Court's conclusion that Dr. Zmijewski's DCF—which relied on management's most recent projections-was not suitable for
valuation.

\section*{B. Appellants' Expert Used the Most Appropriate LongTerm Growth Rate Because it was Based on the TenYear Projections}

The Business Court further erred in its conclusion that PGR used in Dr Zmijewski's DCF was "unsupported by credible and persuasive evidence." (R p 305 『 364).

Dr. Zmijewski's DCF used the a growth rate of \(2.2 \%\) (inflation) that after a projected five-years of cash flow. The blended long-term growth was calculated by tobacco industry expert Dr. Fredrick Flyer. Dr. Flyer's blended PGR, in turn, was based on a calculation that began with management's own ten-year projections, which forecasted high, singledigit growth of \(7-8 \%\) in years six through ten. As discussed above, those ten-year projections were generated via a rigorous, bottoms-up process and represented management's best estimate of future growth in those years. After management's ten-year projection period, Dr. Flyer calculated and applied a conservative PGR of 1\%, in line with those rates used by the Financial Advisors. Flyer testified that although the tobacco industry is in secular decline, RAI has declined at a slower rate than the overall industry because of its brands such that, to offset volume declines
as high as \(3 \%\) (which is higher than RAI's expected decline of \(2.4 \%\) ), RAI would only have to raise prices about \(3.5 \%\)-approximately \(1.5 \%\) above the rate of long-term inflation-in order to grow at 1\% per year into perpetuity. (R p 265 【 275). Dr. Flyer's cogent, company-specific calculation of RAI's long-term growth rate was the only such evidence presented at trial.

Dr. Flyer's calculation (and Dr. Zmijewski's application of a PGR of \(2.2 \%\) ) are consistent with mainstream finance theory, which holds that a long-term perpetuity growth rate should be between the rate of long-term inflation and long-term gross domestic product-or between \(2-5 \%\). See Merion Capital, L.P. v. 3M Cogent, Inc., 2013 WL 3793896, at *21 (Del. Ch. July 8, 2013) (citing Bradford Cornell, Corporate Valuation: Tools for Effective Appraisal and Decision Making 146-47 (1993)).

Delaware courts have acknowledged this generally-accepted valuation precept holding that "[a] viable company should grow at least at the rate of inflation," which is "the floor for a terminal value estimate for a solidly profitable company that does not have an identifiable risk of insolvency." Golden Telecom, 993 A.2d at 511. And Delaware courts repeatedly have endorsed the use of terminal or perpetuity growth rates
based on a premium to long-term inflation in DCF analyses, \({ }^{32}\) even where the relevant industry was in so-called "secular decline." Towerview LLC v. Cox Radio, Inc., 2013 WL 3316186, at *16, *27 (Del. Ch. June 28, 2013); see also JRC, 2004 WL 286963, at *6 (adopting perpetuity growth rate \(1.0 \%\) above inflation for tobacco company).

None of the Financial Advisors-whose DCFs the Business Court accepted-were industry experts or conducted any analysis of RAI's expected growth rates. Moreover, none of the Financial Advisors had possession of the ten-year projections that formed the basis of Dr. Flyer's calculation. In fact, Lazard began its analysis with the same growth rate assumptions it used in connection with the Lorillard Transaction, despite its acknowledgement that the growth rate for RAI in July of 2016 was \(50 \%\) higher than at the time of the Lorillard Transaction, and despite that, in connection with the Lorillard Transaction, Lazard applied that growth rate after nine years of projections. (T pp 297:4-15, 309:18-

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\({ }^{32}\) See, e.g., In re AOL Inc., 2018 WL 1037450, at *19 (adopting 3.5\% perpetuity growth rate where the long-term inflation rate was \(2.3 \%\) and the long-term GDP growth estimate was 4.6\%); In re Appraisal of SWS Grp., Inc., 2017 WL 2334852, at *16 (Del. Ch. May 30, 2017) (adopting 3.35\% "as the proper terminal growth rate" where it was "derived from the midpoint of the long term-expected inflation rate of \(2.3 \%\) and the long-term expected economic growth rate of the economy at large of 4.4\%").
}

311:18, 312:24-313:7, see DX0394 at .0003). Mr. DeGennaro testified that application of the same growth rate ( -0.5 to 0.5 ) was reasonable in connection with the Merger because "[Lazard's] view of the long-term prospects of the industry" had not changed since the Lorillard Transaction-a rationale that ignores his own admission that the perpetuity growth rate must be company-specific, not industry-specific.

Dr. Flyer's growth rate calculation incorporated the RAI's actual forecasted growth in years' six through ten, and was consistent with the directive of mainstream finance theory and appraisal jurisprudence (as well as JPM's observations) that growth should drop gradually to the long-term, steady-state growth rate. Absent some expected calamity, it is inappropriate to assume that overnight a mature, solvent company experiencing year-over-year growth will experience a "cliff-like" drop in growth just five years into the future. Absent some clear and palpable threat to financial solvency (which is not present here), a growth rate between inflation and long-term GDP is appropriate. As such, the Business Court's conclusion to the contrary was in error.

\section*{IV. THE BUSINESS COURT ERRED BY RELYING ON GOMPERS' TESTIMONY IN VALUING RAI}

As explained above, the Business Court should have disregarded Gompers' market-price-related testimony. It also should have drawn an adverse inference against RAI based on the Company's decision to hide its own expert's testimony from the Business Court. Instead, the Business Court accepted and relied on Gompers' "adjusted unaffected price" analysis, which was erroneous.

Moreover, Gompers served as a mouthpiece for RAI's and BAT's investment bankers, who had performed valuations of RAI in connection with the Merger. Specifically, Gompers testified that part of his assignment was to evaluate the DCF analyses performed by Lazard, JPM, and Goldman Sachs. (T p at 723:20-25; App. 98). Gompers then proceeded to offer extensive testimony about the reliability of the financial advisors' analysis and his agreement with the testimony of RAI management. (See, e.g., T pp 724:4-735:23; 745:21-746:6; 751:3-25; 754:24-756:18, 759:23-760:22, 767:5-20; App. 99-110, 120-36). None of this was proper expert testimony because experts cannot merely vouch for the opinions of others. Yet, the Business Court erroneously overruled

Appellants' objections on this point and accepted Gompers' effort to prop up the bankers' valuation analyses.

Finally, Gompers attempted to summarize the factual record, characterized the testimony of various lay witnesses, and smuggled in hearsay in the form of analyst reports. (See, e.g., T pp 731:6-733:7, 735:824, 760:14-22; 801:21-803:8; App. 106-08, 110, 135, 142-44). For reasons similar to those that should have barred Gompers' improper vouching for the investment bankers' analyses, RAI's use of Gompers to provide an expert imprimatur to fact witness testimony and to bring hearsay evidence in through the back door was improper, and Appellants' objections on these points should have been sustained below.

\section*{A. The Business Court Erred By Failing To Apply The "Missing Witness Rule" Against RAI}

After the close of fact discovery, RAI disclosed to Appellants that it had retained Shivdasani as a testifying expert. Shivdasani's expert report, served on 22 February 2019, opined that the economic evidence was consistent with RAI stock trading in a semi-strong efficient market. Underlying this opinion was an event study analyzing seven events. Shivdasani was deposed on 19 April 2019. At no point during the expert discovery process did RAI indicate in any way that it no longer intended
to call Shivdasani at trial. Instead, approximately two hours prior to the deadline for submission of the parties' pretrial briefs, proposed findings of fact and conclusions of law, and proposed joint pretrial order RAI disclosed to the Appellants for the first time that RAI no longer intended to call Shivdasani at trial. This eleventh-hour decision was tactical. RAI realized that Shivdasani's testimony would harm its case because: (i) his event study demonstrated that RAI's market was inefficient; and (ii) Shivdasani suffers from significant credibility problems.

Because of RAI's belated attempt to abandon Shivdasani as a testifying expert, Appellants asked the Business Court to apply the socalled "missing witness rule" and to draw an inference that Shivdasani's testimony would have been adverse to RAI. McCormick on Evidence § 264 (7th ed. 2016) ("When it would be natural under the circumstances for a party to call a particular witness . . . and the party fails to do so, tradition has allowed the adversary to use this failure as the basis for invoking an adverse inference."). The missing witness rule is recognized in North Carolina and has been characterized as "similar" to "the wellestablished principle of 'spoliation of evidence."' McLain v. Taco Bell Corp., 527 S.E.2d 712, 715-16 (N.C. Ct. App. 2000) (quoting Yarborough
v. Hughes, 51 S.E. 904 (N.C. 1905)); see also Cuthrell v. Greene, 50 S.E.2d 525, 529 (N.C. 1948) (collecting decisions). The Business Court declined to apply the missing witness rule, reasoning that (i) the rule should not apply to expert witnesses and (ii) the rule does not apply because Appellants could have introduced Shivdasani's deposition testimony. These conclusions were erroneous.

The Business Court stated that "North Carolina courts have never suggested that the missing witness rule should apply to expert witnesses." (R p 327 ब 19). While true, that statement also is incomplete-until the Business Court's ruling below, no North Carolina court had been asked to apply the missing witness rule to an expert. The fact that the question is one of first impression in North Carolina does not support the Business Court's refusal to draw an adverse inference in this case. Moreover, while there are two decisions (both cited by the Business Court; see R p 327 © 19) in which the missing witness rule was held inapplicable to experts, the weight of authority-and the betterreasoned set of decisions-is to the contrary. The Business Court's Evidentiary Rulings fail to mention-let alone address-the litany of instances in which North Carolina's sister states have applied the
missing witness rule to experts. See, e.g., Taylor v. Kohli, 642 N.E.2d 467, 469-70 (Ill. 1994) (holding that missing witness rule applies to experts unless notice of abandonment of the expert is "given in reasonable time prior to trial"); DeVito v. Feliciano, 1 N.E.3d 791, 795-96 (N.Y. 2013) (reversing based on failure to give missing witness instruction); Cler v. Providence Health Sys., 245 P.3d 642, 647 (Ore. 2010) (holding that missing witness rule was applicable to nurse expert); State v. Ross, 646 A.2d 1318, 1338 (Conn. 1994) (holding that missing witness instruction permitting adverse inference against defendant in criminal case who failed to call psychiatric experts was proper notwithstanding psychiatrist-patient privilege); Kovach v. Solomon, 732 A.2d 1, 8-12 (Pa. Super. Ct. 1999) (applying missing witness rule to physician expert); Dickey v. McCord, 63 S.W.3d 714, 722 (Tenn. Ct. App. 2001) ("We note, however, that the Business Court premised its decision on an erroneous belief that the missing witness rule does not apply to experts, when, in fact, it does indeed apply to expert witnesses."). \({ }^{33}\)

\footnotetext{
\({ }^{33}\) Although the missing witness rule frequently is applied in jury trials, it also is applicable in bench trials. See In re Adam K, 110 A.D.3d 168, 177-78 (NY App. Div. 2013) ("[T]he missing witness rule may be applied in a nonjury civil trial.")
}

If anything, applying the missing witness rule to experts makes even more sense-and is more equitable-than applying the rule to a missing fact witness. As noted by Professor McCormick, the logic behind the missing witness rule is that a party who fails to call "a witness reasonably assumed to be favorably disposed to [that] party" is hiding damaging evidence. McCormick on Evidence § 264 (citations omitted). The inference that a paid, testifying expert ought to be "favorably disposed to" the party that hired that expert—and that a failure to call the expert is an effort to bury damaging admissions- \(\alpha\) fortiori is stronger than the same inference for a fact witness. Before an expert is disclosed as a testifying expert, parties vet multiple candidates and gain an understanding of the scope of the opinions the expert expects to be able to provide. No party in civil litigation ever discloses a testifying expert unless and until the party believes the expert is "favorably disposed to" its view of the case. Stated differently, parties cannot choose their fact witnesses; the identities of the relevant, percipient witnesses are set before litigation ever begins. But a party not only can choose its expert, but also must pay that expert for the privilege of his or her testimony. The decision to withdraw a testifying expert essentially on the eve of
trial, without explanation, cries out for application of the missing witness rule. \({ }^{34}\)

The Business Court also justified its decision not to apply the missing witness rule by suggesting that Appellants could have introduced Shivdasani's deposition testimony at trial. (R p 327 ब 18). This rationale was a misapplication of certain decisions holding that the missing witness rule applies only if the witness is not equally available to both sides. (See id. \(\mathbb{1} 17\) (citing Dansbury v. State, 1 A.3d 507, 521 (Md. Ct. Spec. App. 2010) and State v. Montgomery, 183 P.3d 267, 278 (Wash. 2008))). No decision of which Appellants are aware has held that a witness is "equally available" to both sides based on the existence of deposition testimony. Each such decision-including the two cited by the Business Court-focused on whether the "missing" witness was available to be called live at trial. Indeed, both Dansbury and Montgomery were criminal cases; there were no discovery depositions involved.

\footnotetext{
\({ }^{34}\) There should be no concern in this case that application of the missing witness rule somehow would be unfair. Shivdasani's event study showed that RAI's market was inefficient-a point RAI did not contest below and that the Business Court failed to account for in its decision.
}

More to the point, a witness who is under the control of one party or believed to be biased in favor of that party is not "equally available" to the other side, regardless of physical availability. See, e.g., Simmons v. Univ. of Chicago Hosp. \& Clinics, 642 N.E.2d 107, 111 (Ill. 1994) ("A witness is not equally available to a party if there is a likelihood that the witness would be biased against him") (internal quotation marks and citations omitted); People v. Gonzalez, 502 N.E.2d 583, 587 (N.Y. 1986) ("Thus the fact that a witness is 'equally available' to both sides, standing alone, is insufficient to defeat a timely request" to apply the missing witness rule). As stated by Professor McCormick:

It is often said that if a witness is "equally available" to both parties, no inference springs from the failure of either to call the witness. This can hardly be accurate, as the inference may be allowed when the witness could easily be called or subpoenaed by either party. What is in fact meant is that when so far as appears the witness would be as likely to be favorable to one party as the other, there will be no inference.

McCormick on Evidence § 264. Shivdasani, as RAI's paid expert, was not "equally available" to Appellants as a matter of law, notwithstanding the existence of Shivdasani's deposition testimony or Appellants' theoretical ability to subpoena him.

\section*{B. The Trial Court Erred In Permitting Gompers To Vouch For The Work Of Others And To Insert Hearsay Into The Record}
"One of the worst abuses in civil litigation is the attempted spoonfeeding of client-prepared and lawyer-orchestrated 'facts' to a hired expert who then 'relies' on the information to express an opinion." Therasense, Inc. v. Becton, Dickinson \& Co., 2008 WL 2323856, at *1 (N.D. Cal. May 22, 2008). "There is no 'particular field' in which experts go along with this charade other than litigation. The field of testifying for a living is not what Rule 703 had in mind." Id. The sole expert that RAI called at trial, Professor Paul Gompers ("Gompers"), offered multiple categories of testimony that fit this description and that should have been excluded.

Gompers testified that part of his assignment was to evaluate the DCF analyses performed by Lazard, JPM, and Goldman Sachs. (T p 723:20-25). Gompers then proceeded to offer extensive testimony about the reliability of the financial advisors' analysis and his agreement with the testimony of RAI management. (See, e.g., id. at 724:4-735:23; 745:21746:6; 751:3-25; 754:24-756:18, 759:23-760:22, 767:5-20; App. 99-110, 120-36). Appellants objected to this testimony and sought its exclusion
because experts cannot merely vouch for the opinions of others. See, e.g., State v. Bullock, 2010 WL 4290134, at *3 (N.C. Ct. App. Nov. 2, 2010) ("[E]xpert testimony is not admissible to vouch for a witness's credibility."); FrontFour Capital Grp. LLC, v. Taube, 2019 WL 1313408, at *26 (Del. Ch. Mar. 11, 2019) ("Zenner did not opine on the value of Medley Capital, a fair price to acquire Medley Capital, or the value of the combined company if the Proposed Transactions were to occur. He opined that the process used by various investment banks was reasonable, but an expert cannot simply vouch for the work of someone else.") (citing Va. Power Energy Mktg., Inc. v. EQT Energy, LLC, 2012 WL 13034278, at *1 (E.D. Va. May 9, 2012)); Dura Auto. Sys. of Ind., Inc. v. CTS Corp., 285 F.3d 609, 613 (7th Cir. 2002) (Posner, J.) (holding that expert cannot "just parrot[ ]" the opinion of another expert or become another expert's "spokesman") (citations omitted), accord HealthOne of Denver, Ind. v. UnitedHealth Grp. Inc., 2012 WL 94678, at *6 (D. Colo. Jan. 12, 2012) (holding that "testimony . . . that attempts to bolster the legitimacy" of another expert's analysis "would be improper"); Ash Grove Cement Co. v. Employers Ins. of Wausau, 246 F.R.D. 656, 661 (D. Kan. 2007) (holding that an expert "may not simply parrot or recite the
opinions and knowledge of other expert and fact witnesses"); In re Wagner, 2007 WL 966010, at *4 (E.D. Pa. Mar. 29, 2007) ("The Federal Rules of Evidence do not permit experts to simply 'parrot' the ideas of other experts or individuals.") (citing Loeffel Steel Prods. v. Delta Brands, 387 F.Supp.2d 794, 824 (N.D. Ill. 2005)). RAI did not designate its financial advisors as experts, it was inappropriate for RAI to attempt to use them as back-door experts, and it was doubly inappropriate for RAI to use Gompers to provide an imprimatur of expert legitimacy to the investment bankers' work.

The Business Court overruled Appellants' objection on this point, concluding that "Gompers performed his own detailed, independent analyses using customary valuation techniques and relying on his training and expertise as a financial economist, to test the validity and reasonableness of the Financial Advisors' inputs, analyses, and valuations." (R pp 320-21 ब 9 (emphasis added)). But that is precisely the point-Gompers' vouching may have been carefully considered, but it was nonetheless vouching. The 'punch line' to the portion of Gompers' trial testimony related to the bankers' work was teed up through the following question: "So overall, now that we've marched through the
different inputs to the bankers' analyses, what conclusion did you draw about the reasonableness of the work that they did?" (T p 767:5-8). In short, Gompers was asked to bless the analyses conducted by RAI's investment bankers. That is not a proper function of expert testimony.

This case is analytically indistinguishable from FrontFour, 2019 WL 1313408, at *26, in which the Delaware Court of Chancery held that improper vouching occurred when an expert "opined that the process used by various investment banks was reasonable." The Business Court cited and purported to follow the holding of FrontFour as one example of improper expert vouching (see R p 320 If 8), but never attempted to distinguish the testimony in FrontFour from the testimony offered by Gompers. There is no distinction to be drawn. In both cases, the expert purported to carefully analyze the work of investment bankers who were not called as experts, which is the very definition of vouching. That Gompers applied his "training and expertise" to his evaluation of the bankers' work ( R pp320-21 ब 9) is irrelevant. If anything, doing so only makes the vouching more insidious because it provides an additional patina of legitimacy to the work of RAI's investment bankers-who were not called as expert witnesses in their own right.

Gompers also attempted to summarize the factual record, characterized the testimony of various lay witnesses, and was used as a conduit for hearsay analyst reports. (See, e.g., T pp 731:6-733:7, 735:824, 760:14-22; 801:21-803:8). For reasons similar to those that preclude Gompers from vouching for the analysis conducted by the financial advisors, Gompers' purported summation of the factual record, characterization of the testimony of others, and recitation of hearsay should have been excluded. See, e.g., State v. Robinson, 409 S.E.2d 288, 302 (N.C. 1991) (holding that hearsay testimony introduced through expert witness was inadmissible where expert did not render an opinion and the hearsay thus was offered for the truth of the matter); Factory Mut. Ins. Co. v. Alon USA L.P., 705 F.3d 518, 524 (5th Cir. 2013) ("Rule 703 was not intended to abolish the hearsay rule and to allow a witness, under the guise of giving expert testimony, to in effect become the mouthpiece of the witnesses on whose statements or opinions the expert purports to base his opinion.") (internal quotation marks and citations omitted); Sec. \& Exch. Comm'n v. Bankatlantic Bancorp, Inc., 2013 WL 12009694, at *12 (S.D. Fla. Nov. 14, 2013) ("James' purported fourth opinion consists of nothing more than a summary of the analysts'
reports.... Because James did not actually render an opinion, the probative/prejudicial prong of Rule 703 does not come into play and Defendants' attempt to gain admissibility of the hearsay analysts' reports through Rule 703 to rebut the SEC's securities fraud claims fails."); Gannett Co., Inc. v. Kanaga, 750 A.2d 1174, 1187-88 (Del. 2000) (discussing danger of expert testimony used as "back door" exception to hearsay rule).

The Business Court overruled Appellants' objections on these issues. As to the analyst reports, the Business Court acknowledged that they are hearsay but concluded that, because "analyst reports are frequently relied upon by valuation experts in appraisal actions," Gompers was entitled to "explain how the reports supported his conclusions." (R pp 324-25 Ф| 14-15). Respectfully, the Business Court's stated rationale puts the rabbit in the hat. Gompers did not offer an independent valuation of RAI, so the observation that analyst reports are relied upon by valuation experts is a non sequitur. The statement that Gompers explained how the analyst reports supported his conclusions both misconstrues the record and misstates the applicable legal rule. In appropriate circumstances, experts may rely on hearsay in conducting
their own analyses. But the very portions of the trial transcript cited by the Business Court prove that is not what occurred here.

In support of the proposition that Gompers "examined each individual analyst report and explained how the reports supported his conclusions," the Business Court cited the trial transcript at pages 729:24-730:9, 745:21-747:2, and 785:24-786:8. (R p 324 | 14). At the cited portions of pages 729 and 730 of the trial transcript, Gompers is discussing the cash flow projections used in RAI's investment bankers' valuations. Gompers did not rely on analyst reports to perform his own discounted cash flow analysis. Gompers did not perform a discounted cash flow analysis at all. Testifying that analyst reports buttress the investment bankers' work just compounds the impropriety of Gompers' testimony by combining vouching with back-door hearsay.

At the cited portions of pages 745 through 747 of the trial transcript, Gompers again is discussing the investment bankers' work, not his own. In this excerpt, the topic is the bankers' choices of a perpetuity growth rate in their discounted cash flow analyses. One particular exchange is telling:
A. . . . But it is the same set of work that I did that I would have done had I come up with my own estimate.
Q. And is the work that you just described the work that financial economists do in the ordinary course of their field?
A. Oh, any time I've done my own valuation, I've done -- I do that exact same set of things where you look at industry reports, analyst reports and the like, to come up with an assessment of what you think an appropriate perpetuity growth rate would be.
(T p 745:13-20; App. 120). In other words, Gompers admitted that he did not use analyst reports in connection with his own perpetuity growth rate analysis because he did not perform any such analysis.

At the cited portions of pages 785 and 786 of the trial transcript, Gompers is discussing market efficiency. The sum total of his reference to analyst reports is that he saw nothing in the analyst reports to suggest inefficiency. But of course, the burden was on RAI to prove efficiency, and once again, RAI's sole expert had no opinion to offer. As Gompers admitted, he did not form any view as to whether the market for RAI stock was efficient at the relevant time. (T pp 784:23-785:2, 785:20-23;

App. 137-38).

RAI's deployment of Gompers to bolster the testimony of the Company's own fact witnesses was even more egregious than its use of Gompers to get hearsay into the record. Appellants objected below to Gompers improperly providing a summary of the factual record. The Business Court acknowledged that "[a]n expert is not permitted to 'rehash[] otherwise admissible evidence' or testify 'solely for the purpose of constructing a factual narrative based upon record evidence." (R pp 321-22 ब 10). However, the Business Court overruled Appellants' objection, reasoning (without specific citation to the record) that Gompers did not do so. (See id.). However, a review of the trial transcript demonstrates otherwise.

By way of example, Gompers was asked a series of questions purporting to seek his recollection of the testimony of Debra Crew, RAI's former CEO. (T pp 731:18-732:16; App. 106-07). After the Business Court sustained an objection to the final question in the series, RAI's counsel asked Gompers whether he agreed with the testimony Crew delivered during the trial. (T pp 732:24-733:7; App. 107-08). Essentially, Gompers was asked to re-hash the record and then vouch for the views of

Crew regarding the reliability of RAI's projections. Again, offering such views is not a proper function of expert testimony.

\section*{V. THE BUSINESS COURT ERRED IN ITS DETERMINATION OF THE INTEREST DUE THE APPELLANTS}

Pursuant to N.C.G.S. § 55-13-30(e)(i), "[e]ach shareholder made party to the [judicial appraisal action] is entitled to judgment . . . for the amount, if any, by which the court finds the fair value of the shareholder's shares, plus interest, exceeds the amount paid by the corporation to the shareholder for the shareholder's shares." Under North Carolina law, the courts "must implement the statute according to the plain meaning of its terms so long as it is reasonable to do so." Midrex Techs., Inc., v. N.C. Dep't of Rev., 369 N.C. 250, 258 (2016) (internal citations and quotations omitted); see also, e.g., Diaz v. Div. of Soc. Servs., 628 S.E.2d 1, 3 (N.C. 2006) ("When the language of the statute is clear and without ambiguity, it is the duty of [courts] to effect the plain meaning of the statute"). \({ }^{35}\)

\footnotetext{
\({ }^{35}\) Statutory text should be interpreted in accordance with the rules of grammar, including the last antecedent rule (through which relative and qualifying words and phrases ordinarily apply to the word or phrase immediately preceding). HCA Crossroads Residential Centers, Inc. v. N.C. Dep't of Human Res., Div. of Facility Svcs., 398 S.E.2d 466, 470 (N.C. 1990) (collecting decisions); see generally United States v. Ron Pair Enters., Inc., 489 U.S. 235, 241-42 (1989) (discussing
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Under the plain language of Section 55-13-30(e), the Business Court was obligated to calculate the fair value of Defendants' shares plus interest at the statutory rate from the Transaction Date to the date of payment, and then subtract from that amount (i.e., fair value plus interest) the amount already paid by RAI. This result follows the plain language of the statute (requiring the addition of interest before the subtraction of amounts already paid). Indeed, this formulation ((fair value plus interest) minus (amount paid)) appears repeatedly throughout the North Carolina appraisal statute. N.C.G.S. § 55-13-25, for example, provides that, "[a] shareholder paid pursuant to [N.C.G.S. §] 55-13-25, who is dissatisfied with the amount of the payment must notify the corporation in writing of that shareholder's estimate of the fair value of the shares and demand payment of that estimate plus interest (less any payment under 55-13-25)." (emphasis added). N.C.G.S. § 55-13-30(a), too, provides that the corporation shall file a complaint "to determine the fair value of the shares and accrued interest."

\footnotetext{
grammatically-appropriate reading of statutory provision regarding interest award). Here, the phrase "plus interest" in Section 55-13-30(e) modifies the full fair value award prior to taking any deduction for amounts previously paid.
}

These statutory provisions plainly contemplate that interest be calculated on the total fair value amount, not on any difference between that amount and the amount already paid. In Torrington Research Co. v. Marvin, 2010 WL 1667580, at * 7 \& Addendum (Conn. Super. Ct. Apr. 6,2010 ), the Court, applying an identical statutory provision, calculated the judgment required by the statute in just that way. To avoid this result, states that follow the MBCA, but that (as a policy matter) have chosen to award dissenters interest only on the difference between fair value and any amount previously paid, have revised their appraisal statute accordingly. See, e.g., 15 Pa. C.S. § 1579(d) ("Each dissenter who is made a party shall be entitled to recover the amount by which the fair value of his shares is found to exceed the amount, if any, previously remitted, plus interest."). North Carolina has not adopted a formulation that calls for interest to be paid only on the difference between fair value and amounts previously paid to dissenting stockholders by the corporation.

Nonetheless, the Business Court concluded that Appellants' reading of §55-13-30(e)(i) would lead to an absurd result, inconsistent with the statutory text, simply because the math is such that calculating
interest even on the unreasonably low valuation adopted by the Business Court would lead to a significant award. (R p 312 ब 379). The Business Court's textual point is ipse dixit. Respectfully, there is no way to read the text of §55-13-30(e)(i) as calling for anything other than the addition of interest before the deduction of amounts paid, and the contrast between the North Carolina and Pennsylvania statutes makes this point clear. As to the Business Court's conclusion that the sheer amount of the interest award here would be "absurd," this outcome-based reasoning cannot be correct; it suggests that if the interest due Appellants were only \(\$ 1\), then the plain language of the appraisal statute could be followed.

\section*{CONCLUSION}

The Court should reverse the Judgement of the Business Court and remand the case for further proceedings consistent with the Court's decision.

Respectfully submitted this the 21st day of September, 2020.

> BROOKS, PIERCE, MCLENDON, HUMPHREY \& LEONARD LLP
s/ Jessica Thaller-Moran
Jessica Thaller-Moran
N.C. Bar No. 46444

BROOKS PIERCE MCLENDON
HUMPHREY \& LEONARD, LLP
2000 Renaissance Plaza
230 North Elm Street
Greensboro, NC 27401
Telephone: (336) 373-8850
Fax: (336) 378-1001
jthaller-moran@brookspierce.com
N.C. R. App. 33(b) Certification: I certify that all of the attorneys listed below have authorized me to list their names on this document as if they had personally signed it.

Jennifer K. Van Zant
N.C. Bar No. 21280

BROOKS PIERCE MCLENDON
HUMPHREY \& LEONARD, LLP
2000 Renaissance Plaza
230 North Elm Street
Greensboro, NC 27401
Telephone: (336) 373-8850
Fax: (336) 378-1001
jvanzant@brookspierce.com

\section*{ROLNICK KRAMER SADIGHI}
LLP

Lawrence M. Rolnick (pro hac vice) Sheila A. Sadighi (pro hac vice) Jennifer A. Randolph (pro hac vice) 1251 Avenue of the Americas
New York, NY 10020
Telephone: (212) 597-2800

Counsel for Defendants Mason
Capital Master Fund, L.P.; Blue Mountain Credit Alternatives Master Fund, L.P.; BlueMountain Foinaven Master Fund, L.P.; BlueMountain Guadalupe Peak Fund, L.P.; BlueMountain Summit Trading, L.P.; and BlueMountain
Montenvers Master Fund SCA
SICAV-SIF

\section*{OF COUNSEL:}

Kevin G. Abrams
J. Peter Shindel, Jr.

ABRAMS \& BAYLISS LLP
20 Montchanin Road, Suite 200
Wilmington, DE 19807
Telephone: (302) 778-1000

George F. Sanderson, III
N.C. Bar No. 33054

THE SANDERSON LAW FIRM, PLLC
P.O. Box 6130

Raleigh, NC 27628
Telephone: (984) 867-9300
george@georgesandersonlaw.com
Counsel for Defendants Third
Motion Equities Master Fund Ltd;
Magnetar Capital Master Fund,
Ltd; Spectrum Opportunities
Master Fund Ltd; Magnetar
Fundamental Strategies Master

Fund Ltd; and Magnetar MSW Master Fund Ltd

Kieran J. Shanahan
N.C. Bar. No. 13329

Brandon S. Neuman
N.C. Bar. No. 33590

Christopher S. Battles
N.C. Bar. No. 42682

128 E. Hargett Street, Third Floor
Raleigh, North Carolina 27601
Telephone: (919) 856-9494
Facsimile: (919) 856-9499
kieran@shanahanlawgroup.com
bneuman@shanahanlawgroup.com
cbattles@shanahanlawgroup.com
Counsel for Defendant Barry W. Blank Trust

\section*{CERTIFICATE OF SERVICE}

The undersigned hereby certifies that the foregoing DefendantsAppellants Brief has been served via email on consent of all parties on the following:

Donald H. Tucker, Jr.
Christopher B. Capel
Clifton L. Brinson
Smith, Anderson, Blount,
Dorsett, Mitchell \& Jernigan, LLP
P.O. Box 2611

Raleigh, NC 27602
dtucker@smithlaw.com
ccapel@smithlaw.com
cbrinson@smithlaw.com
Counsel for Plaintiff-Appellee Reynolds American Inc.

Kevin G. Abrams
J. Peter Shindel

Matthew L. Miller
ABRAMS \& BAYLISS LLP
20 Montchanin Road, Suite 200
Wilmington, Delaware 19807 (302) 778-1000
abrams@abramsbayliss.com
shindel@abramsbayliss.com
miller@abramsbayliss.com
Of Counsel for Defendants-
Appellants Magnetar Capital
Master Fund, Ltd, Magnetar
Fundamental Strategies Master
Fund Ltd, Magnetar MSW

Gary A. Bornstein
Thomas G. Rafferty
Nicole D. Valente
Cravath, Swaine \& Moore, LLP
825 Eighth Avenue
New York, NY 10019 gbornstein@cravath.com trafferty@cravath.com nvalente@cravath.com

Counsel for Plaintiff-Appellee Reynolds American Inc.

George F. Sanderson, III The Sanderson Law Firm, PLLC
P.O. Box 6130

Raleigh, NC 27628
george@georgesandersonlaw.c om

Counsel for DefendantsAppellants Magnetar Capital Master Fund, Ltd, Magnetar
Fundamental Strategies
Master Fund Ltd, Magnetar
MSW Master Fund Ltd,
Third Motion Equities
Master Fund Ltd, and

Master Fund Ltd, Third Motion Equities Master Fund Ltd, and Spectrum Opportunities Master Fund Ltd

Spectrum Opportunities
Master Fund Ltd
Brandon S. Neuman
Kieran Shanahan
Christopher Battles
Shanahan Law Group, PLLC
128 E. Hargett Street, Suite 300
Raleigh, NC 27601
bneuman@shanahanlawgroup.co
m
kshanahan@shanahanlawgroup. com
cbattles@shanahanlawgroup.com
Counsel for Defendant-Appellant
Barry W. Blank Trust

This the 21st day of September, 2020.

\author{
/s/ Jessica Thaller-Moran \\ Jessica Thaller-Moran \\ N.C. Bar No. 46444 \\ Brooks, Pierce, McLendon, Humphrey \\ \& Leonard, LLP \\ 2000 Renaissance Plaza \\ 230 North Elm Street \\ Greensboro, NC 27401
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\section*{Article 13.}

Appraisal Rights.
Part 1. Right to Appraisal and Payment for Shares.

\section*{§ 55-13-01. Definitions.}

In this Article, the following definitions apply:
(1) Affiliate. - A person that directly, or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with another person or is a senior executive thereof. For purposes of G.S. 55-13-01(7), a person is deemed to be an affiliate of its senior executives.
(2) Beneficial shareholder. - A person who is the beneficial owner of shares held in a voting trust or by a nominee on the beneficial owner's behalf.
(3) Corporation. - The issuer of the shares held by a shareholder demanding appraisal and, for matters covered in G.S. 55-13-22 through G.S. 55-13-31, the term includes the surviving entity in a merger.
(4) Expenses. - Reasonable expenses of every kind that are incurred in connection with a matter, including counsel fees.
(5) Fair value. - The value of the corporation's shares (i) immediately before the effectuation of the corporate action as to which the shareholder asserts appraisal rights, excluding any appreciation or depreciation in anticipation of the corporate action unless exclusion would be inequitable, (ii) using customary and current valuation concepts and techniques generally employed for similar business in the context of the transaction requiring appraisal, and (iii) without discounting for lack of marketability or minority status except, if appropriate, for amendments to the articles pursuant to G.S. 55-13-02(a)(5).
(6) Interest. - Interest from the effective date of the corporate action until the date of payment, at the rate of interest on judgments in this State on the effective date of the corporate action.
(7) Interested transaction. - A corporate action described in G.S. 55-13-02(a), other than a merger pursuant to G.S. 55-11-04 or G.S. 55-11-12, involving an interested person and in which any of the shares or assets of the corporation are being acquired or converted. As used in this definition, the following definitions apply:
a. Interested person. - A person, or an affiliate of a person, who at any time during the one-year period immediately preceding approval by the board of directors of the corporate action met any of the following conditions:
1. Was the beneficial owner of twenty percent ( \(20 \%\) ) or more of the voting power of the corporation, other than as owner of excluded shares.
2. Had the power, contractually or otherwise, other than as owner of excluded shares, to cause the appointment or election of twenty-five percent ( \(25 \%\) ) or more of the directors to the board of directors of the corporation.
3. Was a senior executive or director of the corporation or a senior executive of any affiliate thereof, and that senior executive or
director will receive, as a result of the corporate action, a financial benefit not generally available to other shareholders as such, other than any of the following:
I. Employment, consulting, retirement, or similar benefits established separately and not as part of or in contemplation of the corporate action.
II. Employment, consulting, retirement, or similar benefits established in contemplation of, or as part of, the corporate action that are not more favorable than those existing before the corporate action or, if more favorable, that have been approved on behalf of the corporation in the same manner as is provided in G.S. 55-8-31(a)(1) and (c).
III. In the case of a director of the corporation who will, in the corporate action, become a director of the acquiring entity, or one of its affiliates, rights and benefits as a director that are provided on the same basis as those afforded by the acquiring entity generally to other directors of the acquiring entity or such affiliate of the acquiring entity.
b. Beneficial owner. - Any person who, directly or indirectly, through any contract, arrangement, or understanding, other than a revocable proxy, has or shares the power to vote, or to direct the voting of, shares. If a member of a national securities exchange is precluded by the rules of the exchange from voting without instruction on contested matters or matters that may affect substantially the rights or privileges of the holders of the securities to be voted, then that member of a national securities exchange shall not be deemed a "beneficial owner" of any securities held directly or indirectly by the member on behalf of another person solely because the member is the record holder of the securities. When two or more persons agree to act together for the purpose of voting their shares of the corporation, each member of the group formed thereby is deemed to have acquired beneficial ownership, as of the date of the agreement, of all voting shares of the corporation beneficially owned by any member of the group.
c. Excluded shares. - Shares acquired pursuant to an offer for all shares having voting power if the offer was made within one year prior to the corporate action for consideration of the same kind and of a value equal to or less than that paid in connection with the corporate action.
Preferred shares. - A class or series of shares the holders of which have preference over any other class or series with respect to distributions.
(9) Record shareholder. - The person in whose name shares are registered in the records of the corporation or the beneficial owner of shares to the extent of the rights granted by a nominee certificate on file with the corporation.
(10) Senior executive. - The chief executive officer, chief operating officer, chief financial officer, or anyone in charge of a principal business unit or function.
(11) Shareholder. - Both a record shareholder and a beneficial shareholder. (1925, c. 77, s. 1; 1943, c. 270; G.S., s. 55-167; 1955, c. 1371, s. 1; 1969, c. 751, s. 39; 1973, c. 469 , ss. 36, 37; 1989, c. 265, s. 1; 2011-347, s. 1; 2018-45, s. 24.)

\section*{§ 55-13-02. Right to appraisal.}
(a) In addition to any rights granted under Article 9 of this Chapter, a shareholder is entitled to appraisal rights and to obtain payment of the fair value of that shareholder's shares, in the event of any of the following corporate actions:
(1) Consummation of a merger to which the corporation is a party if either (i) shareholder approval is required for the merger by G.S. 55-11-03 or would be required but for the provisions of G.S. 55-11-03(j), except that appraisal rights shall not be available to any shareholder of the corporation with respect to shares of any class or series that remain outstanding after consummation of the merger or (ii) the corporation is a subsidiary and the merger is governed by G.S. 55-11-04 or G.S. 55-11-12.
(2) Consummation of a share exchange to which the corporation is a party as the corporation whose shares will be acquired, except that appraisal rights shall not be available to any shareholder of the corporation with respect to any class or series of shares of the corporation that is not exchanged.
(3) Consummation of a disposition of assets pursuant to G.S. 55-12-02.
(4) An amendment of the articles of incorporation (i) with respect to a class or series of shares that reduces the number of shares of a class or series owned by the shareholder to a fraction of a share if the corporation has an obligation or right to repurchase the fractional share so created or (ii) changes the corporation into a nonprofit corporation or cooperative organization.
(5) Any other amendment to the articles of incorporation, merger, share exchange, or disposition of assets to the extent provided by the articles of incorporation, bylaws, or a resolution of the board of directors.
(6) Consummation of a conversion to a foreign corporation pursuant to Part 2 of Article 11A of this Chapter if the shareholder does not receive shares in the foreign corporation resulting from the conversion that (i) have terms as favorable to the shareholder in all material respects and (ii) represent at least the same percentage interest of the total voting rights of the outstanding shares of the corporation as the shares held by the shareholder before the conversion.
(7) Consummation of a conversion of the corporation to nonprofit status pursuant to Part 2 of Article 11A of this Chapter.
(8) Consummation of a conversion of the corporation to an unincorporated entity pursuant to Part 2 of Article 11A of this Chapter.
(b) Notwithstanding subsection (a) of this section, the availability of appraisal rights under subdivisions (1), (2), (3), (4), (6), and (8) of subsection (a) of this section shall be limited in accordance with the following provisions:
(1) Appraisal rights shall not be available for the holders of shares of any class or series of shares that are any of the following:
a. A covered security under section 18(b)(1)(A) or (B) of the Securities Act of 1933, as amended.
b. Traded in an organized market and has at least 2,000 shareholders and a market value of at least twenty million dollars \((\$ 20,000,000)\) (exclusive of the value of shares held by the corporation's subsidiaries, senior executives, directors, and beneficial shareholders owning more than ten percent ( \(10 \%\) ) of such shares).
c. Issued by an open-end management investment company registered with the Securities and Exchange Commission under the Investment Company Act of 1940, as amended, and may be redeemed at the option of the holder at net asset value.
(2) The applicability of subdivision (1) of this subsection shall be determined as of (i) the record date fixed to determine the shareholders entitled to receive notice of, and to vote at, the meeting of shareholders to act upon the corporate action requiring appraisal rights or, in the case of an offer made pursuant to G.S. 55-11-03(j), the date of the offer, or (ii) the day before the effective date of the corporate action if there is no meeting of shareholders and no offer made pursuant to G.S. 55-11-03(j).
(3) Subdivision (1) of this subsection shall not be applicable and appraisal rights shall be available pursuant to subsection (a) of this section for the holders of any class or series of shares who are required by the terms of the corporate action requiring appraisal rights to accept for such shares anything other than cash or shares of any class or any series of shares of any corporation, or any other proprietary interest of any other entity, that satisfies the standards set forth in subdivision (1) of this subsection at the time the corporate action becomes effective.
(4) Subdivision (1) of this subsection shall not be applicable and appraisal rights shall be available pursuant to subsection (a) of this section for the holders of any class or series of shares where the corporate action is an interested transaction.
(c) Notwithstanding any other provision of this section, the articles of incorporation as originally filed or any amendment to the articles may limit or eliminate appraisal rights for any class or series of preferred shares with respect to any corporate action, except that (i) no limitation or elimination shall be effective if the class or series does not have the right to vote separately as a voting group, alone or as part of a group, on the corporate action or if the corporate action is an amendment to the articles of incorporation that changes the corporation into a nonprofit corporation or a cooperative organization, and (ii) any limitation or elimination contained in an amendment to the articles of incorporation that limits or eliminates appraisal rights for any shares that are outstanding immediately prior to the effective date of the amendment, or that the corporation is or may be required to issue or sell thereafter pursuant to any conversion, exchange, or other right existing immediately before the effective date of the amendment, shall not apply to any corporate action that becomes effective within one year of that date if the corporate action would otherwise afford appraisal rights.
(d) Repealed by Session Laws 2018-45, s. 25, effective October 1, 2018. (1925, c. 77, s. 1; c. 235 ; 1929, c. 269 ; 1939, c. 279; 1943, c. 270 ; G.S., ss. \(55-26,55-167\); 1955, c. 1371 , s. 1 ; 1959 , c. 1316 , ss. 30,31 ; 1969, c. 751 , ss. 36 , 39 ; 1973 , c. 469 , ss. 36,37 ; c. 476 , s. 193 ; 1989, c. 265, s. 1; 1989 (Reg. Sess., 1990), c. 1024, s. 12.18; 1991, c. 645, s. 12; 1997-202, s. 1; 1999-141, s. 1; 2001-387, s. 26; 2003-157, s. 1; 2011-347, ss. 1, 22(c); 2018-45, s. 25.)

\section*{§ 55-13-03. Assertion of rights by nominees and beneficial owners.}
(a) A record shareholder may assert appraisal rights as to fewer than all the shares registered in the record shareholder's name but owned by a beneficial shareholder only if the record shareholder (i) objects with respect to all shares of the class or series owned by the beneficial shareholder and (ii) notifies the corporation in writing of the name and address of each beneficial shareholder on whose behalf appraisal rights are being asserted. The rights of a record shareholder who asserts appraisal rights for only part of the shares held of record in the record shareholder's name under this subsection shall be determined as if the shares as to which the record shareholder objects and the record shareholder's other shares were registered in the names of different record shareholders.
(b) A beneficial shareholder may assert appraisal rights as to shares of any class or series held on behalf of the shareholder only if the shareholder does both of the following:
(1) Submits to the corporation the record shareholder's written consent to the assertion of rights no later than the date referred to in G.S. 55-13-22(b)(2)b.
(2) Submits written consent under subdivision (1) of this subsection with respect to all shares of the class or series that are beneficially owned by the beneficial shareholder. (1925, c. 77, s. 1; 1943, c. 270; G.S., s. 55-167; 1955, c. 1371, s. \(1 ; 1969\), c. 751 , s. \(39 ; 1973\), c. 469 , ss. 36 , 37 ; 1989, c. 265 , s. \(1 ; 2011-347\), s. 1.)

\section*{§§ 55-13-04 through 55-13-19. Reserved for future codification purposes.}

\section*{Part 2. Procedure for Exercise of Appraisal Rights.}

\section*{§ 55-13-20. Notice of appraisal rights.}
(a) If any corporate action specified in G.S. 55-13-02(a) is to be submitted to a vote at a shareholders' meeting, or where no approval of the action is required pursuant to G.S. 55-11-03(j), the meeting notice or, if applicable, the offer made pursuant to G.S. 55-11-03(j), shall state that the corporation has concluded that shareholders are, are not, or may be entitled to assert appraisal rights under this Article. If the corporation concludes that appraisal rights are or may be available, a copy of this Article shall accompany the meeting notice or offer sent to those record shareholders entitled to exercise appraisal rights.
(b) In a merger pursuant to G.S. 55-11-04 or G.S. 55-11-12, the parent corporation shall notify in writing all record shareholders of the subsidiary who are entitled to assert appraisal rights that the corporate action became effective. Notice required under this subsection shall be sent within 10 days after the corporate action became effective and include the materials described in G.S. 55-13-22.
(c) If any corporate action specified in G.S. 55-13-02(a) is to be approved by written consent of the shareholders pursuant to G.S. 55-7-04, then the following must occur:
(1) Written notice that appraisal rights are, are not, or may be available must be given to each record shareholder from whom a consent is solicited at the time consent of each shareholder is first solicited and, if the corporation has concluded that appraisal rights are or may be available, must be accompanied by a copy of this Article.
(2) Written notice that appraisal rights are, are not, or may be available must be delivered together with the notice to the applicable shareholders required by
subsections (d) and (e) of G.S. 55-7-04, may include the materials described in G.S. 55-13-22, and, if the corporation has concluded that appraisal rights are or may be available, must be accompanied by a copy of this Article.
(d) If any corporate action described in G.S. 55-13-02(a) is proposed, or a merger pursuant to G.S. 55-11-04 or G.S. 55-11-12 is effected, then the notice or offer referred to in subsection (a) or (c) of this section, if the corporation concludes that appraisal rights are or may be available, and the notice referred to in subsection (b) of this section, shall be accompanied by both of the following:
(1) The annual financial statements specified in G.S. 55-16-20(a) of the corporation that issued the shares to be appraised. The date of the financial statements shall not be more than 16 months before the date of the notice and shall comply with G.S. 55-16-20(b). If annual financial statements that meet the requirements of this subdivision are not reasonably available, then the corporation shall provide reasonably equivalent financial information.
(2) The latest available quarterly financial statements of the corporation, if any. The right to receive the information described in this subsection may be waived in writing by a shareholder before or after the corporate action.
(e) The right to receive the information described in subsection (d) of this section may be waived in writing by a shareholder before or after the corporate action. (1925, c. 77, s. 1; c. 235; 1929, с. 269; 1939, с. 5; с. 279; 1943, с. 270; G.S., ss. \(55-26,55-165,55-167\); 1955, с. 1371, s. 1 ; 1969 , c. 751 , s. 39 ; 1973 , c. 469 , ss. 36 , 37 ; 1989, c. 265 , s. 1 ; 2002-58, s. 2 ; 2011-347, s. 1 ; 2018-45, s. 26.)

\section*{§ 55-13-21. Notice of intent to demand payment and consequences of voting or consenting.}
(a) If a corporate action specified in G.S. 55-13-02(a) is submitted to a vote at a shareholders' meeting, a shareholder who wishes to assert appraisal rights with respect to any class or series of shares must do the following:
(1) Deliver to the corporation, before the vote is taken, written notice of the shareholder's intent to demand payment if the proposed action is effectuated.
(2) Not vote, or cause or permit to be voted, any shares of any class or series in favor of the proposed action.
(b) If a corporate action specified in G.S. 55-13-02(a) is to be approved by less than unanimous written consent, a shareholder who wishes to assert appraisal rights with respect to any class or series of shares must satisfy both of the following requirements:
(1) The shareholder must deliver to the corporation, before the proposed action becomes effective, written notice of the shareholder's intent to demand payment if the proposed action is effectuated, except that the written notice is not required if the notice required by G.S. 55-13-20(c) is given less than 25 days prior to the date the proposed action is effectuated.
(2) The shareholder must not execute a consent in favor of the proposed action with respect to that class or series of shares.
(b1) If a corporate action specified in G.S. 55-13-02(a) does not require shareholder approval pursuant to G.S. 55-11-03(j), a shareholder who wishes to assert appraisal rights with respect to any class or series of shares must satisfy both of the following requirements:
(1) The shareholder must deliver to the corporation, before the shares are purchased pursuant to the offer made consistent with subdivision (2) of subsection (j) of
G.S. 55-11-03, written notice of the shareholder's intent to demand payment if the proposed action is effectuated.
(2) The shareholder must not tender, or cause or permit to be tendered, any shares of the class or series in response to the offer.
(c) A shareholder who fails to satisfy the requirements of subsection (a), (b), or (b1) of this section is not entitled to payment under this Article. (1925, c. 77, s. 1; 1943, c. 270; G.S., s. 55-167; 1955, c. 1371, s. 1; 1969, c. 751, s. 39; 1973, c. 469, ss. 36, 37; 1989, c. 265, s. 1; 2011-347, s. 1; 2018-45, s. 27.)

\section*{§ 55-13-22. Appraisal notice and form.}
(a) If a corporate action requiring appraisal rights under G.S. 55-13-02(a) becomes effective, the corporation must deliver a written appraisal notice and form required by subdivision (b)(1) of this section to all shareholders who satisfied the requirements of G.S. 55-13-21. In the case of a merger under G.S. 55-11-04 or G.S. 55-11-12, the parent corporation must deliver a written appraisal notice and form to all record shareholders of the subsidiary who may be entitled to assert appraisal rights.
(b) The appraisal notice must be sent no earlier than the date the corporate action specified in G.S. 55-13-02(a) became effective and no later than 10 days after that date. The appraisal notice must include the following:
(1) A form that specifies the first date of any announcement to shareholders, made prior to the date the corporate action became effective, of the principal terms of the proposed corporate action. If such an announcement was made, the form shall require a shareholder asserting appraisal rights to certify whether beneficial ownership of those shares for which appraisal rights are asserted was acquired before that date. The form shall require a shareholder asserting appraisal rights to certify that the shareholder did not vote for or consent to the transaction.
(2) Disclosure of the following:
a. Where the form must be sent and where certificates for certificated shares must be deposited, as well as the date by which those certificates must be deposited. The certificate deposit date must not be earlier than the date for receiving the required form under sub-subdivision \(b\). of this subdivision.
b. A date by which the corporation must receive the payment demand, which date may not be fewer than 40 nor more than 60 days after the date the appraisal notice required under subsection (a) of this section and form are sent. The form shall also state that the shareholder shall have waived the right to demand appraisal with respect to the shares unless the form is received by the corporation by the specified date.
c. The corporation's estimate of the fair value of the shares.
d. That, if requested in writing, the corporation will provide, to the shareholder so requesting, within 10 days after the date specified in sub-subdivision b. of this subdivision, the number of shareholders who return the forms by the specified date and the total number of shares owned by them.
e. The date by which the notice to withdraw under G.S. 55-13-23 must be received, which date must be within 20 days after the date specified in sub-subdivision \(b\). of this subdivision.
(3) Be accompanied by a copy of this Article. (1925, c. 77, s. 1; 1943, c. 270; G.S., s. \(55-167 ; 1955\), c. 1371 , s. \(1 ; 1969\), c. 751 , s. \(39 ; 1973\), c. 469 , ss. 36,\(37 ; 1989\), c. 265 , s. 1 ; 1997-485, s. 4 ; 2001-387, s. 27 ; 2002-58, s. 3 ; 2011-347, s. 1 ; 2018-45, s. 28.)

\section*{\(\S\) 55-13-23. Perfection of rights; right to withdraw.}
(a) A shareholder who receives notice pursuant to G.S. 55-13-22 and who wishes to exercise appraisal rights must sign and return the form sent by the corporation and, in the case of certificated shares, deposit the shareholder's certificates in accordance with the terms of the notice by the date referred to in the notice pursuant to G.S. 55-13-22(b)(2). In addition, if applicable, the shareholder must certify on the form whether the beneficial owner of such shares acquired beneficial ownership of the shares before the date required to be set forth in the notice pursuant to G.S. 55-13-22(b)(1). If a shareholder fails to make this certification, the corporation may elect to treat the shareholder's shares as after-acquired shares under G.S. 55-13-27. Once a shareholder deposits that shareholder's certificates or, in the case of uncertificated shares, returns the signed forms, that shareholder loses all rights as a shareholder, unless the shareholder withdraws pursuant to subsection (b) of this section.
(b) A shareholder who has complied with subsection (a) of this section may nevertheless decline to exercise appraisal rights and withdraw from the appraisal process by so notifying the corporation in writing by the date set forth in the appraisal notice pursuant to G.S. 55-13-22(b)(2)e. A shareholder who fails to so withdraw from the appraisal process may not thereafter withdraw without the corporation's written consent.
(c) A shareholder who does not sign and return the form and, in the case of certificated shares, deposit that shareholder's share certificates where required, each by the date set forth in the notice described in G.S. 55-13-22(b) shall not be entitled to payment under this Article. (1925, c. 77, s. 1; 1943, c. 270; G.S., s. 55-167; 1955, c. 1371, s. 1; 1969, c. 751, s. 39; 1973, c. 469, ss. 36, 37; 1989, c. 265, s. 1; 2011-347, s. 1.)
§ 55-13-24: Repealed by Session Laws 2011-347, s. 1, effective October 1, 2011.

\section*{§ 55-13-25. Payment.}
(a) Except as provided in G.S. 55-13-27, within 30 days after the form required by G.S. 55-13-22(b) is due, the corporation shall pay in cash to the shareholders who complied with G.S. 55-13-23(a) the amount the corporation estimates to be the fair value of their shares, plus interest.
(b) The payment to each shareholder pursuant to subsection (a) of this section must be accompanied by the following:
(1) The following financial information:
a. The annual financial statements specified in G.S. 55-16-20(a) of the corporation that issued the shares to be appraised. The date of the financial statements shall not be more than 16 months before the date of payment and shall comply with G.S. 55-16-20(b). If annual financial statements that meet the requirements of this sub-subdivision are not
reasonably available, the corporation shall provide reasonably equivalent financial information.
b. The latest available quarterly financial statements, if any.
(2) A statement of the corporation's estimate of the fair value of the shares. The estimate must equal or exceed the corporation's estimate given pursuant to G.S. 55-13-22(b)(2)c.
(3) A statement that the shareholders described in subsection (a) of this section have the right to demand further payment under G.S. 55-13-28 and that if a shareholder does not do so within the time period specified therein, then the shareholder shall be deemed to have accepted such payment in full satisfaction of the corporation's obligations under this Article. (1925, c. 77, s. 1; 1943, c. 270; G.S., s. \(55-167\); 1955, c. 1371 , s. \(1 ; 1969\), c. 751 , s. \(39 ; 1973\), c. 469 , ss. 36,37 ; 1989, c. 265 , s. 1 ; c. 770 , s. 69 ; 1997-202, s. 2 ; 2011-347, s. 1.)
§ 55-13-26: Repealed by Session Laws 2011-347, s. 1, effective October 1, 2011.

\section*{§ 55-13-27. After-acquired shares.}
(a) A corporation may elect to withhold payment required by G.S. 55-13-25 from any shareholder who was required to but did not certify that beneficial ownership of all of the shareholder's shares for which appraisal rights are asserted was acquired before the date set forth in the appraisal notice sent pursuant to G.S. 55-13-22(b)(1).
(b) If the corporation elected to withhold payment under subsection (a) of this section, it must, within 30 days after the form required by G.S. 55-13-22(b) is due, notify all shareholders who are described in subsection (a) of this section of the following:
(1) The information required by G.S. 55-13-25(b)(1).
(2) The corporation's estimate of fair value pursuant to G.S. 55-13-25(b)(2).
(3) That they may accept the corporation's estimate of fair value, plus interest, in full satisfaction of their demands or demand appraisal under G.S. 55-13-28.
(4) That those shareholders who wish to accept such offer must so notify the corporation of their acceptance of the corporation's offer within 30 days after receiving the offer.
(5) That those shareholders who do not satisfy the requirements for demanding appraisal under G.S. 55-13-28 shall be deemed to have accepted the corporation's offer.
(c) Within 10 days after receiving the shareholder's acceptance pursuant to subsection (b) of this section, the corporation must pay in cash the amount it offered under subdivision (b)(2) of this section to each shareholder who agreed to accept the corporation's offer in full satisfaction of the shareholder's demand.
(d) Within 40 days after sending the notice described in subsection (b) of this section, the corporation must pay in cash the amount it offered to pay under subdivision (b)(2) of this section to each shareholder described in subdivision (b)(5) of this section. (2011-347, s. 1.)

\section*{\(\S\) 55-13-28. Procedure if shareholder dissatisfied with payment or offer.}
(a) A shareholder paid pursuant to G.S. 55-13-25 who is dissatisfied with the amount of the payment must notify the corporation in writing of that shareholder's estimate of the fair value of the shares and demand payment of that estimate plus interest (less any payment under G.S.

55-13-25). A shareholder offered payment under G.S. 55-13-27 who is dissatisfied with that offer must reject the offer and demand payment of the shareholder's stated estimate of the fair value of the shares, plus interest.
(b) A shareholder who fails to notify the corporation in writing of that shareholder's demand to be paid the shareholder's stated estimate of the fair value, plus interest, under subsection (a) of this section within 30 days after receiving the corporation's payment or offer of payment under G.S. 55-13-25 or G.S. 55-13-27, respectively, waives the right to demand payment under this section and shall be entitled only to the payment made or offered pursuant to those respective sections. (1925, c. 77, s. 1; 1943, c. 270; G.S., s. 55-167; 1955, c. 1371, s. 1; 1969, c. 751, s. 39; 1973 , c. 469 , ss. 36,\(37 ; 1989\), c. 265 , s. 1 ; 1997-202, s. 3 ; 2011-347, s. 1.)

\section*{§ 55-13-29. Reserved for future codification purposes.}

Part 3. Judicial Appraisal of Shares.

\section*{§ 55-13-30. Court Action.}
(a) If a shareholder makes a demand for payment under G.S. 55-13-28 which remains unsettled, the corporation shall commence a proceeding within 60 days after receiving the payment demand by filing a complaint with the Superior Court Division of the General Court of Justice to determine the fair value of the shares and accrued interest. If the corporation does not commence the proceeding within the 60-day period, the corporation shall pay in cash to each shareholder the amount the shareholder demanded pursuant to G.S. 55-13-28, plus interest.
(a1) Repealed by Session Laws 1997-202, s. 4.
(b) The corporation shall commence the proceeding in the appropriate court of the county where the corporation's principal office (or, if none, its registered office) in this State is located. If the corporation is a foreign corporation without a registered office in this State, it shall commence the proceeding in the county in this State where the principal office or registered office of the domestic corporation merged with the foreign corporation was located at the time of the transaction.
(c) The corporation shall make all shareholders (whether or not residents of this State) whose demands remain unsettled parties to the proceeding as in an action against their shares and all parties must be served with a copy of the complaint. Nonresidents may be served by registered or certified mail or by publication as provided by law.
(d) The jurisdiction of the superior court in which the proceeding is commenced under subsection (b) of this section is plenary and exclusive. The court may appoint one or more persons as appraisers to receive evidence and recommend a decision on the question of fair value. The appraisers shall have the powers described in the order appointing them, or in any amendment to it. The shareholders demanding appraisal rights are entitled to the same discovery rights as parties in other civil proceedings. There shall be no right to a trial by jury.
(e) Each shareholder made a party to the proceeding is entitled to judgment either (i) for the amount, if any, by which the court finds the fair value of the shareholder's shares, plus interest, exceeds the amount paid by the corporation to the shareholder for the shareholder's shares or (ii) for the fair value, plus interest, of the shareholder's shares for which the corporation elected to withhold payment under G.S. 55-13-27. (1925, c. 77, s. 1; 1943, c. 270; G.S., s. 55-167; 1955, c. 1371 , s. 1 ; 1969, c. 751, s. 39; 1973, c. 469, ss. 36, 37; 1989, c. 265, s. 1; 1997-202, s. 4; 1997-485, ss. 5, 5.1; 2011-347, s. 1.)

\section*{\(\S\) 55-13-31. Court costs and expenses.}
(a) The court in an appraisal proceeding commenced under G.S. 55-13-30 shall determine all court costs of the proceeding, including the reasonable compensation and expenses of appraisers appointed by the court. The court shall assess the costs against the corporation, except that the court may assess costs against all or some of the shareholders demanding appraisal, in amounts the court finds equitable, to the extent the court finds such shareholders acted arbitrarily, vexatiously, or not in good faith with respect to the rights provided by this Article.
(b) The court in an appraisal proceeding may also assess the expenses for the respective parties, in amounts the court finds equitable:
(1) Against the corporation and in favor of any or all shareholders demanding appraisal if the court finds the corporation did not substantially comply with the requirements of G.S. 55-13-20, 55-13-22, 55-13-25, or 55-13-27.
(2) Against either the corporation or a shareholder demanding appraisal, in favor of any other party, if the court finds that the party against whom expenses are assessed acted arbitrarily, vexatiously, or not in good faith with respect to the rights provided by this Article.
(c) If the court in an appraisal proceeding finds that the expenses incurred by any shareholder were of substantial benefit to other shareholders similarly situated and that these expenses should not be assessed against the corporation, the court may direct that the expenses be paid out of the amounts awarded the shareholders who were benefited.
(d) To the extent the corporation fails to make a required payment pursuant to G.S. \(55-13-25,55-13-27\), or 55-13-28, the shareholder may sue directly for the amount owed and, to the extent successful, shall be entitled to recover from the corporation all expenses of the suit. (1925, c. 77, s. 1 ; 1943, c. 270; G.S., s. \(55-167\); 1955, c. 1371, s. 1; 1969, c. 751, s. 39; 1973, c. 469 , ss. 36,\(37 ; 1989\), c. 265 , s. \(1 ; 2011-347\), s. 1.)
§ 55-13-32: Reserved for future codification purposes.
§ 55-13-33: Reserved for future codification purposes.
\(\S\) 55-13-34: Reserved for future codification purposes.
\(\S\) 55-13-35: Reserved for future codification purposes.
\(\S\) 55-13-36: Reserved for future codification purposes.
\(\S\) 55-13-37: Reserved for future codification purposes.
§ 55-13-38: Reserved for future codification purposes.
§ 55-13-39: Reserved for future codification purposes.
Part 4. Other Remedies.
§ 55-13-40. Other remedies limited.
(a) The legality of a proposed or completed corporate action described in G.S. 55-13-02(a) may not be contested, nor may the corporate action be enjoined, set aside, or rescinded, in a legal or equitable proceeding by a shareholder after the shareholders have approved the corporate action. (b) Subsection (a) of this section does not apply to a corporate action that:
(1) Was not authorized and approved in accordance with the applicable provisions of any of the following:
a. Article 9, 9A, 10, 11, 11A, or 12 of this Chapter.
b. The articles of incorporation or bylaws.
c. The resolution of the board of directors authorizing the corporate action.
(2) Was procured as a result of fraud, a material misrepresentation, or an omission of a material fact necessary to make statements made, in light of the circumstances in which they were made, not misleading.
(3) Constitutes an interested transaction, unless it has been authorized, approved, or ratified by either (i) the board of directors or a committee of the board or (ii) the shareholders, in the same manner as is provided in G.S. 55-8-31(a)(1) and (c) or in G.S. 55-8-31(a)(2) and (d), as if the interested transaction were a director's conflict of interest transaction.
(4) Was approved by less than unanimous consent of the voting shareholders pursuant to G.S. 55-7-04, provided that both of the following are true:
a. The challenge to the corporate action is brought by a shareholder who did not consent and as to whom notice of the approval of the corporate action was not effective at least 10 days before the corporate action was effected.
b. The proceeding challenging the corporate action is commenced within 10 days after notice of the approval of the corporate action is effective as to the shareholder bringing the proceeding. (2011-347, s. 1.)
the impact that the decisions that you took could have on the stock price?
A. We would have the conversations in terms of what -if there would be a short-term impact, in terms of a decision, and what the longer term benefit would be. Of course we would have that conversation but it was always about increasing shareholder value over time. But you had to recognize whether it had an immediate impact one way or the other.
Q. And did you observe over time the Reynolds stock price reacting to decisions that the board had taken in a positive way or negatively?

MS. SADIGHI: Objection.
THE COURT: Overruled.
A. Yes, we did. So, for example, the stock price would have reacted to a stock repurchase agreement, something of that nature. Yes.

BY MR. BORNSTEIN:
Q. And did you observe the stock price of Reynolds moving positively or negatively in response to external events?
A. Absolutely.
Q. Can you give an example of that?
A. Well, in the case of litigation.

So if a court in Mississippi happened to find in

Theresa B. Kramer, Official Court Reporter
Mecklenburg County Courthouse, North Carolina
favor of a plaintiff and it was one of those cases that generated hundreds and hundreds of millions of dollars of potential liability, it would have made the news and you would have seen an impact immediately on the share price.
Q. So let me roll back the clock to 2004 . Were there any significant transactions that happened that year between RJR and another company?
A. In that year, there was a merger between RJ Reynolds and Robin Williamson Tobacco.
Q. And were you involved in that transaction?
A. I was involved, yes. I was chairman I think of the Governance Committee at that particular time.
Q. And just at a general level, what was the relationship between BAT and RAI at the conclusion of that transaction?
A. Well, at the conclusion of the transaction, BAT became a 42 percent shareholder in the new Reynolds American. And we created at the time of the merger a governance agreement which basically outlined the details of the relationship between BAT and the minority shareowners in the company.
Q. Are you okay still on water?
A. Yes.
Q. Was there a discussion during this transaction as to who would control the company after the transaction was

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competitive issue or the like.
They demonstrated for a very long period of time that they honored the governance agreement in every way.
Q. Are there circumstances that you can think of where the RAI board took action that BAT disagreed with?
A. Two come to mind.

The first was when we were moving to acquire Conwood which was a major acquisition for Reynolds American and BAT lobbied strongly against that. Over time, we convinced them that we should make the move and they were very happy with it.

On the other occasion, which was the sale of Natural American Spirit's international business, we actually ran a process and had several bidders for the international rights. And BAT did not prevail in that process and we sold the company to Japan Tobacco which they didn't like at all. They would have preferred us not to sell the business rather than sell it to someone else. They were unhappy.

THE COURT: Mr. Bornstein, let's take a ten-minute break. Actually, a 15-minute break. Come back at 11:45. We'll be in recess for 15 minutes.
(Off the record; recess 11:30-11:45 a.m.) THE COURT: All right. Mr. Bornstein, you may resume.

MR. BORNSTEIN: Thank you, Your Honor.

THE COURT: Actually, before you do, let me apologize to Deputy Milton and to the courtroom. Let me indicate that I misread terribly Deputy Milton's name when I introduced her at the beginning. So this is Deputy Milton. We appreciate her service during this trial.

All right. Now you, Mr. Bornstein.
MR. BORNSTEIN: Thank you again, Your Honor.
BY MR. BORNSTEIN:
Q. Let me just touch very briefly, sir, on something that we were covering just before the break which was the sale of the Natural American Spirit international rights.
A. Yes.
Q. Was BAT a bidder for those assets as well?
A. Yes, they were.
Q. Did RAI sell those assets to BAT?
A. No, we did not.
Q. So let me turn to this transaction when RAI was acquired. How did you first learn that BAT was going to be making an offer to buy the company?
A. I received a voice mail message while at dinner on the night of October 20th from the chairman of BAT who said they would be making an offer for the company.
Q. Did you have any forewarning that this was coming?
A. Not at all.
Q. Were you surprised?

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
A. They didn't come forward. And there were many issues related to Japan Tobacco too in terms of whether they would be interested or not, so.
Q. Well, you knew that Japan Tobacco had been in acquisition mode for a number of years; correct?
A. They acquired National American Spirit's international rights. We knew them very well.
Q. And, in fact, they had done approximately six other transactions in the tobacco industry in the past five years; correct?
A. Probably so. Yes.
Q. Probably so.

And you mentioned the Japan Tobacco actually was the prevailing bidder for the global rights to Natural American Spirit cigarettes; correct?
A. That's what I just said. Yes.
Q. And that was something that I believe you said that BAT -- that was an instance where BAT was very unhappy with Reynolds; correct?
A. Correct.
Q. And they were unhappy because they wanted the global rights to Natural American Spirit; right?
A. Of course.
Q. And RAI conducted an actual auction process; right?
A. Right.
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Q. And BAT lost; right?

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A. Right.
Q. And that was in the early part of 2016 ; correct?
A. Right.
Q. And so BAT learned its lesson; right?
A. That's your conclusion. I don't know.
Q. Well, they were in a bidding war. They lost the bidding war to Japan Tobacco. You testified that they were very unhappy about losing that bidding war.
A. Yes.
Q. And then the same year, they come out with an offer to buy and they say, along with it, don't anybody even try this time. Right?
A. All right.
Q. Okay. And did the transaction -- was the Transaction Committee advised by Goldman Sachs that Japan Tobacco told them that they would have been a player, if it weren't for BAT, to buy RAI?
A. No.
Q. Goldman never told you that they had that conversation with Japan Tobacco?
A. No.
Q. Would it surprise you to learn that Japan Tobacco, in fact, told Goldman Sachs that they would have been a player to acquire RAI if BAT hadn't been in the way?
Q. And you didn't ask Goldman Sachs to reach out to Japan Tobacco to see if they would be a bidder for RAI?
A. We did not.
Q. Despite the fact that it had been the prevailing bidder for Natural American?
A. Correct.
Q. And you testified, Mr. Wajnert, that because there were no other buyers in this process, all that you could do was negotiate with BAT for the best price that it could pay; right?

MR. BORNSTEIN: Objection, Your Honor.
THE COURT: Basis? Mischaracterized the evidence?
MR. BORNSTEIN: Yes, sir.
THE COURT: Ms. Sadighi?
BY MS. SADIGHI:
Q. You testified that because there were no other buyers, in your opinion, that all you could do was get the best price you could out of BAT or not do the deal; right?
A. Or not do the deal. Correct.
Q. And you were aware that BAT's maximum price was limited by its own financial considerations; correct?
A. Every buyer's financial considerations places a limit on them. Sure.
Q. And BAT, in fact, sent the message through its financial advisor that it was constrained in what it could or
would pay; correct?
A. I'm sure they represented it in all kinds of ways. Yes.
Q. And you're aware that BAT had advised Reynolds that -- withdraw. Strike that.

You're aware of the company's financial advisors advising the committees about BAT's likely debt capacity in connection with what it could afford to pay in a cash component for a deal?
A. I'm sure we had those conversations. Yes.
Q. Now, when you're negotiating with only one possible suiter -- you were relying on the advice of your financial advisor to consider the BAT offer; correct?
A. We were relying on our own experience and judgment and the advice of our financial advisor.
Q. But you, yourself had no idea of the fair value of Reynolds; correct?
A. Of course I had a sense of what I thought the fair value was. We can all sit around this room and everybody have a view of the fair value.
Q. Then why did you need to hire a financial advisor?
A. Prudent and required.
Q. Mr. Wajnert, do you recall giving a deposition in this matter?
A. Yes.
talking about a long-term financial forecast versus a plan. And we reviewed many forecasts, many sets of numbers in terms of trying to understand what the future might look like under a different set of scenarios.

The most difficult part of the tobacco business was, of course, all of the risks that were being faced. And so those were never included specifically in the longer term plans in terms of what would happen if menthol was banned. We knew that was a risk but it was never in financial forecasts as such.
Q. Well, and that -- when you talk about presentations to the board, would you agree with me that the board received higher level overviews that were roll-ups of the detailed financial forecasts?
A. I'm sure we received the highest level.
Q. Okay. And is it your understanding, though, that when Mr. Peters, as the CFO of RJRT, presented to the board an overview of the -- the financial overview of the ten-year strategic plan, that that overview was based on a roll-up of all of the underlying actual forecasting that was done by RAI's - -
A. I don't know that.
Q. You don't know?
A. No.
Q. You don't know one way or the other?
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    THE COURT: No. I mean, which document are we
    looking at?
    MS. SADIGHI: We are still in JX4, Your Honor,
    which is the --
    THE COURT: Oh, I see. You're on page 27. I'm
    sorry.
MS. SADIGHI: The ten-year strat plan. Financial
overview.
THE COURT: Thank you.
BY MS. SADIGHI:

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Q. And this is DX -- sorry -- this is JX4.0027.

And the bottom row on this chart indicates that management was projecting that RAI's -- RAI was going to continue to have operating income growth between 2016 and 2025 of 7 to 8 percent; correct?
A. That's -- yes, that's what the chart says.
Q. And so there was no assumption in here that price would not be able to make up for volume declines beginning in 2021; correct?
A. I assume that's correct.
Q. And, in fact, Reynolds used these projections and the board relied on these projections in making judgments about the funding of capital expenditures; correct?
A. What you're looking at would be the basis of capital expenditures that were made in a shorter period of

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
time. So the justification was based on one-year plans, two-year plans, and the like.
Q. But the projections -- to be able to project ten years of income growth was important to the ability of the company to plan cash requirements long term. Is that correct?
A. No. I don't really believe that the ten-year forecast was used for cash planning purposes.
Q. So still in JX4, and let's look at page 31.

So in this same financial overview presentation of the ten-year strat plan, this is indicating that cash flows from operations were projected as sufficient to fund corporate initiatives and debt ratios for the years 2016 to 2025. Correct?
A. Yes.
Q. And projecting a capital spend to be a hundred to \(\$ 200\) million per year from 2016 to 2025 ; correct?
A. Yes.
Q. And that was the purpose of projecting cash out for ten years; correct?

MR. BORNSTEIN: Object to form.
A. The purpose of the strategy session, which was three days, was a conversation about the overall impact on Reynolds American from various factors, and the conversation with management about their opinions about what would happen

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over time. I think you're making this more formal than it was. Mr. Peters' presentation, I think if we replayed it, probably took about a half an hour at the end of a three-day presentation. So I just wanted to give the context. BY MS. SADIGHI:
Q. But it was important enough for Mr. Peters to be able to assure the board that Reynolds was projecting sufficient cash over the next ten years to fund its strategically-planned corporate initiatives and debt management; correct?
A. Under a certain set of assumptions, yes.
Q. And those assumptions were the assumptions that all of the employees involved in the Reynolds forecasting process made in their best judgment to build up the ten-year projections; correct?
A. I don't know that.
Q. You don't know one way or the other?
A. I don't know how many people were involved in it.
Q. You didn't have an understanding about the processes that Reynolds used to construct its financial forecasts?
A. No.
Q. And did anyone at the Strategy Day meeting in July of 2016 tell the Court -- tell the board that they expected there to be a growth cliff five years out?

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
disastrous for the company.
Now, there's arguments that it could have taken two or three years to happen, it could do this, go that way, go that way. So there were too many uncertainties to be able to model such an event.
Q. Well, you've talked about menthol a couple of times and I think you've described menthol as a potential major threat to Reynolds; correct?
A. Right.
Q. And you were involved in Reynolds' 2015 acquisition of Lorillard; correct?
A. Yes, I was.
Q. And at the time that Reynolds was considering acquiring Lorillard, fair to say that Lorillard's main product was Newport cigarettes?
A. Yes.
Q. And Newport is a menthol cigarette; correct?
A. Yes.
Q. So the majority of the business that Reynolds was considering acquiring was a menthol cigarette business; right?
A. Correct.
Q. And I'm assuming that in 2015, under the Obama administration, the same risks of a potential menthol ban existed; right?
A. It probably would have included that as well as many other matters. Yes.
Q. And part of the reason that the board would want to engage a financial advisor to value Lorillard was because the Reynolds board was looking at spending a lot of money to buy the company; right?
A. Correct.
Q. And that ended up being about a 30-billion-dollar transaction. Is that correct?
A. Correct.
Q. And it would be important for the board in discharging its fiduciary duties to Reynolds' shareholders to make sure that it wasn't overpaying for an asset; correct?
A. You never want to overpay for an asset. Okay.
Q. And so it's important to have a -- the best idea you can about the value of that asset; correct?
A. It's important to have all the best information you can have. Yes.
Q. And you talked about having no idea about when a menthol ban could possibly come down; right?
A. Correct.
Q. But the Reynolds board was sufficiently comfortable that it wasn't happening in the near term, enough that it was comfortable approving a 30 -billion-dollar acquisition of that company; right?

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
A. In 2015, that was the judgment that was made, yes, based on the information that we had.
Q. And are you aware at the time that Reynolds was talking about acquiring Lorillard of Reynolds' shareholders asking Reynolds, Hey, what about the risk of a menthol ban, why are we buying a company that's a menthol cigarette company?
A. I don't recall that. I believe the shareowners supported the transaction very well.
Q. But you don't have any personal knowledge of Reynolds responding specifically to shareholder inquiries about the risk of a menthol ban?
A. I have no personal knowledge of that.
Q. Do you think that the risk of the menthol ban was different in 2015 from what it was in 2017 from what it is today?
A. It was early in the process in 2015. There was more information out as we go along in terms of the FDA and its regulatory approaches and how it approaches things. So we have changes at the FDA in terms of its leadership. So it's still unknowable.

In 2015, it was an emerging risk but it was a risk we chose to take. It still exists today. I don't know how management quantifies it today, BAT and the like.
Q. So the point is it's unknowable at all of those

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
times; correct? Until it happens, unless you're heading up the FDA, it's unknowable; right?
A. It's unknowable, but the judgment we made in 2015 was that it was worth the risk of something occurring. We would have been dreadfully embarrassed and we would have been kicked out if the ban had occurred six months after we acquired Lorillard. Yes. We felt that wasn't going to happen in the near term and it was worth the risk, but we didn't know and that was the debate internally at the board.
Q. And the Lorillard deal was done in 2015; correct?
A. I believe that's right.
Q. And you were sufficiently confident at that time that it wasn't likely to -- a menthol ban wasn't likely to happen in the near term; right?
A. We felt it was worth the risk. We didn't know. It could have happened in the short term.
Q. But you were still able to make the decision to buy the company for \(\$ 30\) billion.
A. Yes.
Q. And is there anything that you can point to that would change the board's view of the risk of a menthol ban between the time it acquired Lorillard in 2015 and the time it was talking to -- received BAT's initial bid in 2016 ?
A. I really don't recall what was going on between 2015 and 2016. It's not likely.
MS. SADIGHI: Okay. I'd like to move JX4 into evidence.

MR. BORNSTEIN: No objection, Your Honor.
THE COURT: Admitted.
(JX4 was marked and admitted into evidence.)
BY MS. SADIGHI:
Q. When the Reynolds board was working on the Lorillard acquisition, it retained Lazard as its financial advisor; correct?
A. Correct.
Q. And Lazard is also RAI's -- one of RAI's financial advisors in connection with the BAT transaction; correct?
A. Yes, it was.
Q. And as part of its mandate as RAI's financial advisor in connection with the Lorillard transaction, Lazard also did a valuation of Reynolds; right?
A. I suppose so. I'm not sure.

MS. SADIGHI: I'm going to mark DX393.
BY MS. SADIGHI:
Q. Is it that you don't recall one way or the other whether Lazard was retained --
A. It could have. I don't recall.
Q. Okay. We're going to take a look at -- this is the -- if we look at the front page of DX393, this is the Schedule 14A, Definitive Proxy Statement for Lorillard, Inc.
that they are going to derive over time.
Q. And so is it fair to say that in order for shareholders of RAI to make an informed decision about whether or not the Lorillard merger was a good idea, they needed an as-accurate-as-possible comparison of the pre-Lorillard value of the company with the projected post-Lorillard transaction value?
A. Yes.
Q. And you understand that the opinion given by Lazard in this role was intended for Reynolds' shareholders to be able to rely on in making that decision; right?
A. Sure .
Q. If we take a look at page 393.0147, and I'm looking at the bottom portion that has discounted cash flow, has gets analyses. Do you see that?
A. Now I do.
Q. Okay. And this is a description of how Lorillard performed its discounted cash flow valuations of RAI on a has and on a get basis. Correct?
A. This is how Lazard did it.
Q. This is how Lazard did it. And Lazard was retained as RAI's financial advisor?
A. Correct.
Q. And this is when RAI is the acquirer?
A. Correct.
A. I don't recall and I don't know.
Q. Now, in 2016, the board approved a request from Reynolds management to institute a 2-billion-dollar stock repurchase program; right?
A. Correct.
Q. And you've talked about and looked at the governance agreement. BAT had directors in the room that had been appointed since 2004; correct? Not the same ones --
A. Right.
Q. BAT --
(Simultaneous speakers.)
A. BAT had five investor directors. Two of which were executives, three of which were -- met the independent standards.
Q. Okay. And BAT appointed directors were involved in the board review and approval of the share repurchase program; correct?
A. I don't recall if they recused themselves or not.

If it would have had an impact on BAT, they would have recused themselves.
Q. So I want to look at -- do you recall that as part of the governance agreement that we talked about that BAT, in fact, had -- had to give its approval for Reynolds to institute a share repurchase program?
A. They had approved all along share repurchase
programs, and I assume that was in the governance agreement. I'd have to review the agreement to be sure of that. They participated. Let's put it that way.
Q. They participated --
A. In a share repurchase. Yeah.
Q. And they participated in the board meetings talking about the share repurchase program; correct?
A. I don't recall.

MS. SADIGHI: Could we mark DX284, please? Should
be in the binder.
BY MS. SADIGHI:
Q. Okay. Mr. Wajnert, DX284, do you recognize this document as minutes of the meeting of the board of directors of Reynolds American, Inc. on July 25th, \(2016 ?\)
A. Yes.

MS. SADIGHI: And we would move 284 into evidence.
MR. BORNSTEIN: No objection, Your Honor.
THE COURT: Admitted.
(DX284 was marked and admitted into evidence.)
BY MS. SADIGHI:
Q. And if we look at the minutes of this meeting, it indicates that you, sir, were present; correct?
A. Correct.
Q. And do you know which of the directors that are indicated as being present at the meeting were directors who
were appointed by BAT?
A. Yes. Mr. Abelman, Mr. Oberlander were the two executive directors. Mr. Feinstein, Mr. Rolfe were the independent directors.
Q. Thank you. And if we look at the bottom paragraph of that first page, you set the stage for the board by indicating that the purpose of the meeting was to consider a number of items, one of which was to consider approval of a share repurchase program; correct?
A. Yes.
Q. And if we go to the page that's DX284.003. And if we look at the big paragraph under the second Further Resolved. This indicates that Mr. Gilchrist -- Mr. Gilchrist was RAI's CFO. Is that correct?
A. Correct.
Q. And Mr. Gilchrist was recommending to the board that the board authorize the purchase by RAI of up to \(\$ 2\) billion of shares of its common stock; correct?
A. Correct.
Q. And BAT was in the room for that discussion by Mr. Gilchrist; correct?
A. Apparently, yes. According to the minutes. The minutes would have said that they recused themselves otherwise.
Q. You're right, sir. If we want to look at page 5,

I'll represent to you that it does indicate that
Mrrs. Abelman and Oberlander abstained with respect to some decisions relating to the purchase agreement.

But BAT-appointed directors were at the board meeting, and while they abstained from voting, they weren't recused for the discussion; correct?
A. Yes.
Q. And during that discussion, if we go back to DX284, page three, and we look at the very bottom paragraph which goes over to the next page as well. Mr. Gilchrist advised the board that, based on conservative assumptions, the discounted cash flow modeling currently supports a maximum share price of \(\$ 65\) for the proposed share repurchase program; right?
A. Right.
Q. Now, when a company allocates cash to purchase its own shares on the open market, that's because the company thinks that the stock is cheap; right?
A. It's one of the reasons. Sure.
Q. Because the board isn't going to pay a shareholder more than what the company believes the stock is worth; correct?
A. Correct.
Q. Because if you knowingly overpaid for the stock of Reynolds, that could be considered a waste of corporate
assets; right?
A. You're buying back the stock because it's at less than what you believe fair value. Yes.
Q. Correct. And if you knowingly overpaid, that could be a breach of fiduciary duties; right?
A. You overpaid. Right.
Q. So in July of 2016 when Reynolds decided that it was a good time to be a buyer of its own stock, the stock was trading at -- I'll represent to you that the stock had hit a high trading price of 54.48 .

Does that sound like it rings a bell with your knowledge of what you testified you were always aware of Reynolds' stock price?
A. Sounds okay.
Q. And --
A. Sounds reasonable.
Q. Okay. And that was three months before BAT made its offer to Reynolds; correct?
A. Yeah. I'm sorry. I don't recall the date of this.
Q. Sure. This is -- this is July 25 th, 2016.
A. Right. Correct.
Q. So three months before BAT made its unsolicited bid.
A. Yes.
Q. And the board, in fact, did vote and adopt
A. It was not publicly disclosed.
Q. And the fact that Reynolds board approved purchasing its own shares for up to \(\$ 65\) a share was not publicly disclosed; correct?
A. The buyback was disclosed. Probably not the price levels.
Q. And the stock then traded down from its high July price to the point at which BAT made its offer; correct?
A. I believe so.
Q. Okay. And so it didn't surprise you that the timing of BAT's offer, that it -- it heard this projected 8 percent ten-year growth and it heard that Reynolds thought its shares were a buy at 65 without even a control premium, and now the stock from a market that doesn't know that information trades down, it doesn't surprise you that that's an opportune time to make a bid?
A. I told you I was surprised.
Q. Now, before you resigned from the Transaction Committee, you presented a counteroffer on behalf of the company, on behalf of Reynolds to BAT; correct?
A. Correct.
Q. And that counteroffer was for \(\$ 59.69\) per share; right?
A. I believe that's right.
Q. And that counteroffer was delivered temporally
after a Presidential election that had campaigned on a promise of corporate tax reform; right?
A. Yes.
Q. And so Reynolds was willing to sell the company at \(\$ 59\)-- to recommend a sale at \(\$ 59.69\) per share, even though, six months earlier, you were willing to pay \(\$ 65\) a share for Reynolds' stock without even a control premium. Is that right?
A. We offered to sell the company -- or recommend to the shareholders a sale at \(\$ 59\) and 60 some cents. Yes.
Q. And that sale would have to include the control premium; right?
A. Yes.

MS. SADIGHI: I have no further questions. Thank you, Mr. Wajnert.

THE COURT: Redirect?
MR. BORNSTEIN: Thank you, Your Honor.

\section*{REDIRECT EXAMINATION}

BY MR. BORNSTEIN:
Q. Can I ask you to turn to something in the binder? Or we could put it up on the screen. Whichever is easier. I'm a binder guy.
A. That's fine. I have so many binders here.
Q. It's the very big one on the corner. And I'm going to ask you to turn -- and if we could put it up on the screen
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if we could -- to DX393. Are you there?

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A. Yes.
Q. Okay. And this was the proxy that we looked at in connection with the transaction between Reynolds and Lorillard. And I'm going to bring us back to a page that Ms. Sadighi asked you about which ends at . 1 -- . 0148 .
A. All right.
Q. And up on the left side of the page, Ms. Sadighi asked you a few questions about these valuation ranges that Lazard who was advising Reynolds reached in performing a discounted cash flow. Do you remember those questions?
A. Yes, I do.
Q. And do you remember she pointed you to these high-end ranges of 87 and \(\$ 93\) ?
A. Yes.
Q. And you asked her a question.
A. I did.
Q. You asked: How many shares were outstanding at the time?
A. Correct.
Q. Can you tell me why you asked that question?
A. Because there was a stock split around this particular period of time.
Q. And why is the stock split of relevance here?
A. Depending on the calculation of the stock split, if
brand and the reason that it strategically was a very attractive company was because of Newport. That's a -- the leading menthol brand in the -- in the market. Had been doing very well. That's why Reynolds was very interested in Lorillard at the core. That's a menthol brand.

Competitively, some of the other brands would have been Kool and Salem, which were Winston brands. They would have been natural candidates to include in the perimeter. One for regulatory reasons, but also if you had Newport, those were the -- that's the menthol brand you would focus on. So it would probably be a better owner for Kool and Salem for the long term. So. . .
Q. Did -- was there also a cash investment required from BAT?
A. Yes, there was. They invested roughly five -\(\$ 5\) billion to retain -- to maintain their 42 percent ownership in the pro forma, the resulting combined Reynolds/Lorillard company.
Q. Now, towards the end of the deal, were you asked or was Lazard asked to prepare to provide or -- if it could, a fairness opinion?
A. Yes. We did. We were asked to render an opinion, and we did.
Q. And what's the sort of nature of the fairness opinion in that kind of context, in an M\&A context?

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shareholders?
A. So we looked at it several ways. We did -- we looked at Lorillard independently. So we did a valuation -we performed a valuation analysis on Lorillard. And then given the nature of the transaction, in that Reynolds was issuing shares to Lorillard shareholders and also paying cash, we also looked at another methodology that we call has -- has gets, which it actually -- it's what the name implies.

We compare what a Reynolds shareholder has, in this case, a share of Reynolds, and the gets is a share in the new company. And the new company was going to be meaningfully impacted by the transaction. So we looked at that pro forma entity as well and performed a valuation on that to compare it to a standalone Reynolds valuation. So we did it -- we did it both ways.
Q. Okay. And did you do any other analysis?
A. Yeah. We looked at other -- so when I say both ways, we did discounted cash flow analysis for -- in both cases. We looked at precedent transactions in -- in the tobacco space. We looked at trading multiples of tobacco companies. Again, in both cases.

And then we also looked at a few -- a few other methodologies, which in -- in our parlance, Lazard parlance, are below the line. So they don't form a basis for our --

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there was.
Q. And Speaker Boehner was one of the other directors?
A. That's right. He was unaffiliated.
Q. When you said that some of the directors had financial experience, were any, to your knowledge, familiar with M\&A transactions?
A. I think a -- for sure they were familiar. If only because of the transaction that we had just done a couple of years before Lorillard, which was actually a really complex transaction with, of course the Lorillard transaction, but also the disposal of the brands to Imperial. So that was an education for everybody involved.

And, yeah, there were definitely directors who had done M\&A in their other capacities for sure.
Q. Now, when you were looking at the RAI stock price, did you form a view as to whether the stock price reacted to the recent news about the company into the market?
A. Yes. It was -- like I said, it was widely -previously I said, it was widely covered by the analyst community. It was a lot of -- it was a very large company, very liquid. Certainly -- yeah. No indication that the market wasn't absorbing news on a regular basis. So widely covered. Widely held stock.
Q. So at the end of the day, did Lazard end up representing the Transaction Committee?

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Mecklenburg County Courthouse, North Carolina

BY MR. ROLNICK:
Q. Good morning, Mr. De Gennaro. My name is Lawrence Rolnick. I represent a group of the dissenting shareholders in this action.
A. Morning.
Q. So I think you were testifying on direct that prior to the work you did for RAI in connection with the BAT transaction you had previously worked on the Lorillard transaction. Is that correct?
A. Yes.
Q. And, in fact, your work for the -- your work on Lazard began in 2012 when there was possible speculation about the combination between Lorillard and RAI; correct?
A. Yeah. I mean, it was periodic speculation around Reynolds/Lorillard. I don't believe that our work was a direct result of that speculation. But it wasn't a new concept. So I don't disagree with it. It just wasn't directly linked.
Q. Okay. And in general, that combination had antitrust concerns which resulted in RAI divesting some of its brands to a third company where the combination could occur with Lorillard; correct?
A. Yes. That's right.
Q. And in connection with that work, Lazard was paid approximately \(\$ 29.5\) million; correct?
A. At consummation. We also -- we also received an announcement fee. So in aggregate, we -- our fee was 37 and a half.
Q. Okay. And you began to advise Reynolds on the possibility of an acquisition by BAT given its 42 percent stake in the company after the standstill with BAT expired; correct?
A. Well, we did some -- we did some work, some analysis looking at that potential transaction and also looked at the BAT/Imperial transaction, which was also one that was speculative in the analyst community. So we did work earlier in 2016 around that.
Q. And, in fact, prior to the time that BAT made its offer, you had already been meeting -- you had meetings with Reynolds' CFO to talk specifically about what a BAT offer might look like; correct?
A. Yeah. Like I said, we did some work contemplating that. And again, it's a 42 percent shareholder. One of the things that you can imagine looking at is the potential for an offer to acquire the remaining part. So it was -- it wasn't a new topic. Some of the analysts talked about it periodically. So that was the nature of it. It was very exploratory and speculative.
Q. Okay. But you were actually trying to figure out with the CFO how much BAT would likely be able to afford to

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pay and how they would finance that; correct?
A. Yeah. That was the gist of the analysis was to get a sense from -- potential sense from their perspective.
Q. And you were looking at, for example, what the tax ramifications might be to BAT and how that could impact what they would pay for the company; right?
A. That's right. If they structured it a certain way, yeah.
Q. And all of this was with an eye toward trying to figure out how much BAT could pay and how they would afford to pay it; correct?
A. Potentially. I don't know that it was an eye to that. It was to actually look at the scenario whereby BAT wanted to make an acquisition, what might they then be able to pay? That was the nature of the exercise.
Q. And specifically, those discussions occurred with the CFO, Mr. Gilchrist; correct?
A. Yeah. We had a meeting with Andrew and his team. And then we even had a meeting involving Susan because it was just a running -- a running topic of the sort that you would have if you have a shareholder structure like this.
Q. And that Susan you're referring to is Susan

\section*{Cameron?}
A. Yeah. Susan. Susan Cameron. Yes.
Q. The CEO?
any obligation to sell.
And the other thing is just the scale of the business and the -- given the sector, it's a fairly narrow set of parties that can even entertain a transaction of this sort. And adding to that, the fact that BAT wasn't interested in selling its stake, that is something that's noteworthy. And even at the very early stage, knowing nothing more than what we knew, it's something that we would flag for the benefit of the directors and for the discussion because you have to take that into account.
Q. And, in fact, you canvassed some market reactions and already the market -- I'm sorry.

If you go to page 23 , you lay out, "What Options Could RAI and BAT Pursue?"

Do you see that?
A. Yes.
Q. And if you look down on the third bullet, one of the options is, "Approach other potential counterparties." Right?
A. Right.
Q. And you have stated under there, "BAT's 42 percent ownership stake and the Governance Agreement are significant limiting factors."

Do you see that?
A. Yes.
Q. So is that consistent with the testimony I think
you previously gave, which was, while it might be nice to
consider approaching other counterparties, the fact that BAT
said it wouldn't support another transaction or another sale
and was the 42 percent owner, was, in fact, a limiting factor?
A. Yes. That's consistent with what I said. Yes.
Q. And commercial reality is that a 42 percent owner who's not going to support the potential sale to a third party is going to potentially limit how much you can get for the company; correct?
A. Yeah. In effect, it's just a -- it's an important consideration.
Q. Because it could limit what you could get; right?
A. Well, right. If somebody's not interested in selling, that -- that has to be factored in.
Q. And the market reaction was that BAT's position as a 42 percent owner and having indicated that it wouldn't sell or support a transaction selling the company to somebody else, the market thought that that was going to limit any potential upside further improvements in an offer; correct?
A. Well, I -- I don't have a specific recollection of that. But it just -- it makes sense that if you look at it at that time, given the scale of the business, the size of the business, the industry it's in and the fact that a 42
A. Yeah. I just don't know. I don't have a specific recollection. I remember words, but I couldn't tell you now what a lead brand is versus a drive brand.
Q. Have you heard of an expression "tail brands"?
A. Yeah. Yeah. I can imagine what those are.
Q. Tail brands are brands that are losing market share; right?
A. Yeah. Some of the smaller brands. Yeah.
Q. So Reynolds had strong brands, which were Camel and Pall Mall, and it had weak brands, which were Winston, Salem and Kool; correct?
A. Yeah. Weaker. I wouldn't say weak, but weaker.
Q. Well, one's growing and one's shrinking; right?
A. Yeah.
Q. And Lorillard had Newport, which was a strong brand; right?
A. Right.
Q. A growing brand; correct?
A. Yes, it was.
Q. Okay. So through this transaction and given the antitrust issues in the divestiture, what wound up happening was RAI consolidated three strong -- three strong drive brands and divested three weak tail brands; correct?
A. Yeah. Weaker brands.

They also had Maverick in there which was a decent
brand from the Lorillard portfolio.
Q. So is it fair to say that the new RAI that emerged from the Lorillard transaction was a much different company than the old RAI prior to that transaction?
A. Well, it depends on -- what do you mean by much? It was obviously a different company. And the whole point of that transaction was to make it a more attractive portfolio with better long-term prospects. And that's what drove that deal ultimately, the strategic value of it. And then it wore out.
Q. And you and Lazard were largely responsible for structuring that transaction; correct?
A. Well, we advised throughout and we supported the company and the board in putting that together.
Q. So that the new RAI that emerged from that transaction was stronger and had a stronger growth profile than the old RAI that went into that transaction; true?
A. Yes. I would hope so. There was a lot of work to get to that point. It was a good deal.
Q. So when you were doing the work on the Lorillard transaction, management gave you ten-year projections. I think you mentioned that when you were being examined by Mr. Rafferty; correct?
A. That's right.
Q. And I'd like you to look at the document marked
A. That's right.
Q. Okay. So for Reynolds, your first bullet says, "Based on Robin management plan: 6.9 percent 2013" -- and "E" is estimated; correct?
A. That's correct.
Q. 2013 estimated through 2023 estimated operating income. And then there's an acronym, CAGR, which means compound annual growth rate; correct?
A. Yes.
Q. So is this indicating that Reynolds had given you a ten-year plan, ten-year operating income projections and that those projections showed 6.9 percent compound annual growth operating income?
A. Yeah. For this set of numbers, yes. That's what it would say.
Q. And it was your understanding, based on your interactions with RAI's management, that these projections were reasonable; right?
A. Yes. A lot of work went into them. This was the spring of 2014 so by now we had been working on this for well over a year and a half. So, yeah, there had been a lot of effort on the part of management.
Q. And management indicated to you, and you actually reflected in your fairness opinion, that these projections were reasonably prepared, were reliable and were based on the

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best estimates of Reynolds' benefit; correct?
A. Yes. The ultimate set of projections, which may have been different from these. A lot happened during the spring of 2014. But, yes, your point, your overall point stands.
Q. And nobody said to you at that time that it was impossible for Reynolds to project ten years; right?
A. Well, no. We used it. Like I said, this was a process that played out over an extended period of time. And we used numbers that were constantly refined, including the spring of 2014.

Just as context, we had entertained a potential merger of equals with Lorillard which would have entailed a lot more stock. And that ultimately fell apart. So we had to go back to the drawing board and make it more like an acquisition, which resulted in. It just meant that the company had to go back to the drawing board and really push on synergies and assumptions on Newport in order to get a set of financials that could justify -- now, they have to be prepared on a reasonable basis, but you really have to dig deep.

And so all that happened over the course of months and months and months. So in this case, we used a ten-year set of numbers.
Q. And they had to be done well because billions and

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
Q. So this set of projections isn't an extrapolation. It's actually built off of the ten-year plan that was contained in the strategy document that you got five days earlier; right?
A. Yeah. Presumably. That's where it would have come from.
Q. Okay. And we don't need to go back to the strategy plan and compare it to this document to convince you that, in fact, this is an implementation of the ten-year plan containing the strategy plan?
A. Yeah. I mean, I trust the source. But also, again, the purpose of this is early on building out a model. This is not output that I would have ever looked at at that time or seen or used in any way. So it's irrelevant to my view at this time.
Q. Okay. Now, if you could take a look at the next document, D 157, this is a document in which you -- I'm sorry.

MR. ROLNICK: My colleague has reminded me that I should move the prior DX153, DX169, DX156 and DX157 into evidence.

THE COURT: Any objection?
MR. RAFFERTY: No objection, Your Honor.
MR. ROLNICK: Thank you.
THE COURT: All right. Then DX169, DX156 and DX157

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should be based on a 5-year set of projections. Please remember to adjust it."

Do you see that?
A. Yes.
Q. And is that because at the meeting with the client, you brought the ten-year projections and the client directed you to use five-year projections?
A. At some point, we definitely concluded -- got direction from the company to use a V five-year set of projections that we ended up using. And based on these emails, this is probably the time frame when we actually got confirmation that we would be using five-year -- a five-year set of forecast, which was fine.

MR. ROLNICK: Okay. Now, I'd like to mark as DX -I'm sorry. Could I move that into evidence Your Honor? D159 and 158.

THE COURT: Any objection?
MR. RAFFERTY: No objection, Your Honor.
THE COURT: DX158 and DX159 will be admitted.
(DX158, DX159 were marked and admitted into evidence.)

BY MR. ROLNICK:
Q. I'd like to show you a document, DX140. Now, I have this document in two forms. For the Court's convenience, \(I\) had it printed out, but it's sometimes harder

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we were going to use what we got, and we wanted to be in a position to use what we got. There's no issue with a five-year set of numbers. There just wasn't this pressing question, other than from a procedural standpoint. We needed to know what numbers we were going to get in order to be able to do analysis if and when the time came.
Q. Is it fair to say that when you were rendering your fairness opinion in connection with the BAT transaction that you didn't know that management had detailed ten-year projections?
A. What do you mean, we didn't know? We -- all we knew is what we had and --
Q. Well, that would mean you didn't know.
A. Yeah. I had no -- no impression or understanding that there was some other set of numbers somewhere. And again, for use in this particular circumstance, which is to evaluate a takeover proposal.
Q. But with respect to the five-year projections, you got clear confirmation and direction from management to use those five-year projections; correct?
A. Yes. Once they've had a chance to go through the internal process that they needed to go through. Because I'm very understanding of a company putting together a set of numbers for the purposes that we as financial advisors use them. It's not ordinary course for companies to just have a
set of forecast to use for any number of circumstances.
In a transactional context, we need detail and granularity to the extent that it genuinely requires some attention from management to put that together. Even if there's existing work, they need to go back to it and make sure that it meets, not only what we need in terms of the granularity, but also that it represents their best view at that time for whatever period they're looking at.

A lot of companies typically put a lot of focus on the budget year, which is the year term, but that's -- that's the bulk of their attention. They'll have some years that follow that but not necessarily to the same level of detail or comfort. And so it's not atypical for us to get sets of numbers that are specifically put together for a specific transaction because they're just not just sitting around at the company.
Q. Okay.
A. And that takes -- that takes time.
Q. Okay. And with respect to the five-year projections that they told you to rely on, did anybody ever suggest to you in any way, shape or form that those projections were unreliable?
A. That they were unreliable? No.
Q. To the contrary; right? They assured you --
A. Right. Absolutely. Yes. To the contrary indeed.
growth rate that you were talking about earlier and the discounted cash flow analysis.
A. Okay.
Q. And I think that the first thing you talked about was the fact that you were going to do a discounted cash flow analysis so you sort of dusted off the work that you had done in Lorillard and you made that your starting position for doing a discounted cash flow in connection with BAT; correct?
A. I wouldn't characterize it as dusting off. But we had the benefit of our experience with the company so that was the starting point.
Q. I didn't mean to disparage it in any way by saying dust it off. I'm just saying you went back to that old work and used that as your starting work for the new assignment?
A. For aspects of it, yes.
Q. And you mentioned the fact that one of the things you have to look at was the discount rate; right?
A. Right.
Q. Which is the weighted average cost of capital.
A. That's right.
Q. And you said that had to be updated from the work that had been done on Lorillard; right?
A. That's right.
Q. And that's because the weighted average cost of capital as an input to the DCF analysis has to be
\begin{tabular}{|c|c|}
\hline 1 & THE COURT: Admitted. \\
\hline 2 & (DX154 was marked and admitted into evidence.) \\
\hline 3 & THE COURT: Next one? \\
\hline 4 & MR. ROLNICK: DX155. \\
\hline 5 & THE COURT: Any objection? \\
\hline 6 & MR. RAFFERTY: No objection, Your Honor. \\
\hline 7 & THE COURT: That one's admitted. \\
\hline 8 & (DX155 was marked and admitted into evidence.) \\
\hline 9 & MR. ROLNICK: DX162. \\
\hline 10 & MR. RAFFERTY: No objection, Your Honor. \\
\hline 11 & THE COURT: DX162 is admitted. \\
\hline 12 & (DX162 was marked and admitted into evidence.) \\
\hline 13 & MR. ROLNICK: And DX148. \\
\hline 14 & MR. RAFFERTY: No objection, Your Honor. \\
\hline 15 & THE COURT: All right. DX148 is admitted. \\
\hline 16 & (DX148 was marked and admitted into evidence.) \\
\hline 17 & BY MR. ROLNICK: \\
\hline 18 & Q. So look at Exhibit 148. These were discussion \\
\hline 19 & materials you produced on Project Green. \\
\hline 20 & Do you see that? \\
\hline 21 & A. I see that. \\
\hline 22 & Q. So this is an overview of financial projections for \\
\hline 23 & RAI standalone; correct? \\
\hline 24 & A. Yeah. I see them. \\
\hline 25 & Q. And these are ten-year projections; correct? \\
\hline
\end{tabular}


> MR. ROLNICK: Sorry, Your Honor.
> THE COURT: I'm with you now.
> Go ahead.

BY MR. ROLNICK:
Q. So we're on DX169.040. Do you see this is the ten-year projection for Reynolds in 2016, July, 2016 ?

Do you see that?
A. Yeah. It's a projection. Yes. A set of projected numbers.
Q. And that's showing compound annual growth of 7.7 percent. Do you see that in the box in the upper left?
A. Yes.
Q. So now we've looked at two sets of ten-year projections. One at the time of the Lorillard transaction and one in July of 2016. And Reynolds' growth rate is now projected to be 50 percent higher over a ten-year period; correct?
A. Well, based on these, on these figures.
Q. Yet despite the fact that Reynolds' growth rate was 50 percent higher in July of 2016 than it was back when you did the Lorillard transaction, you decided to use the same perpetuity growth rate because, in your judgment, nothing had really changed?

MR. RAFFERTY: Your Honor, I object. I think the question mischaracterizes the testimony. We're comparing

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apples and oranges here.
THE COURT: Well, I'll overrule the objection. The witness can answer the question.
A. Yeah. Look, I'm coming back to the long-term prospects of the industry and the company irrespective of what this set of numbers which we didn't use. How it compares to the numbers two years' forth, if there's some percentage difference, that doesn't fundamentally change the profile of the business, which is sustained volume declines over time.

And if you don't find ways to overcome that, you're not going to be able to just grow into perpetuity. That's what grounded our -- our assessment. And like I said, when you look at a DCF, have you to look at all the pieces and how they fit into each other.

And so the combination of the low discount rate and the perpetual growth rate range that we looked at would yield a set of values that actually made sense because the implied exit multiple made sense and also the value in the terminal, the terminal value comprised a vast majority of the DCF value. So there was nothing -- nothing suggesting that it was an unreasonable set of assumptions.

BY MR. ROLNICK:
Q. Well, the other thing that happened, which is really critically important, isn't it, is that whereas you

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applied the zero percent perpetuity growth rate in Lorillard, after nine years, originally ten years, but one year had slipped by, you applied it after ten years.

Here, because you were given only five-year projection and advised to use them, you applied the perpetuity rate after five years; right?
A. That's right.
Q. And that has the effect of completely knocking out the projected growth in years six through ten that were in the ten-year projections; right?
A. Knocking out -- we had five years to work with so I'm not sure --
Q. So when -- I'm sorry. Go ahead.
A. Yeah. We used the five years and then we launch into the terminal value using the perpetual growth rate range.
Q. Okay. And just so we can -- so those of us who aren't --
A. Right.
Q. -- financial, as much versed in finance, in year six, because you applied the perpetuity growth rate starting in year six, you're assuming at that point that the growth rate is zero, correct, starting in year six?
A. Right. Well, you have to make an assumption after the forecast period. And so we have a five-year set of

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    But we use our judgment. You don't have the luxury
    of being too limiting when it comes to comparables. So if
    there's companies that are publicly traded that compete in
    the tobacco space, whether it's combustible, ideally like the
    big companies like Altria, or in other forms of tobacco, we
    reference them. Especially if they're part of the peer
    group.
    Q. Okay. So does it matter whether they sell cigarettes in the United States or not?
A. I think it's a factor, but it -- we don't want to

``` be too limiting when we're looking at peer sets like this because the more data points we have, the more useful. And we -- we won't put undue weight on any one of these companies. We look at medians and then we also look at some of the ones that are more direct and comparable.

There's some art to picking -- picking the peer set and then evaluating the information to arrive at a range for valuation purposes. And that's why we look at a range. We don't have a point value because it's -- there's a judgment element to it.
Q. So Philip Morris, how much do they have in cigarette sales in the United States?
A. Which one?
Q. Philip Morris. How many cigarettes do they sell in the United States?
different parts of the world.
But in the U.S., why wouldn't you look at, you know, the -- the UST transaction, the Altria/UST transaction? It's -- it's relevant.
Q. And would you agree with me that the Lorillard transaction, which I think you described many times on your own today as a very complex transaction involving the purchase of a company and the divestiture of major assets to a third company, is a very different transaction than BAT's take over of RAI?
A. I mean, structurally. But it's a relevant transaction. It's a big --
Q. Structurally and financially; right?
A. Right. But it was acquiring a U.S. tobacco combustible to tobacco company. So it's obviously relevant in the context of this BAT/Reynolds deal, even though the structured transaction is different because of the nature of the divestiture's line, but at the core is a highly relevant transaction.

And I'll just say its context. This set of precedents in the tobacco space, in contrast to some other categories, is actually quite well-defined. We -- we have to very regularly apply judgment when it comes to precedent transactions and peers because there are no twins. And the benefit of having a category like tobacco is that, like I

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A. Yes.
Q. Okay. And in the first one, the base case, the compound annual growth rate is 4.3 percent; right?
A. Yes.
Q. And in the second one, the alternative case, it's 5.9 percent; right?
A. Yes.
Q. So Reynolds before the transaction and Lorillard before the transaction, both had substantially lower growth rates than Reynolds had when BAT was buying it in 2016; correct?
A. Yeah. I mean, this excludes the synergies from the transaction. But, sure. Based on these numbers over that ten-year period, you had a lower CAGR.
Q. And that's because, as we explained -- or you explained at one point today, the combination of the two companies created a much stronger Reynolds because it consolidated major drive brands that had major growth and it divested weak tail brands that had low growth and were declining; right?
A. Yeah. It created a -- it was an attractive transaction. That's why everybody did what they did to put the two companies together.
Q. Right. And so that new and improved Reynolds, the much better Reynolds is the one that was sold to BAT;

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correct?
A. Right. And the one we analyzed in the context of the Lorillard transaction. That's the very company we evaluated in the context of the Lorillard transaction.
Q. Right. And so when you made a decision to use the same perpetuity growth rate for the new and improved Reynolds that you had used for old Reynolds and old Lorillard, you were assuming that the company hadn't changed and that its growth profile hadn't changed when, in fact, it had dramatically changed.
A. I would -- I would not necessarily characterize it as dramatically changed. I think it was an attractive portfolio. But again, I come back to the long-term prospects for an industry that is in sustained steady decline. If -absent some other information, you have to have a reason to have growth into perpetuity if the business is whittling away consistently and in a sustained manner. And that's all I'm saying.

It's that fundamental set of factors had not changed and actually still hasn't changed. This is a declining industry at the core and there's only so much you can price to offset that volume because the volume decreases and the margins at the exit in the case of BAT deal, you had a company that was -- had EBITDA margins well into the 50 s and if you're going to sustain continued growth, you're

Theresa B. Kramer, Official Court Reporter
Mecklenburg County Courthouse, North Carolina
A. Earnings per share.
Q. And one more level of generality, what are earnings per share? What does that represent?
A. That's the earnings per share of stock that is outstanding.
Q. And is there a reason that the company tracked EPS as its primary metric?
A. That was what the shareholders were primarily focused on. That's what our board had structured, you know, a lot of our goals and objectives around. So that was our primary focus and that's where our goals and objectives had been -- you know, had been focused from the board perspective.
Q. And what were the tools that you used to track your EPS performance?
A. We had what we -- we had a financial planning process. So we would have -- every month we would have both the forecast and the actuals package that would come out. So you would look at, you know, performance, historical performance and where we are, and then would you have a forecast on where are we versus our goals and objectives and our plan essentially.
Q. And you referred to the forecasting process. How frequently were these forecasts created?
A. We generally did them every month. So we ran
through the process every month.
Q. And how far out into the future did the forecasts run?
A. Generally it was current year plus two. A couple of times a year for our planning process, the forecasts would be extended to support either the strategic planning process, which was done sort of June, July in support of Strategy Day with the board in July. And then we would have an operating plan process that went to essentially five years to support the operating plan which is where budgets, goals and objectives were all essentially reviewed and ultimately were approved by the board.
Q. Was there a regular calendar during the year when you would perform projections to a certain length? For example, you referenced the July projections for Strategy Day.
A. Yes. Yeah. That was pretty standard. So we would have generally the June numbers would be in support of Strategy Day. Those would be essentially a projection of ten years. Five years would start in September, October. We present those to the board in November at the board meeting.

There may be some feedback on those operating plan numbers. So there may be revisions. And ultimately it would be approved in February at the board meeting.
Q. And was that cadence consistent year after year in

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
Q. Now, how were these monthly projections created?
A. Well, we basically had a bottoms-up process. So we had a financial planning department that ultimately reported up through me or about six people. Six or seven people who were responsible for consolidating a lot of the assumptions, a lot of the numbers. They would take information from all parts of the company based on the assumptions or based on the information that was available.

And they would roll it together. They'd put it in packages, you know, to review on a regular basis. A lot of that was Excel-based packages that could be reviewed and discussed, you know, every month.
Q. And when you were the CFO, what was your personal role in the preparation of the projections?
A. I was part of the reviewing team.
Q. And reviewing for what purpose?
A. We would review it once a month basically to look and see if there was any information that perhaps was missed or wasn't included. You know, we would review the assumptions to see whether the assumptions were reasonable and if there was any new information that needed to be included.
Q. Okay. And were the projections intended to be your best estimate of the future performance of the company over whatever period you were forecasting?

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A. They were intended to be the best estimate up to the future performance based on the assumptions that we had. So again, it was an assumption-based forecast so we would always lay out all of the different assumptions that would be included in the forecast.
Q. And what do you mean when you call it an assumption-based forecast?
A. Well, it would be assumptions based on competitive activity, based on market dynamics. It would be assumptions based on litigation, regulation, taxation. You know, a lot of those things are unknown so we would obviously have to make assumptions. And the way we did that and the way we were -- we structured that was basically to outline what those assumptions were so there was complete transparency on the assumptions. Obviously, you know, everybody was aware of what those assumptions would be and the -- as those assumptions changed, you would expect to see changes flow through the LE.
Q. So one of the assumptions that you mentioned was regulation; correct?
A. Right. That's right.
Q. How would you model into the numbers themselves that appeared in the LE if adverse regulatory developments that might occur?
A. Well, we would have things like taxation in there.
the board, were any of those items actually modeled into the operating plan?
A. No.
Q. And were any of those items modeled into the five-year forecasts that your department and group put together to support the operating plan?
A. Specifically these risks and sensitivities?
Q. Yes.
A. No, they were not included.
Q. All right. Did Reynolds have something called Strategy Day?
A. Yes.
Q. Can you tell us what that was?
A. Strategy Day was a session with the board in July that we looked at essentially our commercial strategies and our business strategies to make sure that they were viable and, you know, on point.
Q. And what was your role personally as CFO in connection with Strategy Day?
A. I certainly would sit in Strategy Day and provide, you know, commentary. But we also provided some backup material in the financial forecast. And generally that was done through a ten-year outlook.
Q. Okay.

THE COURT: Is now a good time to stop for the day

\footnotetext{
That's -- that's it.
}
Q. And why do ten years instead of five years for the Strategy Day compared to the operating plan?
A. Well, again, looking at things like the lines crossing, the lines didn't necessarily cross in five years; right? So the Strategy Day was to -- intended to provide some insight into whether the strategy was working and how long that would take. You know, that was -- and was it financially viable during that time frame? If the lines crossed in year eight or nine, you know, what happened -- we had a good sense, but what happened during that time frame generally with volume and pricing?

You know, as we move forward, you know, and market share picked up, it was also a matter of if we were going to grow a market share, what was the pricing dynamic versus Altria during that time frame as well? If we started growing market share, Altria was losing market share. How did that pricing dynamic play out in the out years? It was a lot of education, discussion debate.
Q. And why not do 15 or 20 years, then?
A. You certainly could have. But I mean, it's assumption based on assumption; right?
Q. Well, was there any special or particular information that you had about years six through ten as compared to years 11 through 15 or beyond?

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Q. So that would be like one of the slides that we saw

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A. That's right.
Q. During your time as CFO, did the company consider executing a share repurchase plan?
A. Yes.
Q. And I don't think we've talked about this yet. So can you just explain generally what a share repurchase plan is?
A. Yes. It's where the company goes on the open market and repurchases its shares to reduce its overall share count.
Q. And when it purchases those shares, what price does the company pay to acquire them?
A. It pays the market price.
Q. Now, what was the reason why Reynolds was contemplating a share repurchase plan during your time as CFO?
A. The strategy behind the share repurchase plan -- or the idea behind the share repurchase plan was we had de-levered through divestment of one of our companies and we had capital to deploy. And part of the capital that we had, given our capital structure, we intended to do a share repurchase program to essentially help boost EPS and overcome the NPM cliff at that point in time.
So just going back, the NPM cliff, in 2017, we had
    a 200-million-dollar increase in cost of goods as the credits
    from the MSA, the settlement that we had in 2012 , those
    credits rolled off. We had a 200-million-dollar increase in
    cost of goods as those credits rolled off.
    In order to continue to grow earnings per share,
    which was our focus of our financial objective given to us by
    the board and really from our shareholders, one way to do
    that or to mitigate the impact of that 200-million-dollar
    impact from the NPM cliff was to reduce the share count to
    help boost EPS.
    So it was a cliff -- what we call a cliff
    mitigation element to help overcome the impact of the loss of
    those credits.
Q. And at the risk of asking a very basic question, how does repurchasing shares boost earnings per share at the company?
A. Well, your earnings are what they are but your -obviously your denominator becomes lower. So it's -- it boosts your EPS. Fewer shares. Same earnings. Fewer shares. So earnings per share is higher.
Q. Now, did you need board approval for the share repurchase program?
A. Yes, we did.
Q. And what issues did you need the board to approve?

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A. Yes.
Q. So if we start at the bottom level of the pyramid, those are the inputs that are being made by all those people in the business areas of the operating company; right?
A. Most of it was in -- was in input from finance.

So, you know, we had six or seven financial planning people and they would reach out to the different areas of finance. So if you had marketing finance, the marketing finance people would provide inputs. If they had operations finance inputs, the operations guys would provide that in. But it was generally put in by finance people.
Q. Okay. And those finance people were -- is that part of the result of the more transparency in communications? I mean, the finance people who are making the assumptions, for example, for volume or marketing, they're not just making those numbers up; right? That's not just located from -- it's actually happening?
A. Yeah. The volume would be done by a totally separate group; right? So that came from the marketing information, as it always had, as a forecast volume.

But the marketing expenditures would be done by the marketing finance group in -- understanding what the strategies and the plans were from the marketing department.
Q. So the people that were putting in the inputs at that sort of bottom level of the forecasting period are

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getting that information from other people who are using their best estimates and best judgments about what's going to happen in the future; right?
A. That's correct. Based on the assumptions that were out there.
Q. And when this new more rigorous financial forecasting process was put into place and there was more discussion among the units, this did give you a more cohesive view of what was happening at the company; correct?
A. It certainly gave us a regular view on what was happening at the business and a better handle on, you know, all of the different dynamics.
Q. And it meant that everybody involved was going to be working off of one forecast for the whole company rather than a lot of different disjointed forecasts; right?
A. That's what we put in place in 2000 -- yeah, 2006.
Q. Okay. And so -- and that was a change from how it had been in the past; right?
A. Yes.
Q. Okay. And that new process resulted in a single forecast that you even had a motto for; right?
A. We had a model for?
Q. A motto. \(\mathrm{M}-\mathrm{o}-\mathrm{t}-\mathrm{t}-\mathrm{o}\).
A. I'm sorry.
Q. Do you recall that? That it was called the one
version of the truth?
A. Well, certainly that's what we were attempting to get to because there was three different forecasts previously. So we would have had a production forecast, a volume forecast and a financial forecast. And what we wanted to do was make sure that everybody -- we didn't have people saying your forecast is wrong, our forecast is right. We had one forecast, and everybody was working off the same forecast.

But that is an Oliver Wight term that -- that we used in the education process. Yes.
Q. And all of the forecasts -- when you talk about the monthly LEs and the five-year forecast and the ten-year forecast, those forecasts all followed the same rigorous forecasting process; right?
A. They did go through the process but obviously the focus and attention and the availability of information got less as you went out in time. That's true for, you know, years two, three, four, five, all the way to years ten.
Q. And that's true in any business; right?
A. That's correct.
Q. Anybody that tries to do any long-term financial forecasting, the further out in time you get, the less certain you can be about your assumptions; right?
A. That's right.
A. No.
Q. And -- and we talked about in connection with the Lorillard transaction, that wasn't just buying Lorillard; right? That also had a divestiture component to the deal; right?
A. That's correct.
Q. And so we were taking the drive brands at Reynolds and putting it with the leading brand at Lorillard to make a new Reynolds; right?
A. That's right.
Q. And getting rid of the -- you understand the term "tail brand"?
A. Yes.
Q. Okay. And it was -- it was Reynolds' tail brands that then went into a package and those went to Imperial Tobacco; right?
A. Not just tail brands, but Winston and Kool, which would have been investment brands, but not to the level of drive brands.
Q. They were not drive brands; right?
A. They were not drive brands.
Q. Okay. And so the portfolio that was coming together in the combination after the Lorillard merger, everybody was projecting that was going to be a new Reynolds; right?
A. Yes.
Q. Okay. And so up until that point, BAT never, as you said, went to the board and said, we're interested in buying old Reynolds; right?
A. Not to my knowledge.
Q. Okay. So now we're in June of -- sorry.

So now we're in 2015 . The standstill releases the restriction on BAT to be able to go to the market to pick up the rest of Reynolds; right?
A. That ended in '14.
Q. In '14. Okay. And it's not required to go to the market and try to buy the rest of Reynolds at that point; right?
A. That's right.
Q. And they know that there is a transformative deal that is at its inception; right?
A. Yes.
Q. And so they have the ability to sit back and wait and see if, in fact, the hoped-for transformation takes place before they decide they might want to buy the rest of Reynolds; right?
A. Yes.
Q. And so when we go to, as you were saying in the 2016 LEs that had the ten-year financial forecast, I think you said that's the first time that the board was getting the
actual view of whether or not this concept of how a new Reynolds would look post-Lorillard, whether that was actually happening; right?
A. Yeah. It was certainly the first time, to my knowledge. Whether there was discussions around the Lorillard transaction with the board that I was not involved with, I can't speak to that.
Q. Okay. And so the first view that you're aware of that the Reynolds board -- and the Reynolds board included board members that were BAT designees; right?
A. Yes.
Q. Okay. And so to your knowledge, the first time that the board, including the BAT reps, is getting the full view of how this Lorillard transaction impacts the ten-year strategic plan is at this July meeting; correct?
A. Well, again, outside of the Lorillard discussions, that was the first strategic plan that we had. So that would be -- in that process, that's correct.
Q. So as a matter of fact, because -- because you do the strategic plan with the ten-year forecasts in June; right?
A. Correct.
Q. It just happened to be that this was the first time since the Lorillard transaction that you had done a full baked ten-year financial forecast; right?
A. That's correct.
Q. And at the time that you did that, you had almost a year of run rate post-acquisition to see whether or not what was the anticipated or hoped for to happen was actually happening; right?
A. Yes. But the majority of the synergies took place day one. So that was -- that was in place in 2015.
Q. Great

And so you had a view of the majority of synergies being captured and now you're giving a ten-year projection that includes, not only the capture of those synergies, but some -- almost a year of seeing how this company is now operating as the new improved Reynolds portfolio; right?
A. Yes.
Q. And so if we go back to JX4.27, and we look at the first headline from that ten-year plan, the headline on this box says, "RJRT performance a step change from pre acquisition performance." Right?
A. Yes.
Q. And so that is reflecting that the theory of the Lorillard merger, which was to be transformative to RAI, was actually very improved; right?
A. Yes.
Q. So -- and a step change indicates to you that the hoped-for transformative transaction was, in fact,
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transformative; right?

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A. That is what we were expecting.
Q. Okay. And so -- okay. And so if we look at the bottom row of the headline, of the summary of your now ten-year projections with the benefit of seeing how the Lorillard acquisition is playing out, the roll-up from the detailed ten-year forecast is that you are projecting ten-year growth now of 7 to 8 percent; correct?
A. Based on the assumptions that we laid out, that's what we had in here.
Q. And those are the assumptions that were laid out in the ten-year financial forecast, correct, from the June 2016 LE, yes?
A. That's correct.
Q. And we talked about before that even though different forecasts have different time horizons, those all follow the same process that you described to me before; right?
A. That -- that is basically right. We had the ten-year, which we talked about earlier, which is a broad-brush forecast which was essentially an extrapolation of current trends in the out years.

So the detail level of the out years, particularly in the ten-year forecast, was at a different level than the, you know, current year plus two forecast that we did every

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A. I'm sure I did.
Q. Okay. And that would have been the most recent financial information about Reynolds as of June 28th, 2017; correct?
A. Yes.
Q. And to your knowledge, is this the most recent financial information -- or financial forecast for Reynolds before the BAT transaction closed?
A. This was the -- I believe this was the last review prior to the transaction closing.
Q. Okay. And like the other forecasts, this would represent the company's best estimates based on what they knew at the time for the inputs that went into this financial forecast; correct?
A. Based on the assumptions and as a standalone company, yes.
Q. Okay. Thank you.

MS. SADIGHI: We would move DX141 into evidence.
MR. BORNSTEIN: No objection, Your Honor.
THE COURT: Admitted.
(DX141 was marked and admitted into evidence.)
BY MS. SADIGHI:
Q. Okay. Mr. Gilchrist, you talked a little bit today about the share repurchase that was approved by the board in July of 2016; correct?

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A. Yes.
Q. Okay. And so just going back to our timeline, we have the three-day strategic board meetings, July 14 th -around the middle of July of 2016 ; correct?
A. Yes.
Q. Okay. And if we could please look at JX3. And I want to look at JX3.105. And if you take my representation, you can see the front page. This is part of JX3. Is the board package for the July 14 board meeting.

Do you see that?
A. Yes.
Q. Okay. Great.

And if we go to 3.105 , so in the information that was presented to the board, on July 14th --
A. I'm sorry. I'm trying to find. . .

One zero five?
Q. This one's kind of a tough document because I think it's a printout of a board deck and so the numbers are a little bit tough. It's about halfway --
A. I don't see a 105. Well, I see it up here now. That's it. Okay.
Q. And so the board at the mid-July meetings about the ten-year strategic plan forecast knew at that point that you had done a discounted cash flow valuation of the company and would be recommending a share repurchase; correct?

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A. Yes. My team had performed that. Yes.
Q. Okay. You presented this; correct?
A. That's correct.
Q. Okay. So whether or not you performed it, you approved --
A. That's correct.
Q. -- what was being delivered to the board? Okay. And this indicates that the -- your discounted cash flow valuation that was done in time to present to the board in July supported a maximum share price of \(\$ 65\) for the share buyback program; right?
A. For the purposes of what we were looking to do, that's -- that's where we recommended the ceiling be.
Q. I understand you had a purpose in mind, but I want to focus on what you did.

For whatever purpose, you did a discounted cash flow valuation of the company at this point in time; correct?
A. Yes.
Q. Okay. And when you did that discounted cash flow valuation of RAI, you used what was termed as conservative assumptions of a 7.5 percent \(W A C C\) and a 3 percent terminal growth rate; right?
A. Correct.
Q. And you also did that using five-year projections
as your finite forecast; correct?
A. I'm not sure about that, to be honest with you.
Q. You're not sure about that. Okay. We can. . .
A. Sorry. I know it's been three years.
Q. That's fine.

I think if we look at DX138. Do you have DX138 in your binder?
A. I have 124,140 .
Q. Check in the front pocket of your binder. This may have been a late addition.
A. Yes, I do.
Q. Okay. Terrific.

And I actually don't, but I'll go off the screen.
And if we look at the upper right-hand corner, that says, Reynolds American DCF model value, right, for June 2016 ?
A. Yes.
Q. And this indicates that the underlying data utilized in the DCF model is based on the 2016 strat plan as of June 2016 for a five-year period; correct?

MR. BORNSTEIN: Objection, Your Honor. We have no foundation the witness has seen this document before.

THE COURT: Let me see the question.
MS. SADIGHI: I'm just trying to see if this refreshes his recollection as to what was used as the basis of the plan.
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    THE COURT: You didn't recall the duration of the
    projection. Is that right?
    THE WITNESS: That's correct.
    THE COURT: All right. I'll overrule the
    objection.
    BY MS. SADIGHI:
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Q. And this indicates in the upper left-hand corner that the underlying data utilized in the DCF model is based on the 2016 strat plan as of June 2016 for a five-year period.

Do you see that?
A. Yes.
Q. And does that refresh your recollection that in doing the discounted cash flow valuation of Reynolds that was presented to the board in July of 2016, that the finite period of projected cash flows, five years was used; correct?
A. Yes. Appears that's correct.
Q. Okay. And five years, even though at that point the 2016 strat plan had ten years of projection; correct?
A. That's correct.
Q. Okay. And so you chose a five-year projection for the forecast period, the finite forecast period; correct?

MR. BORNSTEIN: Objection, Your Honor. He's already testified he didn't do this. That it was somebody on his team.

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
BY MS. SADIGHI:
Q. You approved --

THE COURT: Well, let me rule.
Sustained.
BY MS. SADIGHI:
Q. You approved this valuation; correct?
A. I approved the outcome of this valuation and the recommendation to the board. Yes.
Q. Okay. And by approving the outcome of the valuation, is it fair to say that you approved the inputs to the valuation?
A. I think that's -- that's fair with the output.
Q. Okay. And so you approved an output that was based on five years of forecasted cash flows for the finite period of the discounted cash flow valuation; correct?
A. Yes.
Q. And then a 7.5 percent discount rate was attached to that; correct?
A. That's correct.
Q. And you approved the addition of a perpetuity growth rate of 3 percent to be used for the terminal period; right?
A. At 7 and a half percent discount rate. Yes.
Q. Okay. And when you have a -- five years of finite projections, that means that you're applying that perpetuity
growth rate starting in year six; right?
A. That's correct.
Q. Okay. And so you approved something that began using a 3 percent growth rate starting in year six even though at that time, you had projected growth over a ten-year period of 8 percent for a ten-year period; right?
A. Yes. For the purposes of what we were doing.
Q. I understand. I'm just asking you about the inputs.

THE COURT: Were you finished with your answer?
A. For the purposes of what we were doing, I was very comfortable with a 7 and a half percent WACC and a 3 percent growth. Growth rate in perpetuity. BY MS. SADIGHI:
Q. And the purpose of what you were doing was coming to a share price -- a price per share that Reynolds could comfortably pay where the board would feel comfortable that it wasn't overpaying for its shares; right?
A. It was a ceiling of the share repurchase on a limited share repurchase plan in order for us to achieve our objective of overcoming the NPM cliff.

So, yes, given all of that, that is what we recommended and approved.
Q. Is it your testimony that you would have recommended to the board spending an amount per share that
was more than what you thought the company was actually worth just to drive EPS to overcome an NPM cliff for purposes of managing the share price?
A. No.
Q. Okay. So is it your testimony that the purpose meant that you could overvalue Reynolds and recommend that the board pay more than Reynolds was actually worth?
A. No.
Q. Okay.
A. This was setting a ceiling for share repurchase. So to the extent the market took the price of Reynolds higher, that this set a ceiling for us to stop our share repurchase. And certainly during that time frame, we expected to have regular ongoing reviews.
Q. So are you saying that the discounted cash flow valuation that you did of the company, or that your team did that you approved, of the company, based on the most recent numbers, coming out of your robust forecast; right? Is it your testimony that that \(\$ 65\) DCF valuation output would only represent the value of the company if the share price got there?
A. That was -- keep in mind, this was a ceiling for a two and a half year -- two and a half year program. So we were attempting to set a ceiling there that we felt comfortable given the risks and the profile of the company.
A. That's correct.
Q. Okay. And you just said, if you got -- well, two things.

So you said if BAT had approached RAI before the expiration of the standstill; right?

MR. BORNSTEIN: Objection. Incomplete question. BY MS. SADIGHI:
Q. I thought I just heard you say that you had meetings with bankers in part because you considered whether BAT was going to approach RAI before the end of the standstill.
A. There was discussions with the banks at the board level going back to when the standstill was basically expiring to really understand, is there or isn't there a likely approach and what does it look like? And that just essentially carried on with discussions. Some were meetings that we asked for and some were meetings that, you know, quite honestly, banks showed up and said they wanted to meet with us and they brought that with them.
Q. Okay. I just wanted to be clear because I thought I heard you say prior to the expiration of the standstill. And I just wanted to make sure that we're on the same page that BAT could not try to buy RAI prior to the expiration of the standstill; right?
A. No. It was preparation for after the standstill.

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A. I don't recall.
Q. And if we look at DX67, who's Steve Holland, sir?
A. Steve Holland was in our treasury group. Let me find DX67. Yes.
Q. So you were saying Steve Holland was in your --
A. Treasury group.
Q. And was Steve Holland a member of your team that was working on providing information to the financial advisors?
A. Yes, he was.
Q. And so was Steve Holland part of that team that if the financial advisors asked for information, he was supposed to give them whatever they needed?
A. He certainly was working with them to provide information and perspective. Yes.
Q. Okay. And if we look at this email from Tom Lee at JPMorgan to Steve Holland on October 31st, 2016, you see the subject line is, "10-year projections"?
A. Yes.
Q. Okay. And he says, "Hi Steve, I'm just taking another look through the materials that were sent over and don't see a detailed 10-year projection. Do you have time to chat quickly?"

You see that?

Theresa B. Kramer, Official Court Reporter
Mecklenburg County Courthouse, North Carolina
A. No.
Q. In discussions that you had with the banks over the years, you had said there were some times where there were -there was conversation about \(B^{\prime} T^{\prime} s\) ability to pay for the transaction with RAI; right?
A. Yes.
Q. Why was that something that was interesting to talk about?
A. Ability to utilize cash, is that specifically -maybe just clarify that question. Ability to utilize cash?
Q. Yes.
A. Well, it was basically their leverage -- they had taken a very significant leverage position. So it's looking at what could their leverage be under their current credit rating where they could stay investment grade. Because it was certainly a view that BAT did not want to go below investment grade.
Q. Would that be useful to RAI in its negotiations with BAT?
A. Yes.
Q. There was a long part of the cross-examination this morning where there was an Excel spreadsheet up on the screen. Do you recall that?
A. Yes.
Q. And there was some effort, I think, to suggest that
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Q. And one of your jobs when you came to Reynolds was going to be -- assuming the Lorillard transaction went through, one of your jobs was going to be integrating Lorillard with Reynolds and creating a new and improved Reynolds; correct?

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A. Correct.
Q. Okay. And at that time, I think you mentioned that when the transaction closed, there were about \(\$ 800\) million of synergies; correct?
A. Right.
Q. And what we mean by synergies is that by combining the two companies, there were costs and other factors that could be eliminated and that would make the company more profitable.
A. Correct.
Q. Okay. And I think you mentioned that of the \(\$ 800\) million of synergies, approximately 500 million of those were achieved right off -- right on the first day of the transaction; right?
A. Correct.
Q. And that's because the factories and the employees associated with a lot of the brands that were being divested to Imperial, those costs were immediately removed from the system; right?
A. Correct.
- App. 93 -

RAI vs. Third Motion, File No. 17CVS7086
Page 678
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Q. Okay. But there was still $\$ 300$ million of additional synergies to be achieved through the integration; right?
A. Correct.
Q. And is it fair to say that as the president of the company that was the driving force, you were the person who had day-to-day management responsibility for attempting to successfully integrate the companies?

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A. Correct.
Q. Okay. And the underlying rationale for this transaction with Lorillard and the creation of this new company was that you were acquiring a very strong drive brand, the Newport brand from Lorillard; correct?
A. Correct.
Q. And you were divesting weaker brands, namely Winston, Salem and Kool to Imperial brands; correct?
A. Correct.
Q. And so that would leave the new RAI with Camel, Pall Mall, Newport, and Natural American Spirit as drive brands; right?
A. Correct.
Q. And basically those weaker tail brands were now being divested to Imperial brands; correct?
A. Yeah. We had -- we had other tail brands as well that we of course held on to.
change from the pre acquisition RAI; correct?
A. Yeah. Before Lorillard, these numbers would have been, you know, close to zero.
Q. Okay. So it really was a transformational change; correct?
A. Correct.
Q. And if somebody said that nothing much had changed since the Lorillard transaction with respect to Reynolds, you would completely disagree with that; correct?
A. Correct.
Q. Okay. And you're the person who would know more about that probably than anybody on the planet since you were the person who was the president of Reynolds' biggest subsidiary and the one in charge of effectuating that acquisition; right?
A. Correct.
Q. Okay. Now, despite the fact that you were the person who was giving the presentation to the board at strat day, the fact is that after the BAT offer, certain financial advisors were hired by the company to assess the offer and to help the Transaction Committee understand price and what was a good price; correct?
A. Correct.
Q. And it's the case, is it not, that none of the financial advisors asked you what you thought was an
A. The CF0? I'm sorry. Say again.
Q. Yeah. Were you not the CFO or just the C00?
A. I was the COO. I was never the CFO.
Q. Never the CFO. Okay. But you were in fact involved with the planning process; right?
A. Yes.
Q. Okay. And you had quarterly numbers, yearly numbers, five-year numbers and ten-year numbers --
A. Correct. You're running the business. You're regularly reporting out to shareholders, et cetera. You're running the business.
Q. Okay. And you would review all of those numbers on a monthly basis; correct?
A. Yes, at least.
Q. And at that time, you would take a deep dive into the numbers; right?
A. Yes.
Q. Okay. And you would try to make sure that those numbers at all times reflected the best estimates and the best judgments of the actual people in the business for putting them together; right?
A. Yes.
Q. Okay. Now, that's also the same thing that PepsiCo did; right?
A. It's the same thing every company does.
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Q. Okay. Every company. That's correct. Every
company tries to put together the best projections they can;
right?
A. Yes.
Q. And they do that in the ordinary course of business because they rely on those numbers to run their business; right?
A. Yes.
Q. Okay. And, for example, you rely on those numbers to -- once you became CEO, to give Wall Street guidance on the next quarter and the next year; right?

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A. Yes.
Q. Okay. And --
A. Of course it's more than the numbers, but, yes.
Q. Okay. And, for example, the yearly projections are used to try to create a budget; right?
A. Yes.
Q. And two-to five-year projections are used for things like HAVACCs (as heard) ; right?
A. Yes.
Q. Okay. And for terms -- in terms of capacity issues, you might use the ten-year projections; right?
A. Sure .
Q. Okay. So all of these tools are in the toolbox to be used in the ordinary course of business to help you run
in the deposition, you can look at any one number and try to tear apart any one piece of the model what you try to look at as you try to take this in total. And remember, we had multiple outside advisors doing this. We had -- we paid three banks to do this.
Q. Okay. So you wouldn't say -- you wouldn't have any reason to suggest that the five-year numbers that you were in charge of in terms of Reynolds' own projections, you wouldn't say that they were unreliable, would you?
A. With the context of there's always things that are in and out of the model, I would say, you know, they were as reliable as, you know, we felt we could -- you know, foreseeable sort of forecast. Remembering there was a lot that was lining the model. We knew that.
Q. Right. But you would never give the financial advisors projections that were -- that you thought were unreliable or released to the public in a proxy statement --
A. Well, no. We're going to be very transparent with everything we can. We disclose all of this.
Q. Okay. And so the only thing as far as you're aware that the projections -- the projections were prepared as best estimates and in good faith; right?
A. Yes.
Q. As your best forward view on the business; right?
A. Yes.
don't always do my own affirmative valuation.
MR. BORNSTEIN: Your Honor, we would tender pursuant to the stipulation, Professor Gompers as an expert in financial economics and valuation.

THE COURT: And you have a standing objection?
MR. ROLNICK: Yes, Your Honor.
THE COURT: All right. The witness may testify subject to my earlier statements.

MR. BORNSTEIN: Although to be clear, I think the standing objection is as to the content of the testimony rather than the qualifications of the professor; is that correct?

MR. ROLNICK: Our view is that his qualifications are limited to the ability to provide a valuation of the company, which we contend he's not done in this case.

THE COURT: All right. I'll allow him to testify and I'll be dealing with the objections at a later time.

MR. BORNSTEIN: Understood.
BY MR. BORNSTEIN:
Q. So, Professor, why don't you tell us what your assignment was in this case.
A. So I was asked to assess the evidence on fair value for RAI. In particular, I was asked to evaluate the discounted cash flow analysis of Goldman Sachs, JPMorgan and Lazard, the three financial advisors. Second, I was asked to
evaluate market evidence of value for RAI. And then third, I was asked to evaluate the valuations presented by the Dissenters in this case.
Q. Well, let's start with the work that the financial advisors to RAI did.

Which of their analyses in particular did you spend your time looking at?
A. So my analysis of their work focused exclusively on the -- their discounted cash flow analysis.
Q. And there's been a lot of discussion about discounted cash flow in this case as you know. Can you just explain at a high level so we all have a grounding on this what exactly a discounted cash flow analysis is?
A. So one of the fundamental sort of premise of finance which was really developed in the 1950s is this notion that you can value a security based on the expected cash flows that you're going to earn by owning that security.

We don't buy shares of stock because it's a piece of art that we can hang on the wall. We buy it because we think we're going to make money in the future. And the discounted cash flow formulas make this very explicit and they're sort of -- sort of three components to just keep generally in mind. The first is pretty easy, more cash is more valuable than less cash. Pretty easy.

The second is that cash sooner is more valuable

Theresa B. Kramer, Official Court Reporter
Mecklenburg County Courthouse, North Carolina

RAI vs. Third Motion, File No. 17CVS7086
Page 725
than cash later. If I get my money today, it's more valuable to me than \(I\) get -- if \(I\) got that same amount of money in a year.

The third is that less risky cash is more valuable than more risky cash. But the component -- the sort of concept of risk is sort of very specific. The way we think about risk in finance is really dependent upon how risky is it to my overall portfolio? And I'm sure we'll have a chance to talk about it. But risk in a discounted cash flow sense from that discount rate is all about what we call systematic risk.
Q. And I -- we will get to that in due course.

Now, let me break down just the different pieces of a discounted cash flow analysis. What are the components of the analysis?
A. So when you implement a discounted cash flow, there are three particular inputs that you need. I mean, there's nothing complicated about a DCF. It's really just math. And the inputs that you put into that DCF are critical. And there are three critical inputs. The first of which are a set of projections. Those projections are over some finite period of time. And from those projections, you derive the cash flows from the business.

The second input you need in a discounted cash flow is what we call the perpetuity growth rate. And because our

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
projections are for a finite period of time -- we don't project out forever into the future. We don't project out, you know, an infinite number of years. We need a way to capture the value after our projections. Something called the terminal value. And to do that, we need some estimate of how we think this company is going to grow. And it's not just how it's going to grow over the next two or three years. It's really sort of off into the future. Way off sort of forever into the future.

The third element that we need is as I mentioned in terms of the summary, which is we need a discount rate. We need a weighted average cost of capital which captures how risky this sort of stream of cash flows is in the context of an overall portfolio. So we call -- we call that a weighted average cost of capital.
Q. And so I think it will be helpful to go through the different pieces of the discounted cash flow analysis. Take them one at a time and spend a little time putting them in the context of this litigation.

So first, on the projections of cash flow for some finite period, what type of cash flow information would a financial economist need to do a discounted cash flow analysis?
A. So the theory and the practice are very clear. What you need in a discounted cash flow to arrive at what we

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
would think of as the intrinsic or the fundamental value is the expected cash flow. So it would be that cash flow which was somehow probability weighted among sort of good outcomes and bad outcomes and it's that central tendency. If you don't have the expected cash flows, you're not going to get to that intrinsic or fundamental value.
Q. So how do you deal with the situation in which a business faces a variety of critical risks in trying to identify the right cash flows to use?
A. So sometimes it's possible in certain circumstances to have a set of projections which are somehow the midpoint. You know, they sort of -- sort of lie in the middle of what might happen on the upside or what might happen on the downside. Other times, what you actually need to do is do explicit modeling of those scenarios.

And so if there are some upside scenario where good events happen, you'd assess the probability of those things happening. And if there are potential negative events, you have a scenario which looked at the financial implications of those negative events happened and weighted by the probability of those two.
Q. So maybe it would be useful to illustrate this. We have a demonstrative we can put up on the screen. It's Slide No. 2 in the deck.

So can you tell us, Professor, what it is we're

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

RAI vs. Third Motion, File No. 17CVS7086
looking at here on Slide 2 ?
A. So this is just a hypothetical example. And probably the easiest way to think about it is perhaps -let's think about a pharmaceutical company. And that pharmaceutical company is developing a new drug. And if we assume for a second that there's a 40 percent likelihood that that drug gets FDA approval, and if it does get FDA approval, then those incremental cash flows from the new drug are going to follow that blue line.

And so over time, the cash flows from that company are going to grow from 200 million if the drug is approved in the first year, all the way up to a billion dollars in year five. But, again, we know that drug approval is not certain and so if we assume that there's a 60 percent chance that the drug's not approved, then the cash flows from this pharmaceutical company might increase like that red line. And so starting at 200 million and at year five end up at only 400 million because they don't have that new drug.
Q. So is the blue line kind of the good case and red line is the bad case?
A. Exactly. Optimistic, pessimistic, upside, downside. You could characterize it a lot of ways.
Q. And if you were doing a discounted cash flow of this company, which of these two lines would you use as the -- as the expected cash flows?

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

RAI vs. Third Motion, File No. 17CVS7086
Page 729
A. You'd use neither one. You'd use something which was in between. You'd probability weight those two cash flow series. And you'd get something which would be in between.
Q. So let's turn to the next slide. And so what are we looking at here with this green line?
A. Yes. In this hypothetical example, the green line would represent the expected cash flow. And it's just a-it's just taking 60 percent -- 60 percent of the downside scenario and 40 percent of the upside scenario.

So the only cash flow series that would give you the intrinsic or fundamental value of this company would be that middle green line. To use the blue line or the red line would be wholly inappropriate.
Q. So if you had a student who was valuing this company, you would tell that student to use which line?
A. It would be the green line.
Q. Okay. And what if the student used the blue line to do the valuation, what would you tell her she had done wrong?
A. I would tell her that she missed one of the fundamental premises of finance which is that value when you do a DCF is wholly dependent, entirely dependent on using the expected cash flows, not the best case or upside scenarios.
Q. Did you form a view as to whether the projections that were used by the bankers in this matter complied with

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
the principles that you just articulated?
A. I did.
Q. And what was that view?
A. So my view after, you know, reviewing industry information and analyst reports and the like is that the cash flows, those five years of projections that the financial advisors used are more like the blue line, more like an upside case, as opposed to the green line, the expected value case.
Q. So did those projections that you looked at take account of all potential outcomes that the company was facing?
A. No. It was clear in both the way that the cash flows were described by the company and disclosed in the proxy that it was assuming business as usual. And when you look through in terms of looking at what the sort of industry experts are saying about the issues in the tobacco industry, there are some things which are potential upside scenarios in terms of market share and the like, but there's a description of a tremendous number of game changing downside risks.

So, you know, I've sat through the Court for a number of days and if you look through, reading through industry reports from experts and the analysts, you know, things like nicotine reformulation by the FDA, the menthol ban, changes to the age of purchase of cigarettes, the

Theresa B. Kramer, Official Court Reporter
Mecklenburg County Courthouse, North Carolina

RAI vs. Third Motion, File No. 17CVS7086
increases in state and federal excise taxes, or cannibalization from new products, all of those things could be major game changers. And were one of them to occur in the next three years, five years or ten years, it would have major negative implications for cash flow.
Q. Now, is it your understanding that management at RAI just ignored the risks entirely when they put the projections together?
A. No. I think the description is that, because they couldn't be certain when those risks might occur and could not assess exactly the probability, they didn't factor them into the projections. The projections were business as usual, but they were very clear at saying that these risks were out there and were real probabilities occurring. And the further you went in time, the increased in probability that at least one or multiple of those risks would occur in that time frame.
Q. Now, you mentioned it and I should have asked you, but have you had the opportunity to be here for any portion of the trial?
A. I've been here since Tuesday morning. Yes.
Q. And did you hear Ms. Crew testify this morning?
A. I did.
Q. And she was asked a number of questions on cross-examination about whether as a business matter, it

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

RAI vs. Third Motion, File No. 17CVS7086
would have been appropriate for her and her team to model in what were characterized as speculative events. Do you remember hearing those questions?
A. Yes.
Q. And do you remember Ms. Crew answering that she did not think it was appropriate to do that as a business matter so that she could in fact continue to run the business?
A. Yes.
Q. And then she was asked a question about whether it would be appropriate to factor in those kinds of risks in a situation in which the company was being sold. Do you recall that?
A. Yes.
Q. And do you remember her testimony was that it would be appropriate in that case because you needed to value the company rather than just run it on a day-to-day business?

MR. ROLNICK: Objection, Your Honor. Leading and mischaracterizes the testimony.

THE COURT: I'll sustain the -- I'll sustain the objection. The last four questions have been more of a memory test than they have been to actually get to the point so why don't you get to the point.

BY MR. BORNSTEIN:
Q. The point \(I\) was going to get to was to ask: Do you agree with Ms. Crew's testimony on this subject?

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
A. I do. I mean, to ignore real probable events that could occur over some reasonable finite sort of time period that could dramatically change the cash flows of the business would violate all the principles of value. And so you need to take them into consideration in some way.

To ignore them and to use projections which do not embed them would be 100 percent wrong.
Q. And do you agree with Ms. Crew that there are different considerations in doing projections to run the business on a day-to-day basis and doing projections for valuation purposes?

MR. ROLNICK: Objection again, Your Honor. He's asking a question that asks whether he agrees with testimony that was given and characterizing it. It's inappropriate. We would ask --

THE COURT: I'll sustain it. Just ask him the question as opposed to the agreement.

MR. BORNSTEIN: Sure. Absolutely.
BY MR. BORNSTEIN:
Q. Is it the case that projections that someone does in the purpose of managing the business on a day-to-day business can be different in this respect from projections that someone does for the purpose of valuing the entity as a going concern?
A. A hundred percent. And maybe sort of an example.

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

I've been on the board of some start-up companies. I've advised lots of my students who have started companies. And what I tell them is that you need -- you need different sets of projections. You need projections to run the business. And those projections may not be the same thing as the expected outcome that you'd use to value the business because you need to build the business as if things continue to go.

If there's -- if it -- for example, if you're a biotech company, you can't be certain that the drug's going to be approved, but you have to continue to operate the business as if you believe it will be approved. So managing the business on that scenario of approval, even if from a valuation sense, it's only 40 percent likely that it would be approved. And so absolutely, it's not only what I teach, it's what I've advised when I've been on the board that you can have projections for business purposes, but the evaluation for valuation purposes could be substantially different.
Q. And if we have a situation where there is a company where there are differences between the management focused projections and the valuation focused projections, what would be the effect on the reliability of the discounted cash flow for using the management focused projections rather than the valuation focused projections?
A. So typically management projections for operating a

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

RAI vs. Third Motion, File No. 17CVS7086
business tend to be more optimistic. They tend to be sort of upside. Things are going to go well and I want to build a business to be able to execute if those things go well.

If you were to use management projections for operating the business and you don't adjust for some of these negative probabilities, you're going to overvalue the company. It's going to be an optimistic valuation.
Q. So in light of that, was it a mistake for the financial advisors to use the projections that they used to support their fairness opinion?
A. No, I don't think so.
Q. And why is that?
A. Well, what the financial advisors were tasked with doing was to assess whether or not the deal offered by BAT treated the non-BAT shareholders fairly. Were they getting sort of fair compensation, fair return for their shares? So to the extent that the projections that they were using were optimistic, were upside, not factoring in some of these downside risks, it would -- it would be -- it would be an optimistic valuation.

So if the deal price was at or above that, they could reasonably conclude that the RAI shareholders, the non-BAT RAI shareholders were getting sort of, you know, compensated above the intrinsic value.
Q. So if the output of the DCF analysis the bankers

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

RAI vs. Third Motion, File No. 17CVS7086
Page 736
did were still lower than were in the range of the deal price, you're saying, even if they're optimistic, what flows from that?
A. Well, that the true intrinsic value based, or the fundamental value based on expected cash flows would be lower. And therefore, they could reasonably conclude that -that -- that the non-BAT RAI shareholders were receiving fair compensation. They were receiving their value.
Q. So if the price that's being paid is higher than an optimistic value, that price is by definition fair?
A. From a financial -- I can't opine as a matter of law.
Q. \(0 f\) course.
A. That's for the judge. But from a financial economics perspective, that would be true.
Q. Okay. And one question just to touch quickly on something you said, which was that management tends to have optimistic projections, is there a basis for that opinion in the field of financial economics?
A. Yes. So there are a number of academic studies which have looked at realized financial performance relative to internal projections. And generally speaking, internal projections tend to be -- management internal projections generally tend to be optimistic.
Q. Now, in doing a discounted cash flow analysis, are

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

RAI vs. Third Motion, File No. 17CVS7086
Page 737
there any rules about the number of years of projections that you need to have to do it right?
A. No. There's no hard and fast rules. Generally, you want to project out toward some steady state. But there's, again, no hard and fast rule, whether it's five, three, ten.
Q. Well, we heard a lot of testimony -- and since you were here, you heard a lot of testimony -- about whether five-year projections were appropriate or ten-year projections were appropriate.

Can you do a reliable DCF analysis with five years of cash flow projections?
A. Absolutely. I've done them. I've seen, you know, reasonable valuations done. So absolutely.
Q. And there was a spreadsheet that was up on the screen for some time yesterday morning. Do you remember that?
A. Yes. I was here for that. Yes.
Q. And I want to ask just a few questions related to that spreadsheet and the questioning around it --

THE COURT: Why don't we -- before you do that, why don't we take the midmorning break and then come back and let you move into that subject.

MR. BORNSTEIN: Of course. Thank you.
THE COURT: All right. We'll be adjourned for 15
minutes.
(Off the record; recess 10:43-10:59 a.m.)
THE COURT: All right. Mr. Bornstein, you may resume your examination.

MR. BORNSTEIN: Thank you, Your Honor.
BY MR. BORNSTEIN:
Q. So we were starting to talk about that spreadsheet that was up on the screen for some time yesterday morning. And the question \(I\) have for you is: When you're doing a discounted cash flow analysis for the projections that are the input into that analysis, what specific cash flow information do you actually need to do the work?

MR. ROLNICK: Your Honor, I'm going to just object to this question because there have been a number of projections and I'm not sure which document Mr. Bornstein is referring to and I don't know that the witness knows either. Be helpful to have an identification of what document he's asking about.

MR. BORNSTEIN: Your Honor, my question is not with any reference to a document. I'm asking the professor for an explanation as a matter of financial economics as to what type of cash flow information a -- an economist would use in putting together an analysis.

THE COURT: So this is preliminary to ask him about a specific spreadsheet?

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

MR. BORNSTEIN: Correct.
THE COURT: All right. Overruled.
MR. ROLNICK: Thank you, Your Honor.
A. So what you want is sort of the summary income statement and balance sheet information to get the cash flow. You don't need the underlying minute detail that you might need for a management set of forecasts for operating the business. What you need for valuation at the end of the day are the bottom line free cash flow numbers.

BY MR. BORNSTEIN:
Q. And to be clear, what do you mean the bottom line free cash flow numbers?
A. So it's the annual sort of unlevered free cash flows. That's what you need. That you'll calculate each year what the overall unlevered free cash flows of the business are going to be. And that's the summary number for the whole company.
Q. So if you had a spreadsheet -- again, just hypothetically -- a spreadsheet in front of you that had cash flow information for the company, to do the discounted cash flow, would you just be taking one particular line item to plug into your model?
A. If the spreadsheet which you're given -- or the exhibit you're given has those free cash number -- free cash flow numbers, yeah, that's the only number you would pick.

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

RAI vs. Third Motion, File No. 17CVS7086
Q. So now let me go to the spreadsheet that was up on the screen yesterday morning for some time that Ms. Sadighi was asking Mr. Gilchrist some questions about. Do you remember that document yesterday?
A. I do.
Q. Would someone who was performing a discounted cash flow analysis need the detailed information appearing on the 60 some tabs of that spreadsheet in order to do the work?
A. No.
Q. Can you explain why not?
A. Because, I mean, I sort of mentioned. I mean, those kind of management projections are useful for operating the business, for thinking about what you want to do in the future. But from a valuation perspective, all you need is that summary annual cash flow number.
Q. Let's actually look at a particular document. And I'm just going to put this one on the screen. We can get counsel a copy if you need it, but it's one we talked about yesterday. DX69. And I want to. . .

MR. BORNSTEIN: And this is in evidence already,
Your Honor.
BY MR. BORNSTEIN:
Q. And it is an email that attaches a copy of the -some Strategy Day materials that were sent to JPMorgan. And let's turn to page . 21 of the document, please.

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

RAI vs. Third Motion, File No. 17CVS7086

Were you here yesterday when there was some testimony given about the bar chart appearing on this page?
A. I was.
Q. And do have you an understanding of what the information appearing on this page represents in the bar chart?
A. It's sort of labeled here, adjusted operating income. So it's my understanding that these are sort of the ten-year forecasts from the strategic plan.
Q. And would someone who was knowledgeable about finance, who was interested in doing a discounted cash flow analysis using ten years of projections be able to use this information to perform that analysis?
A. So it would be a starting point. You'd certainly need to project out things like taxes and the balance sheet adjustments to get to cash flow. But that's the kind of thing that they could do. And certainly if you had five years of balance sheet information, you could project that out into the future. But certainly this is, you know, a very important component of that.

And, you know, most -- you know, most professionals who do valuation could then go on and do the other adjustments to get free cash flow.
Q. So if you had this information and you had five years of detailed cash flow projections and a balance sheet,

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

RAI vs. Third Motion, File No. 17CVS7086
in that circumstance, could a knowledgeable finance professional do a discounted cash flow analysis using ten years of projections, if they wanted to?
A. Yes, they could.
Q. And at the risk of a slight repetition of one thing we hit before the break, would a finance professional doing a discounted cash flow analysis actually need to have ten years of projections to do the work properly?
A. No.
Q. And why is that?
A. Because five -- using five years of projections in most circumstances could be enough. And you then have to sort of think about the other inputs to it and what you would choose for example in terms of the perpetuity growth rate would be an important component once you have those five years of projections.
Q. And, well, let's turn to the perpetuity growth rate piece of the discounted cash flow. So, again, just to level set, what is the perpetuity growth rate and what is its purpose in a discounted cash flow?
A. So because we only forecast a finite period of time, we need to capture the fact that there's going to be value to the company after the set of projections. And the way we do that is to calculate or assume some rate of growth going off into the future. And it's not just one year, two

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
years or five years into the future. It's, like, theoretically or practically forever into the future. When you assume a perpetuity growth rate, you're assuming that that company will grow at that rate forever into the future.
Q. And how does a financial economist go about selecting what perpetuity growth rate to use in the DCF?
A. You analyze the industry, you analyze the company. You look at the trends that are happening. You look at potential risks and the like. And from an analysis of that information, you then sort of come up with your estimate of what you believe an appropriate perpetuity growth rate is.
Q. And are there, you know, typical boundaries that are recognized in economics that people think about in selecting a growth rate?
A. Yes. For a typical business, it's usually the case that most valuation professionals, most -- myself included -would use a perpetuity growth rate somewhere between inflation and nominal GDP growth. And the way to think about that is, if you have a company which is going to stay -- stay its steady state and it's going to stay the same size in sort of real economic terms, that sort of says its performance, its cash flows are going to grow at the rate of inflation. And what that is sort of saying is this firm is going to stay the same size forever.

A second possibility is that the company will grow

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
at the overall rate of the economy. So generally, the economy grows faster than inflation on average. And so if this company is sort of going to grow roughly proportional to the overall economy, then you would assume that the perpetuity growth rate would be the rate of nominal GDP growth into the future.
Q. Are there circumstances in which it is appropriate to use a growth rate that is below the rate of inflation?
A. Absolutely.
Q. In what circumstances?
A. So I've been involved in circumstances where I've done valuations where there's no terminal value. So the -say it's a patent and you're trying to value a patent. Once it expires, there's no sort of positive free cash flow. So there's no terminal value. There are other circumstances in which there are companies or industries that are in real decline, meaning that they're disappearing for a variety of reasons.

It could be new technology obviates the need for that particular business and that business is going to generally go away over time. It could be a business like cigarettes in which for health and regulatory reasons, that that business is going away over time.
Q. Now, did you come up with your own perpetuity growth rate number here?

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
A. No.
Q. So what work did you do in looking at the perpetuity growth rates that were selected by the financial advisors?
A. I did the same work that I would do if I were to have chosen my own perpetuity growth rate. Looked at industry reports. Looked at industry data. Read through the volumes of analyst reports in the case. And came up with an assessment and a set of information by which I could evaluate the choices which were made by the financial advisors. But it was the same set of work that I did that I would have done had I come up with my own estimate.
Q. And is the work that you just described the work that financial economists do in the ordinary course of their field?
A. Oh, any time I've done my own valuation, I've done -- I do that exact same set of things where you look at industry reports, analyst reports and the like, to come up with an assessment of what you think an appropriate perpetuity growth rate would be.
Q. And what did the bankers here conclude was the appropriate growth rate to use, or range of rates?
A. So Goldman Sachs and Lazard used the same range. Their range was minus .5 percent to plus .5 percent.

JPMorgan used a slightly higher range which was

RAI vs. Third Motion, File No. 17CVS7086
from zero to 1 percent.
Q. And what did you conclude about the ranges that they selected?
A. My conclusion is that, you know, range centered around zero sort of makes sense. Those are reasonable terminal growth rates.
Q. What's the basis of that opinion?
A. So when you look, most of the investment analysts actually who were following RAI were projecting negative long run growth.

Second, it was clear from my analysis of the industry reports and from the analysts that there were, you know, major changes in the industry. Volumes had been declining for quite some time and it was clear from the industry experts that the ability to continue to offset those volume declines with price increases was potentially going to be limited in the future.

And then the third thing was the discussion of what were these very large game changing risks which faced the industry? I think I've mentioned a couple of them earlier. So things like FDA regulation of nicotine, the menthol ban, restrictions on age purchases of product, state and federal excise taxes, new products like vapor and its cannibalization.

All of those things could have dramatic step order

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

RAI vs. Third Motion, File No. 17CVS7086
function changes in a negative way to the industry and those were very real possibilities.
Q. In addition to looking at this publicly available information like analyst reports and so forth, did you also look at any of the internal documentation from RAI or testimony of the like?
A. Certainly. So I reviewed the various internal documents, the public disclosures and say the proxy, the -and sort of the testimony, and it was clear from that that management itself understood that these very large risks were out there and were very real probabilities over a reasonable horizon, and that those things would dramatically change the business in sort of a very negative way.
Q. There have been a number of questions over the course of the trial focused on what's been characterized as a cliff. Do you remember that coming up?
A. I do.
Q. Can you tell us whether a -- the use of a zero percent perpetuity growth rate means that a company is falling off a cliff?
A. Yes. I mean, that's actually a mischaracterization of what a zero percent growth rate means.

So if you think about it -- so practically speaking first of all, what a zero percent growth rate means is that if you have nine billion of cash flow or five billion of cash

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
flow in year five, you'd have that exact same amount in year six and year seven and year eight so your cash flow would stay the same. So it's five billion in six, five billion in seven, five billion in eight. But the thing that we need to sort of understand about this perpetuity growth rate is that it really is meant to capture two sort of factors. The first of which is as I mentioned earlier, there's a time series of growth rates.

So that perpetuity growth rate is meant to capture not just what happens in the next two, three, four, five years, but what happens over the life of the business.

So it's time averaging over, like, infinity in some sense. So if you look over the next 20 years, maybe it grows somewhat quickly over the next three to five years, but eventually it's going to decline by \(5,10,15,25\) or 30 percent. And so that zero percent can capture some growth -some positive growth now but then averaging with this big negative growth into the future.

The second thing it captures is just the fact that projections are just estimates and they're never perfect. And I think the way we should think about it is that zero percent captures the fact that it's possible that RAI would continue to grow at 7 or 8 percent through year ten, but as the -- you know, as the industry analysts and experts sort of acknowledge and the company itself, there are real

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

RAI vs. Third Motion, File No. 17CVS7086
probabilities that one or more of these big negative events are going to hit. It could hit in year four, year six, or year ten. And if they hit, these are going to have game changing effects.

So you could have \(25,30,50\) percent changes. I mean, if it was a menthol ban, that's sort of -- you know, the largest area of what's going on in RAI. Their best performing subset of cigarettes. And so the way to think about it is that that zero percent averages across some scenarios in which, yes, maybe it grows at 7 or 8 percent, but maybe in year eight, there's a regulatory event that has minus 25 percent.

And so the way -- the way you should think about that growth rate is it averages over the time with maybe some positive and then negative in the future and averages across scenarios some of which may be very large negative events that happen.
Q. Is there a concept of present value weighting in connection with perpetuity growth rate selection?
A. Yes. So the way to think about the first element is that that zero percent would be sort of a present value weighted calculation of the growth rates in year six, seven, eight, ten, \(15,20,30\).
Q. And can you tell us what you mean by present value weighted calculation?

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
A. Well, I think I explained to the Court a little earlier that there's the time value of money. That money today is worth more than money later and so the growth rate ten years from now is less important to the perpetuity growth rate than growth say in year six.

And so you would have to adjust for, say, a big negative growth rate in year ten or 15 by that time value of money, by the weighted average cost of capital.
Q. And does the perpetuity growth rate which is just a single number -- zero or . 5 or whatever it is -- does that number capture that rise and fall over time?
A. That's one element of how you would get to a zero percent growth rate. Yes.
Q. And so if you have a company that is growing at, say, 7 percent over the course of five years and then you assign a zero percent perpetuity growth rate in year six, does that mean that you are saying that growth necessarily stops immediately in year six?
A. No, not at all.
Q. And that's for what reason?
A. For the two reasons I mentioned, one of which is that the perpetuity growth rate averages across all the years. The present value across all the years, as well as averaging across different scenarios that might happen. So there's nothing embedded in a zero percent growth rate which

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

RAI vs. Third Motion, File No. 17CVS7086
Page 751
would say that this company would fall off a cliff after year five.
Q. So is it -- is it correct that the growth of RAI over the past several years has been higher than the rate of inflation?
A. Yes.
Q. Does that undermine in any way the reasonableness of the bankers' selection of a zero percent rate for perpetuity?
A. No, not at all.
Q. Can you explain why not?
A. Because part of their ability to grow quickly was driven by price -- their ability to increase prices. And it was clear that their ability to increase prices at least from the perspective of analysts in the industry and including internally, perhaps was going to be limited in the future. The ability to continue to increase at 6 or 7 or 8 percent per year would be hard.

The second thing is that, while we didn't get one of these regulatory events perhaps in the last, you know, three to five years, that says nothing about the real probability that one of those events may happen in the next three, five or sort of ten years. And so the fact that they've grown quickly over the last several years in no way negates a zero percent growth rate being reasonable.

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
Q. Are there customary ways to look and check the reasonableness of the perpetuity growth rate that you select when do you a DCF?
A. For sure.

I mean, so one of the things that we teach in first year finance and one of the things that you see -- one of the things that I've always done when I do valuation, as well as the thing you see that all three financial advisors doing is to gauge their perpetuity growth rate by looking at what's called the terminal year exit multiple.
Q. And what is that?
A. So we know -- and one of the things I did here in terms of a market check was to do a comparable company's multiple analysis. What a terminal year exit multiple analysis is, is just to say a particular perpetuity growth rate implies some multiple in that terminal year. So because we're calculating a terminal value, we can say, what multiple would be active or valid in order to create that terminal value? And so you calculate the EBITDA multiple, the ratio of enterprise value to EBITDA, in that final year of projection based on your choice of perpetuity growth rate.
Q. All right. So let me break down a couple of pieces of that answer.

First of all, you used the word multiple a lot.
Let's make sure we're all in agreement on what you mean by

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

RAI vs. Third Motion, File No. 17CVS7086
that.
A. So one common -- one common check to a DCF is typically to do what we call a comparable companies or precedent transaction. Which a lot of people would just call a multiples analysis. And what that is, is it's taking the ratio of your value to some financial metric. And then --
Q. So for example.
A. For example. I was going there.

So one example -- and probably the most common is EBITDA, earnings before interest, taxes, depreciation and amortization.

And so a very common -- things that market participants do -- and you should certainly use as a check is to say what does -- you know, what does the choice of your perpetuity growth rate imply for the multiple that will exist, that ratio of enterprise value to EBITDA.
Q. And did you look at that in this matter?
A. I did, yes.
Q. So let's see if we can put on the screen please Demonstrative No. 7. And does this slide reflect the work that you did on this?
A. It does.
Q. All right. So can you tell us first of all what that very first green bar with the 12.4 X is?
A. That represents the ratio of enterprise value to

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

RAI vs. Third Motion, File No. 17CVS7086

EBITDA for RAI as of October 20 th, before the offer from BAT. And so at that time, if you took the enterprise value and divided it by the 12 months EBITDA, you would get 12.4 times.
Q. And the enterprise value is something that you calculate how?
A. Well, you take the number of shares times the share price to get equity value. You add the value of the debt and subtract out the excess cash.
Q. So is that a measure of the value of the firm as -as set by the market?
A. Correct. Yes.
Q. And so this first multiple is calculated as a market value of the firm divided by some measure of earnings?
A. That's correct.
Q. Okay. So then what are the next three green bars?
A. So the next three green bars just do that calculation for the terminal value of the financial advisors. So you take the total value of their -- their total terminal value and you divide it by the last year of EBITDA. And so that essentially is saying, what's the EBITDA multiple that is implied by this perpetuity growth rate that will exist in sort of year six?
Q. So let's just take a concrete example here of let's say the Goldman analysis that gets you to the 10.5 X . What

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

RAI vs. Third Motion, File No. 17CVS7086
are the different inputs into the calculation that arise at a 10.5 times multiple?
A. It's -- so within their spreadsheets analysis, the -- they have a component of value which is called terminal value, which is the value which after the projection period, from year six forward, is the value that they calculate based on their perpetuity growth rate. So you take that terminal value and you divide it by EBITDA in year five.

So that's sort of what we call a trailing 12 -month EBITDA multiple. But that gives you this 10.5 number. So the ratio of terminal value to year five EBITDA is 10.5 .
Q. So the numerator is the portion of the Goldman Sachs valuation that starts in year six?
A. Correct.
Q. And the denominator is what?
A. Year five EBITDA.
Q. Okay. And then they used a range of perpetuity growth rates in the analysis --
A. Correct.
Q. -- from negative . 5 to positive . 5 .

Do you recall which spot in the range was used to calculate the numbers on your chart here?
A. So it's the midpoint for all of these. So it's zero for Lazard and Goldman Sachs and . 5 for JPMorgan.
Q. Okay. And now, can you tell anything or do you

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

RAI vs. Third Motion, File No. 17CVS7086
draw any conclusions as an economist from the fact that the bankers' multiples are somewhat lower than the pre-merger trading multiple in the first bar?
A. That's sort of what you expect. So their implied terminal exit multiples give you comfort that the choice of perpetuity growth rate is reasonable.
Q. And why does it give you comfort that those numbers are a little bit lower?
A. So the -- the multiple is really just dependent upon the risk of the cash flows and the growth rate. And generally we think of growth rates declining over time. So if the growth rates standing in year five looking off into the future is lower than the growth rates standing here today, then on average, multiples decline over time.

And so the fact that the multiples are a little bit lower in year five would be reasonable because, looking forward, you would expect the growth rate off into the future five years from now will be lower than the growth rate today.
Q. So tell us what the two bars over on the right are and how you calculated those.
A. So I did the exact same thing for the two experts for the Dissenter, Mr. Taylor and Professor Zmijewski. And if you do the exact same calculation that I did for the financial advisors, you arrive at implied terminal exit multiples of 17 and a half and 17.7.

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
Q. And can you draw any conclusions about the reasonableness of their valuations based on what we see here on the chart?
A. So as I said, this is really a test of the perpetuity growth rate. And if I were looking at this -because again, this is an important check -- this would cause me to have serious concerns about the perpetuity growth rate that I chose.
Q. And why is that?
A. Because essentially you're assuming that mult- -the multiple's going to go up over time. And it would generally imply that from the perspective of expectations, growth in this company is going to be accelerating. So growth in five years is going to be higher than growth today.
Q. And would it be reasonable to expect that growth in RAI would be higher five years from now than it is today?
A. No.
Q. And why is that?
A. Generally speaking, this is an industry in decline. It's been growing relatively rapidly and is expected over the next several years to grow, you know, more rapid than zero and therefore standing five years from now, we would expect it to be growing slower.
Q. Let's take a look at Slide No. 4, please. On the subject of terminal value, can you tell us what it is we're

RAI vs. Third Motion, File No. 17CVS7086
looking at here?
A. So what I did here is just to break apart the total per share enterprise value that Professor Zmijewski and Mr. Taylor calculate. And I divided into the component which is based on their projection period cash flows. It's five years for Professor Zmijewski and eight years for Mr. Taylor.
Q. And that's the green portion?
A. That's correct. And I look at that as a fraction of the overall value and then also what fraction of the overall value is due to their terminal value.
Q. And what, if any, conclusions or implications are there for you from what you've done here on the chart?
A. So what this says is that the vast, vast, vast majority of the value they come up with is in their terminal value.

And because that is totally dependent upon their perpetuity growth rate, what this says is that you need to take an extreme amount of care in choosing that perpetuity growth rate because it is the most critical factor in terms of determining the value of RAI.
Q. So are there some steps that you would then take upon seeing that your calculation led to these results?
A. Certainly. You'd want to do checks.

And one of the checks we just talked about which was a check of the implied exit multiple. But you also --

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

RAI vs. Third Motion, File No. 17CVS7086
Page 759
you know, again, this is sort of Finance 101. That you don't just do your DCF because as I mentioned to the Court a little earlier, DCF is just math. It's literally just formulas. And what matters are your inputs. And you want to check those inputs with other measures of value. And so you'd want to do reasonable checks of that value in other ways.
Q. Have you seen any documents internally at RAI that reflected some kind of DCF calculation?
A. I have, yes.
Q. And do you recall what the inputs were in -- in that document?
A. I do, yes.
Q. What were they?
A. So they were projections and then the discount rates and perpetuity growth rates.
Q. And do you recall what perpetuity growth rate was used by the company in connection with trying to come up with a ceiling for authorization to go purchase shares in the market if it chose to do so?
A. They used 3 percent in those projections.
Q. Okay. And -- and in that calculation?
A. In that calculation, yes.
Q. Now, does that cause you to question in any way your opinion about the reasonableness of the growth rates that the bankers used?

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
A. No.
Q. Please explain why not.
A. Well, the first reason is that they -- they tied that growth rate to what I would almost call a step factor calculation of their discount rate. So they had this set of factors which would increase or decrease their base discount rate based on things like protected market, new product, and the like. And those things generally are related to the sort of -- the sort of probability that those things are going to be successful or not.

And so there's a direct tie between the way they calculate the discount rate and the perpetuity growth rate. Those two things are inextricably sort of linked.

The second thing is that this wasn't done for what I would call a fundamental or intrinsic value purposes in terms of really being this probability weighted expected growth rate into the future. And that be sort of, you know -- I often talk about projections and calculations being done for different purposes. This wasn't done to estimate intrinsic or fair value. It was done to estimate the maximum price that they would be willing to pay for their shares in this repurchase program.
Q. So let me go back to the first of the two things you mentioned relating to the way they calculated the weighted average cost of capital.

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
types of -- I'm going to try it -- idiosyncratic risks?
A. It does not. I mean, you have to factor them into expected cash flows. They are not captured by beta and they're not captured by cost of capital.
Q. So overall, now that we've marched through the different inputs to the bankers' analyses, what conclusion did you draw about the reasonableness of the work that they did?
A. So for the purposes that they were -- they were hired to opine on whether the deal price treated non-BAT shareholders fairly, it was -- they did reasonable work. At the end of the day, \(I\) think their valuations are optimistic because of the projections they used. But that was reasonable in this context, given that it still lined up with the deal price.
Q. And to be clear, why do you think they were optimistic?
A. Because those five-year projections don't take into account the possibility that even over the next five years, one of those negative events or more may occur.
Q. Now, did do you your own ground up DCF analysis for this matter?
A. I did not.
Q. Why not?
A. I wasn't asked to do an affirmative discounted cash
Q. Can you tell us why as an economist that was something that you considered relevant to look at?
A. So if the market is efficient and there's no material, nonpublic information, then the market price will be the best estimate of a firm's, you know, intrinsic or fundamental value.
Q. And --

MR. ROLNICK: Your Honor, I object to that answer and I move to strike it. This is -- the premise of that answer was, if the market is efficient, and they had an expert who was going to opine on that issue, and they made the decision not to call that expert. I think it's inappropriate for Professor Gompers to offer any opinions about whether RAI's stock was efficient.

THE COURT: I'll allow him to testify, but it will be subject to your objection.

MR. ROLNICK: Thank you, Your Honor.
MR. BORNSTEIN: And to be clear, Your Honor, I have not asked him to offer the opinion as to whether it was efficient. And we'll deal with the objection in due course in the papers.

BY MR. BORNSTEIN:
Q. So let me just actually put that out there so it's very clear. Do you have an opinion, Professor, as to whether or not the market for RAI stock was efficient at the time of

RAI vs. Third Motion, File No. 17CVS7086

BAT's first offer?
A. No.
Q. Okay. Do you have an opinion as a financial economist more generally as to whether large stocks like RAI that trade on a large exchange, are or not generally efficient at various points in time?
A. I think to be precise, that most of the time, large firms traded on national exchanges are trading efficiently.
Q. Have you seen any evidence in this case that has caused you to say that the stock of RAI is inefficient?
A. No. I see no evidence of inefficiency.

MR. SHINDEL: Objection, Your Honor.
MR. ROLNICK: Your Honor, I'm going to object again to this line of questioning. He just said he was not going to put this witness on to opine that the stock was efficient.

THE COURT: I'll allow him to testify but subject to your objection.

MR. ROLNICK: Thank you, Your Honor.
BY MR. BORNSTEIN:
Q. And, again, to be clear, have you formed a view as to whether it is -- the market was efficient for RAI stock at the time?
A. No.
Q. So when you just testified that you didn't see evidence indicating inefficiency, can you explain how that is

RAI vs. Third Motion, File No. 17CVS7086
Page 786
consistent with the fact that you haven't formed an affirmative opinion as to efficiency?
A. Yeah. So there's nothing I've seen either in the review of the analyst reports or any evidence produced in this manner which would cause me to be concerned that the market was inefficient. There's no evidence which has been put forward that would demonstrate that RAI was trading inefficiently.
Q. There's been some testimony that I believe you've heard over the course of the past few days in which people have used the phrase minority discount.
A. Yes.
Q. Do you remember that?
A. Yes.
Q. So just as a matter of economics, what is a minority discount?
A. So we think of a minority discount -- and the way to think about it is, it's the flip of the control premium. So the way we think about a control premium is how much -how much extra would you be willing to control these assets? And so this -- in this case, BAT paid a 26 percent premium to the prevailing stock price and so that's the controlled premium. The minority discount is just the opposite of that. It relates to where the stock trades under the existing management.

Theresa B. Kramer, Official Court Reporter
Mecklenburg County Courthouse, North Carolina
Q. So if you do a DCF valuation of the company, just in the abstract, not RAI specifically. If do you a DCF valuation of the company, does the output of the DCF if done properly, include a minority discount or a control premium?
A. So no. The way to think about it is that there's a set of projections under the existing management and the DCF value of that will equal the stock price. So you don't need to take a minority discount off of the stock price relative to the projections for that current management.

Now, a controlled premium, the reason BAT may be willing to pay more is because they think they can derive more value. So they think they can generate more cash flows. Perhaps they can get some synergy value and the like. And so the assets are worth more. So they pay a control premium. And the value they hope is that their DCF value under their control equals what they would be willing to pay for it.

But it is certainly the case that if you have projections for a company under the existing management, that DCF value should equal the share price with no discount.
Q. So assume a hypothetical company trading on an efficient market that is trading at \(\$ 10\) a share. Would that \(\$ 10\) share price on the efficient market represent the DCF value of the company or would there be some kind of discount reflected in that \(\$ 10\) trading price?
A. It would --

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

BAT's first offer?
A. No.
Q. Okay. Do you have an opinion as a financial economist more generally as to whether large stocks like RAI that trade on a large exchange, are or not generally efficient at various points in time?
A. I think to be precise, that most of the time, large firms traded on national exchanges are trading efficiently.
Q. Have you seen any evidence in this case that has caused you to say that the stock of RAI is inefficient?
A. No. I see no evidence of inefficiency.

MR. SHINDEL: Objection, Your Honor.
MR. ROLNICK: Your Honor, I'm going to object again to this line of questioning. He just said he was not going to put this witness on to opine that the stock was efficient.

THE COURT: I'll allow him to testify but subject to your objection.

MR. ROLNICK: Thank you, Your Honor.
BY MR. BORNSTEIN:
Q. And, again, to be clear, have you formed a view as to whether it is -- the market was efficient for RAI stock at the time?
A. No.
Q. So when you just testified that you didn't see evidence indicating inefficiency, can you explain how that is
experts. So if there was truly some mountain of gold that was hidden, something inside RAI that was hidden, eventually that would have come out and I would have expected -- again, back to the analysis we talked about just before break -that somehow BAT would have appreciated quite substantially because they got such a deal on purchasing of RAI.
Q. Are you saying that BAT stock would have gone up at some point when the value became known?
A. So essentially both Professor Zmijewski and Mr. Taylor are -- they're opining that, you know, \(\$ 50\) billion of value was transferred from the RAI shareholders to BAT because they've underpaid by \(\$ 50\) billion. So if that were the case, one would expect that over time -- again, the proof is in the pudding -- that those results would have come out and BAT would have gone up because people would have seen that they got such a great deal.
Q. And did you see any evidence that that has happened over time?
A. Well, no. Again, the stock price of BAT has fallen by about 60 percent since they purchased RAI.
Q. Was there anything in the analysts' coverage of the deal that was relevant to your assessment of the Dissenters' valuations of the company?

MR. ROLNICK: Your Honor, I'm going to object to that question. Whether or not analysts who are not before

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
the Court offered opinions or not is rank hearsay. They're not here to be cross-examined. He hasn't conducted a valuation. This is just another way of summarizing argument and presenting it to the Court.

THE COURT: Well, experts can rely on inadmissible evidence and I'm going to -- I'll -- subject to your objection, I'm going to allow the testimony. But it's subject to your objection and that will be something that you can raise in your post-trial briefing.

MR. ROLNICK: Thank you, Your Honor.
BY MR. BORNSTEIN:
Q. And perhaps to grease the wheels on this a little bit, is the review of analyst coverage of a stock something that financial economists do in the ordinary course of assessing the value of a company?
A. Absolutely. Whenever I do a valuation, I look at industry analysts, \(I\) look at company analysts to try and assess what the view in terms of the state of the company, the state of the industry, certainly the financial advisors here did the same thing. And so while again, you have to filter it and sort of interpret it from, you know, just these are individuals' perspectives, it does provide you insight in terms of contemporaneously what they were thinking about in this case the deal price that was agreed to.
Q. And what did you find when you did that analysis

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

RAI vs. Third Motion, File No. 17CVS7086
Page 803
here?
A. So I read every single analyst report around the deal, around the merger, for both RAI and for BAT. And, you know, typically the vast, vast, vast majority -- virtually all except for one, thought the deal price was rich. It was at a historic high. And that potentially BAT was overpaying.

So saw nothing -- not a single analyst who said that BAT was getting a steal.
Q. Let's take a look at Slide 27, please. And can you tell us, Professor, what Slide 27 shows?
A. So Slide 27 is just all of the evidence that I bring to bear on assessing sort of fair value here. And it starts with my unaffected stock price analysis on the top. I graph the range of discounted cash flow values from the financial analysts. My own comparable company and precedent transaction analysis, as well as the comparable company and precedent transaction analysis of the financial advisors. And what you can sort of see is that generally they all line up -- they all line up a lot.

The one outlier here is actually on the comparable companies, there's one outlier and that's ITC, this sort of Indian conglomerate. That's where you get this 82 and the 79. But other than that one comparable company, all the others line up basically right where the deal price is or actually lower.

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
fair value of the firm; right?
A. Your question is not being very precise. If I may help you a second. Those three different forms of market efficiency talk about the types of information which would be embedded in the stock price.
Q. Okay. So let's just focus -- now, you haven't done any study here to determine whether or not RAI stock was either efficient, semi-strong efficient, or strong efficient; right?
A. That's correct.
Q. But let's just focus for a moment on semi-strong efficiency. Okay? Semi-strong efficiency says that the price will respond to information -- publicly disclosed information to the marketplace; correct?
A. Yes.
Q. Okay. And in order to determine whether or not that in fact occurs, you have to do a scientific analysis; right?
A. There are affirmative tests that you can do for market efficiency, yes.
Q. Such as an event study for example?
A. Correct.
Q. Okay. But just because a company is widely traded on a national exchange, doesn't mean that it's semi-strong efficient at any given point; correct?
A. That's correct.
Q. Even widely -- even widely traded shares cannot -may not be semi-strong efficient; correct?
A. That's correct. While it's true most of the time, for most large companies on large exchanges, it's possible that they're not trading efficiently.
Q. But you wouldn't know unless you did an actual study; correct?
A. You wouldn't be able to provide evidence unless you did a study. That's correct.
Q. And you've done no such study?
A. That's correct.
Q. For Reynolds; correct?
A. Yeah. We should caveat that. Yes. I have not done an efficiency analysis of RAI.
Q. Have you done it for other companies?
A. I have.
Q. So you're perfectly capable of doing it?
A. \(\quad \mathrm{I}\) am.
Q. Okay. And are you capable of analyzing process to see whether process yields a fair price?
A. Yes.
Q. But you didn't do that here?
A. I wasn't asked.
Q. Okay. So that's no, you didn't; right?
those DCF's are likely optimistic.
Q. And yet there is a long line of court decisions and financial literature that tells us that the best projections for use in an appraisal proceeding are those prepared by management in the ordinary course of its business; isn't that true?
A. That's correct. But it depends upon the assumptions embedded in those projections about whether or not they reflect expected performance.
Q. And, in fact, there's an equally large body of court decisions and financial literature that tells us that adjusted projections prepared for purposes of litigation should not be used in an appraisal proceeding; right?

MR. BORNSTEIN: I object to the extent he's asking for a legal opinion. I don't object to the extent he's asking about financial literature.

MR. ROLNICK: I'll lay a foundation, Your Honor. BY MR. ROLNICK:
Q. You're very familiar with the legal decisions in appraisal matters; right?
A. Again, I generally don't take it upon myself to read decisions. I offer opinions based on my expertise which is financial economics. And what I can tell you based on financial economics, if it's clear that the company's projections prepared in the course of ordinary business -- if

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that both the discount rate and the growth rate factor into your terminal value.
Q. Okay. And if you did the same analysis for the fairness opinions, DCFs, for example, the DCF prepared by JPMorgan, do you know what that would look like?
A. 78 percent.
Q. \(\quad 78\) percent compared to 79.3 ?
A. That's correct.
Q. Okay. So even JPMorgan's discount rate -discounted cash flow produces the same sort of graphic result; right?
A. That's true.
Q. Okay. But you didn't mention that in your direct testimony; right?
A. I did not.
Q. Okay. Let's go to your comparable companies analysis. Page PDX5.8. This is your list of comparable companies; right?
A. That's correct.
Q. Okay. And this list is not for valuation purposes but just as a check; right?
A. That's correct.
Q. You could have done valuation using comparable companies but you didn't; right?
A. It's -- this is meant to provide market-based
A. That is correct.
Q. And subsequent to that, you became the vice-president of business development at RAI?
A. That is correct.
Q. And you were the VP of business development at the time BAT made its offer to acquire RAI; right?
A. That is correct.
Q. All right. Before we talk about that, I want to talk a little bit about the financial planning process at RAI. In particular, the financial forecasts prepared by RAI. You oversaw that process in your role as VP of financial planning; right?
A. I was in charge of the group that performed that process, yes.
Q. And the financial planning process at RAI involved updating the company's financial forecasts each month; right?
A. That is correct.
Q. And those monthly updates internally were called latest estimates or LEs?
A. That is correct.
Q. The ordinary course forecasting process involved over a hundred individuals throughout the organization; correct?
A. That is correct.
Q. The ordinary course forecasting process involved a

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the ten-year CAGR is based off starting year of 2015. 2015, not all of the Newport shipments were included in the base. So that's also why there's a nine-year CAGR that's presented there. We didn't have a full year until 2016 of Newport volumes. So it's incorrect to be looking on something that you only have a partial year of volumes to start it with. The good base would be 22 nd -- 2016 when we have a full year of Newport volumes.
Q. All right. Well, you know, I want to be complete so if we look at the nine-year CAGR for Reynolds, that's a 2.8 percent decline; right?
A. That is correct.
Q. And for the whole industry it's a 4.0 percent decline; right?
A. That is correct.
Q. So when you look at ten years or nine years, according to these projections, Reynolds is projected to do better than the industry at large; correct?
A. That is correct.
Q. And that's what management believed at the time that these projections were put together; right?
A. That's their best estimate, assuming that the industry remains where -- you know, that the environment remains where it is. That there was no outside influences. There's a lot of downside to the tobacco industry that are
depicted above; right?
A. That is correct.
Q. All right. And if we look, starting in 2022, there's a 2.9 percent year-over-year decline, then it jumps to a 7.7 percent year-over-year decline, then back down to 3.1 percent, year-over-year in 2024 , down to 2.7 percent in 2025 ; right?
A. Yes.
Q. All right. And so the volume projections in the ten-year plan are not simply straight line extrapolations; correct?
A. Volume is not a straight line extrapolation. That is correct.
Q. And if you look at 2023 , the reason that there's a 7.7 percent decline that's out of line with the other declines is that in this model, RAI assumed that there would be a federal excise tax increase in 2022 ; correct?
A. I do not know the answer to that question without looking at other information in here.
Q. All right. Well, we'll see if we can tie that one together later.
A. Okay. I mean, there's obviously something that went on at that point in time.

THE COURT: Your reference is to 2022 , but your box highlighted is in 2023. Did you misspeak or. . .

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Altria; right?

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A. That is correct.
Q. And if Altria has a need for robust cigarette pricing, that means that RAI in turn will be able to take price as needed to offset the volume declines; right?
A. They will be able to share in the pricing. Yes. Whether it offset volume declines, that's another question.
Q. All right. Turn to page 8 of DX234. I want to focus on the second bullet point.
A. I'm sorry. Where are we? Oh, I got it. Yes. Okay.
Q. Talking about some obstacles that RAI might need to overcome. And just to tie back what we were looking at in the spreadsheet, if you look at the bottom sub-bullet, it's written there.

In the long-term outlook, there's a potential
Federal Excise Tax, FET, slated to occur in 2022. Do you see that?
A. Yes, I do.
Q. All right. And does that suggest that the jump in volume declines that we saw in the spreadsheet in 2023 is based on an assumption that that FET will be put in place?
A. Yes, that would have that -- that would have that impact.
Q. And that was baked into the 2016 ten-year

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projections; correct?
A. Yes.
Q. All right. Now, I want to look at the next sentence in the narrative about Strategy Day in JX234 (as said) on page 8.

At this time, there are no tangible indicators that this tax will come to fruition; however, we will continue to monitor this closely and implement appropriate mitigation steps as necessary.

Is that what it says?
A. Yes, that is what it says.
Q. All right. So despite the fact that there were no tangible indicators that the tax would actually occur, it was baked into the 2016 ten-year plan; right?
A. Yes, it was. Given the state of our governments and their need for financing, this is something that was debated for long periods of time, whether to include federal excise tax increases or large -- excise tax increases in the out years of the plan.

There was positive and negatives to both. One, it creates a cliff. Two, you don't know when it's exactly going to happen because like we said, there's no tangible indicator. But as the governments become more and more in need of money, tobacco is a very easy target for them to increase taxes, whether it be at the state level or the

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federal level. So there is one in there that has the impact of decreasing volumes at that period in time. That excise tax could come earlier, it could come later. It could be more, it could be less. You have to go with some assumptions.
Q. All right. We can minimize that and turn to page 9 of DX234. I want to focus on the bullet point at the top. At the very top of the page about also critical to meeting the plan objectives.

And what this part of the narrative states is that, critical to meeting plan objectives is successful navigation of the regulatory environment, especially now that all tobacco products are under the FDA; right?
A. That is correct.
Q. And it goes on to say: Incremental investments and resources have been added to the Strategic Plan to better position the RAI OpCos for success in the regulatory environment; correct?
A. That's what it says.
Q. So there was additional cash spending to address potential FDA issues built into the ten-year plan?
A. They're -- dealing with the FDA requires a number of people. You can't change anything on any product today. You have to be able to prove that nothing has changed in that product. At the time -- it's so onerous that at the time
A. Yes, it is.
Q. And prior to the Lorillard transaction even being negotiated, the FDA in 2013 had issued an advance notice of proposed rulemaking related to potential menthol regulations; right?
A. That is correct.
Q. And after the Lorillard merger agreement had been signed, RAI publicly disclosed to stockholders that it was RAI's belief that menthol regulations would have to be based on scientific evidence and that there was no scientific evidence of health risks from menthol; correct?
A. You're asking something that occurred after the merger. And I wasn't --
Q. Before the merger closed, while it was pending, RAI disclosed to stockholders that it was RAI's belief that any menthol regulation would have to be based on science and that there was no science to support a notion of health risk from menthol cigarettes; correct?
A. I do not recall that in specifics, but it sounds reasonable.
Q. All right. Well, let me see if I can refresh your recollection with a document.

MR. SHINDEL: May I approach, Your Honor?
THE COURT: I'm sorry. You may.
MR. SHINDEL: (Tenders.)

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

It's not the first time.
BY MR. MILLER:
Q. Based on your experience in the cigarette industry, is there any particular demographic that tends to smoke menthol with higher percentages?
A. Well, I don't know the exact demographic breakdown on menthol cigarettes. I know Newport has a lot of African-American smokers, has a lot of young smokers. So there's -- they skew to certain demographics. But, you know, over all menthol cigarettes sold, I don't know as I sit here the distribution between different demographic groups.
Q. And based on your past experience in the cigarette industry, do you have any sense of what kind of political resistance a potential ban of menthol might face?
A. Well, I don't know how to answer that directly, but I assume it would face, you know, opposition from more than just the cigarette industry. When I participated in the FDA hearings, there were various groups. Convenience stores didn't like the ban. Members of African-American community came in and complained about the ban. There were -- there was not just the cigarette companies who did not want the ban. Presumably consumer groups. You know, people who like menthol would oppose the ban. But exactly politically, I don't know.
Q. And likewise, based on your knowledge of the

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cigarette industry, if hypothetically the FDA had announced before the merger closed that it intended to pursue a menthol ban, do you have any sense of how long it could take such a ban to go in place assuming it ever occurred?
A. Well, to start with that, I don't think -- the point where they announce it, whether it was before the merger or after the merger really influences that question. But, you know, I don't know exactly how long it would take. My best guess is that it would take multiple years because the FDA has the Tobacco Product Scientific Advisory Committee. TPSAC it's called. And they're essentially, as I understand, an advisory group. And so there would be hearings. There would be debates. There would be, you know -- and then if they decided to go forward after that, presumably there would be litigation. But, you know, how long -- how many years that would take, I don't know.
Q. Let's move ahead and talk about the relevant geographic market for RAI.
A. Okay .
Q. We're on Slide 6.

MS. SHAH: Again, Your Honor, I think he needs to establish an independent recollection before he prompts the witness to his testimony through a PowerPoint.

THE COURT: As I said before, I think if you -- you should establish with him that would assist him in providing

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didn't -- they weren't related to such a level, didn't reach a threshold that they had any significant impact on pricing or other strategic decisions for combustible cigarettes.
Q. So what effect does the FDA have on determining the relevant geographic market for RAI's business?
A. Well, that would be the second source of evidence that there's unique regulation in the United States. And that regulation, the FDA regulation, specifically the restrictions on new products means that it would be very difficult or expensive and time-consuming, if possible, to bring new products from other countries into the United States. So that's part of the geographic boundary because the FDA essentially said they had -- you know, they had some -- when they started to look at cigarettes or control cigarettes, they allowed products to come onto market that were marketed -- I think it was prior to 2007. But there is a date.

And they essentially said, if you were in the market selling those products, don't have to go through this -- what's called -- PTMA which is pre-tobacco market application. Which is essentially the FDA restricts new products. In fact, up until April 30th -- it was a few weeks after my deposition -- they didn't -- they only had allowed eight products onto the market throughout -- you know, since the Tobacco Control Act of 2009. Only eight products were

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approved by the FDA and they were noncombustible cigarettes. They were -- I think they were Snus. I think products by Swedish Match. But I don't -- but in April 30th they approved some more products. Again, I don't know if any of them are cigarettes. But there's been some more. But there's not many new product approvals, so. . .
Q. And how do you --
A. But there's -- and then there's also unique taxation and distribution in the United States. So -- and finally, without the ability to market and advertise, really strong restrictions on advertising marketing promotions in the U.S., it would be very difficult for a new brand to come into the market and gain share. How would they get consumer -- you know, how would they get into consumer consciousness?
Q. So with restrictions on tobacco marketing, how did new tobacco users figure out what brands they want to use?
A. Well, they don't do it through watching TV ads or going to sporting events and seeing those promotions. They may see other people smoke particular brands. There's been some work in the literature that says that, you know, existing brands have -- especially the large ones have advantages because seeing a lot of people smoke a brand gives you more exposure to the brand. But it's difficult. It's a good question. I don't know exactly.
Q. So hypothetically, if you had a cigarette company that operated in a country that unlike the U.S. didn't have an FDA that limited their advertising ability or their ability to launch new products and also unlike the U.S. didn't have significant excise taxes, in your opinion, how would competition in that hypothetical country compare to the U.S. cigarette market at the time of the BAT merger?
A. If you allowed new product entry and more marketing and advertisement, it would lead to in my opinion a higher level of competition because you'd always have the threat of new competitors. Not only new competitors, but if you think about the restrictions on new products today, Reynolds nor Altria can introduce -- nor Imperial could introduce any new products without going through this PMTA process and that limits new products by existing players and it also limits entry. And in a market where you have barriers to entry, barriers to new products, barriers to promotion, that makes the marketplace less competitive.
Q. Who were the key players in the U.S. cigarette market at the time of the BAT merger?
A. Well, at the time of the merger, there were basically two larger players and that's the largest one Altria, and Reynolds. And the two of them accounted for, you know, maybe a 35 -- I'm sorry -- 85 percent share. Not 35. 85 percent. I misspoke.

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
more competitive and robust.
Q. So just expanding on that a little bit, why do you think it would be less likely that a Marlboro Friday type event would happen -- would have happened around the time of the merger?
A. Why it was less likely? Because I think the overall industry was less competitive. I think regulation restricts competition. And that restriction on competition was significant. So it was -- so you ask yourself this question, what would be gained if I have a stable set of competitors who are always going to sell the same products, no new competitors are ever going to be able to come on the market, why would I want to go to a price war against these new competitors?

The Marlboro Friday that you referenced, a lot of the incentives as I understood them was because they were value brands gaining share in the marketplace. And that kind of dynamic of new brands coming in and taking share away from Altria is less likely to occur today.
Q. At the time of the merger, what were the trends in cigarette volumes in the United States?
A. They were declining.
Q. And were declines in volumes a recent phenomenon?
A. No. They had been going on since 1982.
Q. So historically, since volume started declining

BY MR. MILLER:
Q. Dr. Flyer, would this slide help to illustrate your testimony about the history of volume declines?
A. Sure. That's the FTC. This is based on the FTC data.

So if you take the data available at their website and you plot it, you'll see -- and there's no numbers. There should be numbers but -- the number is over 600 billion sticks in 1982. And by -- I think 2016 is the last year here. It would be 240 billion sticks. 2017 data have come out. They came out a couple of months ago. The FTC released the 2017 data and it went -- it's gone down to 230 billion sticks. So roughly it was maybe 630 billion sticks in ' 82 and today it's 200 -- or last year -- or ' 17 it was 230 billion sticks. And we're in '19 so it's actually more than last year.
Q. So during this period of consistent volume declines, was the profitability of the U.S. cigarette industry following a similar decline?
A. No. Profitability wasn't following a similar decline because pricing was increasing.
Q. Do you know what's meant by the term price elasticity?
A. Yes.
Q. What is price elasticity?
    period, is it fair to say that prices -- wholesale prices of
    cigarettes have increased at a much faster rate than the CPI
    has?
A. Yes. So the way I would generalize this chart is to say that the wholesale price of cigarettes has increased at a far higher rate over the last 20 years than the overall prices in the economy.
Q. And what has allowed U.S. cigarette companies to raise wholesale prices at rates that are so much higher than the CPI?
A. Well, I mean, one is that smokers have inelastic demand. So if -- if everybody in the industry raises prices, you're likely not to lose that many smokers. Maybe a more concentrated industry that it's easier to get price increases. I mean, exactly why, it's not something I analyze, but it's -- I mean, those are potential reasons but I -- you know, there's maybe more.
Q. Do you know if there's a relationship between the consumer price index and the rate of inflation?
A. Well, that's usually what people refer to to measure the rate of inflation, but there are other measures. It's one measure. I think it's probably the most popular measure.
Q. So is it accordingly fair to say that the wholesale price of cigarettes during this period has increased much
you have less switching. So presumably, it gives them an ability to more effectively pass on pricing.
Q. What year did the Lorillard transaction with RAI take place?
A. Well, it closed as I understand in 2015.
Q. And what was going on in the Lorillard transaction brand -- cigarette brands wise?
A. As I said, it was a swap essentially. They bought Lorillard, but because of antitrust concerns, the government -- they had to have a divestiture in order to get approval so they divested other brands in return. Specifically Winston, Salem, Kool. Let me see. There was a value brand -- Maverick I think. Those are the four brands they divested. Plus there was other products as well, noncombustible products.
Q. So the Newport brand that Reynolds obtained in the Lorillard transaction in 2015 , was that primarily a menthol brand?
A. Newport?
Q. Yes.
A. Absolutely.
Q. What does the fact that RAI was willing to pay \(\$ 30\) billion to obtain a menthol cigarette brand in 2015 tell you about RAI's assessment about the likelihood of a menthol ban at that time?

MS. SHAH: Objection, Your Honor. Asking for speculation about RAI's frame of mind.

THE COURT: Rephrase the question.
BY MR. MILLER:
Q. Hypothetically, in 2015 , if you were going to purchase Lorillard for \(\$ 30\) billion, what would that indicate about your assessment of the likelihood of a menthol brand?
A. Menthol brand?
Q. Menthol ban or menthol regulation.
A. Well, presumably, it says that they thought they can overcome it and the value they derive from the ban exceeds 30 million. Exactly how they're going to derive value from the brand, I don't know. But they wouldn't make the transaction if they didn't think they were getting more value in return.
Q. How did the growth prospects of RAI's cigarette brands before the Lorillard transaction compare to growth prospects of RAI's brands after the Lorillard transaction?
A. I think the swapping out of Newport which sells a lot of cigarettes to younger smokers, younger adult smokers, but also teenagers, it's a very popular brand among young people, meant that there is going to be growth in share over time because as the older smokers cease to smoke or pass away, they leave the marketplace and then the younger smokers move in and become the marketplace.

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
know when they were valuing the Reynolds business back at the time of the Lorillard deal, what brands they were including. So the first issue, if you have a new mix of brands, then the answer would be no, because after the purchase was considered transformational, you would expect the growth to increase. Taking a Newport brand that's doing much better in terms of share gain than your older brands, Kool, Winston, and Salem, should bring you better growth going forward.

So that -- that -- but I wasn't sure exactly what they used so I can't -- but what I did understand is that instead of using, you know, five years of projections as they did in this matter, they used nine years of projections in that previous matter. And if those nine years exhibited robust growth predictions, like the ones that are associated with the BAT deal, then you're -- as I said before, what happens right away matters. You're assuming you're going to had zero growth in year five. Well, before they were assuming it in year nine which is going to mean a much lower, you know, calculation than you would if you assumed growth from nine years versus, you know, five.
Q. Let's shift gears from the financial advisors to Professor Gompers. What is your understanding of Professor Gompers' bases for saying that the financial advisors perpetuity growth rate estimates are reasonable?
A. He said that there was threats to the business that
A. Absolutely.
Q. Do you know how many mergers and acquisitions Reynolds -- or RJRT went through between 1997 and 2016 ?
A. I know the larger ones that I just mentioned. You know, Native American Spirits they acquired, Brown \& Williamson, American Snuff, and obviously Lorillard. But I don't know if that's an exhaustive list.
Q. In 2006 there was also the acquisition of Conwood; correct?
A. Correct. Actually, our firm worked on it, now that you reminded me. Yes.
Q. And in 2009, RAI acquired Niconovum; correct?
A. Correct.
Q. And now, I think you testified that the industry is consolidated so that there are three major players in the cigarette market; is that correct?
A. That's correct. But that's been true for a while. I mean, before the Lorillard transaction, there were -- if you took Lorillard, Reynolds and Altria, they were still, you know, dominant in the industry.
Q. And because of antitrust concerns, it's unlikely that there could be any further consolidation among those three companies; isn't it correct?
A. That would be my best guess, yes.
Q. And so there's no historical basis to say that RAI

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
A. They are.
Q. Okay. Now, to begin, I'd like to ask you to give us a summary of the opinions that you rendered in this case and then we can take them one by one. And if we can have slide two, we can follow along.
A. So this slide's -- this slide summarizes my opinions. First opinion is that the discounted cash flow valuation methodology is the appropriate valuation methodology to use for RAI in this case as of the closing date. The DCF valuation methodology resulted in a per share price as of the closing date of the transaction date of \$92.17. That's the first set of opinions.

The next set of opinions addressed market multiple valuation methodologies, specifically comparable companies and precedent transactions. And I concluded that neither the comparable companies analysis or the precedent transaction analysis would be valid ways to -- or reliable ways to value RAI's fair value.

And then \(I\) was asked also to look at other potential indicators of value, specifically the transaction price. And to also discuss or to review RAI's unaffected stock price. And I concluded that those were not reliable indicators of value.
Q. Now, Professor, when you talk about transaction price, we've heard about the deal price that was agreed upon

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in January 2017, but are you able to tell us what the
transaction price actually was as of the July 25, 2017,
valuation date?

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A. I'd have to look it up. I didn't memorize it. \$65 and I don't remember how many cents. \$65.87.
Q. I'm sorry. What does the 65.87 represent?
A. That's the value of the compensation the shareholders received as of the transaction date, July 25, 2017. Was that your -- that was your question; right?
Q. It was my question, yes.

MR. RAFFERTY: Your Honor, I'd like to speed the process along. The professor has to leave. But if they're going to have him you look up through the slides and give an answer based on what he's reading, we should at least have the record reflect what side they're looking at, because I have no idea. I have to read through this now.

THE COURT: All right. Well, proceed.
BY MS. SADIGHI:
Q. Professor, did you look at Slide 46 to refresh your recollection as to the deal price of the transaction close date?
A. Yes, I did.
Q. Okay. Turning to the valuation methodology that you used in this case, could you please explain to the Court why you chose to rely on the discounted cash flow

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growth rate.
THE COURT: I'll allow the testimony subject to the objection.

MR. RAFFERTY: Thank you, Your Honor.
A. Where was I? Oh. So the gentleman from Lazard was testifying and he explained how, for a ten-year forecast for the Lorillard transaction, they used a growth rate of minus .5 or half a percent negative to half a percent positive and that they thought things are generally the same five-year -from 2014 or 2015 to the current transaction, the Reynolds transaction with BAT. And they used the same range of growth rates.

But the Lorillard transaction was based on ten years, by the time they did the transaction \(I\) guess nine years. And that's not what they were using here, five years. And there's a difference -- big difference. Like, a third of the value you'd get if you use a ten-year forecast versus a five-year forecast. So what I saw with the investment bankers, I didn't understand how they actually got their growth rates so what \(\operatorname{Dr}\). Flyer presented to me made perfect sense.

BY MS. SADIGHI:
Q. Now, moving on from the second input to the third input of your DCF, can you please describe for the Court the discount rate that you used?

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
Q. And so, with all other Lazard assumptions being equal, based on what you're depicting here, are you able to calculate what the choice of applying zero after five years instead of zero after ten years translates into on a per share basis?
A. It's about a little over \$20. So had Lazard used these June forecasts, for ten years, assumed a zero growth rate, their valuation instead of being \(\$ 59.59\), would have been a little over \(\$ 80\) just by that difference.
Q. And can you do the same analysis with respect to the other financial advisors' DCFs and see the difference between using the -- their application of a growth rate of five years versus ten years?
A. Of course. So you see on this slide I have Goldman's number. Goldman calculated a value of \$55.74. And the Goldman -- the green line represents Goldman's cash flows. There's so much overlap in the red line it's hard to distinguish the two. They're very similar. So of course the difference in valuation is about \(\$ 20\) a share. Maybe more like \(\$ 19\) a share.
Q. And what about for JPMorgan?
A. I have JPMorgan's calculation on the previous slide.
Q. So if we look at Slide 19 , this illustrates the same view with respect to JPMorgan?

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left out of the calculation by setting the terminal growth rate after five years, are you able to approximate the difference that is on a per share basis?
A. It's about -- again about \(\$ 20\).
Q. So do you know what the Goldman valuation output would have been had it used management's projections for those years between 2021 and 2026 as opposed to applying it's 1 percent growth rate after five years?
A. Looking again at Slide 58 where that number is stated, it's \$88.26.
Q. Now, going back to your DCF valuation, Professor, did you include the expected value of corporate tax reform?
A. I did not.
Q. To your knowledge, was the expected value of corporate tax reform something that the financial advisors considered?
A. They did.
Q. I'm sorry?
A. They considered it. They calculated some valuations from it, based on it.
Q. Okay. And if we look at Slide 22 of your slide deck. Is this what you're referring to when you talk about the financial advisors considering the potential impact of any anticipated reduction in the corporate income tax rate?
A. Yes. So this is just a slide that I prepared, and
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it summarizes the Goldman, JPMorgan and Lazard's calculation
of the potential effect on Reynolds' share price if the tax
reform is passed. And you can see, just going across all
three financial advisors, the range is from roughly 11
percent to 30 percent. And what's causing that difference in
value is an assumption of what the tax rate would end up
being.
Q. Now, is this difference and this expectation something that you can relate back to our -- your prior discussion of potential upsides and downside sensitivities?

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A. Well, going all the way back to 2016 , it was known that -- I believe the Republican party already proposed a tax decrease in 2016. The Trump campaign, prior to the election, proposed a decrease in taxes. And then that's back in 2016, so we're going all the way to July. The Trump administration was already in office and, you know, everyone was aware that the Republican party was trying to get through a tax decrease for corporations.

It wasn't probability one, of course, so to incorporate this, you would need to know when that tax rate would be changed, how much it would be changed, and the probability of it. But we see that the financial advisors were estimating, if it did occur, an increase in value somewhere between 11 percent and 30 percent.
Q. Do you know whether any of the data that's

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reflected here was used by Reynolds to calculate an adjustment to its anticipated cash flows in the projections that were used by the financial advisors in the opinions that they rendered in January of 2017?
A. The testimony is clear that the cash flow forecast did not include any effect of potential tax reform. So they were without -- they did not include this effect. So it's a potential upside that is not in the management forecast.

And the testimony, I believe, is clear that the financial advisors, although they looked at this issue and calculated these numbers, that wasn't part of their valuation.
Q. And I believe you said this when I started asking you questions about the corporate tax reform, but these -were these numbers incorporated at all into your \(\$ 92.17\) valuation of Reynolds as of July 25, 2017?
A. No.
Q. Now, I want to shift a little bit and talk about some -- I think it's fair to call them criticisms that Professor Gompers made of your discounted cash flow valuation. And I want to start by asking you if you recall whether Professor Gompers talked about what percentage of your calculated value for Reynolds sat in the terminal period. So the period after the forecast. Do you recall that?

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
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A. That is a ten-year forecast for adjusted operating income.
Q. So management provided you with a five-year set of projections. Was that a typical time period for projections that you used at the time in doing valuation work?
A. It is, yeah. Management in the context of a financial forecast, three to five years is very typical to be provided.
Q. Did JPMorgan ask management for any longer periods of projections?

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A. We did inquire as to whether or not the company had the ability to provide an additional five years to the financial forecast.
Q. And why did you ask for a longer period of projections?
A. As a general matter, our preference would be to use longer term forecasts in an effort to make our analytical work as accurate as possible.
Q. Did -- management provided you with the ten-year forecast from the July 2016 strategic plan. Did management provide you any other ten-year forecasts?
A. Not to my knowledge.
Q. Did you need a ten-year forecast to do your work?
A. It was not necessary. In fact, we oftentimes do our work on five years of projections. But as a preference,
A. Correct.
Q. And I think that you previously testified that of the \(\$ 40\) million in transaction fees, approximately 30 million was contingent on the deal going through. Am I right?
A. I don't recall the specific number, but it would have been a larger portion of it.
Q. Now, I think you mentioned in your direct exam that you had provided some information to Reynolds prior to the BAT offer, about a potential BAT offer being made; correct?
A. Correct.
Q. And I'd like to show you Exhibit DX63. And this is an email chain that attaches a set of follow-up materials that JPMorgan provided to Andrew Gilchrist at Reynolds; correct?
A. That's correct.
Q. And you were involved in the preparation of these materials. Am I right?
A. That's correct.

MR. ROLNICK: I'd like to move DX63 into evidence.
MS. SHAH: It's already in, Your Honor.
MR. ROLNICK: Sorry. It's already in. That's
good
BY MR. ROLNICK:
Q. So turning to the top email. If we start at the bottom email, which is on -- which is August 24th, 2016,

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
there's an email from James Grant to Andrew Gilchrist;
correct?
A. The first email is from Andrew Gilchrist to Jamie Grant.
Q. I'm sorry. With that correction.
A. Yes.
Q. And Jamie Grant was the Global Chairman of Investment Banking at JPMorgan; correct?
A. That's correct.
Q. And you and he were responsible for coverage of Reynolds; correct?
A. That's correct.
Q. And copied on this email is Mr. Eler; correct?
A. That's correct.
Q. Am I pronouncing his name correctly?
A. It's Emre Eler.
Q. Eler, okay. And Mr. Eler was the Managing Director of U.K. Investment Banking; right?
A. To clarify, he is a managing director in the consumer and retail investment banking coverage group.
Q. So he would be -- he would be someone who would have coverage of BAT; correct?
A. He was involved in the coverage of BAT and other tobacco sector clients.
Q. And he was very knowledgeable about the tobacco
sector; correct?
A. That's correct.
Q. Okay. And the first paragraph of the email from Mr. Gilchrist to your colleague states: Thank you for your time today. It was great Susan was able to join us and provide some additional context on the transaction outlook. It's always an interesting discussion and the potential timing appears to -- and I think the word be is omitted -coming more into focus. More to come as they say.

Do you see that?
A. I do.
Q. Is the reference to Susan there, Susan Cameron?
A. I believe it is.
Q. And is it the case that you had a meeting with Mr. Gilchrist and Ms. Cameron, in which you got from them some additional context on the outlook for a transaction with BAT?
A. I do not recall if \(I\) was involved in the meeting in August. I believe I was. I do not recall any specific context as it relates to the transaction personally.
Q. Well, you were working with Mr. Grant who was partnering with you on this at the time; right?
A. Yes. It was that summer of 2016 , when I first started working with him on Reynolds American.
Q. Okay. And the possibility of a transaction with

BAT, I think you previously testified, was something that you were thinking about at the time; right?
A. Yes, on an ongoing basis in the ordinary course coverage of the client.
Q. So if your partner, Mr. Grant, had a meeting with the CFO of Reynolds and the CEO of Reynolds and at that meeting it became clear that potential timing was coming into focus and had provided additional context on the transaction outlook, isn't that something that he would share with you?
A. Not --

MS. SHAH: Objection, Your Honor.
THE COURT: Overruled.
A. Not necessarily. As I had mentioned, this was at the relative outset of my joint coverage of the client with Jamie, and Jamie was primarily responsible for the relationship at that point in time. So I cannot say if he had shared that additional context as Andrew had referred to it, and I wouldn't be surprised if he had not shared that with me.

BY MR. ROLNICK:
Q. Even though the possibility of a transaction was a relatively important item with respect to the work you were doing for this client; right?
A. Correct.
Q. Okay. And if you look at the responding email from
2016 ; correct?
A. It is.
Q. And he states: Hi Andrew. Following our meeting at the end of August, we did some more work looking in detail at four major questions that came out of that meeting, the results of which we have outlined in the attached deck. As there is fair amounts of background thinking and analysis to the conclusions presented, could I suggest we set up a call with you to walk through it at your convenience?

Do you see that?
A. I do.
Q. And does this refresh your recollection that after the meeting that your colleague had with Mr. Gilchrist and Ms. Cameron about a potential transaction, that Mr. Gilchrist had asked questions to be answered and that JPMorgan was following up on that?
A. I do have a recollection of the four questions that he had requested that we follow up as a team on, as I was a part of preparing responses to those questions.
Q. Okay. And if we look at document No. 63.005. It's the number that begins with -- it's actually No. 1 of the deck.
A. Yes.
Q. Do you see that?
A. I do.
Q. And that's one of the follow-up questions that Mr. Gilchrist was asking you to answer; correct?
A. Correct.
Q. And the question is: What has been the difference in premiums paid in precedent transactions where the acquirer owned a significant portion of the target versus other transactions?

Is that what it asks?
A. Yes.
Q. And if you turn to page four, there's an analysis provided there. Do you see it?
A. Page two?
Q. Page -- well, it's page four of the deck.

It's . 008 .
A. Yes.
Q. And you state there that, "BAT would need to source 16 billion in incremental debt financing and 34.6 billion in equity issuance to finance the 58 percent of Reynolds it does not own".

Do you see that?
A. I do. It's 17.6, just to clarify the number.
Q. I'm sorry.
A. You said 16 .
Q. I'm sorry. You're right.

And then under the overview, you state: At a 30 percent premium, \(\$ 64.55\) per share, the total equity price to acquire 58 percent of Reynolds that BAT does not already own is 53.6 billion.

Do you see that?
A. I do.
Q. And if you look at the footnote, you're indicating that you're calculating that, based on the closing price on August 10th, of 2016 . You see that?
A. I do.
Q. And let me represent to you that when you do the math, that indicates that the trading price on August 10th, was \$49.60. Okay?
A. Okay
Q. So what you're doing here on behalf of Mr. Gilchrist, is you're trying to figure out how much BAT would have to pay to take over Reynolds; correct?
A. We were in an illustrative manner looking at how much it would require from a debt and equity financing perspective to finance the purchase of Reynolds at a lesser premium.
Q. And you calculated this by first trying to determine how much of a premium they would have to pay; correct?
A. No. I would not describe it as that. We used
an -- they were separate and distinct pieces of analysis; one was looking at an illustrative acquisition, based on a 30 percent premium, just at a very high level assumption perspective. And the second was, whether or not there was any differentiation between the premiums that had historically been paid in all transactions relative to transactions where the acquirer owns a significant portion of the potential target.
Q. Okay. And all of this is in aid of a question from Mr. Gilchrist where he was essentially trying to figure out how much they'd have to pay if they took over the company; right?
A. I don't know if I would describe it that way. His questions were outlined on the first page of this document.
Q. Well, wasn't he trying to find out -- isn't the purpose of this question to find out how much they would have to pay?
A. I think the purpose is twofold. The first question was to look at precedent premiums in prior transactions to determine if there's any difference between, you know, the broader set of transactions and transactions where the acquirer owns a significant stake in the potential target. And the second was in an illustrative example, how they would -- how BAT would be able to finance the transaction from a debt -- a debt and equity financing standpoint.

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
Q. Okay. But as a preliminary matter, before you go to try to figure out how they can pay for it, first you want to figure out how big the transaction might be; right?
A. That's correct.
Q. Okay. So the exercise here, is to try to figure out how much they would likely have to pay; right?
A. That's fair.
Q. Okay. And then if you look at -- if you go back to the list of questions, the next question is: In a transaction with Reynolds, how would BAT look to optimize the debt financing portion of the consideration?

Correct?
A. Correct.
Q. And so the next thing you did, and what really a lot of this debt goes on to demonstrate is to try to figure out how BAT would likely finance its purchase; correct?
A. Correct.
Q. How much debt it could borrow; correct?
A. Correct.
Q. How expensive that debt would likely be; correct?
A. Yes.
Q. And how it would finance the equity portion. In other words, if it were issuing stock; correct?
A. Yes. Correct.
Q. And so these -- this deck and this information was
to try to inform Mr. Gilchrist how much BAT would likely have
to pay, and if so, how they would go about borrowing money --
how much they could borrow and how much equity they would be
able to utilize; correct?
A. Correct.
Q. And so you, JPMorgan, and Mr. Gilchrist, already had -- were already forming views on those questions as early as September 30, 2016. Fair?
A. Fair.
Q. And in fact, once the transaction began, the information -- the work that you had done on this provided useful because you continued to analyze how much BAT would be able to borrow and how much it would cost as the transaction progressed; correct?
A. That's correct.
Q. And that's because understanding how much BAT could pay was important to the negotiations; correct?
A. That's correct.
Q. Now, during this meeting in September,

Mr. Gilchrist never asked you any questions about how much any other purchaser might be able to pay for Reynolds; correct?
A. I don't recall specifically.
Q. Well, if he asked about it, you would have responded in this deck; correct?

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
A. If he had asked -- these were questions as follow-up to the meeting that had been referenced in August. If he had asked us one of those follow-up questions, we would have addressed that in the context of this deck.
Q. And there's nothing in this deck that talks about how much any other potential purchaser might pay for Reynolds; correct?
A. Correct.
Q. So doesn't that suggest to you that you didn't ask about it?
A. I'm simply saying, \(I\) can't recall every question that was asked in the actual meeting, but it was not addressed in this set of materials. Correct.
Q. Okay. Now, I want to look at the pitch that you made to the Transaction Committee. I have it in the book as DX88. I'm sorry. This isn't the pitch book yet. This is the hiring. If you could go to DX88.

This is an internal email at JPM, JPMorgan, indicating that you were going to be hired in connection with the bid. Is that correct?
A. Sorry. This is in reference to the email from -at the top from Eric Oken to Jamie Grant? Am I looking at the right email?
Q. So if you go to DX88.002, it starts with an email from Constance Coleman. Are you looking at the right
years six through ten. Correct.
Q. And you wanted to know if they could provide such projections; correct?
A. That's correct.
Q. And they never told that you they could not provide such projections; right?
A. Well, I think it was a little more unique than that. We asked if they had up-to-date projections for years six through ten. We understood that they did not. That they only had the operating plan for the first five years of the financial forecast. And then subsequent to that, we had internal discussions as to whether or not we can do our work with just those five years and came to the conclusion that we took.
Q. So we're going to explore that a little bit further, but when you say "they", that's Ron Price and Andrew Gilchrist; right?
A. Yes.
Q. So according to your testimony here today, you're saying that you asked Andrew Gilchrist and Ron Price if they had ten-year projections and they said they didn't have them or that they have them but they were out of date.
A. We asked if they had up-to-date ten-year projections. So projections that were prepared in the context of the five-year forecast that had been provided.

And we understood that they did not.
There was the ten-year strategic plan that we had referenced in a prior document, but those were six or seven months dated at that point.
Q. So I just want to understand your testimony before we continue the examination.

You're saying that you asked Andrew Gilchrist and Ron Price if they had up-to-date ten-year projections and they said, "no"?
A. That's correct.
Q. Okay. And you didn't ask whether they had any projections; right? You just took that no and that was it?
A. No. They provided to us the strategic plan that had been prepared in the spring of 2016 , if I recall the date correctly, which had a set of projections for adjusted operating income for ten years. But they informed us that those projections were not up to date.
Q. So they told you not to rely on those projections?
A. That's correct.
Q. So when you got that strategic plan, in fact, you followed that up and said, hey, do you have detailed ten-year projections; right?
A. Well, we asked if, you know -- in conjunction with the five years, the five-year forecast that we had provided, if there were an additional five years with that forecast to

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
A. Yes.
Q. That's -- you recall that that's the bar chart that Counsel showed you on your direct?
A. That's correct.
Q. And so the record is clear, this kind of information, unlike the information that's provided in the five-year projection that you were provided, doesn't give you sufficient underlying detail to perform a DCF; correct?
A. That's correct.
Q. Okay. And if anybody came to this courtroom and suggested that a reputable financial advisor could create a DCF from ten years of adjusted operating income presented in this graph, that would be incorrect; right?
A. I don't believe creating an accurate discounted cash flow analysis from this chart alone is reasonable.
Q. So if anybody said otherwise, they would be wrong; right?
A. In my opinion, yes.
Q. So going back to DX43, you get -- JPMorgan gets the five-year projections from Mr. Price on October 29th, 2016, at about 3 o'clock in the afternoon; correct?
A. That's correct.
Q. And is it fair to say that shortly after Mr. Grant got these projections, he shared them with you?
A. That's my assumption and would be likely. I don't
Q. And I think I asked you to confirm that JPMorgan at this time, in fact, asked for a detailed ten-year projection and your answer was "yes"; correct?
A. We did ask if the company had the ability to provide ten years worth of projections. Yes.
Q. A detailed ten-year projection; correct?
A. Correct.
Q. And you not only asked for a detailed ten-year projection, but you asked if they could provide ten years of projections; correct?
A. That's correct.
Q. And they told you that they couldn't provide ten years of projections; correct?
A. No. I don't think that's technically accurate. I think the strategic plan was provided as a response to our initial inquiry as to whether or not the company had projections that spanned ten years, but once we had sent that document, it was identified to us that that was a stale set of financial projections done for the purposes of the strategy document and that we would not be able to use that for purposes of our valuation work.
Q. And both Mr. Gilchrist and Mr. Price told you that; right?
A. It would have been them who told us that, yes. I don't recall specifically who said what.

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
A. Yes.

MR. ROLNICK: I'd like to move DX73 into evidence.
MS. SHAH: No objection.
THE COURT: Admitted. (DX73 was marked and admitted into evidence.)

BY MR. ROLNICK:
Q. So DX73 is a set of projections that you prepared in advance of a meeting with management on November 3rd; correct?
A. Is there a page that you're referring to?
Q. I'm sorry. Yes. I'm looking at DX73.005 and then the attached projections.
A. The first five -- as I recall, the first five years in the numbers shown on this page are the company's five-year operating plan that was provided. And the five years thereafter were extrapolations that we prepared for purposes of the discussion.
Q. Okay. So if I just drop down -- I'm looking at DX73.005, that top line of growth is showing five years of projections that management gave you; correct?
A. For the first five years, yes.
Q. Right. And then starting in year six, rather than drop down to a perpetuity growth rate of zero or negative, you are extrapolating numbers that show continued growth; correct?

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
A. That is purely an illustrative extrapolation done on a linear basis down to zero by the tenth year.
Q. I understand. But I'm -- I understand it's a -- an illustration.
A. Yeah.
Q. But it's an illustration of what projections would look like after the five-year projections. Rather than dropping to a zero or negative perpetuity growth rate, you extrapolated continued growth over years six through ten; correct?
A. Yeah. I think that's technically correct. Again, I wouldn't put any weight behind years six through ten. It was purely just us filling in numbers for purposes of discussion.
Q. It's so that you could have a discussion with management; correct?
A. Yes.
Q. And what this is doing is it's actually transitioning down to zero; correct?
A. That's correct.
Q. So that the zero perpetuity growth rate would apply after year ten; correct?
A. Whatever perpetuity growth rate you ended up using would apply for year ten. Yes.
Q. Could be 1 percent, could be zero, whatever you
use.
A. Could be negative. Yes.
Q. Now, before you went to this meeting, you prepared a set of questions that you wanted to discuss with management at the meeting. Isn't that correct?
A. And I believe that's accurate. Yes.
Q. If we look at DX70, this is an email from someone at JPMorgan. Steven Steven, to you, and others; correct?
A. That's correct.
Q. And it states: Carolyn, John, please find attached the compiled agenda questions list for the meeting tomorrow.

Is that correct?
A. Yes.
Q. And Steven Steven was someone at the investment banking group?
A. He was an associate. He's since left the firm.

MR. ROLNICK: Okay. I'd like to move DX70 into evidence.

MS. SHAH: No objection.
THE COURT: Admitted.
(DX70 was marked and admitted into evidence.)
BY MR. ROLNICK:
Q. So the point of this document is to prepare for the meeting you were having the next day with management from Reynolds; correct?

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
A. That's correct.
Q. And that management included Andrew Gilchrist and Ronald Price?
A. Yes.
Q. Do you recall whether anybody else was at the meeting?
A. I do recall that there were other people there. I don't recall specifically who.
Q. Was anyone from Lazard at the meeting?
A. No.
Q. So if I split the page to DX70.003, this is setting up the basic top expert discussion at the meeting; right?
A. That's correct.
Q. And the meeting is to take place at the offices of Jones Day in downtown New York?
A. That's correct.
Q. And the meeting was to last three hours from 9 o'clock until noon Eastern Standard Time; correct?
A. That's correct.
Q. And on the Reynolds side would be Mr. Gilchrist, Ron Price, and perhaps Steve Holland and you have a bracket because you're not sure; right?
A. I would imagine at the time we didn't know specifically who was going to attend, so that's the purpose of the brackets. But I do recall that Andrew and Ron were
that view.
MS. SHAH: Objection. Mischaracterizes the
witness's testimony and the document.
THE COURT: We've covered at length what Mr. Eler has said. I think -- I don't think a loaded question will move the ball.

MR. ROLNICK: All right, Your Honor.
THE COURT: Sustained.
BY MR. ROLNICK:
Q. So under the section for financial projections, under Royal stand alone projections, it states, please provide guidance on ten-year financial projections; correct?
A. Yes.
Q. And that's the topic that you wanted to discuss with Mr. Gilchrist and Mr. Price at the meeting; right?
A. That's correct.
Q. And that is the topic that you did discuss with Mr. Gilchrist and Price at the meeting; correct?
A. That's correct.
Q. And they told that the only thing they had was this strategic plan and that was out of date; correct?
A. The only set of financial forecasts that they had on a ten-year basis was the out-of-date strategic plan; correct.
Q. Okay. And you then wanted to ask, how does
from Royals on their own projections. And they were only able to give us five years for Braves. We did push for an extrapolated period early on, but management guided us instead to a range of TVGRs.

Do you see that?
A. I do. Yes.
Q. And TVGRs you understand in that email to mean, terminal value growth rate?
A. Yes.
Q. And that's the same thing as a perpetuity growth rate?
A. It is.
Q. And so when Mr. Muley tells Marco that JPMorgan was only able to get five years from Royals, you would agree with that statement; correct?
A. Yes.
Q. And that's because you asked for ten-year projections, but you weren't able to get ten-year projections; correct?
A. We asked if the company had ten years worth of projections and were told that they only had five years of up-to-date projections. Yes.
Q. And you asked the company if they were able, whether they could provide ten years of projections; correct?
A. Yes. As I alluded to earlier, I think we also
understood that we were the only advisor that was requesting ten years of projections and so on a simultaneous basis, had internal discussions about whether we would be comfortable using five years.
Q. Okay. But my question is, and I think you said yes, but you asked the company if they were able to provide ten years of projections; correct?
A. Yes.
Q. And they indicated that they could not; correct?
A. They indicated that they did not have ten years worth of projections.
Q. Okay. And when you were talking to the other investment banks -- who informed that the other investment banks, likewise did not have ten years of projections?
A. Well, we knew that the other investment banks had been provided the same set of projections and we had inquired as to whether or not they would need or want ten years of projections for purposes of their valuation work and they indicated to both -- to us that they did not.
Q. Okay. You spoke to Lazard about that?
A. Yeah. I don't remember the specific discussion but we certainly discussed it with them at some point.
Q. And Lazard indicated to you that they had received ten-year projections in connection with the Lorillard transaction?
acquisitions for the companies. I think our job as I think of it is to think of alternatives for the company in all aspects of its business on an ongoing basis.
Q. Now, does providing additional information to management about what a potential acquirer could pay help management in thinking about the value of their own company?
A. Sorry. Can I think about that for a second?
Q. Sure .
A. I guess maybe I'm being a little more technical on this but, you know, British American Tobacco's ability to pay should not impact the value of the company specifically; right? I mean, there are independent thoughts and ideas. I think -- you know -- again -- sorry. Just be a little more articulate. How much they can pay has no impact on the value of Reynolds.
Q. Would knowing or having some idea of how much BAT could pay, aid in any negotiations that the company might have with BAT?
A. Certainly.
Q. And why did you specifically focus on what BAT, as opposed to any other company, might be able to pay and how it could finance the transaction?
A. Yeah. I mean, I think in the context of the scale and size of Reynolds, it was really the only logical acquirer for the company, as well as the fact that British American

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
ten years; correct?
A. Yes.
Q. And I think she asked you whether or not the fact that you never got detailed information supporting those was irrelevant because you were told that they were out of date; correct?
A. Yes.
Q. But in fact, management never told you that there was anything that prevented them from updating projections; correct?
A. Management informed us that they had the ten-year strategic plan which was stale or outdated. And so we didn't inquire as to the back-up behind it because it was irrelevant for purposes of our analysis. And what they provided that was up to date was the five years.
Q. Okay. But as far as you know, there was nothing that prevented management from updating the strategic plan document; correct?
A. As far as I know, yeah, I think that that's accurate. Yes.
Q. And they never said that there was something that prevented them from doing that; right?
A. That's correct. I think as I attempted to articulate earlier, I think ultimately we as an institution became comfortable with using five years worth of
that, et cetera.
Q. And the reason Reynolds built these state excise tax assumptions into the plan is because it was, you know, reasonably expected that they would occur; correct?
A. That's correct. We had seen them play out.
Q. Many states use the revenue that is generated by these state excise taxes to fill budget gaps; correct?
A. That's my understanding, yes.
Q. And, in fact, just to fund the budget, even if there isn't a gap; right?
A. That's correct.
Q. So if -- just based on your experience -- or has Reynolds done any analysis to how they think state governments would react if the FDA tried to take nicotine out of cigarettes and, you know, destroy the industry?
A. I have not seen any analysis.

We certainly, you know, talked about that it would be counter to what the states are trying to do in generating revenue from tobacco taxes, but that would put more risk on vapor taxes. So what we talked about is, if there's an accelerated volume decline in cigarettes, then they're going to have to offset that revenue somewhere else. There's only 11 states that currently tax vapor so there's still more states to go.
Q. And Reynolds hasn't performed any analysis to try
to determine, you know, how the states would react if the FDA tried to increase menthol regulation; correct?
A. No, I have not seen any analysis.
Q. Going down here to -- there's a reference to the MSA. We're back here in JX0009. Am I correct in understanding that this wouldn't come into play unless inflation exceeded 3 percent?
A. That's correct. That's my -- that's my understanding of it.
Q. And at the time of the merger, long-term inflation expectations weren't 3 percent or more; correct?
A. I don't recall. I wasn't forecasting inflation rates.
Q. Flipping to the next page, the upsides. There's a reference to future MSA settlement credits. Is it your understanding that this is what we were discussing earlier about NPM cliffs and credits that Reynolds could get under the 1998 MSA?
A. That's correct. So that -- that refers to the outstanding amount that we were litigating at the time.
Q. So when it says over one million remaining, was Reynolds involved in arbitrations or litigations at the time where a billion dollars was at issue or what is this referring to?
A. That's what I would believe that is saying, that
the objection.
A. So essentially, the way it was explained to me was the TPSAC committee is going to make a recommendation to the FDA and the FDA does not want to be the agency responsible for cutting off the cash flow streams that the federal and state governments have become reliant upon. So they will take this document and put it in a shelf and they could do what they'd like. They would never reopen that shelf.

And that was pretty glib, but that was literally how it was explained. The way we understood it was, they will take the scientific advisory committee's recommendation to conduct longitudinal scientific studies, which by definition are longitudinal and -- in my experience, just going back to my college psychology classes, a longitudinal study has to have at least ten years of science behind it. And the fact that they didn't have any of those conducted at that point in time, you were just going to start a ten-year science process. This wasn't going to happen any time near.

Furthermore, they said that if they were to implement a menthol ban, again, the industry would pursue litigation to slow, if not stop that process. And simultaneously, they had contingency plans to move their customer base from one mentholated product to a non-mentholated product. Basically they were pointing to the fact that all of the science that even the TPSAC was coming
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up with was showing that, you know, while we all know tobacco
in general is not good for you, menthol itself is mint, it's
a flavoring, and so that flavoring is not a problem. There's
no scientific harm from menthol.
So those were all the points that they were making
to us as investors. And so I felt comfortable with it.
BY MS. RANDOLPH:

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Q. So you referred to us as investors. You mean -these were public conversations; is that correct?
A. Yes. I mean, I don't have any inside information. Meetings that I attend are generally hosted by a sell-side bank or a non-deal roadshow, conference calls, that kind of thing.
Q. And then did you yourself develop a view as whether there were into -- as to whether there was a realistic likelihood of a menthol ban?
A. Yes. The advice that I gave to my partners was formulated based on the meetings that I attended in Maryland, the ultimate recommendation that the committee members wrote, and the third-party consultants that we spoke to. And my recommendation was that there will not be a menthol ban.
Q. And so you did invest in Lorillard around the time of the RAI acquisition?
A. Yes, we did.
Q. And what happened to that investment?
by the transaction with BAT?
A. Sure. So BAT approached Reynolds in October of 2016. And at that point in time, Reynolds was just about 16 , 18 months post the Lorillard transaction. And one of the unique characteristics of that acquisition, unlike so many other mergers, is it was going to take them longer than is typical to actually integrate the companies, given the fact that they're tobacco companies, so heavily regulated, that they would literally need to disassemble manufacturing plants and machines, move them from one facility to another, reassemble. It was very onerous.

And they had also -- Reynolds had taken on a great deal of debt to acquire Lorillard. So one of the key features of a tobacco stock as an investor -- most of the investors are mutual funds. And one of the key features as an investor is the dividend stream that tobacco companies typically pay. And because Reynolds had taken on so much debt to acquire Lorillard, they really hadn't been growing their dividend stream. They had been taking the excess cash to pay down their leverage. And they were right at that moment in time getting to the upper range of what they had been telling investors was going to be their target leverage level. So we figured that in the next couple of quarters, once they've finished delevering, they're really going to accelerate cash flow returns to shareholders in the form of

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
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either share buyback or dividends. And the broader
investment community isn't really paying attention to
this --

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Q. And why would that be important to investors?
A. Well, for a dividend -- a yield fund, especially in this low interest rate environment, you know, any opportunity to get a little more yield is very attractive. So if the actual dollar per share that you're getting back is growing, the yield can be fairly stable. So you basically take the dividend and divide it by the stock price. That gives you your yield.

So if the cash itself is increased, then the stock price will commensurately increase. And if that's all you're focused on is your yield fund, you don't really pay attention to too much else. Whereas, you know, we were looking at all these other factors so -- so we thought we could buy in ahead of that and kind of get --
Q. So just to be clear, so it's not everyone else, in their -- is this -- on the financial aspect of things is you, how did RAI's leverage levels relate to its yield?
A. So for Reynolds, they had communicated that they would like to see their net debt over their EBITDA, which is earnings before interest, taxes, depreciation and amortization charges. They wanted to get that level to something closer to two and a half times. And once you get
to that point in time, provided your cash flow stream remains steady, you don't need to put the cash into taking your debt level down anymore. In fact, it would be suboptimal at a certain point because you want to have some degree of leverage in your business to optimize your capital structure.

And so once they got to that level, we figured that that excess cash flow stream is going to be deployed in either share repurchases, which is one way of returning capital to shareholders who hold onto their stock. If everybody else sells, then the denominator shrinks and the value per share increases in dividend payouts. And Reynolds, like I said, they had not been growing their dividend, but they said that they would look to increase their payout ratio once they got their target leverage back in line.

And alternatively, you could put the capital into R\&D and develop more -- you know, be more innovative with your product line and potentially grow your revenue stream that way.
Q. So this is one sort of value opportunity that you were thinking about in connection with the investment in Reynolds around the time of the BAT offer. Were there other sort of hidden value or value opportunities that you were looking at?
A. Yes. So another consideration that we had was heat-not-burn and next-gen vapor technology. Reynolds had

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
global aspirations to be the No. 1 tobacco company in the world. And yet they have pretty glaring holes in their geographic footprint and so they should go forth and participate in M\&A because, given the rates available to Japanese corporate companies, pretty much any acquisition funded with debt is accretive.

And so as a consequence of our familiarity with JT, which I think is somewhat unique to U.S. investors, it's not a company that's listed in the United States, and a lot of their materials are in Japanese. So if you're not paying attention, you wouldn't necessarily be aware of them. But they are the No. 3 tobacco company in the world. And we happened to know that just in October of the prior year, they had paid \(\$ 5\) billion to buy the international rights to Santa Fe Natural American Spirits, which was almost like found money for Reynolds. It was hugely -- hugely valuable to them because it allowed them to accelerate their deleveraging. But they had virtually no sales outside of the United States so the price that JT was willing to pay was frankly very surprising, even to us.

But so we figured if they're willing to pay that much for a company that's got virtually zero in terms of sales and profitability right now, they'll definitely want to buy into the U.S. because they don't have really any market presence here. And so -- that was like case No. 1.

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
lack of strong-form efficiency for relying on the trading price of a stock as a proxy for fair value?
A. Okay. So this now starts to get into the questions that I'm trying to answer. So given that strong-form efficiency doesn't hold, and we all agree there is no dispute on that, we immediately conclude that, unless the company doesn't have any private information about it, the price that we observe in the marketplace will not be equal to the fair value. Just that's by definition.

By the way, we are on the next slide, if people are trying to follow me. We are one slide behind. I wish I had the clicker, but. Okay. Here we are.
Q. All right. So turning to semi-strong efficiency. In your opinion, are the trading prices in a semi-strong efficient market a good proxy for a fair value?
A. Okay. So it's the same idea. By definition, the semi-strong efficiency holds, when all public information is incorporated in the prices but private information is not but we want the private information, therefore semi-strong efficiency is not going to be sufficient for our purposes.
Q. And are there methodologies that one can use to test for whether semi-strong efficiency exists in the market for a particular security?
A. Unfortunately we don't have a conclusive test. The best state-of-the-art tests are so-called event studies.

Theresa B. Kramer, Official Court Reporter
Mecklenburg County Courthouse, North Carolina

Event studies are not sufficient in the following way.
We run a test, test either going to be negative or positive. When it is negative, then we say, ah, we know markets are not semi-strong efficient for the stock. But when the test is positive, we say, we don't know, we just -this test didn't tell us that it wasn't. It could be or maybe it isn't. We don't know. So it's not a conclusive test. In other words, the tests are necessary but not sufficient.

So event studies are doing the following exercise --

THE WITNESS: And, Your Honor, please stop me if this becomes unnecessary for our purposes but I try to kind of share my views because it will be important. But if it gets technical and unnecessary, please stop me.
A. (Continuing) So what we try to do is the following: We say, okay, we don't know whether the price was efficient today when we woke up; but, going forward, when there's a new information comes on the marketplace, will it actually move the price in the right direction?

And the right direction is important, not the magnitude. Okay? So nobody knows what the magnitude is at this point.

So what we do is the following: We say, okay, the stock is -- has some kind of risk level that leads to some
kind of return due to the exposure to the risk factor. And that's usually measured by beta. So we can basically use a little regression and find the beta, if you already don't know that.

And you say, okay, as the market moves or the index that you'd like to go on the right side of that regression moves, you're going to see how much the stock should be moving in a fair way. By fair way, meaning that there is no company-specific information or action. The market moves, so will the stock. Okay?

But if the stock moves beyond that, either up and down, we call it abnormal or excessive returns. They mean the same thing. Okay?

So now we look at the following question. All
right? On these days that we see excessive returns, was there information about this company? And if the answer is yes, we say, okay, did the price move in the right direction?

If the answer is yes, then say, ah, so the test is passed, so we cannot say the market is not inefficient. Okay? We can't say it is efficient either but at least it has passed the test so it has a better chance of being efficient.

But when you run that test, it is important to notice couple of things here. One thing is that you cannot talk about the magnitude. Because when there's an
information event, we kind of know what the direction is, but if you don't really know how many dollars and cents the stock should be moving in response to that. We just try to match the direction right.

Second, when you do this analysis, it is not sufficient to pass the test to say, oh, it moved on that in the right direction. It should be moving in the right direction that day but it shouldn't be moving in future days. Because if the stock -- there's an information event on today, 24 th of June, I believe -- right? 24 th of June, stock moves up or down along the side of information and it continues to move for another ten days. Then we actually say the market is not efficient because there was no other information event in the next ten business days, yet prices continue to move.

So you have to check this in its entirety for the entire spectrum you're looking at.

THE COURT: Are we at a stopping place?
MR. SHINDEL: I think so, Your Honor.
THE COURT: All right. We'll adjourn for the day.
Is there anything we need to take up before we adjourn?

MR. BORNSTEIN: Nothing from us, Your Honor.
MS. SADIGHI: Nothing from Defendants, Your Honor.
THE COURT: All right. Thank you.

Theresa B. Kramer, Official Court Reporter
Mecklenburg County Courthouse, North Carolina
everything. All right? And one of the things that everybody knows is that there is a large blockholder who has an influence over how the company is run and successful diverts -- or let me, in fact, rephrase it.

People suspect he could in future successful divert some of the cash flows. All right? So what is the trading price going to be? Is it going to be the present value of all cash flows of firm's future operations -- future operations of the company? It wouldn't be. It will be that minus the probability that there will be some diversion of value times the loss due to that diversion. All right?

Similarly, this blockholder might have interest to acquire the company private in future. And if the market participants put a positive probability that he may be able to buy the firm at the future date at a discount, the price we see in the marketplace is going to reflect that expectation as well. In that, the fair value is not going to be equal to the price that we observe in financial markets.

But I should also tell you that this is not an everyday event. So it has to really involve a large blockholder with means to do it, access to private information, and things like that. You usually don't think an average widely-held firm suffers from these kind of agency problems.
Q. And if we go to Slide 13 , were you able to reach
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figure out. So I think those are the reasons why I think
there was significant private information and, therefore,
trading price had no chance of incorporating those into the
prices.
Q. And turning to the next slide, Slide 14 , were you able to reach any conclusions regarding whether nonpublic, value-relevant information existed as of the transaction date in July of 2017?

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A. The same way. There was a number of items I've identified with respect to information not being made to -publicly available, especially to the shareholders who will get to decide on the future of the company.

I may not be the best witness because I'm sure officers have testified and they've talked about these. I'm saying this through their depositions, obviously. And I was absent in their trial -- I don't know. It's not called a deposition.

COURT REPORTER: Testimony?
A. Thank you. Trial testimony.

Having said that, when I read information that was available to me, I realize that the firm did not even disclose the existence of their ten-year projections. That was made very recently. I may not remember the exact day but it was I think a one-month difference between five-year projections or ten-year projections.

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
And there is a little uncertainty to how much the
financial advisors knew. But from my reading, financial
advisors thought there was something about it but they didn't
have the entire full picture there either. And even they,
let alone the shareholders, were -- did not really exact
know. Though it really doesn't matter whether they knew or
not, by the way. What matters is that the public didn't know
this.
to explain their rigorous process, because it's not the
information but also the precision of information. And the
management also had some internal presentations to the board
which are also not reflected in their public disclosures.
There are also a few items which I was slightly less clear
what exactly who knew what but there were even some items
that was not even widely known within Reynolds, the company.
adjust Reynolds' trading price from the pre-offer time frame
up to the transaction date and attempted to reach a
enough private information that was value relevant that was
not -- didn't have any channel through which it could be
incorporated into the prices. And also, therefore, it cannot
be incorporated into the decision making of the shareholders
whether this is a good deal or a bad deal.
Are you aware that Professor Gompers attempted to

Theresa B. Kramer, Official Court Reporter
Mecklenburg County Courthouse, North Carolina
profession because I think some of us have to push this thing through because this is really misunderstood. It's like a mystery. You say, Oh, what is this winner's curse thing? I would like to explain this, Your Honor, for five minutes. It would kind of make me a good thing so that I communicate effectively, but --
Q. Well, let me ask you some questions and see if we can elicit the parts of this that are most helpful to this case.

So why is it that having an insider with a large toehold is going to dampen competition?
A. There are several channels. Okay? One channel is that getting into a competition is costly. I don't start -I don't initiate a corporate acquisition just for free. I have to incur a lot of costs. Due diligence costs and so on and so forth. The fact that there is somebody who is sitting there with a 42 percent ownership that is my opponent, he is better positioned to buy the company than \(I\), so my probability of winning that object is smaller.

Again, I'm going to maximize my profits. There's a probability of winning and there's a profit when I win. That probability is much smaller if my opponent has a big toehold. That's No. 1. I think that's very clear.

The second channel happens through this informational advantage. Right?

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina


Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
what happens if you actually bid 50 on that thing? What happens if everybody bids truthfully their true valuation?

Now, Mr. Shindel, this is an unfair question to you so \(I\) will answer it. So if you actually bid 50 , what's going to happen? With some probability, you're going to win. With some probability, you're going to lose. When you lose, you're not going to win or lose anything. You're just going to walk away. But when you win, you're going to pay that 50 and you're going to get the money in my bag.

But you pay 50 , what is the value of -- in my bag? Well, that's the average of all those cards. The fact that you won, you are the most optimistic person so you have the highest number. The fact that your number said 50 , everybody else's numbers are lower, that's the reason you win because your expected value is the highest, but you overpaid. The fact that you won this tells you that you are the highest card and the average of those cards was less than 50. So you overpaid. So no one is going to bid their true valuation when they think others have valuable information. Okay? So that's the concept.

So if I actually ask you, what is your optimal bid, probably you'll be stunned. You won't be able to answer this now because you need to solve the problem. It's a fairly complicated mathematical problem that takes 20 minutes to solve but you can do it.

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina

The optimal bidding would be to shave. You're going to shave your bid to a lower number so that you don't lose money. Okay?

So now let's change the problem a little bit. Mr. Miller is no longer here so I will make him the bad guy. So there are about 20 of you here. Each one of you get one card. I give 80 cards to Mr . Miller. So now he has 80 points of information. You guys know only one each. Okay? So he's almost sure what the value is because he's holding so many cards. Right? So he's going to say, Okay, I don't need to shave my bid; right? But you guys should shave your bids a lot more because the feed in Mr. Miller is really bad news.

If I tell you, Oh, you bid more than Mr. Miller, oh, my god, he knew so much more than I, I made a major mistake, so you're going to shave your bid so much.

But Mr. Miller's smart. He's going to say, The fact that they know \(I\) have so much inside information about how much money Professor Yilmaz has in his bag, they're going to be scared. They're not going to bid very aggressive. They're going to shave their bids a lot. Therefore, I don't have to bid very aggressively. He's going to shave his bid too.

In fact, he may win the auction even when he thinks that the value is not a lot because you will be all so scared. You'll be shaving your bids. Optimally he actually

Theresa B. Kramer, Official Court Reporter Mecklenburg County Courthouse, North Carolina
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would not need to bid very aggressively.
So this is exactly the problem you're talking

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about. When somebody is sitting on the board, they know a
lot more than you do. So therefore, you are not going to be
very aggressive. But the person who is sitting on the board
knows that the opponents are not going to be very aggressive so they don't have to be aggressive themselves. So that's the concept. That's the channel through which it happens.
Q. Now, is there -- in addition to the theory that we've been discussing, is there empirical evidence that toeholds dampen competition in an auction?
A. Yes. This is a fairly old literature that happened I think late ' 80 to maybe early '90s. That when you look at the acquisitions, you see that there are a lot of acquirers who initially had 10 to 20 percent ownership. So that's not uncommon. I mean, 42 percent is very uncommon. 42 percent doesn't happen that often to begin with. But 10 to 20 percent, there's a lot of data to show that the owners actually have that kind of toehold.
Q. And does the empirical literature suggest that even a 10 to 20 percent toehold can reduce competition in an auction?
A. We have actually evidence in that direction. When we look at uncontested and contested bids, there's
evidence -- I mean, this section makes good sense. You don't
own affirmative analysis through a DCF.
Q. Were there any assumptions that you were told to make for purposes of forming your opinions?
A. No.
Q. Did you review any drafts of Professor Shivdasani's report? I should say his opening report --
A. Yeah, no, I saw his report the day that I filed my report. I haven't compared what I reviewed to his final signed copy. I would -- I'm reasonably certain it was his final report, but I haven't gone and sort of checked to make sure that everything was identical to his ultimate filed report.

So I -- before I understood that -- that
Professor Shivdasani was opining on the efficiency of the RAI stock market, I understood broadly the analysis he was intending to do, but I didn't see the analysis until I filed my report -- until shortly before filing my report.
Q. And you did not conduct your own analysis of the efficiency of the market for RAI's stock; is that correct?
A. That's correct.
Q. Okay. And you're relying entirely on

Professor Shivdasani's opinions concerning the
efficiency of that market, correct?
A. That's correct. I mean, I think I'm pretty clear in the report, sort of, you know, where I point to Professor Shivdasani, that was his -- his analysis. I've certainly -- certainly reviewed the analysis, but -- but it's based on -- on his work.
Q. And you haven't formed any independent opinion concerning the validity of that analysis; is that fair?
A. I haven't been asked to -- to evaluate or offer any opinions, so as I sit here, I -- I'm not offering an -- any opinion on Professor Shivdasani's work.
Q. If we turn to Appendix \(C\) in your opening report, please.

And this is entitled the "Documents Considered List" correct?
A. Yes.
Q. And just in your own words, can you describe what this is?
A. It's the documents considered list. That's -I -- that's exactly what \(I\) would say. It's the documents considered list, and it's divided by categories from the academic articles and the analyst reports and the -- and the -- the produced -- the documents produced in this matter, the -- the Bates-stamped documents and so...
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\section*{British American Tobacco plc (BATS LN)}

\section*{Initiating at Overweight; RAI Deal Helps Drive Expected Cash Build}

\section*{CONCLUSION}

We initiate coverage with an Overweight rating and £59 target price. We expect \(10 \% 3\) year EPS growth, driven in part by its deal to acquire the remaining \(58 \%\) of RAI. We include expected \(4-6 \%\) deal accretion, and there may be an additional \(30-45\) p EPS lift ( \(10-15 \%\) ) if US tax reform lowers rates to \(20-25 \%\) and comes post-deal close (which would accrue the full benefit to BAT without risking disrupting the deal). Its glo heat-not-burn platform also offers an accretive, reduced risk opportunity that has had a fast early start in Japan.
- We expect about 4-6\% accretion from its RAI deal. BAT agreed to buy the shares of RAI it does not own for \(\$ 29.44\) in cash and 0.526 BAT shares (now worth \(\$ 66.29 /\) share), which we estimate adds \(4 \%\) EPS accretion (assuming a \(4.5 \%\) weighted average rate on new debt) to \(6 \%\) (assuming a \(3.5 \%\) rate). We assume the midpoint; our model reflects a \(4 \%\) rate. We assume an even spread of synergies over 3 years, though pacing is likely uneven. We use current USD/GBP exchange rates, which are subject to change. FCF/ share accretion looks even greater, with a double-digit lift from the deal.
- glo gets a pricing lift from lower taxes. BAT launched its glo heated tobacco product in Sendai, Japan, in December, where it now has a \(6.7 \%\) share. We estimate BAT's revenue/pack is \(75-100 \%\) higher than for cigarettes, as glo's Neostiks excise taxes are \(45 \%\) below those of its cigarettes (while retail prices are similar). Neostiks gross margins in Japan could be \(90 \%\), with potential EBIT margins (at scale) of \(75 \%\) vs. \(60 \%\) for cigarettes. BAT expects to be in 4-5 markets by year end; we believe a US launch is also in the works.
- We project a significant cash build. BAT has finished the last 8 years with £1.8-2.3B in cash (average: \(£ 2.1 \mathrm{~B}\) ), but in our model, pro-forma for the RAI deal, we project \(£ 5 \mathrm{~B}\) at the end of 2018 and \(£ 8.1 \mathrm{~B}\) at the end of 2019. We believe the company's first priority remains delevering to its \(1.5-2.5 x\) range, which we project by 2019 , though we believe buybacks could come into play afterwards. Smaller acquisitions are also possible in the meantime, including potentially expanding its presence in the Philippines.
- We expect \(\mathbf{9 \%}\) upside to our \(£ 59\) target and \(\mathbf{1 2 . 5 \%}\) total return. BAT's shares trade at \(17.3 x\) our 2018E EPS (pro-forma for the RAI deal). Our \(£ 59\) target price applies a \(18.9 x\) multiple to 2018 E EPS of \(£ 3.12\), in-line with its current \(18.9 x\) multiple on our 2017E EPS. We believe this is justified its improving brand portfolio, expected accretion from recent RAI deal, and strength in emerging markets. We expect BAT to deliver \(5-6 \%\) three-year average sales growth and \(10-11 \%\) average EPS growth. Its dividend yield is \(3.4 \%\).
RISKS TO ACHIEVEMENT OF PT \& RECOMMENDATION
Unfavorable regulatory action, especially disruptive excise taxes, macroeconomic erosion, and a stronger British pound could pose a risk to upside to the shares.
COMPANY DESCRIPTION
BAT produces and markets cigarettes and other tobacco products and is based out of England. Key brands include Dunhill, Kent, Lucky Strike, Pall Mall, and Vype.
\begin{tabular}{c} 
England. Key brands include Dunhill, Kent, Lucky Strike, Pall Mall, and Vype. \\
\hline YEAR \\
\end{tabular}

Revenues are excluding excise taxes
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- App. 223 -

Investment thesis

We initiate coverage at Overweight as we expect BAT to continue to benefit from its \(4 \%\) six year historical average organic revenue growth and 6-7\% organic EBIT growth while also benefitting from increased exposure to the US profit pool through its acquisition of the \(58 \%\) remaining shares of Reynolds American (RAI) that it does not already own. (It obtained a \(42 \%\) stake in RAI when RAI was formed through the combination of RJ Reynolds and BAT's former US subsidiary, Brown \& Williamson, in 2004.) We believe the US market's attractive, consistent pricing and earnings growth will improve BAT's earnings growth profile. It is also one of only two global players that have launched a heated tobacco product, both of which have already quickly gained traction in Japan and are showing promise in other markets as well. While Philip Morris International (PMI) has an early lead in heated tobacco, the platforms are very accretive to both PMI and BAT and show promising consumer adoption rates. We believe that BAT's projected cash flow generation also suggests that buybacks could be on the horizon, which would add a potential incremental lift to our current estimates.

\section*{We expect 4-6\% accretion from its deal to buy the rest of RAI}

\begin{abstract}
Using terms of BAT's deal for RAI, with an offer of roughly half debt and half equity (BAT agreed to buy the shares of RAI it does not own for \(\$ 29.44\) in cash and 0.526 BAT shares, now worth \(\$ 66.29 /\) share in total), we estimate EPS accretion of about 4\% (assuming debt issued at about a \(4.5 \%\) weighted average rate) to \(6 \%\) (assuming a \(3.5 \%\) rate). We include the \(4 \%\) midpoint in our model. FCF/share accretion looks even greater, with a double-digit lift expected from the deal. We assume an even spread of synergies over 2 years, though pacing is likely uneven, and could take up to 3 years. We use current USD/GBP exchange rates, which are subject to change.
\end{abstract}

US tax reform could add 10\% to EPS; full lift would go to BAT holders post-close

Timing of tax reform matters for breakup clause to be invoked

\section*{We expect RAI \& \\ BAT shareholder \\ votes in mid-} summer

Synergies are modest; upside to its \(\$ 400 \mathrm{M}\) estimate looks unlikely

Pro-forma: About \(50 \%\) of volume from Emerging markets

We don't see this as a catalyst for an Altria-PMI deal

We assume a \(36-37 \%\) base case tax rate for RAI, consistent with its history, but if US tax rates fell to \(20-25 \%\) as has been proposed, it could add \(30-45\) p to BAT's EPS, or an incremental \(10-15 \%\) lift beyond its \(4-6 \%\) deal accretion. The benefit could be even greater with a \(15 \%\) rate, which has been discussed but which we consider less likely. We believe there is about a \(65 \%\) chance of US tax reform passing this year, the full benefit of which could pass to BAT holders if it is enacted after the RAI deal has closed, as looks increasingly likely. Timing matters; if there is clarity on reform prior to shareholder votes, it could cause RAI holders to reconsider terms of a deal.

Both BAT and RAI have the option to back out of the deal for a breakup fee of \(\$ 1 \mathrm{~B}\). The most imaginable scenario in which this option might be considered is a potential windfall for RAI from tax reform. However, timing matters, and we believe tax reform would need to be finalized prior to deal close, which is possible but does not currently look likely, increasing the odds (in our view) that the deal closes as currently structured.

BAT intends to register under the US securities laws in connection with its proposed transaction. Registration with the SEC likely takes about 4-5 months and is required to upgrade its ADR to a fully tradeable security. That timing would likely mean a vote sometime in late 2Q17 or early 3Q17. The vote would require approval by a majority of all holders (including BAT) and a majority of nonBAT holders (the latter guarantees the former if BAT votes yes as expected).

BAT indicated estimated synergy savings of \(\$ 400 \mathrm{M}\), which would come from better procurement scale, some R\&D savings, and eliminating RAl's Corporate costs (\$180M last year). A deal could also allow BAT to continue production for Japan in the US (currently set to end in 2019, though related savings are modest) and could add greater flexibility for North American production, but we do not expect its RAl's Tobaccoville plant to close, partly due to FDA regulation.

If the deal for the rest of RAI closes (which we consider likely), we estimate about \(60 \%\) pro-forma revenues would come from developed markets and \(40 \%\) from emerging markets. We estimate the reverse for volumes, with \(60 \%\) from emerging markets, down from about \(70 \%\) now.

We consider the US profit pool to be attractive, and Imperial and now BAT have made recent efforts to increase their US exposure. While we have learned to never say never to potential deals, we do not believe this merger is likely to be a catalyst for PMI and Altria to reunite. We believe PMI's focus is on pursuing its iQOS launch, which it can do in the US through its agreement with Altria (without having to merge). BAT's situation is also different: it had a subsidiary in the US that merged with RJ Reynolds, driving the change from a controlling stake to a minority interest, while Altria and PMI chose to separate just 9 years ago.

\section*{BAT's glo platform gets a big lift from lower taxes}

Heat-not-burn (or heated tobacco) products are reduced-risk products, conceptually similar to ecigarettes, but using tobacco instead of vapor to deliver the nicotine. Given the tobacco leaf the product contains, the taste is more similar than e-cigarettes to that of combustible cigarettes, but still without the smoke, which studies show can therefore reduce harmful exposure in a way that is comparable to cessation when used for prolonged periods in place of smoking. PMI launched the first heat-not-burn device, iQOS, in Nagoya, Japan, in 2014. In December 2016, BAT launched glo, its heat-not-burn platform in Sendai, Japan, and has since achieved about 6.5-7.0\% of market share there. It has since also launched in Switzerland and Canada. BAT plans to roll out nationally in Japan by the end of the year, and to launch in one or two more countries.

\section*{Neostiks price realization significantly higher than combustibles}

Discounts on devices are in place to help boost trial

In Japan, glo Neostiks enjoy lower taxes than combustible cigarettes, and also lower than PMI's HeatSticks for its iQOS platform. Both are taxed according to weight and PMI's HeatSticks (which have \(20 \%\) lower excise taxes than cigarettes do) weigh roughly \(60 \%\) more than Neostiks ( 0.8 g vs. 0.5 g for Neostiks). We estimate taxes on Neostiks are at least \(45 \%\) less than BAT's cigarettes in Japan, or a roughly \(75-100 \%\) price premium vs. cigarettes. Even with some estimated higher costs for Neostiks relative to cigarettes, gross profit per pack and EBIT per pack (at scale) could be more than twice that of BAT's combustible cigarettes in Japan, as shown below. We believe taxes (and therefore price realization) in some other countries are even more favorable than in Japan.

Exhibit 1
Operating profit comparison for Neostiks vs combustible cigarettes: Japan
Click here to enter text
\begin{tabular}{|c|c|c|c|}
\hline & Combustible cigarettes & NeoStiks & Tax discount N.S. vs. cigs \\
\hline Retail price & \(¥ 420.0\) & \(¥ 420.0\) & \\
\hline Consumption tax & \(¥ 31.1\) & \(¥ 31.1\) & 0\% \\
\hline Retailer margin & ¥42.0 & \(¥ 46.2\) & \\
\hline Total consumption tax and retailer margin & \(¥ 73.1\) & \(¥ 77.3\) & \\
\hline Total price excl. consumption tax and retailer margin & ¥346.9 & \(¥ 342.7\) & \\
\hline National tax & \(¥ 122.4\) & \(¥ 67.3\) & \\
\hline Tobacco tax & \(¥ 106.0\) & \(¥ 58.3\) & 45\% \\
\hline Special tobacco surtax & \(¥ 16.4\) & \(¥ 9.0\) & 45\% \\
\hline Local tax & \(¥ 122.4\) & \(¥ 67.3\) & \\
\hline Prefectural tobacco tax & \(¥ 17.2\) & \(¥ 9.5\) & 45\% \\
\hline Municipal tobacco tax & \(¥ 105.2\) & \(¥ 57.9\) & 45\% \\
\hline Total tobacco taxes & ¥244.8 & ¥134.6 & \\
\hline Total wholesale price & \(¥ 102.1\) & ¥208.0 & \\
\hline Wholesale margin & \(\ddagger 8.8\) & \(¥ 14.3\) & \\
\hline Manufacturer price & ¥93.3 & \(¥ 193.8\) & 208\% \\
\hline Exchange rate & \(¥ 135.9\) & \(¥ 135.9\) & \\
\hline Manufacturer price, GBP & £0.69 & £1.43 & 208\% \\
\hline Average COGS per pack, excluding excise taxes & £0.11 & £0.15 & \\
\hline Gross profit per pack & £0.57 & £1.28 & 223\% \\
\hline Gross margin & 83.6\% & 89.8\% & \\
\hline Average SG\&A per pack, exluding excise taxes & £0.16 & £0.20 & \\
\hline Operating profit per pack & £0.42 & £1.08 & 258\% \\
\hline Operating margin & 60.8\% & 75.5\% & \\
\hline
\end{tabular}

Note: We assume a local and national NeoStiks' tax advantage. Source: Piper Jaffray \& Co
BAT launched its glo device in Sendai at a \(¥ 8,000\) price (\$US70), and demand has exceeded BAT's ability to supply the product. The Kent Neostiks that fill it are priced at \(¥ 420\), in-line with the price of Kent cigarettes and less than the price of the Marlboro HeatSticks ( \(¥ 460\) ) used by the iQOS device. We expect device sales to be dilutive to the Neostiks economics detailed above but believe the economics on the Neostiks are extremely attractive, with revenue realization and profit contribution per stick both likely more than double that of BAT's combustible cigarettes in Japan.

\section*{How does BAT's glo compare to PMI's} iQOS?

The mechanics of heating influence taste
glo does well on five of seven key consumer criteria

BAT's glo tobacco heating device heats tobacco to release a nicotine aerosol. Like PMI's iQOS device, it heats tobacco sticks that the user inserts into the device. However, unlike PMI's product, the device and the charger are one in the same. Some consumers may prefer the potential simplicity this may offer, but it also means that the device that the consumer holds while using it is larger than the iQOS heating device, which is more like a cylinder that wraps around the tobacco stick and is not much larger than most vapor devices. BAT appears to be following PMI's lead for its launch strategy and go-to-market approach, including opening a flagship store. With PMI and BAT as the only two heated tobacco product players, we believe there is lots of headroom for incremental market share gains for both.

Exhibit 2
PMI's iQOS (left) and BAT's glo (right) side-by-side


Source: Piper Jaffray \& Co, PMI, BAT
While the simplicity of the device (i.e., all-in-one) likely holds appeal for at least some consumers, its bulkier size is a trade-off. Nicotine delivery and consumer satisfaction with the flavor are likely the primary consideration factors for consumers. PMI's iQOS device has proven success on taste and nicotine delivery satisfaction given its in-market momentum. iQOS heats its tobacco from the center, with the tobacco stick on a 'spike,' while glo heats the tobacco from the outside, heating the paper wrapper first, which may add more of the taste of the paper into the aerosol than iQOS.

Without divulging consumer testing specifics, BAT notes that glo scores very well on five of its seven key product metrics. Flavor is not listed explicitly, and neither is nicotine delivery per se, though we would consider nicotine delivery to be a part of overall product performance. While there is not yet enough extensive in-market history to know how consumers think the product compares to iQOS on flavor and nicotine delivery (two criteria we believe are the most important to consumers), we do believe glo's battery life is longer (it has a bigger battery), even if it makes the device a bit more bulky. BAT has identified seven consumer criteria that it considered its key focus for its consumer research on glo:
- Product performance
- Smell/odor
- Ease of use
- Battery charge
- Startup time
- Cleanliness
- App. 227 -

\section*{glo should benefit from PMI's investments on iQOS}

\section*{We expect a US launch to be in the works}

BAT likely benefits from consumers who are already aware of heat-not-burn in concept, thanks to PMI's launch and spending behind its iQOS platform. We believe iQOS's current momentum in Japan helps pave the way for glo's launch, and also that the glo launch is likely to further increase interest in heat-not-burn products generally, helping both glo and iQOS as more money is invested in non-combustibles. BAT has also recently launched glo in Switzerland, where PMI's iQOS has about 2\% share in its launch area (in about a year and a half - relative to PMI's \(0.7 \%\) share hurdle for what it considers a 'successful' new product launch), and we expect other glo launch markets to be places where PMI has already begun the work of educating the consumer with its efforts behind its iQOS platform. We believe both companies' heat-not-burn products can gain share, and that they both benefit from significant gross margin accretion, as excise taxes are lower for glo and iQOS, but price points are in-line with that of each company's combustible cigarette prices.

BAT has been clear that it sees a big opportunity for reduced risk products in the US, which drove part of its interest in acquiring full control of RAI. RAI's existing Vuse vapor platform is one piece of the equation, but we believe BAT plans to launch glo in the US, just as PMI and Altria are planning for iQOS. Both products would need FDA approval to launch in the US. PMI has already applied for pre-market tobacco approval (PMTA) in late 1Q17. While BAT has not publicly indicated that it has submitted a PMTA application, we believe it either has submitted one without making a public announcement, or that it is preparing one to submit soon. The PMTA application process is meant to take about a year (per FDA guidance), but could take longer. The FDA does not have a history of operating in a timely manner on other tobacco applications, which is why we believe BAT does not need to wait for its deal to buy the rest of RAI to close before submitting an application.
- App. 228 -

\section*{We project a significant cash build}

BAT has finished the last 8 years with \(£ 1.8-2.3 \mathrm{~B}\) in cash (average: \(£ 2.1 \mathrm{~B}\) ), but in our model, proforma for the RAI deal, we project \(£ 5 \mathrm{~B}\) at the end of 2018 and \(£ 8.1 \mathrm{~B}\) at the end of 2019 . We believe the company's first priority remains delevering to its \(1.5-2.5 \mathrm{x}\) range, which we project by 2019, though we believe buybacks could come into play afterwards. Smaller acquisitions are also possible in the meantime, including potentially expanding its presence in the Philippines.

Filipino competitor Mighty may be on the ropes

\section*{Mighty could be a seller in the Philippines}

Mighty, a local, privately-held Filipino competitor, has grown share from 2\% in 2012 to 27\% in 1Q17. However, it has also come under investigation from the government for potential tax evasion, with a \(\$ 735 \mathrm{M}\) lawsuit filed by the Bureau of Internal Revenue. Mighty's operations are also under pressure, as the Bureau of Customs has suspended its license to import raw materials on March \(14^{\text {th }}\) due to mis-declaration. It must now rely on its existing raw material inventory, which likely has a shelf life of six months at most. According to the Philippine Star, a number of retailers have also pulled Mighty product off the shelves in order to avoid the risk of selling product that might have counterfeit tax stamps.

Mighty could be an acquisition target for a company hoping to grow its presence in the Philippines, such as BAT, which currently has about \(1 \%\) share in the market. Whether Mighty continues as a going concern or is acquired by BAT or another company, we believe that competitive dynamics in the Philippines are likely to improve for BAT. If Mighty's share gains have been driven by artificially low prices driven by tax evasion as the government alleges, we believe restoring more normal competitive dynamics should be positive for category pricing, and could also potentially help BAT's market share outlook and its operating income trajectory. If BAT were to acquire Mighty, it could improve BAT's long-term outlook in this large market, where it has struggled to gain market share.

\section*{We expect 9\% upside to our £59 target and 12.5\% total return}

Our estimates are pro-forma for the RAI deal

PE of 17.3x is now at the high end of its historical range

BAT's shares currently trade at \(17.3 x\) our 2018E EPS. Our £59 target price applies an 18.9x multiple to 2018E EPS of \(£ 3.12\), in-line with its current \(18.9 x\) multiple on our 2017E EPS. We believe this is justified given its improving brand portfolio, expected accretion from recent RAI deal, and strength in emerging markets. We expect BAT to deliver 5-6\% three-year average organic sales growth and 10-11\% average EPS growth. Its dividend yield is currently \(3.4 \%\).

Our EPS estimates are pro-form for BAT's acquisition of the remaining 58\% of RAI it does not already own, which we expect to close in 3Q17. We include the addition of full consolidation of RAI's US business, with the related decrease in equity income, increase in interest expense and share count, along with \(\$ 400-425 \mathrm{M}\) of synergies (about \(£ 330 \mathrm{M}\) ) realized over two years. Including pro-forma components of the RAI deal is accretive to our base case earnings by about 4-6\%.

Exhibit 3
PE Multiple comparisons
PE on FY1 Estimates
\begin{tabular}{lrrr} 
& Historical & Current & Target \\
BAT's multiple range & \(9.9-19.0 x\) & \(17.3 x\) & \(18.9 x\) \\
BAT vs global tobacco peers & \(0 \%\) premium & \(6 \%\) premium & \(16 \%\) premium \\
BAT vs FTSE & \(26 \%\) premium & \(24 \%\) premium & \(36 \%\) premium \\
\hline Source: FactSet, Piper Jaffray \& Co. Reflects pricing as of \(5 / 19 / 17\). & & & \\
\hline
\end{tabular}

BAT's shares have traded within a PE range of 9.9-19.0x over the last 10 years, including the recent rise in the shares and the doom-and-gloom of late 2008/early 2009. Its average multiple was \(14.2 x\). The shares are currently trading near the top of its historical range at \(17.3 \times\) our 2018 EPS estimate of \(£ 3.12\), which we consider sustainable given its increased exposure to the US profit pool from the RAI deal and expected \(6-8 \%\) organic EBIT growth over the next three years.

Exhibit 4
BATS-LON PE versus FTSE100


\footnotetext{
Note: Reflects pricing as of 5/19/17. Source: Factset, Piper Jaffray \& Co
}
BAT at a modest
premium to global
tobacco peers, in-
line with recent
history

DCF supports our £59 target

BAT has tended to trade in-line with other global tobacco companies, including Imperial, PMI and JT, in recent years. At current valuation levels, the stock is trading at a \(6 \%\) premium to its global tobacco peers; historically it trades in-line with its peers.

Exhibit 5
BATS-LON PE versus global tobacco peers

\(\overline{\text { Note: Global tobacco average includes PMI, BAT, JT and Imperial. Reflects pricing as of } 5 / 19 / 17 \text {. Source: Factset, Piper Jaffray \& Co }}\)
Our discounted-cash flow (DCF) model renders a mid-point valuation of \(£ 59\), in-line with our \(£ 59\) price target. We assume a terminal-growth rate of \(2.0 \%\) and a weighted-average cost of capital of \(8.3 \%\). Our estimate includes a compound annual free cash flow growth rate of \(13 \%\) (helped by the expected lift from its acquisition of RAI), with decelerating top-line growth and operating margins reaching \(45 \%\) by 2026E.

Exhibit 6
DCF assumptions
\begin{tabular}{lr} 
Assumptions & \\
BAT beta & 0.87 \\
Equity risk premium (\%) & 5.0 \\
10-year Treasury Bond risk-free rate (\%) & 5.0 \\
Target equity / total capital (\%) & 83.8 \\
Target debt / total capital (\%) & 16.2 \\
Cost of equity (\%) & 9.3 \\
Cost of debt (\%) & 3.8 \\
After-tax cost of debt (\%) & 2.8 \\
Weighted average cost of capital (\%) & 8.3 \\
Terminal growth (\%) & 2.0 \\
Public to private discount (\%) & 0.0 \\
Shares outstanding (m) & 2,303 \\
Equity value (£) & 59.00
\end{tabular}

Source: Piper Jaftray \& Co
- App. 231 -

Exhibit 7
DCF sensitivity analysis
\begin{tabular}{lcccccc} 
& & & \(7.3 \%\) & \(7.8 \%\) & \(8.3 \%\) & \(8.8 \%\) \\
\hline & \(1.0 \%\) & \(£ 60.96\) & \(£ 54.68\) & \(£ 52.64\) & \(£ 44.59\) & \(£ 40.48\) \\
\multirow{4}{c}{ Terminal-growth assumption } & \(1.5 \%\) & \(£ 65.31\) & \(£ 58.24\) & \(£ 55.58\) & \(£ 47.05\) & \(£ 42.56\) \\
& \(2.0 \%\) & \(£ 70.49\) & \(£ 62.42\) & \(£ 59.00\) & \(£ 49.88\) & \(£ 44.92\) \\
& \(2.5 \%\) & \(£ 76.76\) & \(£ 67.38\) & \(£ 63.00\) & \(£ 53.15\) & \(£ 47.63\) \\
& \(3.0 \%\) & \(£ 84.49\) & \(£ 73.39\) & \(£ 67.77\) & \(£ 56.99\) & \(£ 50.77\) \\
\hline
\end{tabular}

The DCF value is sensitive to the terminal-growth rate assumed, where a \(1.0 \%\) terminal-growth rate indicates a value closer to \(£ 53\) and a \(3.0 \%\) terminal-growth rate points to a value around £68. It is also sensitive to our WACC assumptions; if either assumed rate is adjusted by 1 ppt up or down, the resulting implied valuation could range from £45-70.
\begin{tabular}{lrrrrrrrrrrr} 
Exhibit 8 \\
\hline DCF model \\
& & & & & & & & & \\
\hline
\end{tabular}
- App. 232 -

\section*{Company overview}

British American Tobacco p.l.c. is engaged in the manufacture and sale of cigarettes and other tobacco-related products in more than 200 markets worldwide. It has a portfolio of premium, midpriced and value brands, both international and local. Its five top brands by volume are Dunhill, Kent, Lucky Strike, Pall Mall and Rothmans. Key brands for other tobacco-related products include Vype and glo. British American Tobacco is headquartered in London, England.

British American Tobacco competes with other international tobacco companies such as Philip Morris, Imperial Tobacco and Japan Tobacco. It also competes with numerous local competitors including Korea Tobacco \& Ginseng (KT\&G), ITC and Gudang Garam. The company accounts for roughly \(20 \%\) of the global tobacco market. Its revenue splits by segment are as follows: Asia Pacific is \(\sim 30 \%\), the Americas are \(\sim 20 \%\), Western Europe is \(\sim 25 \%\), and E.E.M.A. is \(\sim 25 \%\). Emerging markets generate 60-65\% of revenues currently, but we project this to fall to about \(40 \%\) of revenues following the close of the RAI deal.

For additional color on the broader industry, please also see our industry report, "Tobacco Industry Initiation: Pricing Story Intact; Accretive Disruption, Too" published May 24, 2017, in conjunction with this report.
- App. 233 -

\section*{Risks to our investment thesis}

Large, disruptive government excise taxes could provide a headwind to volumes and earnings growth, limiting upside in the shares. Macroeconomic erosion and a corresponding weak employment outlook (especially in Europe) could weaken demand for BAT's premium brands. A stronger British pound could hurt earnings growth of BAT's operations, most of which is located outside the UK, which could limit upside to the share price. Counterfeit products present a risk to sales and earnings growth. The UK, New Zealand, France and Hungary are in the midst of implementing a requirement that cigarettes be sold in plain packaging without branded logos, following Ireland (which passed a law in March 2015, but has yet to implement the law) and Australia (which began plain packaging in December 2012). While Australia's experience suggests consumption has not been affected, as volumes rose slightly after years of declines, there could be long-term erosion of premium pricing power. If tobacco litigation were to be significantly more unfavorable than we estimate, there could be risk to cash flow and upside in the share price. If tobacco consumption declines at rates faster than we expect, there could be risk to cash flow and earnings, which could impact upside to the shares.
- App. 234 -
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline & 2016 & \[
\begin{array}{r}
\hline \text { Jun-17 } \\
1 \mathrm{HE} \\
\hline
\end{array}
\] & \[
\begin{array}{r}
\hline \text { Dec-17 } \\
2 \mathrm{HE} \\
\hline
\end{array}
\] & 2017 E & \[
\begin{array}{r}
\hline \text { Jun-18 } \\
\quad 1 \mathrm{HE} \\
\hline
\end{array}
\] & \[
\begin{array}{r}
\hline \text { Dec-18 } \\
2 \mathrm{HE} \\
\hline
\end{array}
\] & 2018E & 2019E \\
\hline \multicolumn{9}{|l|}{BAT INCOME STATEMENT (EM, FYE-Dec)} \\
\hline Revenues & 14,751 & 7,916 & 14,022 & 21,938 & 13,469 & 14,552 & 28,021 & 29,354 \\
\hline Rev growth & 12.6\% & 18.7\% & 73.5\% & 48.7\% & 70.1\% & 3.8\% & 27.7\% & 4.8\% \\
\hline Cost of goods & 3,733 & 1,884 & 3,015 & 4,899 & 2,603 & 3,056 & 5,659 & 5,904 \\
\hline Gross profit & 11,018 & 6,032 & 11,007 & 17,039 & 10,866 & 11,496 & 22,362 & 23,450 \\
\hline Gross margin & 74.7\% & 76.2\% & 78.5\% & 77.7\% & 80.7\% & 79.0\% & 79.8\% & 79.9\% \\
\hline SG\&A & 5,538 & 3,056 & 5,064 & 8,120 & 5,160 & 5,212 & 10,372 & 10,778 \\
\hline Expense margin & 37.5\% & 38.6\% & 36.1\% & 37.0\% & 38.3\% & 35.8\% & 37.0\% & 36.7\% \\
\hline Expense margin change (bps) & -122 bps & \(-30 \mathrm{bps}\) & \(-30 \mathrm{bps}\) & \(-53 \mathrm{bps}\) & \(-30 \mathrm{bps}\) & -30 bps & 0 bps & \(-30 \mathrm{bps}\) \\
\hline Operating income & 5,480 & 2,975 & 5,943 & 8,918 & 5,706 & 6,284 & 11,990 & 12,671 \\
\hline Ebit growth & 9.8\% & 21.3\% & 96.3\% & 62.7\% & 91.8\% & 5.7\% & 34.4\% & 5.7\% \\
\hline Organic EBIT Growth & 4.6\% & 6.4\% & 10.0\% & 7.8\% & 9.8\% & 5.7\% & 7.4\% & 5.7\% \\
\hline Ebit margin & 37.2\% & 37.6\% & 42.4\% & 40.7\% & 42.4\% & 43.2\% & 42.8\% & 43.2\% \\
\hline Ebit margin change & -95 bps & & & 350 bps & & & 214 bps & 38 bps \\
\hline Associates and JVs & 1,327 & 776 & 219 & 995 & 236 & 252 & 488 & 521 \\
\hline Equity income growth & 40.7\% & 28.3\% & -69.6\% & -25.0\% & -69.6\% & 14.9\% & -51.0\% & 6.8\% \\
\hline Net interest and financing expense & (529) & (289) & (863) & \((1,153)\) & (831) & (853) & \((1,683)\) & \((1,626)\) \\
\hline Pretax income & 6,278 & 3,462 & 5,299 & 8,761 & 5,111 & 5,684 & 10,795 & 11,566 \\
\hline Taxes & 1,473 & 883 & 1,683 & 2,566 & 1,623 & 1,805 & 3,429 & 3,674 \\
\hline Tax rate & 23.5\% & 25.5\% & 31.8\% & 29.3\% & 31.8\% & 31.8\% & 31.8\% & 31.8\% \\
\hline Net income & 4,805 & 2,579 & 3,616 & 6,195 & 3,487 & 3,878 & 7,366 & 7,892 \\
\hline Net income attrib. to noncontrol. int. & 190 & 99 & 101 & 200 & 94 & 111 & 205 & 213 \\
\hline Net income attrib. to BAT share holders & 4,615 & 2,480 & 3,515 & 5,995 & 3,394 & 3,767 & 7,161 & 7,679 \\
\hline Diluted EPS (pence) & 247.5 & 132.8 & 152.6 & 285.5 & 147.4 & 163.6 & 311.0 & 333.5 \\
\hline EPS growth & 18.8\% & 19.6\% & 12.0\% & 15.4\% & 10.9\% & 7.2\% & 8.9\% & 7.2\% \\
\hline Shares outstanding (m) & 1,865 & 1,867 & 2,303 & 2,100 & 2,303 & 2,303 & 2,303 & 2,303 \\
\hline Dividends & 155.9 & 118.1 & 54.4 & 172.5 & 125.2 & 57.6 & 182.8 & 193.8 \\
\hline
\end{tabular}

\footnotetext{
Michael S. Lavery
\(212-284-9511\)
212-284-9511
michael.s.lavery@pjc.com
}

\section*{PiperJaffray}

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Legend:
I: Initiating Coverage
R : Resuming Coverage
T: Transferring Coverage
D : Discontinuing Coverage
S: Suspending Coverage
OW: Overweight
N : Neutral
UW: Underweight
NA: Not Available
UR: Under Review
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{5}{|c|}{Distribution of Ratings/IB Services Piper Jaffray} \\
\hline \multirow[b]{2}{*}{Rating} & \multirow[b]{2}{*}{Count} & \multirow[b]{2}{*}{Percent} & \multicolumn{2}{|l|}{IB Serv./Past 12 Mos.} \\
\hline & & & Count & Percent \\
\hline BUY [OW] & 372 & 55.61 & 93 & 25.00 \\
\hline HOLD [N] & 276 & 41.26 & 25 & 9.06 \\
\hline SELL [UW] & 21 & 3.14 & 1 & 4.76 \\
\hline
\end{tabular}

Note: Distribution of Ratings/IB Services shows the number of companies currently covered by fundamental equity research in each rating category from which Piper Jaffray and its affiliates received compensation for investment banking services within the past 12 months. FINRA rules require disclosure of which ratings most closely correspond with "buy," "hold," and "sell" recommendations. Piper Jaffray ratings are not the equivalent of buy, hold or sell, but instead represent recommended relative weightings. Nevertheless, Overweight corresponds most closely with buy, Neutral with hold and Underweight with sell. See Stock Rating definitions below.

\section*{Analyst Certification - Michael S. Lavery, Sr. Research Analyst}

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- Neutral ( \(\mathbf{N}\) ): Anticipated to perform in line relative to the median of the group of stocks covered by the analyst.
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STATE OF NORTH CAROLINA
FORSYTH COUNTY
REYNOLDS AMERICAN INC.,
Plaintiff,
v.

THIRD MOTION EQUITIES MASTER FUND LTD., MAGNETAR CAPITAL MASTER FUND, LTD., SPECTRUM OPPORTUNITIES MASTER FUND LTD., MAGNETAR FUNDAMENTAL STRATEGIES MASTER FUNDS LTD., MAGNETAR MSW MASTER FUND LTD., MASON CAPITAL MASTER FUND, L.P., ANTON S. KAWALSKY, trustee for the benefit of Anton S. Kawalsky Trust UA 9/17/2015, CANYON BLUE CREDIT
INVESTMENT FUND L.P., THE CANYON )
VALUE REALIZATION MASTER FUND, ) L.P., CANYON VALUE REALIZATION )

FUND, L.P., BLUE MOUNTAIN CREDIT )
ALTERNATIVES MASTER FUND L.P., ) BLUEMOUNTAIN FOINAVEN MASTER ) FUND L.P., BLUEMOUNTAIN GUADALUPE ) PEAK FUND L.P., BLUEMOUNTAIN ) SUMMIT TRADING L.P., BLUEMOUNTAIN ) MONTENVERS MASTER FUND SCA ) SICAV-SIF, AMUNDI ABSOLUTE RETURN ) CANYON FUND P.L.C., CANYON-SL ) VALUE FUND, L.P., PERMAL CANYON IO ) LTD., CANYON VALUE REALIZATION ) MAC 18 LTD., and BARRY W. BLANK ) TRUST, ) Defendants.

IN THE GENERAL COURT OF JUSTICE SUPERIOR COURT DIVISION

17 CVS 7086

\section*{DEFENDANTS' MOTION FOR ISSUANCE OF LETTERS OF REQUEST PURSUANT TO THE HAGUE CONVENTION OF 18 MARCH 1970 ON THE TAKING OF EVIDENCE ABROAD}

Pursuant to Rule 45 of the North Carolina Rules of Civil Procedure (N.C. Gen. Stat. §1A-
1, Rule 45 (2009)) and the Hague Convention of 18 March 1970 on the Taking of Evidence Abroad in Civil or Commercial Matters, 28 U.S.C. § 1781 (the "Hague Convention"), defendants Mason Capital Master Fund, L.P., The Canyon Value Realization Master Fund, L.P., Canyon

Value Realization Fund, L.P., Canyon Blue Credit Investment Fund L.P., Canyon-SL Value Fund, L.P., Permal Canyon IO Ltd., Canyon Value Realization MAC 18 Ltd., Amundi Absolute Return Canyon Fund P.L.C., Anton Kawalsky, as trustee for the benefit of the Anton S. Kawalsky Trust UA 9/17/2015, Blue Mountain Credit Alternatives Master Fund L.P., BlueMountain Summit Trading L.P., BlueMountain Montenvers Master Fund SCA SICAV-SIF, BlueMountain Foinaven Master Fund L.P., BlueMountain Guadalupe Peak Fund L.P., and defendants Magnetar Capital Master Fund, Ltd, Magnetar Fundamental Strategies Master Fund Ltd, Magnetar MSW Master Fund Ltd, Third Motion Equities Master Fund Ltd, and Spectrum Opportunities Master Fund Ltd., and defendant Barry W. Blank Trust (collectively, "Defendants") respectfully request that this Court issue Letters of Request in the form attached hereto to the Senior Master of the Royal Courts of Justice in the United Kingdom, requesting the production of documents from each of British American Tobacco PLC ("BAT"), Centerview Partners U.K. LLP ("Centerview"), Deutsche Bank AG, London Branch ("Deutsche Bank"), and UBS Limited ("UBS," and collectively, the "Discovery Parties"), which are all located in the United Kingdom.

In support of this Motion, Defendants show the Court as follows:
1. As set forth in more detail in Defendants' Opening Brief in Support of Motion for Issuance of Letters of Request Pursuant to the Hague Convention of 18 March 1970 on the Taking of Evidence Abroad filed contemporaneously herewith, each of the Discovery Parties has evidence that is highly relevant to the claims and defenses of the case and may not be obtained by other means.
2. Because the Discovery Parties are located in a foreign state, it is beyond the jurisdiction of the Court to issue subpoenas to compel the evidence sought.
3. The United States and the United Kingdom are contracting states under the Hague Convention. See 28 U.S.C. § 1781; Cavlam Business Ltd. v. Certain Underwriters at Lloyd's, London, No. 08 Civ. 2225, 2009 WL 667272, at \(* 7\) n. 3 (S.D.N.Y. Mar. 16, 2009). More specifically, the Hague Convention allows judicial authorities in one signatory country to obtain evidence located in another signatory country for use in judicial proceedings. See Hague Convention, Art. 1. The Hague Convention provides for the taking of evidence "by a Letter of Request from a U.S. judicial authority to the competent authority in the foreign state." Tulip Computers Int'l B.V.v. Dell Computer Corp., 254 F. Supp. 2d 469, 472 (D. Del. 2003).
4. Accordingly, Defendants request that the Court execute the Letters of Request attached hereto, to permit the taking of discovery from the Discovery Parties.
5. Counsel for Plaintiffs has been consulted. Plaintiff has advised that it opposes the issuance of the proposed Letters of Request because Plaintiff believes certain statements contained therein are inaccurate or unwarranted and therefore should not be issued in the name of the Court.

WHEREFORE, Defendants respectfully request that the Court execute the Letters of Request attached hereto, to permit the taking of discovery from the Discovery Parties.
Jessica Thaller-Moran
Jennifer K. Van Zant
N.C. State Bar No. 21280
Jessica Thaller-Moran
N.C. State Bar No. 46444
BROOKS PIERCE MCLENDON, HUMPHREY \&
LEONARD, LLP
2000 Renaissance Plaza
230 North Elm Street
Greensboro, NC 27401
Telephone: (336) 373-8850
Facsimile: (336) 378-1001
jthaller-moran@brookspierce.com
jvanzant @ brookspierce.com

Counsel for Defendants Mason Capital Master
Fund, L.P., Anton S. Kawalsky, Canyon Blue Credit
Investment Fund L.P., Canyon Value Realization
Master Fund, L.P., Canyon Value Realization Fund,
L.P., Blue Mountain Credit Alternatives Master
Fund L.P., BlueMountain Foinaven Master Fund
L.P., BlueMountain Guadalupe Peak Fund L.P.,
BlueMountain Summit Trading L.P., BlueMountain
Montenvers Master Fund SCA SICAV-SIF, Amundi
Absolute Return Canyon Fund P.L.C., Canyon-SL
Value Fund, L.P., Permal Canyon IO Ltd., and
Canyon Value Realization MAC 18 Ltd.
OF COUNSEL:
Lawrence M. Rolnick, Esq.
Sheila A. Sadighi, Esq.
Maya Ginsburg, Esq.
LOWENSTEIN SANDLER LLP
1251 Avenue of the Americas
New York, NY 10020
(973) 597-2500
__Gregg E. McDougal, with permission
Gregg E. McDougal
N.C. State Bar No. 27290

Brandon S. Neuman
N.C. State Bar No. 33590
H. Denton Worrell
N.C. State Bar No. 49750

SHANAHAN MCDOUGAL, PLLC
128 E. Hargett Street, Third Floor
Raleigh, North Carolina 27601
Telephone: (919) 856-9494
Facsimile: (919) 856-9499
gmcdougal@shanahanmcdougal.com
bneuman@shanahanmcdougal.com
dworrell@shanahanmcdougal.com
Counsel for Defendant Barry W. Blank Trust

George F. Sanderson, III, with permission
George F. Sanderson, III
N.C. Bar No. 33054

Troy D. Shelton
N.C. Bar No. 48070

Ellis \& Winters LLP
4131 Parklake Avenue, Suite 400
Raleigh, North Carolina 27612
Telephone: (919) 865-7000
Facsimile: (919) 865-7010
george.sanderson@elliswinters.com
troy.shelton@elliswinters.com
Counsel for Defendants Magnetar Capital Master
Fund, Ltd, Magnetar Fundamental Strategies
Master Fund Ltd, Magnetar MSW Master Fund Ltd,
Third Motion Equities Master Fund Ltd, and
Spectrum Opportunities Master Fund Ltd
OF COUNSEL:
Kevin G. Abrams, Esq.
Sarah E. Delia, Esq.
ABRAMS \& BAYLISS LLP
20 Montchanin Road, Suite 200
Wilmington, Delaware 19807
(302) 778-1000
- App. 242 -

\section*{CERTIFICATE OF SERVICE}

I hereby certify that on August \(31^{\text {st }}, 2018\), the foregoing document was electronically filed with the North Carolina Business Court using the CM/ECF system, which sends notification of such filing to all counsel of record so registered for this case.

This the 31st day of August, 2018.
/s/ Jessica Thaller-Moran
Jessica Thaller-Moran

STATE OF NORTH CAROLINA

FORSYTH COUNTY

REYNOLDS AMERICAN INC.,

Plaintiff,
v.

THIRD MOTION EQUITIES MASTER FUND LTD., MAGNETAR CAPITAL MASTER FUND, LTD., SPECTRUM OPPORTUNITIES MASTER FUND LTD., MAGNETAR FUNDAMENTAL STRATEGIES MASTER FUNDS LTD., MAGNETAR MSW MASTER FUND LTD., MASON CAPITAL MASTER FUND, L.P., ANTON S. KAWALSKY, trustee for the benefit of Anton S. Kawalsky Trust UA 9/17/2015, CANYON BLUE CREDIT INVESTMENT FUND L.P., THE CANYON ) VALUE REALIZATION MASTER FUND, ) L.P., CANYON VALUE REALIZATION FUND, L.P., BLUE MOUNTAIN CREDIT ALTERNATIVES MASTER FUND L.P., BLUEMOUNTAIN FOINAVEN MASTER FUND L.P., BLUEMOUNTAIN GUADALUPE PEAK FUND L.P., BLUEMOUNTAIN SUMMIT TRADING L.P., BLUEMOUNTAIN MONTENVERS MASTER FUND SCA SICAV-SIF, AMUNDI ABSOLUTE RETURN CANYON FUND P.L.C., CANYON-SL VALUE FUND, L.P., PERMAL CANYON IO LTD., CANYON VALUE REALIZATION MAC 18 LTD., and BARRY W. BLANK TRUST,

Defendants.

IN THE GENERAL COURT OF JUSTICE
SUPERIOR COURT DIVISION
17 CVS 7086

> DEFENDANTS' OPENING
> BRIEF IN SUPPORT OF MOTION FOR ISSUANCE OF LETTERS OF REQUEST PURSUANT TO THE HAGUE CONVENTION OF 18 MARCH 1970 ON THE TAKING OF EVIDENCE ABROAD

Pursuant to Rule 45 of the North Carolina Rules of Civil Procedure (N.C. Gen. Stat. §1A1, Rule 45 (2009)) and the Hague Convention of 18 March 1970 on the Taking of Evidence Abroad in Civil or Commercial Matters, 28 U.S.C. § 1781 (the "Hague Convention"), defendants Mason Capital Master Fund, L.P., The Canyon Value Realization Master Fund, L.P., Canyon Value Realization Fund, L.P., Canyon Blue Credit Investment Fund L.P., Canyon-SL Value Fund, L.P., Permal Canyon IO Ltd., Canyon Value Realization MAC 18 Ltd., Amundi Absolute Return Canyon Fund P.L.C., Anton Kawalsky, as trustee for the benefit of the Anton S. Kawalsky Trust UA 9/17/2015, Blue Mountain Credit Alternatives Master Fund L.P., BlueMountain Summit Trading L.P., BlueMountain Montenvers Master Fund SCA SICAV-SIF, BlueMountain Foinaven Master Fund L.P., BlueMountain Guadalupe Peak Fund L.P., and defendants Magnetar Capital Master Fund, Ltd, Magnetar Fundamental Strategies Master Fund Ltd, Magnetar MSW Master Fund Ltd, Third Motion Equities Master Fund Ltd, and Spectrum Opportunities Master Fund Ltd., and defendant Barry W. Blank Trust (collectively, "Defendants") hereby submit this Opening Brief in Support of their Motion for Issuance of Letters of Request Pursuant to the Hague Convention of 18 March 1970 on the Taking of Evidence Abroad (the "Motion"). Defendants respectfully request that this Court issue Letters of Request to the Senior Master of the Royal Courts of Justice in the United Kingdom, requesting the production of documents from each of British American Tobacco PLC ("BAT"), Centerview Partners U.K. LLP ("Centerview"), Deutsche Bank AG, London Branch ("Deutsche Bank"), and UBS Limited ("UBS," and collectively, the "Discovery Parties"), which are all located in the United Kingdom.

Because the Discovery Parties are located in a foreign state and outside this Court's territorial jurisdiction, the Court lacks power to issue subpoenas to compel the evidence sought.

Therefore, the proper procedure is for the Court to order the issuance of Letters of Request, directed toward the appropriate authority having jurisdiction of civil causes in the United Kingdom. Defendants request that the Court affix its signature to each Letter of Request attached to the Motion as Exhibits 1 through 4 (the "Letters of Request"), and that the Clerk of the Court affix the seal of the Court to each of the Letters of Request.

As described in more detail below, each of the Discovery Parties has evidence which is highly relevant to the claims and defenses asserted in the case and which may not be obtained by other means.

\section*{BACKGROUND}

This is a judicial appraisal action under N.C. Gen. Stat. § 55-13-30 to determine the fair value of Defendants' shares in Plaintiff Reynolds American Inc. ("RAI"). On July 25, 2017, RAI, a North Carolina corporation, merged into an indirect, wholly owned subsidiary of BAT (the "Merger"). Defendants are former RAI shareholders who did not vote in favor of the Merger, and who have invoked their statutory appraisal rights to receive the fair value of their shares.

Defendants contend that the per-share Merger price did not reflect RAI's fair value, because, inter alia: (i) BAT's 42\% ownership position in RAI (which also depressed RAI's preMerger announcement share price) and the terms of the Merger agreement precluded any meaningful sale process; (ii) the opinions provided by RAI's and BAT's bankers, whose fees were principally contingent upon consummation of the Merger, improperly assumed perpetual growth rates below the rate of inflation in their discounted cash flow analysis, indicative of a company expected to go out of business; (iii) the fairness opinions overstated RAI's long-term pension obligations and Weighted Average Cost of Capital, (iv) the Merger Price failed to
properly reflect the anticipated U.S. corporate tax rate reduction, and (v) the Merger agreement provided for special payouts of more than \(\$ 154\) million to RAI's key executive officers and directors, which RAI conceded "may cause [them]... to view the proposals relating to the merger ... more favorably than RAI shareholders ....." \({ }^{1}\)

The Discovery Parties consist of BAT, the acquirer and a \(42 \%\) interest holder of RAI at the time of the Merger, and Centerview, UBS and Deutsche Bank who each served as financial advisors to BAT in connection with the Merger. The Discovery Parties have documents that are highly relevant to the litigation to the extent these documents include analysis, projections and other reports that depict the calculations performed and factors considered in assessing the fair value of RAI's shares.

Defendants now seek discovery from the Discovery Parties concerning the following: their participation in the Merger process; their knowledge, analyses and calculations of the value of RAI; their interest (or lack thereof) in the Merger; their respective roles in advising on or financing the Merger; and the fees and compensation each entity received as a result of the Merger. All of these documents are necessary and relevant to this appraisal action.

\section*{ARGUMENT}

The United States and the United Kingdom are contracting states under the Hague Convention. See 28 U.S.C. § 1781; Cavlam Business Ltd. v. Certain Underwriters at Lloyd's, London, No. 08 Civ. 2225, 2009 WL 667272, at *7 n. 3 (S.D.N.Y. Mar. 16, 2009). The Hague Convention allows judicial authorities in one signatory country to obtain evidence located in another signatory country for use in judicial proceedings. See Hague Convention, Art. 1.

\footnotetext{
\({ }^{1}\) The foregoing factors are not exhaustive and remain subject to modification as discovery progresses.
}

Resorting to the Hague Convention is appropriate where the subpoenaed party is not a party to the lawsuit, is a citizen of a contracting state, and is not otherwise subject to the jurisdiction of the Court. See Tulip Computers Int'l B.V. v. Dell Computer Corp., 254 F. Supp. 2d 469, 474 (D. Del. 2003); see also Metso Minerals Inc. v. Powerscreen Int'l Distrib. Ltd., No. cv-06-1446, 2007 WL 1875560, at *3 (E.D.N.Y. June 25, 2007).

The Hague Convention provides for the taking of evidence "by a Letter of Request from a U.S. judicial authority to the competent authority in the foreign state." Tulip Computers, 254 F. Supp. 2d. at 472. A party seeking evidence through the Hague Convention must "demonstrat[e] that proceeding in that manner is 'necessary and appropriate."" Metso Minerals, 2007 WL 1875560, at *2 (collecting authorities). "That burden is not great, however, since the [Hague] 'Convention procedures are available whenever they will facilitate the gathering of evidence by the means authorized in the Convention.'" Tulip Computers, 254 F. Supp. 2d. at 474 (quoting Société Nationale Industrielle Aérospatiale v. U.S. Dist. Ct. for the S. Dist. of Iowa, 482 U.S. 522, 541 (1987)).

In accordance with the United Kingdom's reservation to Hague Convention Art. 23, a Letter of Request may only seek specific testimony and particular documents for use at trial. See Metso Minerals, 2007 WL 1875560, at *2 (citing Aerospatiale, 482 U.S. at 564 (Article 23 exceptions apply only to "requests that lack sufficient specificity or that have not been reviewed for relevancy by the requesting court")). "[I]n practice," however "a reservation is not the significant obstacle to discovery under the Convention that the broad wording of Article 23 would suggest." Tulip Computers, 254 F. Supp. 2d. at 475 (quoting Aerospatiale, 482 U.S. at 564). Rather, "[w]hether the Letter of Request will ultimately be executed in light of the United Kingdom's reservation under Article 23 . . is best left to the judicial authorities in the United

Kingdom." Metso Minerals, 2007 WL 1875560, at *3 (collecting authorities). In this instance, the Court should issue the Letters of Request because the Discovery Parties (1) are not parties to this action; (2) have not voluntarily submitted to discovery; (3) are located in the United Kingdom, a contracting state under the Hague Convention; and (4) are not otherwise subject to the jurisdiction of this Court. As indicated in RAI's definitive proxy filed with the U.S. Securities and Exchange Commission, each of the Discovery Parties played a substantial role in the Merger:
- BAT acquired RAI in the Merger;
- Centerview served as a financial advisor to BAT in connection with the Merger;
- Deutsche Bank served as a financial advisor to BAT in connection with the Merger; and
- UBS served as a financial advisor to BAT in connection with the Merger.

Accordingly, each entity is in possession of documents and information that are highly relevant to this appraisal litigation and trial. As the acquiring entity and its financial advisors, BAT, along with UBS, Centerview and Deutsche Bank, performed analyses and projections that are directly related to the fair valuation of RAI's shares and such documents may only be obtained from the Discovery Parties. Defendants' Letters of Request are narrowly tailored to comply with the United Kingdom's reservation to Hague Convention Art. 23. Specifically, each Letter of Request is limited in that it seeks only to obtain information in the form of documents that are highly relevant to each entity's activities in connection with the Merger. Such information is necessary to use as evidence at trial and cannot be obtained by parties to this litigation. The Letters of Request are therefore necessary and appropriate.

\section*{CONCLUSION}

For the foregoing reasons, Defendants respectfully request that the Court grant the Motion and execute the Letters of Request attached to the Motion as Exhibits 1 through 4. Defendants further request that, after the Court has signed the Letters of Request, the Register authenticate the Court's signature under the seal of this Court, and return the original signed and sealed executed Letters, and two certified copies of the signed and sealed executed letters, to Tatiana Menshenina, Esq., Withers LLP, 16 Old Bailey, London EC4M 7EG, United Kingdom for delivery to the proper authority in the United Kingdom.
- App. 250 -

This the \(31^{\text {st }}\) day of August, 2018.

\author{
_/s/ Jessica Thaller-Moran \\ Jennifer K. Van Zant \\ N.C. State Bar No. 21280 \\ Jessica Thaller-Moran \\ N.C. State Bar No. 46444 \\ BROOKS PIERCE MCLENDON, HUMPHREY \\ \& LEONARD, LLP \\ 2000 Renaissance Plaza \\ 230 North Elm Street \\ Greensboro, NC 27401 \\ Telephone: (336) 373-8850 \\ Facsimile: (336) 378-1001 \\ jthaller-moran@brookspierce.com jvanzant@brookspierce.com \\ Counsel for Defendants Mason Capital Master \\ Fund, L.P., Anton S. Kawalsky, Canyon Blue Credit \\ Investment Fund L.P., Canyon Value Realization \\ Master Fund, L.P., Canyon Value Realization Fund, L.P., Blue Mountain Credit Alternatives Master Fund L.P., BlueMountain Foinaven Master Fund L.P., BlueMountain Guadalupe Peak Fund L.P., BlueMountain Summit Trading L.P., BlueMountain Montenvers Master Fund SCA SICAV-SIF, Amundi \\ Absolute Return Canyon Fund P.L.C., Canyon-SL \\ Value Fund, L.P., Permal Canyon IO Ltd., and \\ Canyon Value Realization MAC 18 Ltd. \\ OF COUNSEL: \\ Lawrence M. Rolnick, Esq. \\ Sheila A. Sadighi, Esq. \\ Maya Ginsburg, Esq. \\ LOWENSTEIN SANDLER LLP \\ 1251 Avenue of the Americas \\ New York, NY 10020 \\ (973) 597-2500
}
/s/Gregg E. McDougal, with permission
Gregg E. McDougal
N.C. State Bar No. 27290

Brandon S. Neuman
N.C. State Bar No. 33590
H. Denton Worrell
N.C. State Bar No. 49750

SHANAHAN MCDOUGAL, PLLC
128 E. Hargett Street, Third Floor
Raleigh, North Carolina 27601
Telephone: (919) 856-9494
Facsimile: (919) 856-9499
gmcdougal@shanahanmcdougal.com
bneuman@shanahanmcdougal.com
dworrell@shanahanmcdougal.com
Counsel for Defendant Barry W. Blank Trust
/s/George F. Sanderson, III, with permission
George F. Sanderson, III
N.C. Bar No. 33054

Troy D. Shelton
N.C. Bar No. 48070

Ellis \& Winters LLP
4131 Parklake Avenue, Suite 400
Raleigh, North Carolina 27612
Telephone: (919) 865-7000
Facsimile: (919) 865-7010
george.sanderson@elliswinters.com
troy.shelton@elliswinters.com
Counsel for Defendants Magnetar Capital Master
Fund, Ltd, Magnetar Fundamental Strategies
Master Fund Ltd, Magnetar MSW Master Fund Ltd,
Third Motion Equities Master Fund Ltd, and
Spectrum Opportunities Master Fund Ltd
OF COUNSEL:
Kevin G. Abrams, Esq.
Sarah E. Delia, Esq.
ABRAMS \& BAYLISS LLP
20 Montchanin Road, Suite 200
Wilmington, Delaware 19807
(302) 778-1000
- App. 252 -

\section*{CERTIFICATE OF COMPLIANCE}

I hereby certify that the foregoing document does not contain in excess of 7,500 words, exclusive of the case caption, any index, table of contents, table of authorities, signature blocks or required certificates.

This the 31st day of August, 2018.
/s/ Jessica Thaller-Moran
Jessica Thaller-Moran

Direct Dial Number
302-778-1165
Shindel@ AbramsBayliss.com

June 6, 2019

\author{
VIA EMAIL
}

The Honorable Louis A. Bledsoe, III
Chief Business Court Judge
832 E. Fourth St \#9600
Charlotte, NC 28202
Re: Reynolds American, Inc. v. Third Motion Equities Master Fund Ltd., Civil No. 17-CVS-7086

Dear Chief Judge Bledsoe:
We write on behalf of the dissenting stockholders in the above-referenced action ("Dissenters") to request permission to file a motion in limine seeking (i) an adverse inference as a result of Reynolds American, Inc.'s ("RAI's") belated abandonment of Dr. Anil Shivdasani as an affirmative expert and (ii) to preclude RAI's other expert, Professor Paul Gompers, from offering testimony or opinions at trial that are predicated on Dr. Shivdasani's analysis, or to have these matters heard and adjudicated as otherwise directed by the Court.

On June 4, 2019, RAI disclosed to the Dissenters-for the first time and approximately two hours prior to the deadline for submission of the parties' pretrial briefs, proposed findings of fact and conclusions of law, and Proposed Joint Pretrial Order-that RAI no longer intends to call Dr. Shivdasani as part of RAI's case-inchief. RAI's pretrial brief makes much of so-called informational (also known as "semi-strong") market efficiency-the notion that the trading price of a company's stock incorporates all public, value-relevant information. Based on its brief, RAI's argument in this action boils down to the assertion that the market simply cannot have underpriced RAI to the extent implied by the Dissenters' valuations.

RAI hired Dr. Shivdasani and paid him \(\$ 900\) per hour to analyze market efficiency by conducting "event studies" intended to demonstrate that the market for RAI common stock was informationally efficient. RAI withdrew Dr. Shivdasani at the last minute because his event studies suggest that RAI's market was not
efficient. \({ }^{1}\) Given that fact, and because RAI has made the tactical decision not to call him, Dissenters are entitled to an adverse inference that Dr. Shivdasani's event studies suggest that RAI's stock did not trade in an efficient market. McCormick on Evidence § 264 (7th ed. 2016) ("When it would be natural under the circumstances for a party to call a particular witness . . . and the party fails to do so, tradition has allowed the adversary to use this failure as the basis for invoking an adverse inference."); see also id. ("[A]n adverse inference may be drawn against a party for failure to produce a witness reasonably assumed to be favorably disposed to the party.") (citations omitted). This absent witness rule is recognized in North Carolina and has been characterized as "similar" to "the well-established principle of spoliation of evidence." McLain v. Taco Bell Corp., 527 S.E.2d 712, 715-16 (N.C. App. 2000) (quoting Yarborough v. Hughes, 51 S.E. 904 (N.C. 1905)); see also Cuthrell v. Greene, 50 S.E.2d 525, 529 (N.C. 1948) (collecting decisions).

There are consequences to RAI's decision to walk away from its market efficiency expert. One such consequence is Dissenters' entitlement to an adverse inference. Another is that RAI's second expert, Professor Gompers, should not be permitted to offer testimony grounded in notions of market efficiency.

One of RAI's primary arguments-as evident from its pretrial brief-is that the so-called "unaffected stock market price" of RAI stock prior to BAT"s offer should be considered by the Court as evidence of Fair Value. Professor Gompers was unable or unwilling to render that opinion, and instead relied entirely on Dr. Shivdasani's conclusions. Professor Gompers admitted that his opinions related to the market price of RAI's stock are based on Dr. Shivdasani's work:
Q. And you did not conduct your own analysis of the efficiency of the market for RAI's stock; is that correct?
A. That's correct.
Q. Okay. And you're relying entirely on Professor Shivdasani's opinions concerning the efficiency of that market, correct?
\({ }^{1}\) Moreover, Dr. Shivdasani's testimony regarding market efficiency was effectively debunked by Dissenters' rebuttal expert, Dr. Bilge Yilmaz, who explained (among other things) that (i) a company's stock price does not reflect Fair Value because the stock market does not have access to non-public, value-relevant information and (ii) Dr. Shivdasani's event studies failed to support the premise that RAI traded in an efficient market.

The Honorable Louis A. Bledsoe, III
June 6, 2019
Page 3
A. That's correct. I mean, I think I'm pretty clear in the report, sort of, you know, where I point to Professor Shivdasani, that was his -- his analysis. I've certainly -certainly reviewed the analysis, but -- but it's based on -on his work.

Gompers Dep. Tr. at 37:19-38:5 (attached as Ex. A).
RAI's decision not to call Dr. Shivdasani at trial is understandable, given the results of his event studies and the opinions rendered by Dr. Yilmaz. However, RAI should not be permitted to "back door" Dr. Shivdasani's opinions by calling Professor Gompers to render the same opinions or to offer opinions based on Dr. Shivdasani's conclusions regarding market efficiency. Having ensured that Dr. Shivdasani's opinions cannot be tested by cross-examination at trial, it would be unfair to permit RAI to offer any opinions by Professor Gompers that are predicated on Dr. Shivdasani's analysis.

Accordingly, Dissenters respectfully submit that (i) the Court should draw an adverse inference against RAI that the results of Dr. Shivdasani's event study are inconsistent with the premise that RAI stock was traded in an efficient market and (ii) Professor Gompers should be precluded from offering testimony or opinions at trial predicated on the work performed by Dr. Shivdasani. Given the limited time before trial, Dissenters understand that filing motions in limine may not be practical. Dissenters are at the Court's disposal to have the issues raised in this letter heard in any manner that is convenient for the Court.

Respectfully,


JPS/
Enclosure
cc: All counsel of record

\section*{NORTH CAROLINA SUPREME COURT}


ANTON S. KAWALSKY, trustee for ) the benefit of Anton S. Kawalsky ) Trust UA 9/17/2015, CANYON ) BLUE CREDIT INVESTMENT ) FUND L.P., THE CANYON VALUE ) REALIZATION MASTER FUND, ) L.P., CANYON VALUE ) REALIZATION FUND, L.P., ) AMUNDI ABSOLUTE RETURN ) CANYON FUND P.L.C., CANYON- ) SL VALUE FUND, L.P., PERMAL ) CANYON IO LTD., CANYON ) VALUE REALIZATION MAC 18 ) LTD.,

Defendants. )

\section*{ADDENDUM}

\section*{INDEX}

> Blueblade Capital Opportunities LLC v. Norcraft Cos., Inc., 2018 WL 3602940 (Del. Ch. July 27, 2018) ...... 1
Cede \& Co. v. JRC Acquisition Corp., 2004 WL 5366085 (Del. Ch. Feb. 10, 2004) ..... 40
Cede \& Co. v. Technicolor, Inc., 2003 WL 23700218 (Del Ch. Dec. 31, 2003) ..... 55
Doft \& Co. v. Travelocity.com, 2004 WL 5366732 (Del. Ch. May 20, 2004) ..... 118
Gearreald v. Just Care, Inc., 2012 WL 1569818 (Del. Ch. Apr. 30, 2012) ..... 131
Gray v. Cytokine Pharmasciences, Inc., 2002 WL 853549 (Del. Ch. Apr. 25, 2002) ..... 147
Huff Fund Inv. P'ship v. CKx, Inc., 2013 WL 5878807 (Del. Ch. Nov. 1, 2013) ..... 158
In re AOL, Inc.,
2018 WL 1037450 (Del. Ch. Feb. 23, 2018) ..... 173
In re Appraisal of Ancestry.com, Inc.,
2015 WL 399726 (Del. Ch. Jan. 30, 2015) ..... 194
In re Appraisal of Columbia Pipeline Grp., 2019 WL 3778370 (Del. Ch. May 16, 2019) ..... 217
In re Appraisal of Jarden Corp., 2019 WL 3244085 (Del. Ch. July 19, 2019) ..... 260
In re Appraisal of Solera Holdings, Inc., 2018 WL 3625644 (Del. Ch. July 30, 2018) ..... 312
In re Stillwater Mining Co., 2019 WL 3943851 (Del. Ch. Aug. 21, 2019) ..... 406
In re Wagner, 2007 WL 966010 (E.D. Pa. Mar. 29, 2007) ..... 126
LongPath Capital, LLC v. Ramtron Int'l Corp., 2015 WL 4540443 (Del. Ch. June 30, 2015) ..... 460
Matthew v. Laudamiel, 2015 WL 5723985 (Del. Ch. Sept. 28, 2015) ..... 488
Merion Capital LP v. BMC Software, Inc., 2015 WL 6164771 (Del. Ch. Oct. 21, 2015) ..... 535
Merion Capital L.P. v. Lender Processing Servs., Inc., 2016 WL 7324170 (Del. Ch. Dec. 16, 2016) ..... 554
Merlin Partners LP v. AutoInfo, Inc., 2015 WL 2069417 (Del. Ch. Apr. 30, 2015) ..... 584
Owen v. Cannon, 2015 WL 3819204 (Del. Ch. June 17, 2015) ..... 601
Torrington Research Co. v. Marvin, 2010 WL 1667580 (Conn. Super. Ct. Apr. 6, 2010) ..... 633
Towerview LLC v. Cox Radio, Inc., 2013 WL 3316186 (Del. Ch. June 28, 2013) ..... 641

KeyCite Yellow Flag - Negative Treatment
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\section*{UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.}

Court of Chancery of Delaware.

\section*{BLUEBLADE CAPITAL OPPORTUNITIES \\ LLC, a Delaware Limited Liability Company, and Blueblade Capital Opportunities CI LLC, a Delaware Limited Liability Company, Petitioners,} \(\frac{\mathrm{v} .}{}\) Delaware corporation, Respondent.

\author{
C.A. No. 11184-VCS \\ | \\ Date Submitted: April 25, 2018 \\ | \\ Date Decided: July 27, 2018
}

\section*{Attorneys and Law Firms}

David A. Jenkins, Esquire and Robert K. Beste, Esquire of Smith, Katzenstein \& Jenkins LLP, Wilmington, Delaware and Michael E. Davidian, Esquire of Blueblade Capital Opportunities LLC and Blueblade Capital Opportunities CI LLC, New York, New York, Attorneys for Petitioners Blueblade Capital Opportunities LLC and Blueblade Capital Opportunities CI LLC.

Raymond J. DiCamillo, Esquire and Kevin M. Gallagher, Esquire of Richards, Layton \& Finger, P.A., Wilmington, Delaware, Attorneys for Respondent Norcraft Companies, Inc.

\section*{MEMORANDUM OPINION}

\section*{SLIGHTS, Vice Chancellor}
*1 This statutory appraisal action arises out of a May 12, 2015, merger whereby Fortune Brands Home \& Security, Inc.
("Fortune") acquired Norcraft Companies, Inc. ("Norcraft" or the "Company") (the "Merger") for \(\$ 25.50\) cash per share (the "Merger Price"). Petitioners, Blueblade Capital Opportunities LLC and Blueblade Capital Opportunities CI LLC (together, "Blueblade"), were Norcraft stockholders on the Merger's effective date and seek a judicial determination of the fair value of their Norcraft shares as of that date.

In an appraisal action under the Delaware General Corporation Law, the trial court's "fair value" determination must "take into account all relevant factors." \({ }^{1}\) The relevance (or not) of certain factors "can vary from case to case depending on the nature of the [acquired] company," the nature of the process leading to the company's sale and, perhaps most importantly, the evidence adduced by the parties at trial in support of their respective valuation positions. \({ }^{2}\) "In some cases, it may be that a single valuation metric is the most reliable evidence of fair value and that giving weight to another factor will do nothing but distort that best estimate. In other cases, "it may be necessary to consider two or more factors." \({ }^{3}\) In all cases, however, the trial court's determination respecting the "relevant factors" must be grounded in the evidentiary record and "accepted financial principles." \({ }^{4}\)

I am cognizant of the Delaware Supreme Court's embrace of "deal price" as a strong indicator of fair value in Dell and \(D F C\). Those decisions teach that deal price often will be a relevant factor in the trial court's fair value calculus -particularly where the respondent company was publicly traded and sold following a meaningful market check. \({ }^{5}\) In both cases, however, despite having been urged to do so, the Supreme Court declined to adopt a rule that the deal price is presumptively reflective of fair value. \({ }^{6}\) Mindful of \(D F C\) and Dell, I have considered carefully whether the Merger Price (less synergies) reflects the fair value of Norcraft as of the Merger date. For the reasons explained below, I am satisfied it does not.
*2 In this case, the evidence reveals significant flaws in the process leading to the Merger that undermine the reliability of the Merger Price as an indicator of Norcraft's fair value. There was no pre-signing market check; Norcraft and its advisors fixated on Fortune and never broadened their view to other potential merger partners. As the parties worked to negotiate the Merger agreement, Norcraft's lead negotiator was at least as focused on securing benefits for himself as he was on securing the best price available for Norcraft. And, while the Merger agreement provided for a thirty-five-day post-
signing go-shop, that process was rendered ineffective as a price discovery tool by a clutch of deal-protection measures.

Dell reminded us that Delaware courts have "long endorsed" the "efficient market hypothesis" and emphasized "that the price produced by an efficient market is generally a more reliable assessment of fair value than the view of a single analyst, especially an expert witness who caters her valuation to the litigation imperatives of a well-heeled client." \({ }^{7}\) I have heeded that guidance as well. Unfortunately, this case was tried before the Supreme Court decided Dell, and the record evidence regarding the efficiency of the market for Norcraft stock prior to the Merger is, in a word, thin. With that said, the evidence that can be drawn from the record reveals that, at the time of the Merger, Norcraft was fresh off an initial public offering of its stock, was relatively thinly traded given the niche market in which it operated and was also thinly covered by analysts. Under these circumstances, I can discern no evidence-based rationale that would justify looking to the unaffected trading price of Norcraft's stock either as a standalone indicator of fair value or as a data point underwriting the use of a deal-price-less-synergies metric.

Having concluded that flaws in the sales process leading to the Merger undermine the reliability of the Merger Price as an indicator of fair value, and that the evidence sub judice does not allow for principled reliance upon the efficient capital markets hypothesis, I have turned to a "traditional valuation methodology," a discounted cash flow ("DCF") analysis, to calculate the fair value of Norcraft as of the Merger date. \({ }^{8}\) In my view, given the evidence in this record, a DCF-based valuation provides the most reliable means by which to discharge the Court's statutorily mandated function to appraise Norcraft.

Not surprisingly, both parties proffered expert testimony regarding Norcraft's fair value on a DCF basis. And, as we have come to expect in appraisal litigation, the experts' DCF analyses yielded valuations that are miles apart. Neither expert walked the high road from start to finish during their respective DCF journeys. That is to say, both experts, at times, made choices in their analyses that were not supported by the evidence or not supported by "accepted financial principles" in order to support a desired outcome. I have, therefore, borrowed the most credible components of each expert's analysis to conduct my own DCF valuation, in my best effort to obey our appraisal statute's "command that the Court of Chancery undertake an 'independent' assessment of fair value" when performing its mandated appraisal function. \({ }^{9}\)

As explained below, my DCF analysis reveals a valuation of \(\$ 26.16\) per share.
*3 Insofar as Dell and DFC require that the trial court carefully consider deal price before disregarding it altogether, I have returned to the Merger Price as a "reality check" before locking in my DCF valuation as the last word on fair value. Having done so, I am satisfied that the \(\$ 0.66\) per share delta between the Merger Price and my DCF valuation of Norcraft is a product of the identified flaws in Norcraft's deal process. Accordingly, I conclude that the fair value of Norcraft as of the Merger date was \(\$ 26.16\) per share.

\section*{I. FACTUAL BACKGROUND}

I recite the facts as I find them based on the evidence presented during a four-day trial. That evidence comprises testimony from thirteen fact witnesses (some presented live and some by deposition) and three live expert witnesses, along with over 500 exhibits. I accord the evidence the weight and credibility I find it deserves. As noted, both parties carried a burden to prove their respective valuation positions by a preponderance of the evidence. Thus, Petitioners were obliged to prove that their proffered valuation of Norcraft, a DCF-based valuation of \(\$ 34.78\) per share, represented Norcraft's fair value as of the Merger; Respondent's burden was to prove that its proffered valuation of \(\$ 21.90\) per share, the Merger Price less synergies, was Norcraft's fair value as of the Merger. With these competing burdens in mind, I find that the following facts were proven by a preponderance of the evidence.

\section*{A. Parties and Relevant Non-Parties}

Respondent, Norcraft, is a Delaware corporation in the cabinetry manufacturing business. \({ }^{10}\) Prior to the Merger, Norcraft's stock traded on the New York Stock Exchange. \({ }^{11}\) On May 12, 2015, Fortune acquired Norcraft for \(\$ 25.50\) cash per share in the Merger. \({ }^{12}\) In connection with that transaction, Norcraft merged with an indirect, wholly-owned subsidiary of Fortune, Tahiti Acquisition Corp. ("Tahiti"), with Norcraft surviving as a wholly-owned Fortune subsidiary. \({ }^{13}\)

Petitioners were Norcraft stockholders as of the Merger date and collectively held 557,631 shares of Norcraft common stock. \({ }^{14}\) It is undisputed that they properly perfected their statutory appraisal right.

Non-party, Fortune, is a home and security products company with four business segments: cabinets, plumbing, doors and security. \({ }^{15}\) Fortune sells its products through several sales channels, "including kitchen and bath dealers, wholesalers oriented to builders or professional remodelers, industrial and locksmith distributors [and] 'do-it-yourself' remodelingoriented home centers .... „16

Non-parties, Mark Buller, Christopher Reilly, Michael Maselli, Harvey Wagner, Ira Zecher and Edward Kennedy served on Norcraft's board of directors (the "Board") at all relevant times. \({ }^{17}\) Buller also served as the Chief Executive Officer of Norcraft (and its predecessors) from 2003 to the Merger's consummation in May 2015. \({ }^{18}\) Nonparty, Leigh Ginter, was the Chief Financial Officer of Norcraft (and its predecessors) from 2003 through the Merger's consummation. \({ }^{19}\) And non-party, Eric Tanquist, was Norcraft's Vice President of Finance Administration from approximately 2007 through the Merger's consummation. \({ }^{20}\)
*4 Non-party, Christopher Klein, is Fortune's CEO and served in that capacity at all times relevant to this action. \({ }^{21}\) Non-party, Robert Biggart, is Fortune's general counsel and served in that capacity at all relevant times. \({ }^{22}\) And non-party, Jason Baab, served as Fortune's Vice President of Corporate Development and M \& A at the time of the Merger. \({ }^{23}\)

\section*{B. Pre-Merger Norcraft}

As of the Merger date, "Norcraft was a leading manufacturer of kitchen and bathroom cabinetry in the United States and Canada., \({ }^{24}\) The Company sold its products primarily to kitchen and bathroom cabinet dealers in the home repair, remodeling and new home construction markets through four business divisions: Mid Continent Cabinetry, StarMark Cabinetry, UltraCraft Cabinetry and Urban Effects (a.k.a. Norcraft Canada). \({ }^{25}\) Prior to the Merger, Norcraft regarded Fortune, American Woodmark Corporation ("American Woodmark") and Masco as its principal competitors. \({ }^{26}\) It also faced competition from "a large number of smaller manufacturers., 27
1. Buller and Two Private Equity Firms Acquire
Norcraft's Operating Subsidiary in 2003

In October 2003, Buller, certain Buller family members and funds affiliated with the private equity firms Saunders,

Karp \& Megrue ("SKM") and Trimaran Capital Partners ("Trimaran") acquired Norcraft Companies, L.L.C. for approximately \(\$ 315\) million (the "2003 Acquisition"). \({ }^{28}\) At the same time, Norcraft Companies, L.L.C. converted to a Delaware limited partnership, Norcraft Companies, L.P. ("Norcraft LP"), and Buller became the CEO of that entity. \({ }^{29}\) For the next ten years, Norcraft LP operated as a privatelyheld company.

\section*{2. Norcraft and the Cyclical Cabinetry Industry}
*5 The undisputed evidence reveals that Norcraft operated in a cyclical industry. \({ }^{30}\) As one naturally might expect, the cabinetry industry is directly affected by the home improvement industry, which, in turn, is affected by macro-economic conditions, including employment levels, demographic trends, availability of financing, interest rates and consumer confidence. \({ }^{31}\) The cabinetry industry is also directly affected by housing starts, as a significant percentage of sales are connected to new home construction. \({ }^{32}\) When housing starts decrease, as they often do for various reasons, \({ }^{33}\) cabinet sales decrease as well. \({ }^{34}\)

Norcraft was no exception to this cyclicality. Norcraft LP enjoyed steady growth of its earnings before interest, taxes, depreciation and amortization ("EBITDA") from 2003 through 2006- \(\$ 47\) million (2003) to \(\$ 80\) million (2006). \({ }^{35}\) This growth was fueled, in large part, by a significant acquisition in March 2002 and a boom in the United States housing market. \({ }^{36}\) Growth stalled, however, beginning in 2007, when Norcraft LP experienced the first of three consecutive years of declining sales and adjusted EBITDA. \({ }^{37}\) As is typical in classically cyclical businesses, Norcraft LP saw improved sales beginning in 2010, although its adjusted EBITDA continued to decline until 2012 (with 2010 being the only exception). The attached chart illustrates the trends \({ }^{38}\) :
\begin{tabular}{cccccc} 
& \multicolumn{4}{c}{\(\begin{array}{c}\text { Net Sales } \\
\text { (\$Millions) }\end{array}\)} & YoY\%change
\end{tabular} \(\left.\begin{array}{c}\text { Adjusted EBITDA } \\
\text { (SMillions) }\end{array}\right) ~\) Yoy\% change

As reflected in the chart, Norcraft LP's adjusted EBITDA trended up in 2013, suggesting that its six-year period of decline had come to an end, at least for the time being. \({ }^{39}\)

\section*{3. Norcraft's IPO and Reorganization}

On November 13, 2013, Norcraft completed an initial public offering ("IPO") \({ }^{40}\) whereby the Norcraft enterprise was reorganized into the following holding company structure \({ }^{41}\) :


The newly-formed parent company, Norcraft-a publiclytraded company-was a holding company; Norcraft Companies LLC ("Norcraft LLC") \({ }^{42}\) and its subsidiaries were the operating entities. \({ }^{43}\) Following the reorganization, Norcraft was Norcraft LLC's sole managing member and owned (directly and indirectly) approximately \(87.7 \%\) of Norcraft LLC, with Buller, his family members and certain members of Norcraft management holding the remainder. \({ }^{44}\) *6 As part of the IPO, Norcraft sold 7,356,634 shares of Norcraft common stock, or \(39.1 \%\) of Norcraft's equity, to the public at \(\$ 16.00\) per share. \({ }^{45}\) SKM and Trimaran together retained a \(60.9 \%\) equity interest in Norcraft, while Buller, his family members and certain members of Norcraft management, through their convertible Norcraft LLC units, collectively held a prospective \(12.3 \%\) equity interest. \({ }^{46}\)

In conjunction with the IPO, Norcraft entered into Tax Receivable Agreements ("TRAs") with SKM, Trimaran and the Norcraft LLC unitholders (collectively, the "TRA

Beneficiaries"). \({ }^{47}\) Under the TRAs, Norcraft was required to pay the TRA Beneficiaries \(85 \%\) of the applicable annual tax savings, if any, that Norcraft realized as a result of certain tax benefits contributed to Norcraft by the TRA Beneficiaries, including net operating losses and asset basis step-ups. \({ }^{48}\) The TRAs also provided that Norcraft's payment obligations to the TRA Beneficiaries would be accelerated in the event of a "Change of Control.," \({ }^{49}\) The TRAs later came to feature prominently in the Norcraft-Fortune negotiations leading up to the Merger.

\section*{C. Fortune Approaches Norcraft}

On October 20, 2014, representatives of Fortune's financial advisor, RBC Capital Markets, LLC ("RBC"), contacted Buller to inform him of Fortune's interest in a potential acquisition of Norcraft. \({ }^{50}\) Three days later, Buller met with Fortune's CEO, Christopher Klein, at Fortune's headquarters in Deerfield, Illinois to discuss a potential Norcraft-Fortune transaction. \({ }^{51}\) During that meeting, Buller informed Klein that Norcraft was not for sale, but also indicated that he (Buller) would convey any acquisition proposal to Norcraft's Board. \({ }^{52}\) Perhaps sensing that his Board might be inclined to pursue a deal with Fortune, Buller advised Klein that he would like to have a role in the post-Merger company in the event the parties reached an agreement. \({ }^{53}\) Klein was noncommittal but, internally, Fortune was disinclined to bring Buller on board post-Merger. \({ }^{54}\) At the meeting's close, Klein provided Buller with a written, non-binding proposal under which Fortune would (1) acquire " \(100 \%\) of [Norcraft's] equity ownership interests" for \(\$ 22.00\) cash per share via a tender offer (followed by a merger); and (2) satisfy Norcraft's obligations under the TRAs. \({ }^{55}\)
*7 Buller promptly informed Norcraft's Board of Fortune's proposal, and the Board convened on November 4, 2014 to discuss it. \({ }^{56}\) Following that meeting, Norcraft engaged legal and financial advisors to assist the Board in its consideration of Fortune's proposal. \({ }^{57}\) The Company retained Ropes \& Gray LLP ("Ropes \& Gray") as its legal advisor and Citigroup Global Markets Inc. ("Citi") as its financial advisor. \({ }^{58}\) The Board promptly tasked Citi with "review[ing] strategic alternatives of the [C]ompany, including a potential sale to Fortune. \({ }^{59}\) Norcraft also engaged Pricewaterhouse Coopers ("PwC") to provide an assessment of the Company's contractual obligations under the TRAs. \({ }^{60}\)

\section*{D. Norcraft's Management Prepares Long-Term Projections}

Norcraft's Board met again on November 8, 2014. \({ }^{61}\) During this meeting, " \([t]\) he \([B]\) oard ... discussed next steps in formulating a potential response to [Fortune], and after discussion, agreed that [Buller, Ginter and Reilly] would map out a proposed strategy and response with Citi [ ] and report their recommendations back to the [B]oard. \({ }^{, 62}\) The Board also instructed Buller and Ginter to prepare five-year financial projections to facilitate the Board's evaluation of strategic alternatives (including a potential Norcraft-Fortune transaction). \({ }^{63}\)

Buller and Ginter both had experience preparing long-term projections, having previously prepared five-year projections in connection with Norcraft's IPO and four debt financing transactions between 2003 and 2010. \({ }^{64}\) Norcraft, however, did not prepare long-term projections in the ordinary course of its business; it only did so in connection with "extraordinary event \([\mathrm{s}]\) " such as financing transactions and ultimately the Merger. \({ }^{65}\) Ordinarily, Norcraft management prepared an annual one-year budget, which forecasted Norcraft's quarterly (and monthly) performance for the upcoming year. \({ }^{66}\) The Company's annual budgeting process began each fall and involved several steps \({ }^{67}\) :
- First, the corporate controller for each of Norcraft's four business divisions would prepare a detailed "bottoms-
Base Case Projections (FY2014-2019) \({ }^{75}\)
up" budget for his or her division. \({ }^{68}\) As part of that process, the division controllers "would work with [their respective] division presidents to come up with what they expected for sales growth in the [upcoming] year and... would build that into the budget[,] [along with] ... other assumptions like labor efficiencies [and] material cost." \({ }^{, 69}\) In this way, the division controllers "would get a picture of what [profit and loss] would look like for [their respective divisions for] the [upcoming] year.,"70
- Next, each division controller would present his or her division-level budget to Buller and Ginter "for review and approval.," \({ }^{11}\)
- Finally, "[a]fter several rounds of... back-and-forth," Ginter would compile the division-level budgets "into a consolidated format," which was then presented to the Board for review and approval in January of the budgeted year. \({ }^{72}\) After review, the Board typically would approve the consolidated annual budget that same month. \({ }^{73}\)
*8 Following the Board's November 8, 2014 meeting, Buller and Ginter created two sets of five-year projections: a base-case projection (the "Base Case") and an upsidecase projection (the "Upside Case"), both of which are summarized below. \({ }^{74}\)
\begin{tabular}{llllllc}
\hline (\$ in millions) & 2014E & 2015E & 2016E & 2017E & 2018E & 2019E \\
\hline Net Sales & \(\$ 371\) & \(\$ 409\) & \(\$ 448\) & \(\$ 483\) & \(\$ 523\) & \(\$ 568\) \\
\hline EBITDA & \(\$ 51\) & \(\$ 59\) & \(\$ 70\) & \(\$ 79\) & \(\$ 89\) & \(\$ 100\) \\
\hline EBIT & \(\$ 36\) & \(\$ 42\) & \(\$ 51\) & \(\$ 58\) & \(\$ 68\) & \(\$ 81\) \\
\hline CapEx & \(\$ 10\) & \(\$ 18\) & \(\$ 12\) & \(\$ 15\) & \(\$ 16\) & \(\$ 17\)
\end{tabular}

Upside Case Projections (FY2014-2019) \({ }^{76}\)
\begin{tabular}{lcccccc}
\hline (\$ in millions) & 2014E & 2015E & 2016E & 2017E & 2018E & 2019E \\
\hline Net Sales & \(\$ 373\) & \(\$ 415\) & \(\$ 460\) & \(\$ 507\) & \(\$ 558\) & \(\$ 613\) \\
\hline EBITDA & \(\$ 51\) & \(\$ 61\) & \(\$ 75\) & \(\$ 89\) & \(\$ 105\) & \(\$ 120\)
\end{tabular}
\begin{tabular}{lcccccc}
\hline EBIT & \(\$ 36\) & \(\$ 45\) & \(\$ 56\) & \(\$ 67\) & \(\$ 82\) & \(\$ 100\) \\
\hline CapEx & \(\$ 10\) & \(\$ 18\) & \(\$ 12\) & \(\$ 15\) & \(\$ 17\) & \(\$ 18\)
\end{tabular}

In preparing the Base Case and Upside Case projections, Buller and Ginter took a "top-down" approachindependently projecting Norcraft's net sales, operating expenses and capital expenditures (for all business divisions) in the first instance, and then consulting with divisionlevel management as and where needed-rather than the "bottoms-up" approach they used to prepare Norcraft's annual budgets. \({ }^{77}\) They created the Upside Case first. \({ }^{78}\) After preparing the Upside Case, Buller and Ginter presented it to Reilly for his review. \({ }^{79}\) "Upon review, [Reilly opined] that the [Upside Case] ... was too aggressive ... and asked [Buller and Ginter] to go back and... do a more conservative model, which became known as the [B]ase [C]ase., \({ }^{80}\) Buller and Ginter both believed that Norcraft could achieve the results forecasted in the Base Case and Upside Case projections, although "the [U]pside [C]ase was more of a stretch and everything would have had to go right." 81

Buller and Ginter presented the Base Case and Upside Case projections to Norcraft's Board at a meeting on November 25, 2014. \({ }^{82}\) After discussion, the Board approved both sets of projections for use in connection with the Board's consideration of Fortune's proposal. \({ }^{83}\)

\section*{E. Norcraft Pushes Fortune to Increase its Offer}
*9 Norcraft's Board next met on December 3, \(2014 .{ }^{84}\) During this meeting, Citi presented the Board with an analysis of Norcraft's standalone prospects and possible strategic alternatives. \({ }^{85}\) Citi's presentation included an overview of preliminary valuation perspectives and selected strategic alternatives, \({ }^{86}\) "including maintaining the status quo, a possible sale of the Company to [Fortune] or another buyer, as well as some other potential acquisition targets. \({ }^{, 87}\) Following Citi's presentation, the Board determined that (1) "[Fortune's] proposed price of \(\$ 22.00\) per share was inadequate"; and (2) "[Fortune's] offer would need to be significantly and substantially higher in order for the Board to consider a potential sale of the Company at this time., \({ }^{88}\) The Board, however, did not task Citi with pursuing alternative buyers or canvassing the market.

Two days later, Buller called Klein and conveyed to him the Board's determination. \({ }^{89}\) Buller also explained that "if [Fortune] were interested in significantly increasing [its proposed price] ..., [Norcraft] would be prepared to share certain [non-public] information [with Fortune], under a confidentiality agreement with an appropriate standstill, in order to assist [Fortune] in understanding [Norcraft's] prospects, upside potential and intrinsic value." \({ }^{90}\) Soon thereafter, on December 11, 2014, Norcraft and Fortune entered into a confidentiality agreement with a standstill. \({ }^{91}\)

On January 7, 2015, Buller, Ginter and Citi representatives met with Fortune's management at Buller's home in Winnipeg, Canada to discuss the proposed Norcraft-Fortune transaction. \({ }^{92}\) The discussion focused on the structure and timing of the proposed transaction, Norcraft's business and financial projections and the integration of Norcraft into Fortune. \({ }^{93}\) Norcraft provided Fortune with the Base Case and Upside Case projections as well as certain preliminary information regarding the TRAs. \({ }^{94}\) During this meeting, Buller reiterated his interest in post-closing employment with Fortune and discussed the possibility with Klein. \({ }^{95}\) Again, Klein "ke[pt] the door open" but stopped short of making a commitment. \({ }^{96}\)

The following week, on January 14, Norcraft's tax advisor, PwC, presented its analysis regarding the TRAs to Fortune's management and RBC. \({ }^{97} \mathrm{PwC}\) explained that termination of the TRAs in connection with Fortune's acquisition of Norcraft would require significant payments to the TRA Beneficiaries (including Buller). \({ }^{98} \mathrm{PwC}\) also identified certain tax benefits that Fortune could realize from the acquisition, including a stepped-up basis in Norcraft's assets. \({ }^{99}\) The next day, Klein advised Buller that Fortune's tax advisor was performing its own analysis of Norcraft's obligations under the TRAs following the proposed transaction. \({ }^{100}\) Klein also noted that Fortune would require more information about the TRAs to calculate Fortune's full payment obligations to the TRA Beneficiaries. \({ }^{101}\)
*10 On January 27, 2015, Klein delivered to Buller a revised written indication of interest with a proposed price of \(\$ 25.00\)
per share. \({ }^{102}\) Buller promptly informed Norcraft's Board of Fortune's revised proposal, and the Board met on February 2 to discuss it. \({ }^{103}\) During this meeting, Citi provided the Board with its revised valuation analysis, which incorporated Norcraft's net sales and EBITDA results for Q4 FY2014 (both of which were higher than expected) and Fortune's latest proposal of \(\$ 25.00\) per share. \({ }^{104}\) Reilly then reviewed with the Board the tax benefits that Fortune would realize in connection with its proposed acquisition of Norcraft, including a stepped-up basis in Norcraft's assets. \({ }^{105}\) After receiving Reilly's report, "the Board concluded that [Fortune] would benefit from th[at] step-up in basis going forward and should therefore value th[at] benefit in its offer price.," 106

With Citi's and Reilly's input in hand, the Board determined that Fortune's proposed purchase price of \(\$ 25.00\) per share was inadequate, in part because it did not value the tax benefits that Fortune would realize in connection with the proposed transaction. \({ }^{107}\) The Board also believed, however, "that a transaction with [Fortune] could potentially create more value for [Norcraft] stockholders if at an appropriate valuation than if [Norcraft] continued independently to execute on its strategic plan. Accordingly, the Board authorized [Buller and Reilly] to continue to engage in discussions with [Fortune] to confirm if [Fortune] was willing to further increase its propos[ed] [price]." \({ }^{108}\) Even at this stage, however, the Board did not reach out to other potentially interested parties in hopes of securing a better offer or, at least, a source of leverage in its discussions with Fortune.

The next day, Buller called Klein to convey Norcraft's position regarding Fortune's revised proposal. \({ }^{109}\) During that call, Buller advised Klein that Fortune's proposed price remained inadequate and encouraged Fortune to increase its bid. \({ }^{110}\) Unable to invoke the threat of an alternative transaction, Buller highlighted Norcraft's better than expected preliminary FY2014 results and FY2015 outlook as support for his pitch that Fortune pay a higher price. \({ }^{111}\) Apparently not feeling the heat, Klein advised Buller that Fortune would consider increasing its bid but that it was unlikely that Fortune's proposed price would move significantly higher than \(\$ 25.00\) per share. \({ }^{112}\)

Following Buller and Klein's February 3 call, Fortune increased its offer to \(\$ 25.50\) per share, indicating that this
was its "best and final offer." \({ }^{113}\) The Norcraft team was less than thrilled with Fortune's \(\$ 25.50\) per share proposal; indeed, Reilly and Ginter both believed that Fortune's proposal significantly undervalued Norcraft. \({ }^{114}\) Nevertheless, the Board remained focused exclusively on Fortune. In a lastditch effort to get Fortune to increase its "best and final offer," the Board responded with a counterproposal of \$27.50 per share. \({ }^{115}\) When Fortune rejected that counterproposal, the Board bid against itself with a second counterproposal of \(\$ 26.25\) per share. \({ }^{116}\) Once again, Fortune held firm and reiterated that \(\$ 25.50\) per share was its best and final offer \({ }^{117}\) —well aware that it was getting the Company for a "good price." 118 With no alternative transaction on the horizon, Norcraft's Board capitulated on February 21 at \(\$ 25.50\) per share, hoping to extract further value during a postsign go-shop. \({ }^{119}\)

\section*{F. The Parties Negotiate the Merger Agreement}
*11 In late February 2015, Citi informed Fortune that Norcraft was prepared to move forward with Fortune's \(\$ 25.50\) per share proposal, subject to the negotiation of a merger agreement that included a forty-five-day post-signing go-shop right for Norcraft. \({ }^{120}\) Fortune responded with a counterproposal that provided for a twenty-five-day postsigning go-shop "that would be limited to certain identified potential purchasers." \({ }^{121}\) The counterproposal also called for a \(\$ 15\) million termination fee if Norcraft accepted a superior proposal received during the go-shop period and a \(\$ 25\) million termination fee otherwise. \({ }^{122}\) By proposing this structure, Fortune sought to give Norcraft's Board "the minimum amount [of time it] needed to satisfy [its] fiduciary responsibility... and no more," \({ }^{123}\) while also "discourag[ing] potential bidders." \({ }^{124}\)

On February 27, following negotiations, the parties eventually settled on a thirty-five day post-signing go-shop period (the "Go-Shop Period") with no restrictions on the parties Norcraft or its advisors could contact, a \(\$ 10\) million termination fee if Norcraft accepted a superior proposal during the Go-Shop Period and a \(\$ 20\) million termination fee otherwise. \({ }^{125}\) Importantly, however, Fortune also secured information rights with respect to competing proposals and unlimited matching rights with respect to superior proposals. \({ }^{126}\) In a final stroke of masterful bargaining, Fortune also secured the right to launch Tahiti's tender offer
for all of Norcraft's outstanding common stock (at \(\$ 25.50\) per share) fifteen days after the start of the Go-Shop Period. \({ }^{127}\)

In early March 2015, Fortune was given access to Norcraft's electronic data room, and on March 4, Fortune and Norcraft entered into a thirty-day exclusivity agreement. \({ }^{128}\) Thereafter, on March 13, Buller, Ginter and Tanquist met with Fortune management to provide additional non-public information about Norcraft, and, on March 18, Fortune met with the senior management of each Norcraft business division. \({ }^{129}\)
*12 With the Merger Price set, and negotiations between Norcraft and Fortune proceeding apace, Buller again approached Klein about post-Merger employment with Fortune. At a Fortune-initiated meeting with Norcraft management on March 6, Buller advised Klein that he wanted to head Norcraft and Fortune's combined cabinetry business post-acquisition. \({ }^{130}\) With the price locked in, and the inevitably uncomfortable confrontation now unavoidable, Klein finally informed Buller that Fortune would have no place for him after the Merger. \({ }^{131}\) This came as a shock to Buller, who thereafter became increasingly "disruptive.," 132

Unable to abandon the enterprise completely, Buller soon returned to Fortune with a new proposal: if he would not be a part of the combined company, then, upon Fortune's acquisition of Norcraft, Buller would acquire Urban Effects (Norcraft Canada) from Fortune. \({ }^{133}\) After Buller announced his interest in acquiring Norcraft Canada, the Board determined, for the first time, that Buller was conflicted and, therefore, should be excluded from Board deliberations regarding the potential Norcraft-Fortune transaction. \({ }^{134}\)
*13 Buller, for his part, was determined to acquire Urban Effects and continued to press Fortune for a commitment to sell him the business, while also continuing to lead Norcraft's negotiations with Fortune. \({ }^{135}\) Fortune, however, was unwilling to give such a commitment while negotiations with Norcraft were ongoing-much to Buller's frustration. \({ }^{136}\) Yet it soon became clear to Fortune that Buller's ire now risked derailing the deal. \({ }^{137}\) To keep the peace, on March 25, Reilly emailed Buller to advise him that "[Klein] is going to offer to provide you some meaningful comfort on [C]anada...., 138 Klein's overture to Buller accomplished its intended purpose; Buller felt he had "[g]ot[ten] good comfort on UE." \({ }^{139}\) This "comfort" included:
- Fortune's waiver of a two-year, Canada-specific noncompete covenant otherwise applicable to Buller \({ }^{140}\); and
- Fortune's agreement to modify Buller's employment agreement with Norcraft's operating subsidiary to provide that Buller would receive a severance payment if his employment was terminated without cause (including by Buller himself) within twelve months of Fortune's acquisition of Norcraft. \({ }^{141}\)
Thereafter, it appears that Buller was content to "live with a trust me I will sell Canada to you" status quo, and ostensibly was willing to support the Norcraft-Fortune transaction again -to Fortune's great relief. \({ }^{142}\)

With the Norcraft Canada fire contained, Fortune was soon on to the next Buller-related fire. In late March 2015, having finalized most of the merger agreement's material terms, Norcraft and Fortune found themselves unable to reach agreement on the termination payments that would be due to the TRA Beneficiaries holding Norcraft LLC units (including Buller and his family members). \({ }^{143}\) Norcraft's and Fortune's tax advisors disagreed as to the value of certain tax attributes associated with the Norcraft LLC units, resulting in a \(\$ 3\) million difference in their respective calculations of the termination payments. \({ }^{144}\)
*14 On March 26, Fortune tried to "cut a deal with Buller" on the TRA termination payments by offering to pay \(\$ 2\) million of the \(\$ 3\) million difference. \({ }^{145}\) Buller insisted, however, that Fortune pay the entire \(\$ 3\) million, much to Fortune's exasperation. \({ }^{146}\) At this point, Fortune seemingly had reached its limit with Buller and advised Citi that "if there [was] no signed [merger] agreement by [the morning of March 30, Fortune was] done." \({ }^{147}\) Negotiations followed. Ultimately, to appease Buller and keep the deal on track, SKM and Trimaran offered to transfer \$1 million of the TRA termination payments they stood to receive to the Norcraft LLC unitholders, such that the unitholders would receive the full \(\$ 3\) million demanded by Buller. \({ }^{148}\) With that, the TRA fire was extinguished and Fortune had no more Buller-related fires to fight.

\section*{G. Norcraft's Board Approves the Merger and Norcraft Executes the Merger Agreement}

On March 29, 2015, Norcraft's Board received Citi's fairness opinion and approved the Merger Agreement. \({ }^{149}\)

The following day, Norcraft and Fortune executed the Merger Agreement and issued a press release announcing the Merger. \({ }^{150}\) Immediately following the execution of the Merger Agreement, Norcraft entered into TRA termination agreements with the TRA Beneficiaries-SKM, Trimaran and the Norcraft LLC unitholders-providing that the TRAs would be terminated (if the Merger was consummated) in exchange for \(\$ 43.5\) million in total payments to the TRA Beneficiaries. \({ }^{151}\)

SKM, Trimaran and the Norcraft LLC unitholders also entered into Tender and Support Agreements ("TSAs") with Fortune and Tahiti, \({ }^{152}\) whereby SKM, Trimaran and the Norcraft LLC unitholders agreed that:
- they would "promptly" tender their Norcraft shares into Tahiti's tender offer and, in any event, would do so at least two days before the offer's initial expiration date \({ }^{153}\); and
- the shares so tendered could not be withdrawn unless and until the tender offer expired or was "terminated in accordance with the terms of Merger Agreement." 154

\section*{H. The Go-Shop}
*15 The Go-Shop Period commenced with the Merger's announcement on March 30, 2015. \({ }^{155}\) Given that Norcraft and Citi had focused exclusively on Fortune during the presign "process," it was especially important that the Company run an effective go-shop to provide a meaningful market check. Yet Citi's lead banker, Eldridge, had never run a sellside go-shop. \({ }^{156}\) Because Norcraft's Board was unsure of the go-shop's core components, it relied completely on Citi to oversee the process. \({ }^{157}\) Fortune, on the other hand, knew full well what was at stake. Its Vice President of M \& A, Robert Baab, pushed hard for an unlimited match right and for Fortune's right to launch Tahiti's tender offer during the GoShop Period, understanding that both measures would make it less likely that a topping bidder would emerge. \({ }^{158}\)

During the Go-Shop Period, Citi contacted fifty-four potential bidders: twelve potential "strategic" bidders and forty-two private equity firms. \({ }^{159}\) Of the fifty-four parties contacted, seven entered into nondisclosure agreements-six private equity firms and American Woodmark, one of Norcraft's industry peers. \({ }^{160}\) Only one of those seven parties, Carlyle,
went on to meet with Norcraft management. \({ }^{161}\) Carlyle ultimately did not submit a bid. \({ }^{162}\)

Most of the parties Citi contacted indicated either that they were "not interested in competing with Fortune" 163 or that "[t]he price [was] too high." \({ }^{164}\) At least two non-bidding parties, however, advised Citi that they could not "move fast enough [to submit a bid] in 35 days." 165

In an effort to ensure that Fortune would reap the benefits of its hard-fought bargain, RBC and Klein devised a strategy to dissuade potentially interested parties from engaging with Norcraft. In that connection, early in the go-shop process, RBC emailed Klein advising that RBC had "a call scheduled for [April 9, 2015] with Masco"-one of the go-shop participants-"to discuss the [Merger]." \({ }^{166}\) In this email, RBC explained that it would "emphasize [to Masco] that [Norcraft] is an asset that [Fortune has] been monitoring/ targeting for a long time ... and [that Fortune] view[ed] the [Merger] as highly strategic." \({ }^{, 167}\) RBC also indicated that it hoped to "get some sense from Masco as to whether or not [Masco was] likely to engage [with Norcraft]." \({ }^{168}\) Eager to close the deal, Klein advised RBC that " \([t]\) he trick [with Masco] ... is not to make Norcraft sound very interesting for them." \({ }^{169}\) Klein also emphasized that he was "more interested in [RBC] shutting the door on [Masco] and [its] willingness to look at [acquiring Norcraft], versus learning a lot from [Masco] .... " \({ }^{170}\)
*16 When Fortune's general counsel, Biggart, learned of this correspondence, he nearly had "a heart attack in [his] office." \({ }^{171} \mathrm{He}\) immediately "went over to see [Klein]"before RBC's call with Masco-and "explained to him that [Fortune and its deal team] can't be doing this." \({ }^{72}\) Biggart then warned RBC that Klein's proposed approach was "the wrong way to deal with a go-shop" and that " \([\mathrm{RBC}]\) can't be interfering like this." \({ }^{173}\) Klein apparently heeded Biggart's admonition, as did RBC. \({ }^{174}\)

As permitted by the Merger Agreement, Fortune launched Tahiti's tender offer for Norcraft's stock fifteen days into the Go-Shop Period, on April 14, 2015, securing the support of a majority of Norcraft's outstanding common stock (per the TSAs). \({ }^{175}\) The Go-Shop Period expired as scheduled on May 4, with Norcraft having received no competing acquisition
proposals. \({ }^{176}\) Tahiti successfully completed its tender offer on May 11, and the Merger closed the following day. \({ }^{177}\)

\section*{I. The Parties' Experts}

Both parties presented valuation experts at trial to opine on Norcraft's fair value as of the Merger date. \({ }^{178}\) Petitioners' valuation expert was David A. Clarke; Respondent presented Yvette R. Austin Smith. \({ }^{179}\) Petitioners also presented a deal process expert, Guhan Subramanian ("Subramanian"), to opine on the soundness (or not) of Norcraft's deal process. \({ }^{180}\) I summarize each expert's opinion below.

\section*{1. Clarke's Opinion Regarding Norcraft's Fair Value}
*17 Clarke opined that the Merger Price of \(\$ 25.50\) per share "does not reflect Norcraft's fair value [as of the Merger date] ... [b]ecause there was no competitive process to acquire Norcraft prior to the signing of the Merger Agreement and the post-signing go-shop process was not an effective tool for price discovery .... " \({ }^{181}\) According to Clarke, a DCF analysis premised on the Base Case projections provides the most reliable evidence of Norcraft's fair value as of the Merger date. \({ }^{182}\) Based on his DCF analysis, Clarke concluded that Norcraft's fair value as of the Merger was \(\$ 34.78\) per share. \({ }^{183}\)

For his DCF analysis, Clarke chose to extend the Base Case projections for an additional five years (through 2024), before applying a perpetuity growth rate ("PGR") of \(3.5 \%\) at the end of the projection period. \({ }^{184} \mathrm{He}\) also adjusted the Base Case projections to deduct for income tax expense in each projected year, which the Base Case projections presented in Norcraft's Schedule 14D-9 failed to do. \({ }^{185}\)

After determining Norcraft's projected unlevered free cash flows through Norcraft's FY2024, Clarke then discounted each year's projected free cash flow amount to present value using a \(9.6 \%\) discount rate based on an estimate of Norcraft's weighted average cost of capital ("WACC"). \({ }^{186}\) With these inputs, Clarke concluded that the present value of Norcraft's projected unlevered free cash flows through FY2024 was \(\$ 297.3\) million. \({ }^{187}\)

Clarke then calculated Norcraft's terminal value by (1) dividing Norcraft's terminal year unlevered free cash flow by a capitalization rate of \(6.1 \%\) and (2) discounting the quotient of that calculation to present value using Norcraft's estimated
\(9.6 \%\) WACC. \({ }^{188}\) This yielded a terminal value of \(\$ 509.5\) million. \({ }^{189}\) Clarke then added Norcraft's terminal value to the present value of Norcraft's projected unlevered free cash flows through FY2024 to obtain an \(\$ 806.8\) million operating value. \({ }^{190}\)
*18 Clarke next made the following adjustments to Norcraft's operating value to derive Norcraft's total equity value: (1) adding Norcraft's excess cash, estimated at \(\$ 44.3\) million; (2) adding the value (to Norcraft) of TRA-related tax benefits, estimated at \(\$ 4.4\) million; (3) adding cash received by Norcraft from the (presumed) exercise of all outstanding options on Norcraft stock, estimated at \(\$ 18.3\) million; and (4) deducting the book value of Norcraft's long-term debt- \(\$ 147.5\) million, per Norcraft's Form 10-Q for Q1 FY2015. \({ }^{191}\) After making these adjustments, Clarke concluded that Norcraft's total equity value was \(\$ 726.3\) million. \({ }^{192}\) Finally, Clarke divided this aggregate value by Norcraft's "fully diluted" shares outstanding \((20,880,123)\) to obtain an aliquot value of \(\$ 34.78\) per share. \({ }^{193}\)

Clarke also performed a comparable company analysis to confirm the results of his DCF analysis. \({ }^{194}\) For this analysis, he selected four companies for his peer group: (1) American Woodmark, (2) Masonite International Corp. ("Masonite"), (3) PGT Innovations, Inc. ("PGT") and (4) Ply Gem Holdings, Inc. ("Ply Gem"). \({ }^{195}\) The analysis yielded a \(\$ 33.92\) per share valuation. \({ }^{196}\) Clarke "determined not to weight this analysis in determining a specific per share value [for Norcraft], however, due to the difficulties in finding any companies that were fully comparable to Norcraft." \({ }^{197}\)

\section*{2. Austin Smith's Opinion Regarding Norcraft's Fair Value}

Austin Smith determined that the most reliable indicator of Norcraft's fair value as of the Merger date was the Merger Price, "less ... contemporaneously estimated synergies [of \(\$ 3.60\) per share]" \({ }^{198}\)-a metric that yields a valuation of \(\$ 21.60\) per share. Austin Smith also conducted an independent valuation using three different valuation methodologies: DCF, comparable company and precedent transaction analyses. \({ }^{199}\) Based on those approaches, Austin Smith determined that Norcraft's fair value as of the Merger date "ranged from \(\$ 17.48\) to no more than \(\$ 23.74\). ." 200

Austin Smith's primary DCF analysis, like Clarke's, relied on the Base Case projections (adjusted to deduct for income tax expense in each of the projected years) and applied a \(3.5 \% \mathrm{PGR}\) at the end of the projection period. \({ }^{201}\) Unlike Clarke, however, Austin Smith did not extend the Base Case projections. \({ }^{202}\)
*19 After determining Norcraft's projected unlevered free cash flows through Norcraft's FY2019, Austin Smith discounted each year's projected free cash flow amount to present value using a \(11.2 \%\) discount rate based on her estimate of Norcraft's WACC. \({ }^{203}\) From this, Austin Smith concluded that the present value of Norcraft's projected unlevered free cash flows through FY2019 was \$151 million. \({ }^{204}\)

Austin Smith then calculated Norcraft's terminal value by (1) dividing Norcraft's terminal year unlevered free cash flow by a capitalization rate of \(7.69 \%\) and (2) discounting the quotient of that calculation to present value using Norcraft's estimated \(11.2 \%\) WACC. \({ }^{205}\) Austin Smith concluded that Norcraft's terminal value was \(\$ 435\) million. \({ }^{206}\) She then added Norcraft's terminal value to the present value of Norcraft's projected unlevered free cash flows through FY2019 to obtain a \(\$ 586\) million operating value. \({ }^{207}\)

Austin Smith made two adjustments to Norcraft's operating value to determine Norcraft's total equity value: (1) adding Norcraft's excess cash, estimated at \(\$ 52.7\) million \({ }^{208}\); and (2) deducting the book value of Norcraft's long-term debt\$147.5 million, per Norcraft's Form 10-Q for Q1 FY2015. \({ }^{209}\) Having made these adjustments, Austin Smith concluded that Norcraft's total equity value was \(\$ 491\) million. \({ }^{210}\) She then divided this total equity value by Norcraft's "fully diluted" shares outstanding \((20,880,123)\) to obtain an aliquot value of \(\$ 23.54\) per share. \({ }^{211}\) Finally, upon "summing th[is]... component[ ] of [Norcraft's] value" with the value of the TRA-related tax benefits that Norcraft would realize in each projected year (estimated at \(\$ 0.20\) per share), Austin Smith determined that "the per share value of Norcraft was \(\$ 23.74\) " as of the Merger date. \({ }^{212}\)
*20 As noted, Austin Smith also undertook to value Norcraft using two "market-based" valuation methodologies. Her comparable company analysis yielded a valuation of \(\$ 23.46\)
per share and her precedent transaction analysis yielded a valuation of \(\$ 17.48\) per share. \({ }^{213}\)

According to Austin Smith, "[t]he high level of consistency between [her] three separately determined estimates of fair value and the [Merger Price] (less synergies) provides strong analytical support that \(\$ 21.90\) accurately represents the per share fair value of Norcraft., \({ }^{214}\) In addition, Austin Smith submits, "the fact that the [Merger Price] derived from a robust deal process" lends "additional support" to her fair value determination. \({ }^{215}\)

\section*{3. Subramanian's Opinion Regarding Norcraft's Deal Process}

Professor Subramanian served as Petitioner's deal process expert. \({ }^{216}\) According to Subramanian, Norcraft's deal process was flawed in several respects that rendered the process "unlikely to have yielded fair value for the Norcraft shareholders. \({ }^{217}\) The principal flaws Subramanian identifies are (1) the lack of any "competitive process to acquire Norcraft prior to the signing of the Merger Agreement" \({ }^{218 \text {; }}\) (2) information asymmetries between Fortune and potential third-party bidders \({ }^{219}\); and (3) the presence of certain deal protection mechanisms that curbed the efficacy of the go-shop and effectively truncated the Go-Shop Period by at least five days. \({ }^{220}\)

\section*{a. Absence of Pre-Signing Competition}

Subramanian posits that Norcraft's "decision to negotiate exclusively with Fortune" prior to signing the Merger Agreement "eliminated a standard source of bargaining leverage for Norcraft"-namely, "invok[ing] the threat of an alternative deal" to extract a higher price. \({ }^{221}\) Consequently, Norcraft was unable to move Fortune above its proposed purchase price of \(\$ 25.50 .{ }^{222}\) Moreover, Subramanian submits, it does not appear "that Norcraft extracted something else [from Fortune] in exchange for exclusivity." 223

As a practical matter, the absence of pre-signing competition "meant that the Norcraft Board was relying on [the] goshop process to ensure that Norcraft shareholders received fair value., \({ }^{224}\) According to Subramanian, this reliance was misplaced because Norcraft's go-shop process was so poorly
structured that it was rendered entirely ineffective as a price discovery tool. \({ }^{225}\)

\section*{b. Information Asymmetries}

Subramanian next posits that certain information asymmetries between Fortune and prospective acquirors vitiated the effectiveness of Norcraft's go-shop process. \({ }^{226}\) As noted, Fortune first approached Norcraft regarding a potential acquisition on October 20, 2014, and the parties signed a confidentiality agreement on December 11, 2014. \({ }^{227}\) Exclusivity soon followed. \({ }^{228}\) This dynamic gave Fortune a substantial head start relative to other potential suitors in evaluating the benefits and challenges of a Norcraft transaction, including the complex issues relating to the TRAs. \({ }^{229}\) And, per Subramanian, " \([t]\) his discrepancy ... created a severe information asymmetry problem, because it would be virtually impossible for prospective third-party bidders to [learn] as much about Norcraft as Fortune [already knew]" in the thirty-five days allotted for Norcraft's go-shop process. \({ }^{230}\)
*21 Moreover, Subramanian submits, regardless of whether Fortune's "first mover" status provided it with an actual benefit, potential competing bidders would have perceived Fortune to enjoy an informational advantage. \({ }^{231}\) That perceived advantage, in turn, discouraged others from bidding for Norcraft to avoid the "winner's curse"-a phenomenon that occurs in common value auction settings where the winning bidder has "buyer's remorse" because it has overpaid for the asset in question. \({ }^{232}\) That remorse is a product, in part, of the winner's perception that it lacked an adequate understanding of the asset before it made its bid. \({ }^{233}\) Here, Subramanian submits, because potential competing bidders for Norcraft perceived that Fortune knew more about the Company than they could hope to learn in thirty-five days, they may well have feared that they would end up overpaying to acquire Norcraft if they outbid Fortune. \({ }^{234}\)

\section*{c. Deal Structure Minimizes Efficacy of the Go-Shop}

According to Subramanian, the interaction between certain deal protection provisions in the Merger Agreement and the TSAs effectively truncated the Go-Shop Period "from 35
days to 30 days or even shorter." \({ }^{235}\) As noted, the Merger Agreement entitled Fortune to launch Tahiti's tender offer for Norcraft's stock fifteen days into the Go-Shop Period. \({ }^{236}\) In addition, under the TSAs, Buller, SKM and Trimaran were obligated to tender \(53.6 \%\) of Norcraft's outstanding voting stock into Tahiti's tender offer "promptly following" the initiation of the offer and, in any event, no later than two days before the offer's initial expiration date. \({ }^{237}\) And that tender could not be rescinded absent a "full-blown superior proposal.,"238

Thus, if Fortune launched Tahiti's tender offer halfway through Norcraft's go-shop process (as it did), \({ }^{239} 53.6 \%\) of Norcraft's voting shares would "promptly" be tendered to Tahiti—and that tender would be irrevocable absent a superior proposal. Moreover, even if Norcraft received a superior proposal during the Go-Shop Period, Fortune would still have at least four days to match that proposal. \({ }^{240}\)

According to Subramanian, the confluence of the deal protections, the limited duration of the Go-Shop Period, Fortune's unlimited match right, the definition of "superior proposal" and Fortune's ability to launch Tahiti's tender offer during the go-shop, resulted in a systematic "tightening and shortening" of the go-shop process. The "tightening" occurred because "a third party would have to make a fullblown superior proposal, not just get to excluded party status, by the end of the 35 days." \({ }^{241}\) The full-blown superior proposal was required for Norcraft to terminate the Merger Agreement and prevent Tahiti from accepting the shares tendered pursuant to the TSAs (a majority of the shares outstanding). Subramanian explained:

Ordinarily, if this was a normal go-shop, you'd have excluded party status by the end of the go-shop period. But... [here] you've got to get to a superior proposal. Got to get the whole shebang done, as Chancellor Strine said it in Lear, by the end of the go-shop period. And in my observation and in my experience looking at these goshops, that is a big deal. Having to get to an entire superior proposal by the end of the go-shop period is a very different task than getting to simply excluded party status. \({ }^{242}\)
*22 The "shortening" occurred because any potential bidder contemplating whether to participate in the go-shop could wait no longer than April 30-what Subramanian terms the "last clear chance" date-to make its superior proposal if it wanted to ensure that (i) the Norcraft Board had the two
business days it was allowed under the Merger Agreement to assess the proposal and declare it superior; (ii) Fortune's four-business-day period to match expired; and (iii) Norcraft terminated the Merger Agreement before Fortune (via Tahiti) could close on the tendered Covered Shares. The following graphic from Subramanian's report illustrates the "tightening and shortening" phenomenon:


Subramanian also observes that, even without the "tightening and shortening" of the go-shop, Fortune's unlimited match right stands alone as a disabling feature of this goshop. \({ }^{243}\) According to Subramanian, from the perspective of a potential bidder, unlimited match rights are typically perceived as limiting any "pathway to success." \({ }^{244}\) Indeed, Subramanian submits, "[e]verybody agrees that match rights deter bids. It [is] not even a debated question., 245

Here again, Fortune was acutely aware of the advantage it secured, while Norcraft's Board apparently did not understand what an unlimited match right was much less how that deal protection might work to hinder the go-shop. \({ }^{246}\) In describing the disparity in the sophistication of the two parties negotiating this Merger, Subramanian observed: "it seems like... the Fortune side was playing chess and the Norcraft side was playing checkers., 247

\section*{J. Procedural Posture}

Petitioners filed a petition with this Court on June 22, 2015, seeking appraisal of their 557,631 shares of Norcraft common stock. \({ }^{248}\) The Court held a four-day trial in June 2017, and the parties thereafter submitted post-trial briefing. On December 20, 2017, the Court requested supplemental submissions from the parties to address certain questions following the Delaware Supreme Court's December 14, 2017, decision in

Dell. \({ }^{249}\) The Court heard post-trial argument on April 25, 2018.

\section*{II. ANALYSIS}

Our appraisal statute, 8 Del. C. § 262, provides, "[t]hrough [the appraisal] proceeding, the Court shall determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation, together with interest, if any, to be paid upon the amount determined to be the fair value. In determining such fair value, the Court shall take into account all relevant factors." 250 "Easy enough," one might say on a first read, but the judicial appraisal process, through the years, has proven to be anything but "easy." \({ }^{251}\)
*23 "Section 262(h) unambiguously calls upon the Court of Chancery to perform an independent evaluation of 'fair value' at the time of a transaction ... [and] vests the Chancellor and Vice Chancellors with significant discretion to consider 'all relevant factors' and determine the going concern value of the underlying company." 252 "By instructing the court to 'take into account all relevant factors' in determining fair value, the statute requires the Court of Chancery to give fair consideration to 'proof of value by any techniques or methods which are generally considered acceptable in the financial community and otherwise admissible in court.' Given that '[e]very company is different; [and] every merger is different,' the appraisal endeavor is 'by design, a flexible process.' „253

Taking to heart the mandate of Section 262(h), as reiterated by our Supreme Court, I have carefully considered all relevant factors. And I have assigned those factors the weight (or not) I determined they deserve based on my evaluation of the credible evidence, and my application of "accepted financial principles" as derived from that evidence. \({ }^{254}\)

\section*{A. The Merger Price is Not a Reliable Indicator of Norcraft's Fair Value}

As our Supreme Court has recognized, "corporate finance theory reflects a belief that if an asset-such as the value of a company as reflected in the trading value of its stock-can be subject to close examination and bidding by many humans with an incentive to estimate its future cash flows['] value, the resulting collective judgment as to value is likely to be
highly informative[.]" \({ }^{255}\) So long as "all estimators hav[e] equal access to information, the likelihood of outguessing the market over time and building a portfolio of stocks beating it is slight." \({ }^{256}\) Thus, the Supreme Court has emphasized that our courts must appreciate "the economic reality that the sale value resulting from a robust market check will often be the most reliable evidence of fair value, and that secondguessing the value arrived upon by the collective views of many sophisticated parties with a real stake in the matter is hazardous."257

Nevertheless, our Supreme Court has declined on several occasions to pronounce a presumption in favor of deal price in determining fair value. \({ }^{258}\) Instead, it has reiterated the "flexible" nature of the trial court's fair value calculus, while also noting its lack of "confidence in [its] ability to craft, on a general basis, the precise pre-conditions that would be necessary to invoke a presumption" in favor of the deal price. \({ }^{259}\)

Here, Norcraft's deal process did not include a meaningful market check and, consequently, the Merger Price was not "arrived upon by the collective views of many sophisticated parties with a real stake in the matter., \({ }^{260}\) Prior to the execution of the Merger Agreement, the Company chose to negotiate with Fortune and Fortune alone. \({ }^{261}\) That decision, if made as a strategic choice, does not alone render Norcraft's deal process unsound. \({ }^{262}\) Nor does it preclude a finding that Norcraft's deal process resulted in a reliable indication of fair value (reflected by the Merger Price). Indeed, even Petitioners' expert has acknowledged that negotiating with a single potential buyer pre-signing can, in certain instances, lead to significant value. \({ }^{263}\)
*24 But the single bidder focus here, while perhaps not amounting to a breach of fiduciary duty, \({ }^{264}\) did not provide a meaningful market check as would yield a reliable indication of fair value. First, there is no evidence that the Board or Citi employed a single bidder approach for the sake of achieving a strategic advantage or maximizing value. Second, and more troubling, the Board's focus on only one bidder was tainted by the fact that Buller (who was conflicted) served as Norcraft's lead negotiator from start to finish.

The shambolic pre-signing process left Norcraft's postsigning go-shop as the only meaningful opportunity to check the market. \({ }^{265}\) Unfortunately, Fortune extracted concessions
from Norcraft that rendered the go-shop process equally ineffective as a price discovery tool.

\section*{1. The Board's Singular Focus on Fortune, Failure to Manage Buller's Conflicts and Misplaced Reliance on the Go-Shop}

There is no dispute that neither Norcraft nor Citi contacted other bidders before Norcraft signed the Merger Agreement. This resulted in lost opportunities. Not only did Norcraft miss the opportunity to test the market before committing to Fortune, it also missed the opportunity to leverage the interest of another suitor to extract a higher price from Fortune. Given these missed opportunities, it is not surprising that, by the time the parties settled on the Merger Price, Norcraft's management still believed that the merger consideration was too low. \({ }^{266}\) The plan, therefore, was to put all eggs in the go-shop basket as a means to achieve fair value for Norcraft stockholders. \({ }^{267}\)

Of course, on the other side of the table, Fortune perceived the Merger Price as very favorable (to Fortune). \({ }^{268}\) It was protective of that price and sought to avoid or limit the goshop to preclude a topping bid. \({ }^{269}\) And that is precisely what it did.
*25 Norcraft's Board left the negotiations principally to Buller. Yet Buller was just as (if not more) fixated on extracting commitments from Fortune regarding the TRAs and his future role with the combined company as he was on securing the best price possible for Norcraft. Fortune, for its part, was "stringing Buller along" as it negotiated with him over the Merger Price, leading him to believe he might continue his employment with Fortune post-close. \({ }^{270}\) When Fortune finally informed Buller (after settling on the Merger Price) that he would have no place at Fortune postclose, Fortune secured Buller's continued commitment to the Merger by stringing him along again, this time by dangling the possibility that Fortune would be willing to sell Norcraft Canada to Buller after the closing. \({ }^{271}\)

The Board either did not appreciate Buller's conflict, or chose not to manage it, until Buller announced that he would pursue the acquisition of Norcraft Canada after closing. \({ }^{272}\) By then, Buller had been spurring with Fortune in an attempt to extract every dollar he demanded for the TRAs (diverting consideration from the stockholders) and had pushed hard for post-closing employment with Fortune. Yet
all along, the Board did nothing to manage the conflict -it did not form a special committee of its members to negotiate with Fortune or take any other steps to neutralize Buller's influence. Even its half-hearted effort to recuse Buller from further Board deliberations regarding the Merger following his demonstrated interest in Norcraft Canada proved ineffective. \({ }^{273}\)

Given that the single-bidder pre-signing process led by a conflicted negotiator yielded what at least some within Norcraft deemed unsatisfactory consideration, it was imperative that the Norcraft Board run an effective postsigning go-shop. It did not.

\section*{2. The Post-Sign Go-Shop Provides No Basis to Rely on the Deal Price}

Although it is hardly clear that Norcraft's Board appreciated this fact, the ineffective pre-signing process should have made clear that the post-signing go-shop would offer the only real opportunity for a meaningful market check. \({ }^{274}\) Unfortunately, that process fell far short on many levels, as the following evidence illustrates:
- Prior to the Go-Shop Period, it was not widely known that Norcraft was "up for sale" \({ }^{275}\); thus, potentially interested parties did not know that Norcraft was "in play" before the Merger was announced, putting them several steps behind Fortune in pursuing an acquisition of Norcraft \({ }^{276}\);
- Norcraft's Board appeared to lack even a basic understanding of the terms and function of the goshop \({ }^{277}\);
- Any potential bidder had to value the TRAs-and provide for the satisfaction of Norcraft's payment obligations thereunder-within the Go-Shop Period, a task that Fortune had several months to complete (and struggled to navigate successfully, even with the assistance of expert tax advisors) \({ }^{278}\);
- Fortune had an unlimited match right under the Merger Agreement, which gave Fortune four business days to match a superior proposal by a third-party bidder and two business days to match any subsequent proposal by the same bidder \({ }^{279}\);
*26 - In order to proceed with an alternate transaction, Norcraft had to receive a "Superior Proposal" by the end of the Go-Shop Period, "essentially require[ing] the bidder to get the whole shebang done within the [Go-Shop Period]." \({ }^{280}\) This requirement was made more onerous by the TRAs' interaction with the Merger Agreement's go-shop provisions, allowing "Fortune [to] close its tender offer for the 54 percent [of Norcraft common stock] before Norcraft [could] terminate the merger agreement, because Norcraft [couldn't] terminate on the possibility of a superior proposal. [Rather, Norcraft could] only terminate after [it had] given Fortune four days to match. And the four days [could] go beyond the tender offer expiration.,281
- On April 14, 2015, about two weeks into the thirty-five-day Go-Shop Period, Fortune launched Tahiti's tender offer, \({ }^{282}\) triggering the TSAs and causing 53.6\% of Norcraft's outstanding shares to be committed to supporting the Norcraft-Fortune transaction absent a superior proposal \({ }^{283}\); and
- In a fit of bad judgment, RBC attempted to contact and dissuade possible bidders from topping Fortune's bid during the go-shop. \({ }^{284}\)
*27 Presented with this factual record, I am not persuaded that Norcraft's go-shop process provided a meaningful market check that resulted in a transaction price derived from the "collective views of many sophisticated parties with a real stake in the matter., \({ }^{285}\) Accordingly, I do not accord any weight to the deal price in my fair value calculus. \({ }^{286}\)

\section*{3. Insufficient Evidence to Consider the Efficient Market Hypothesis}

Following our Supreme Court's renewed endorsement of the efficient capital market hypothesis in Dell, I requested that the parties submit supplemental post-trial briefing addressing whether Norcraff's unaffected trading price was probative of Norcraft's fair value on the Merger date. \({ }^{287}\) Because this case was tried before the Supreme Court's decision in Dell, the parties presented limited evidence at trial respecting Norcraft's trading history and the market for its stock. Consequently, the parties had a rather limited record to draw upon when addressing this issue in their supplemental submissions. \({ }^{288}\)

To the extent the trial evidence is informative at all on this issue, it does not support assigning any weight to Norcraft's unaffected trading price for purposes of determining Norcraft's fair value on the Merger date. Norcraft had a limited public trading history given that it had just completed an IPO eighteen months before the Merger. \({ }^{289}\) What trading did occur following the IPO was relatively limited, an unsurprising phenomenon given the niche market in which Norcraft operated. \({ }^{290}\) The analyst coverage of Norcraft's stock was relatively sparse. \({ }^{291}\) Based on this record, I am unable to conclude that the market for Norcraft's common stock was efficient or semi-strong efficient. \({ }^{292}\) Absent that finding, I do not assign any weight to Norcraft's unaffected trading price as an indicator of Norcraft's fair value on the Merger date. \({ }^{293}\)

\section*{B. Norcraft's Fair Value under "Traditional Methods" of Valuation}
*28 Having determined that neither the Merger Price nor Norcraft's unaffected stock price provide a reliable indicator of the Company's fair value, I must now consider the remaining valuation analyses presented by the parties' experts. In this regard, our law is clear that:

In discharging its statutory mandate, the Court of Chancery has the discretion to select one of the parties' valuation models as its general framework or to fashion its own. The Court of Chancery's role as an independent appraiser does not necessitate a judicial determination that is completely separate and apart from the valuations performed by the parties' expert witnesses who testify at trial. It must, however, carefully consider whether the evidence supports the valuation conclusions advanced by the parties' respective experts. \({ }^{294}\)
I have followed this guidance as I have worked through the experts' competing analyses here.

\section*{1. Comparable Companies and Precedent Transaction Analyses Are Not Reliable}

As previously mentioned, both experts performed a comparable company analysis. Austin Smith also performed a precedent transaction analysis. "The utility of a comparable company [or precedent transaction] approach is dependent on the similarity between the company the court is valuing and the companies [or precedent transactions] used for
comparison." \({ }^{295}\) When there are no sufficiently comparable companies or precedent transactions, such analyses are unavailing in the search for fair value. \({ }^{296}\)

After carefully reviewing the evidence, I see no factual basis to rely on a precedent transaction or comparable company analysis as an indicator of Norcraft's fair value as of the Merger date. The parties agree that there had not been an acquisition of any publicly-traded, "dealer channel" cabinet manufacturer-or a satisfactorily comparable business \({ }^{297}\) in any temporal proximity to the Merger. \({ }^{298}\) Nor were the parties (or their experts) able to identify any truly comparable companies that could support a reliable comparable company analysis. \({ }^{299}\) It is, therefore, unsurprising that neither expert relied on market-based approaches (comparable company or precedent transaction analyses) as the principal metric by which to value Norcraft. \({ }^{300}\) Instead, they offered these valuations to corroborate the results they reached utilizing their preferred valuation methodologies. \({ }^{301}\) Because I disagree that market-based valuation metrics provide any guidance here, I do not consider those metrics further.

\section*{2. The DCF Analysis}
*29 "[A] DCF analysis can provide the court with a helpful data point about the price a sale process would have produced had there been a robust sale process involving willing buyers with thorough information and the time to make a bid.,"302

The basic premise underlying the DCF methodology is that the value of a company is equal to the value of its projected future cash flows, discounted to the present value at the opportunity cost of capital. Calculating a DCF involves three steps: (1) one estimates the values of future cash flows for a discrete period, where possible, based on contemporaneous management projections; (2) the value of the entity attributable to cash flows expected after the end of the discrete period must be estimated to produce a so-called terminal value, preferably using a perpetual growth model; and (3) the value of the cash flows for the discrete period and the terminal value must be discounted back using the capital asset pricing model or "CAPM." In simpler terms, the DCF method involves three basic components: (1) cash flow projections; (2) a discount rate; and (3) a terminal value. \({ }^{303}\)

\section*{a. The Disputed Inputs}

As is typically the case, the substantial delta between the experts' DCF valuations can be traced to their disagreements regarding the DCF inputs. Their most significant disagreements are: (1) whether to extend the Base Case projections by an additional five years; and (2) how to calculate Norcraft's beta in connection with estimating Norcraft's WACC. On the latter point, the experts disagree regarding (i) the selection of appropriate guideline public companies ("GPCs") for a proxy beta calculation and whether net debt or gross debt should be used to unlever the GPC betas and relever the resulting proxy beta \({ }^{304}\); and (ii) whether Norcraft's observed capital structure or a target capital structure should be used to relever the concluded beta when calculating Norcraft's cost of equity. \({ }^{305}\) The experts generally agree on the remaining DCF inputs.

\section*{i. Management Projections}
"The most important input necessary for performing a proper DCF is a projection of the subject company's cash flows. Without a reliable estimate of cash flows, a DCF analysis is simply a guess." \({ }^{" 306}\) While Norcraft's management (Buller and Ginter) prepared several sets of projections, the experts agree that the most reliable projections are the Base Case projections-and both experts relied on those projections in their primary DCF analyses. \({ }^{307}\)
*30 The record reflects that Norcraft management did not prepare long-term projections in the ordinary course of Norcraft's business. \({ }^{308}\) Nevertheless, Buller and Ginter knew how to prepare long-term projections and they approached the Base Case projections with a view to providing the Board with a reliable estimate of Norcraft's future financial performance. \({ }^{309}\) When all was said and done, Buller and Ginter were confident they had prepared a set of realistic, reasonable projections upon which Citi and the Board could rely in assessing Norcraft's value during the course of negotiations. \({ }^{310}\) While not perfect, I am satisfied that the Base Case projections provide a reliable foundation for a valid DCF. \({ }^{311}\)

The experts' dispute regarding the Base Case projections does not turn on their reliability (or lack thereof), but rather on
whether the projections should be extended by an additional five years. Clarke opined that the extension was necessary, while Austin Smith opined that a PGR should be applied at the end of the five-year Base Case projection period.

According to Clarke, extending the Base Case projections is necessary to capture Norcraft's future cash flows because "the Base Case [p]rojections had not reached [a] steady state at the end of the [five-year] projection period" and, therefore, "it would be inappropriate to apply a standard [PGR] at th[e] last year [of that period]."312 To account for Norcraft's growth potential as of 2019, Clarke extended the Base Case projections by an additional five years-through 2024-"to gradually reduce growth rates over time until reaching [a 3.5\%] PGR." \({ }^{313}\)
*31 Austin Smith, on the other hand, maintains that extending the Base Case projections is inappropriate because doing so forecasts growth that Norcraft almost certainly could not achieve. In this regard, she points out that the cabinetry industry is cyclical, as demonstrated by trends in (1) the industry's historical performance (growth and decline); and (2) the historical growth (and decline) of the residential construction market. \({ }^{314}\) Extending the Base Case projections by an additional five years implies a ten-year period of consistent growth following two years of already achieved growth. According to Austin Smith, projecting twelve years of steady growth for a business in the cabinetry industry is patently unreasonable. \({ }^{315}\)

On this point, I find Austin Smith most credible. The evidence adduced at trial supports her view that the cabinetry industry is cyclical and follows the cycle of the residential construction market. \({ }^{316}\) The evidentiary record also reflects that the residential construction market is projected to reach a "steady state" at or slightly before the last year of the Base Case projection period (2019). \({ }^{317}\) Moreover, insofar as Norcraft's own management was not inclined to project Norcraft's financial results beyond FY2019, I see no basis to do so post hoc for the sake of reaching a litigation result.

\section*{ii. Norcraft's Estimated WACC}
*32 The parties also dispute how to calculate the applicable discount rate based on Norcraft's estimated WACC. More specifically, they dispute how to calculate Norcraft's beta in
connection with estimating Norcraft's cost of equity capital (a key component of WACC).

The application of a discount rate to financial projections attempts to "convert the [subject company's] expected economic income stream to present value., \({ }^{318}\) Where the discount rate is based on the subject company's WACC, the projected future cash flows and terminal value are discounted by the WACC to bring them back to present value. \({ }^{319} \mathrm{~A}\) company's WACC represents the cost (to the company) of financing its business operations; it comprises the weighted average of the company's cost of debt and equity \({ }^{320}\) :
\[
\mathbf{W A C C}=\left(r_{\text {equity }} \times \frac{E}{V}\right)+\left(r_{\text {debt }} \times \frac{D}{V} \times(1-t)\right)
\]
\[
\begin{array}{ll}
\text { where: } & \\
\begin{aligned}
r_{\text {equity }} & =\text { cost of equity capital } \\
E & =\text { market value of the company's equity } \\
r_{d e b t} & =\text { cost of debt capital } \\
D & =\text { value of the company's debt } \\
V=E+D & =\text { total value of the company's equity and debt } \\
t & =\text { applicable tax rate }
\end{aligned} .
\end{array}
\]

Here, both experts calculated Norcraft's cost of equity capital pursuant to CAPM. \({ }^{321}\) Following CAPM, a company's cost of equity is calculated as follows \({ }^{322}\) :
\[
r_{\text {equity }}=r_{n o-r i s k}+(\beta \times E R P)+S S
\]
where:
\[
\begin{array}{ll}
r_{\text {no-risk }} & =\text { risk-free rate of return } \\
\beta & =\text { beta coefficient of the subject company } \\
E R P & =\text { equity risk premium } \\
S S & =\text { size premium }
\end{array}
\]

The experts generally agree on many of the relevant inputs to calculate Norcraft's WACC; both experts used the same riskfree rate of return ( \(2.75 \%\) ), equity risk premium ( \(6.21 \%\) ) and size premium \((2.69 \%) .{ }^{323}\) The experts differed, however, in their respective estimates of Norcraft's pre-tax cost of debt. Clarke estimated Norcraft's pre-tax cost of debt as \(6.95 \%\) based on "the average of the 15-year yield-to-maturity of B and BB rated bonds" as of the Merger date. \({ }^{324}\) Austin Smith, by contrast, estimated Norcraft's pre-tax cost of debt as \(5.85 \%\) -based on the "[a]verage of (a) BofA Merrill Lynch US High Yield B Effective Yield as of 5/12/15 [the Merger date] and (b) total return on Norcraft['s] [then-outstanding] term loan (including [the] effect of issuance discount)."325

The experts' respective estimates of Norcraft's pre-tax cost of debt are both reasonable. As of the Merger date, Norcraft's long-term debt was rated "B2" by Moody's Global Credit Research and "B+" by Standard \& Poor's, and the yield to maturity on high-yield U.S. corporate bonds with \(10+\) year maturity on that date was approximately \(6.34 \%\). \({ }^{326}\) Accordingly, I use the average of the experts' respective estimates of Norcraft's pre-tax cost of debt ( \(6.40 \%\) ) for my DCF analysis. \({ }^{327}\)
*33 As to the estimation of Norcraft's cost of equity, the experts' principal point of disagreement concerns Norcraft's beta coefficient. "Beta is a measure of the systematic risk of a stock; the tendency of a stock's price to correlate with changes in the market.... [B]etas for equity capital are used as a modifier to the equity risk premium [ ] in the context of [calculating a company's cost of equity].,328

A company's beta is measured by tracking relative change in the trading price of its stock over a discrete time period (the "lookback period"), with a set frequency (e.g., daily, weekly, monthly). \({ }^{329}\) When there is insufficient data on the trading history of a company's stock, the company's "beta must be an estimate based on the [observed] betas of comparable, publicly traded companies" (i.e., a "proxy beta"). \({ }^{330}\) Observed betas are levered betas; they reflect a company's operating risk and its financial risk. \({ }^{331}\) Thus, when calculating a proxy beta, one must "unlever" each GPC's observed (levered) beta to remove the debt-related risk(s) of that particular GPC. \({ }^{332}\) Once the GPC betas are unlevered, and the mean or median of those betas is calculated, the unlevered summary measure beta (i.e., the unlevered proxy beta) must be relevered to add back financial risk. \({ }^{333}\) The relevant financial risk, however, is the subject company's not the GPCs'. \({ }^{3} 34\)

The experts generally agree that there is insufficient information regarding Norcraft's own beta to allow a reliable beta calculation based solely on that information-a function of Norcraft's limited trading history. \({ }^{335}\) Accordingly, they agree that the use of a proxy beta is appropriate. They disagree, however, as to (1) which GPCs should be used to derive the proxy beta; (2) whether gross debt or net debt should be used to unlever the GPC betas and relever the resulting unlevered proxy beta; and (3) whether Norcraft's observed capital structure or a target capital structure should be used to relever the proxy beta.

I begin with the first point of disagreement-appropriate GPCs. Clarke used four GPCs for his proxy beta calculation —American Woodmark, Masonite, PGT and Ply Gem \({ }^{336}\) _ which he selected by applying a set of comparability-related screening criteria. \({ }^{337}\) After selecting these four GPCs, Clarke then calculated each GPC's beta over a two-year lookback period (measured weekly) and a one-year lookback period (measured daily) -both periods relative to the Merger dateand unlevered each observed GPC beta using the gross debt of the corresponding GPC. \({ }^{338}\) This led Clarke to derive an (unlevered) proxy beta for Norcraft of 0.80 based on the mean and median of the unlevered GPC betas. \({ }^{339}\)
*34 Austin Smith, by contrast, identified sixteen GPCs for her proxy beta calculation; the four companies selected by Clarke and twelve additional companies, including Fortune and Masco. \({ }^{340}\) Having selected these sixteen GPCs, Austin Smith derived a proxy beta for Norcraft based on the median of the unlevered GPC betas, measured weekly over a two-year lookback period-relative to the Merger date-and unlevered using each GPC's net debt. \({ }^{341}\) This resulted in an unlevered proxy beta for Norcraft of 1.02. \({ }^{342}\)

Each expert disputes the suitability of the other's selected GPCs. According to Clarke, Austin Smith's selected GPCs "were either not comparable [to Norcraft] and/or were going through significant restructuring events that impacted their historical betas." \({ }^{\text {" }} 43\) Austin Smith, for her part, maintains that Clarke's methodology for selecting GPCs is "fundamental[ly]" flawed, principally because: (i) it "results in the exclusion of two of the three publicly-traded cabinet manufacturers: Fortune ... and Masco"; and (ii) it yields a relatively small set of companies, all but one of which manufacture products other than cabinets-meaning they are less comparable to Norcraft than Fortune and Masco. \({ }^{344}\)

Both experts present valid arguments. After considering the evidentiary record, I have determined to derive a proxy beta for Norcraft based on the weekly observed betas of Fortune, Masco, American Woodmark, Masonite, PGT and Ply Gem, measured over a two-year lookback period (relative to the Merger date). I acknowledge the size difference between Norcraft, on one hand, and Fortune and Masco, on the other, but there are few publicly-traded, "dealer channel" cabinet manufacturing businesses operating in the United States from which to draw. \({ }^{345}\) To account for this
dynamic, I have selected a set of GPCs that includes publicly-traded companies directly competing with Norcraft (Fortune, Masco and American Woodmark), and also public companies operating in the same general industry that are more comparable in size to Norcraft (Masonite, PGT and Ply Gem). \({ }^{346}\) Since neither party has provided me with a principled way to assign different weights to the betas of individual GPCs, I have determined to derive the proxy beta by taking the median of the unlevered GPC betas. \({ }^{347}\)
*35 As to the question whether to use gross or net debt for unlevering and relevering purposes, I have determined that Clarke's approach (gross debt) is most appropriate. I consulted the finance literature cited by both experts with regard to this issue and have come to the conclusion that using gross debt is the more generally accepted approach when applying the Hamada unlevering and relevering formulas (as both experts did), \({ }^{348}\) which utilize "total debt" as an input. \({ }^{349}\) I also find that considering net debt, while it might eliminate some of the drawbacks of the Hamada approach if done properly, \({ }^{350}\) complicates the analysis and adds a significant risk of error to an already abstract process.

In her deposition, Austin Smith explained that using net debt requires "a judgment call" because "public companies don't report excess cash." \({ }^{351}\) In essence, to derive net debt, one "look[s] at how the cash balances for th[e chosen] companies changed over time, and [then] look[s] at the relationship between cash and debt, and come[s] to an assessment., \({ }^{352}\) If insufficient data about excess cash is available, "total cash is assumed to equal excess cash., \({ }^{353}\) Considering the many variables already at play in a DCF analysis (especially when deriving a proxy beta), I find that figures based on a "judgment call" are unreliable in the absence of a principled way to evaluate the soundness of the underlying "judgment." For all these reasons, I have utilized gross debt rather than net debt for unlevering and relevering purposes.

That takes me to the final beta-related dispute: the appropriate capital structure to relever the unlevered proxy beta. Austin Smith submits that a target capital structure based on the capital structure of comparable companies provides the most reliable input, while Clarke advocates the use of Norcraft's actual (observed) capital structure as of the Merger date. Austin Smith explains her choice by noting that Norcraft only went public in 2013 and its management had not indicated as of the Merger that it intended to maintain the Company's
then-existing capital structure. \({ }^{354}\) According to Austin Smith, it is likely that, over time, Norcraft's capital structure would come to resemble that of its peers. \({ }^{355}\) Clarke counters that Norcraft's observed capital structure as of the Merger date was the "operative reality" of the Company at that time and, as such, is the appropriate capital structure to apply when relevering the unlevered proxy beta. \({ }^{356}\)

Clarke has the better of this debate. While there are instances where using a target capital structure for relevering purposes would be appropriate, \({ }^{357}\) especially where the target's capital structure is in flux, that is not the case here. It is true that, as of the Merger, Norcraft had operated for only eighteen months after its IPO. There is no evidence, however, that management intended to change Norcraft's capital structure,
\begin{tabular}{lllll} 
FY2015-E (Stub) & FY2016-E & FY2017-E & FY2018-E & FY2019-E \\
\hline\(\$ 18.3\) million & \(\$ 31.8\) million & \(\$ 36.0\) million & \(\$ 41.9\) million & \(\$ 50.3\) million
\end{tabular}
\begin{tabular}{lllll} 
FY2015-E (Stub) & FY2016-E & FY2017-E & FY2018-E & FY2019-E \\
\hline\(\$ 20.8\) million & \(\$ 36.73\) million & \(\$ 40.06\) million & \(\$ 44.36\) million & \(\$ 49.84\) million
\end{tabular}

I next adjust the NOPAT figures to obtain unlevered free cash flow figures for each projected year by (1) adding back non-cash charges-depreciation, amortization and stock compensation expense; (2) deducting Norcraft's capital expenditures; and (3) deducting year-over-year change in

Norcraft's net working capital ("NWC"). My adjustments with respect to each item track those made by both experts. \({ }^{361}\) The foregoing adjustments yield the following figures for unlevered free cash flow in each of the projected years:
*36 Like Clarke and Austin Smith, I begin my DCF analysis with the Base Case projections, adjusted to deduct for income tax expense in each of the projected years (based on a \(38 \%\) tax rate). This adjustment yields the following figures for Norcraft's net operating profit after taxes ("NOPAT") \({ }^{360}\) :
and any suggestion that it would do so is nothing more than sheer speculation. \({ }^{358}\) Accordingly, I refer to Norcraft's observed capital structure as of the Merger ( \(75 \%\) equity, \(25 \%\) debt) to relever Norcraft's concluded unlevered beta. \({ }^{359}\)

\section*{b. The Court's DCF Valuation of Norcraft}
*37 To calculate the present value of these unlevered cash flows, like Clarke and Austin Smith, I have applied a discount rate based on Norcraft's estimated WACC. My WACC calculation also uses CAPM to estimate Norcraft's cost of equity-based on the parties' common risk-free rate of return ( \(2.75 \%\) ), equity risk premium ( \(6.21 \%\) ) and size premium ( \(2.69 \%\) ) -and uses a \(6.40 \%\) pre-tax cost of debt, which yields a post-tax cost of debt for Norcraft of \(3.97 \%\) (again based on a \(38 \%\) tax rate).
\begin{tabular}{lll} 
Guideline Public Company & Levered Beta & Unlevered Beta \\
\hline American Woodmark & 1.09 & 1.02 \\
\hline Masco & 1.26 & 0.99 \\
\hline Fortune & 1.15 & 1.07 \\
Masonite & 0.55 & 0.47 \\
PGT & 0.88 & 0.78 \\
\hline
\end{tabular}

To derive a beta for my cost of equity calculation, I have unlevered the observed weekly betas of my selected GPCs over a two-year lookback period relative to the Merger date, using the Hamada unlevering formula and gross debt rather than net debt. That computation yielded the following unlevered betas:

\section*{Ply Gem}

The median of the unlevered GPC betas, 0.98 , constitutes Norcraft's concluded unlevered beta. I then relevered that beta using Norcraft's observed capital structure of \(75 \%\) equity and \(25 \%\) debt (per Clarke's estimation), resulting in a levered beta for Norcraft of 1.187. Incorporating this levered beta into my WACC calculation, along with the other inputs already mentioned-again using Norcraft's observed capital structure -I derived a WACC for Norcraft of \(10.60 \%\). Applying Norcraft's concluded WACC to discount its projected future cash flows to present value, I have calculated the present value of those cash flows to be \(\$ 149.7\) million.

To calcul ate Norcraft's terminal value, I have used the Perpetuity Growth method (as did both experts), \({ }^{362}\) which posits that terminal value equals the quotient of (1) the subject company's terminal year free cash flow (here, \(\$ 51.41\) million); and (2) the applicable capitalization rate (here, \(7.10 \%)^{363}\)-discounted to present value using the applicable discount rate (here, Norcraft's WACC of \(10.60 \%\) ). \({ }^{364}\) This yields a terminal value of \(\$ 477.2\) million.
*38 Summing together the present value of Norcraft's projected unlevered cash flows ( \(\$ 149.7\) million) and its terminal value ( \(\$ 477.2\) million) results in an operating value for Norcraft of \(\$ 626.9\) million. To calculate Norcraft's total equity value, I then made the following adjustments to Norcraft's concluded operating value:
- adding Norcraft's excess cash as of the Merger date, calculated as \(\$ 62.6\) million \({ }^{365}\);
- adding the value of the TRA-related tax benefits realized by Norcraft in each of the projected years, calculated as \(\$ 4.3\) million \({ }^{366}\); and
- deducting Norcraft's long-term debt as of the Merger date, calculated as \(\$ 147.5\) million. \({ }^{367}\)

\subsection*{0.98}

These adjustments to Norcraft's operating value yield a total equity value for Norcraft of \(\$ 546.3\) million. Dividing Norcraft's total equity value by Norcraft's fully diluted shares outstanding as of the Merger date \((20,880,123),{ }^{368}\) I conclude that Norcraft's equity value per share on that date was \(\$ 26.16\).

\section*{3. The Merger Price as a "Reality Check"}
*39 As explained above, I have determined that the Merger Price is not a reliable indicator of Norcraft's fair value as of the Merger date. That does not mean, however, that the Merger Price is irrelevant for purposes of the Court's fair value determination. To the contrary, it is appropriate to consider the Merger Price as a "reality check" on the Court's DCF valuation of Norcraft. \({ }^{369}\) Insofar as I am obliged to articulate a principled, evidence-based explanation for the delta between the Merger Price and the Court's DCF valuation (here, \(\$ 0.66\) per share), I am satisfied that the process infirmities I have identified resulted in the Board leaving \(\$ 0.66\) per share on the bargaining table. \({ }^{370}\) With that said, I am also satisfied that the delta between the Merger Price and the DCF value is not so great as to cause me to question whether the DCF value is grounded in reality. \({ }^{371}\)

\section*{III. CONCLUSION}

For the foregoing reasons, I have found the fair value of Norcraft shares as of the Merger date (May 12, 2015) was \(\$ 26.16\) per share. The statutory rate of interest, compounded quarterly, shall accrue from the date of closing to the date of payment. The parties should confer and submit an implementing final judgment within ten (10) days.

\section*{All Citations}

Not Reported in Atl. Rptr., 2018 WL 3602940

\section*{Footnotes}

18 Del. C. § 262(h).
2 Merion Capital L.P. v. Lender Processing Servs., Inc., 2016 WL 7324170, at *16 (Del. Ch. Dec. 16, 2016).
3 DFC Global Corp. v. Muirfield Value P'rs, L.P., 172 A.3d 346, 388 (Del. 2017).
4 Dell, Inc. v. Magnetar Global Event Driven Master Fund Ltd, 177 A.3d 1, 22 (Del. 2017); DFC, 172 A.3d at 388 ("What is necessary in any particular [appraisal] case though is for the Court of Chancery to explain its [fair value calculus] in a manner that is grounded in the record before it.").

SeeDell, 177 A.3d at 35; DFC, 172 A.3d at 349, 351, 372; cf.DFC, 172 A.3d at 369 n .118 (explaining that a discounted cash flow analysis is "often used in appraisal proceedings when the respondent company was not public or was not sold in an open market check").
6 C, 111 A.3d at 348 (rejecting the petitioner's (and others') argument that the Court should adopt a presumption in favor of the deal price, stating "[w]e decline to engage in that act of creation, which in our view has no basis in the statutory text"); Dell, 177 A.3d at 21-22 (noting "we doubt[ ] our ability to craft the precise preconditions for invoking such a presumption").

8 SeeHighfield Capital, Ltd. v. AXA Fin., Inc. 939 A.2d 34, 47 (Del. Ch. 2007) (describing DCF as a "traditional valuation methodology").
9 Dell, 177 A.3d at 21 (quoting Golden Telecom, Inc. v. Global GT LP, 11 A.3d 214, 218 (Del. 2010) (emphasis in original) ); see alsoGholl v. eMachines, Inc., 2004 WL 2847865, at *5 (Del. Ch. Nov. 24, 2004) (noting that both parties bear a burden of proof in a statutory appraisal trial and holding that, "[i]f neither party satisfies its burden ... the court must then use its own independent business judgment to determine fair value").
10 JX 267 ("Norcraft FY2014 10-K") at 1, 6; JX 221 ("Merger Agreement"), pmbl. \& § 1.3.
11 JX 267 (Norcraft FY2014 10-K) at 1.
12 Joint Pre-Trial Stipulation and Order ("PTO") \(\boldsymbol{T} \boldsymbol{I T} 2 \mathrm{y}\), 2 ff . I commend the parties, and counsel in particular, for the substantial effort that was undertaken to prepare and submit comprehensive pre-trial factual stipulations.

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PTO Il 2 a .
PTO ITl 2b, 2c; JX 267 (Norcraft FY2014 10-K) at 6-10. For FY2014, "kitchen and bathroom cabinet dealers accounted for [86\%] of Norcraft's net sales, home builders accounted for [9\%], and wholesale retailers, or home centers, accounted for [5\%]." PTO II 2b. "[A]pproximately 58\% of [Norcraft's FY2014] net sales were to the home repair and remodeling market and the remaining net sales were to the new residential construction market." JX 267 (Norcraft FY2014 10-K) at 6 . As of the Merger date, Norcraft, Fortune and Masco Corporation ("Masco") were the only three "dealer channel" cabinet manufacturers in the United States with a market share of over 5\%. See JX 112 (Gabelli \& Co., The Home Improvement Opportunity, published Jan. 29, 2015 ["Gabelli Report"] ) at CITI-00053582. In the cabinetry industry, the "dealer channel" comprises third parties who purchase cabinets from manufacturers (or wholesalers) and sell them to end users. See id.; JX 12 (Baab Dep.) at 36:8-20. In 2014, nearly half of U.S. cabinet sales (representing approximately \(\$ 6\) billion) were made through the dealer channel, which is generally considered the most profitable sales channel in the cabinetry industry. See JX 112 (Gabelli Report) at CITI-00053582, CITI-00053595; JX 1 (Ginter Dep.) at 153:17-154:1; JX 5 (Klein Dep.) at 293:25-294:3.
26 JX 267 (Norcraft FY2014 10-K) at 11.
27 ld.
28 JX 3 (Buller Dep.) at 16:3-24. As of 2003, Norcraft Companies, L.L.C. was the operating entity in Norcraft's organizational structure. JX 400 (Norcraft Amendment No. 5 to Form S-1, filed Oct. 30, 2013 ["Norcraft Amendment 5 to Form S-1"] ) at 19. For purposes of this Memorandum Opinion, I have not distinguished SKM and Trimaran from the SKM and Trimaran funds that owned Norcraft common stock prior to the Merger.
29 JX 27 (Mar. 29, 2004 Norcraft LP Press Release) at 2. Following the 2003 Acquisition, Norcraft LP became the operating entity in Norcraft's organizational structure. JX 400 (Norcraft Amendment 5 to Form S-1) at 19. Buller and his family collectively owned approximately 11\% of Norcraft LP's equity. JX 3 (Buller Dep.) at 18:6-8.
30
TT 21:6-11, 21:20-21 (Eldridge), 96:22-97:7 (Biggart), 607:23-608:1 (Clarke).

31 JX 267 (Norcraft FY2014 10-K).
32 Id.; see also TT 607:23-608:1 (Clarke); JX 14 (Clarke Dep.) at 60 ("I do believe that the home building industry is cyclical and at some point the housing starts would decrease.").
33 JX 23 (Austin Smith Rebuttal Report) at 6.
34 JX 267 (Norcraft FY2014 10-K).
35 JX 20 (Austin Smith Report) at 7.
36 JX 400 (Norcraft Amendment 5 to Form S-1) at 19.
37 JX 20 (Austin Smith Report) at 7.
38 ld.
39 Id. I note that between 2006 and 2013, Norcraft LP's management struggled accurately to project the company's future performance. JX 3 (Buller Dep.) at 183-84.
40 JX 267 (Norcraft FY2014 10-K) at 12; PTO I 2j.
41 JX 267 (Norcraft FY2014 10-K) at 12, 15, 65; PTO I 2d.
42 Norcraft LLC is not to be confused with Norcraft Companies, L.L.C. As noted, Norcraft Companies, L.L.C. was converted into Norcraft LP in connection with the 2003 Acquisition, and it continues to exist as such in the Norcraft enterprise structure. JX 400 (Norcraft Amendment 5 to Form S-1) at 19; JX 267 (Norcraft FY2014 10-K) at 12; PTO 『 2d.
JX 267 (Norcraft FY2014 10-K) at 12.
Id. PTO If 2d. Buller et al.'s LLC units were convertible "at the option of the [unitholders]" into restricted shares of Norcraft common stock "on a one-for-one basis" or into cash (pursuant to a stated conversion formula), with the form of consideration to be determined at Norcraft's option. JX 267 (Norcraft FY2014 10-K) at 72; see also JX 35 (Norcraft Form 424B4, filed Nov. 6, 2013 ["Norcraft IPO Prospectus"] ) at 101-02.
45 JX 35 (Norcraft IPO Prospectus) at 1; PTO IT 2d.
46 JX 35 (Norcraft IPO Prospectus) at 102-03; JX 267 (Norcraft FY2014 10-K) at 73; PTO ๆ 2d.
JX 36 (LLC Unitholder TRA), pmbl.; JX 267 (Norcraft FY2014 10-K) at 79.
JX 36 (LLC Unitholder TRA) §§ 1.1, 3.1 (defining "Realized Tax Benefit" and "Cumulative Net Realized Tax Benefit").
49 Id. §§ 4.1-4.3. The TRAs defined "Change of Control" to include "the acquisition, directly or indirectly, by any [unaffiliated third-party acquiror]... of beneficial ownership ... of more than \(50.1 \%\) of the aggregate voting power" of Norcraft's outstanding voting stock. Id. § 1.1.
PTO IT \(2 k\).
51 PTO ๆ 21.
52 JX 238 (Norcraft Schedule 14D-9, filed Apr. 14, 2015 ["Norcraft Schedule 14D-9"] ) at 10.
53 Transcript of Trial ("TT") at 205:1-10 (Biggart) ("Q. You suspect that Mr. Buller first raised the desire to be employed by Fortune following any merger during a meeting on October 23, 2014. Correct? A. I believe that's when he expressed an interest to [Klein].").
54 JX 13 (Biggart Dep.) at 86:16-87:18 ("Q. Were there any internal discussions within Fortune about hiring [Buller] postmerger? A. Yes, I talked to [Klein] directly a number of times about it. Q. What did he say? A. [Klein] said I don't know that there is a place for him ....").
55 PTO I 21; JX 69 (Fortune's Oct. 23, 2014 Proposal) at FB0049476. Fortune viewed the TRA payments as part of the Merger consideration. See JX 13 (Biggart Dep.) at 34:10-21, 166:10-167:8. Thus, for every dollar spent to satisfy the TRA Beneficiaries, that dollar would not be included in the consideration paid to Norcraft's public stockholders. See JX 249 (Funds Flow Memorandum), Ex. E.
56 JX 238 (Norcraft Schedule 14D-9) at 10.
57 PTO ๆ 2m; JX 238 (Norcraft Schedule 14D-9) at 10.
PTO ๆ 2m; JX 238 (Norcraft Schedule 14D-9) at 10.
TT 12:1-3 (Eldridge). Nathan Eldridge was Citi's lead banker in connection with the Norcraft engagement. Id. at 12:1-15. PTO I 2m; JX 238 (Norcraft Schedule 14D-9) at 10.
61 JX 71(Norcraft Board Minutes, Nov. 8, 2014) at NCFT0165019.
62 Id. at NCFT0165020.
63 JX 1 (Ginter Dep.) at 35-36; see JX 3 (Buller Dep.) at 112-16.
64 JX 1 (Ginter Dep.) at 27-28; JX 3 (Buller Dep.) at 28:21-29:3, 102.
65 JX 1 (Ginter Dep.) at 27:8-12.

67 JX 2 (Tanquist Dep.) at 25-27; JX 3 (Buller Dep.) at 24:8-26:1.
68 JX 1 (Ginter Dep.) at 22:9-12; JX 2 (Tanquist Dep.) at 25:12-24.
69 JX 2 (Tanquist Dep.) at 25:25-26:5.
70 Id. at 26:5-7.
71 JX 1 (Ginter Dep.) at 22:11-14; JX 3 (Buller Dep.) at 24:8-25:1.
72 JX 1 (Ginter Dep.) at 22:15-18; JX 2 (Tanquist Dep.) at 26:8-10; JX 3 (Buller Dep.) at 24:12-18.
73 JX 2 (Tanquist Dep.) at 26:8-10; JX 3 (Buller Dep.) at 24:15-18.
74 JX 1 (Ginter Dep.) at 74-80; JX 99 (Jan. 9, 2015 e-mail from Reilly to other Norcraft Board members, attaching Norcraft management presentation ["Norcraft Jan. 2015 Management Presentation"] ) at NCFT0146344-17. The record also contains a set of three-year projections for Norcraft, apparently created by Ginter prior to October 2014 (the "Ginter 2014 Projections"). Ginter, however, did not recall creating these projections or the purpose for which they were prepared. See JX 1 (Ginter Dep.) at 35:23-36:4, 53:22-54:18.
75 JX 99 ("Norcraft Jan. 2015 Management Presentation") at NCFT0146344-47.
76 Id. The Base Case and Upside Case projections also included free cash flow forecasts. Id. at NCFT0146347. Those free cash flow forecasts, however, did not deduct for income taxes and, therefore, significantly overstated Norcraft's future free cash flows. JX 1 (Giinter Dep.) at 44-45. Accordingly, the tables depicted here do not include the free cash flow component of the Base Case and Upside Case projections.
JX 1 (Ginter Dep.) at 22-23, 75-76, 87-88; JX 3 (Buller Dep.) at 34-36.
JX 1 (Ginter Dep.) at 75-76.
ld.
Id. at 75:23-76:8.
81 Id. at 97:12-13; JX 3 (Buller Dep.) at 115:8-18 ("The [B]ase [C]ase is something that we felt very, very comfortable in doing, and then [in the Upside Case] we showed the upside that if everything, everything went our way, there was a possibility that we could hit the [U]pside [Case].").
JX 71 (Norcraft Board Minutes, Nov. 25, 2014) at NCFT0165023.
Id.; PTO ॥ 20.
JX 71 (Norcraft Board Minutes, Dec. 3, 2014) at NCFT0165024.
Id. at NCFT0165025; JX 95 (Dec. 2, 2014 email from Reilly to other Norcraft Board members attaching Citi presentation deck).
86 JX 95 (Dec. 2, 2014 email from Reilly to other Norcraft Board members attaching Citi presentation deck).
87 JX 71 (Norcraft Board Minutes, Dec. 3, 2014) at NCFT0165025.
88 Id.
89 JX 238 (Norcraft Schedule 14D-9) at 11.
90 ld .
91 PTO 『 2p; JX 97 (Confidentiality Agreement).
92 PTO ॥ 12 q.
93 ld.
94 ld.
95 JX 238 (Norcraft Schedule 14D-9) at 12.
96 JX 13 (Biggart Dep.) at 88:2-3.
97 PTO \(\mathbb{1}\) 2r.
98 Id.; JX 238 (Norcraft Schedule 14D-9) at 12. All parties agreed that Fortune's acquisition, directly or indirectly, of \(100 \%\) of Norcraft's equity would constitute a "Change of Control" within the meaning of the TRAs. JX 36 (LLC Unitholder TRA) § 1.1 (defining "Change of Control"); see PTO § \(2 z\).
99 PTO ॥ 2 r.
100 PTO \(\mathbb{1}\) 2s.
101 ld.
102 JX 238 (Norcraft Schedule 14D-9) at 12.
103 See JX 238 (Norcraft Schedule 14D-9) at 12; JX 71 (Norcraft Board Minutes, Feb. 2, 2015) at NCFT0165026-27.

104 JX 238 (Norcraft Schedule 14D-9) at 12; see JX 71 (Norcraft Board Minutes, Feb. 2, 2015) at NCFT0165026-27; PTO I 2 t . Citi's valuation employed several methodologies, including a DCF and comparable company analysis, and yielded values of \(\$ 16.75\) to \(\$ 27\) per share (based on the Base Case projections). JX 115 (Feb. 2, 2015 email from Citi, attaching Board Discussion Materials) at CITI-00063489.
105 JX 71 (Norcraft Board Minutes, Feb. 2, 2015) at NCFT0165027.
106 ld.
107 JX 238 (Norcraft Schedule 14D-9) at 12.
108 ld.
109 ld.
110 Id.
111 Id.; PTO ๆ \(2 u\).
112 JX 238 (Norcraft Schedule 14D-9) at 12.
113 JX 412 (Feb. 10, 2015 email from Klein to Buller, attaching Fortune's re-revised proposal) at 2.
114 JX 1 (Ginter Dep.) at 231:21-24 ("Q: [Y]ou testified that you thought that Norcraft was undervalued in the transaction [with Fortune], right? A: Yes."); JX 140 (Feb. 20, 2015 email from Reilly to Buller, Maselli and Citi representatives in which Reilly opines that "[Norcraft was] leaving \(\$\) on the table" by moving forward with Fortune's \(\$ 25.50\) per share proposal).
115 JX 412 (Feb. 10, 2015 email from Fortune to Buller attaching letter rejecting counterproposal).
116 JX 413 (email chain Klein to RBC and Fortune deal team describing counterproposal, Feb. 13, 2015) at FB0089263.
117 TT 100:4-17 (Biggart); JX 238 (Norcraft Schedule 14D-9) at 13.
118 JX 185 (Mar. 20, 2015 email from Klein to Fortune director Mackay) ("You are spot on - its [sic] a good price, and there is a risk someone comes along and tries to top the offer."). Indeed, prior to signing the Merger Agreement, Fortune had RBC render a fairness opinion. In that regard, RBC conducted a standalone DCF analysis of Norcraft that valued Norcraft at \(\$ 30.26\) per share. JX 216 (Mar. 29, 2015 RBC presentation slides) at FB0047801. Fortune's management valued Norcraft even higher. Its discounted cash flow and internal rate of return ("IRR") analysis (the "DCF/IRR Analysis") of Norcraft as a standalone entity valued Norcraft at approximately double the Merger Price and estimated a \(16 \%\) annualized IRR before accounting for synergies. JX 191 (slides from Mar. 29, 2015 Fortune board meeting regarding Norcraft acquisition) at FB0076961; JX 301 (Apr. 28, 2015 email between Fortune deal team members, attaching Fortune valuation of Norcraft dated Mar. 19, 2015).
119 JX 238 (Norcraft Schedule 14D-9) at 14; see TT 13-15 (Eldridge); JX 3 (Buller Dep.) at 86:13-20.
120 JX 238 (Norcraft Schedule 14D-9) at 13-14. Norcraft also sought Fortune's confirmation that (1) it would allow enhanced severance for Norcraft's outgoing senior management; and (2) the TRA payment obligations would be satisfied in full at closing. Id. at 14.
121 ld.
122 ld.
123 JX 5 (Klein Dep.) at 164:20-165:4.
124 JX 12 (Baab Dep.) at 99:23-100:4.
125 JX 238 (Norcraft Schedule 14D-9) at 13-14; JX 221 (Merger Agreement) §§ 5.4, 7.3(a)(ii), 8.2. The Merger Agreement defined a "superior proposal" as "a bona fide written Competing Proposal (with all percentages in the definition of Competing Proposal increased to fifty percent (50\%) ) that did not arise out of a breach of Section 5.4 made by a Third Party on terms that the board of directors of the Company determines in good faith, after consultation with the Company's financial and legal advisors, and considering all factors as the board of directors of the Company (in consultation with its financial and legal advisors) considers to be appropriate (including financing risk, regulatory approval risk, the conditionality, timing and likelihood of consummation of such proposal and the experience and reputation of the proposed buyer) to be more favorable to the stockholders of the Company from a financial point of view than the Offer and the other Transactions (after giving effect to all adjustments to the terms thereof which may be offered by [Fortune] in writing, including pursuant to Section 5.4(g) )." JX 221 (Merger Agreement) § 8.2 (defining "Superior Proposal").
126 JX 221 (Merger Agreement) \(\S 5.4(\mathrm{c})\), ( g ). Under the Merger Agreement, Fortune had four business days to match a superior proposal by a third-party bidder and two business days to match any subsequent proposal by the same bidder. \(1 \mathrm{l} . \S 5.4(\mathrm{~g})\).
127 ld., pmbl. \& § 1.1
128 JX 238 (Norcraft Schedule 14D-9) at 14; PTO ๆ \(2 w\).
129 JX 238 (Norcraft Schedule 14D-9) at 15.

130 JX 163 (e-mail chain between Klein and RBC, Mar. 11, 2015) (Klein: "At one point [Buller] said in a hopeful way - 'Do you want to hire me to run your whole cabinet business?' I gently said no .... "); JX 13 (Biggart Dep.) at 86:16-87:11 (explaining that Buller "was hoping that [Fortune would] hire him").
131 JX 163 (e-mail chain between Klein and RBC, Mar. 11, 2015); TT 205:7-14 (Biggart) (On March 6, 2015, Fortune "definitively told [Buller] he didn't have the job."); see also id. 83:1-3 (Biggart).
132 TT 205:19 (Biggart); see JX 163 (e-mail chain between Klein and RBC, Mar. 11, 2015) (Klein: "From that point forward [Buller] was rather short with me .... So I need some help here - in a very careful way, so as not to turn this into WWIII. [Buller] and his ego need to [be] managed."); TT 127:11-17 (Biggart) ("Buller, at this point, is not supporting the transaction, and [Fortune was] getting the sense that he's not going to sign the merger agreement. And I'm concerned.").
133 JX 13 (Biggart Dep.) at 95:12-17 ("Q. Was it your understanding that Mr. Buller first raised his desire to purchase Norcraft Canada ... after he was told there's no place for you post-closing? A. I believe so, that was the first I heard about it."); JX 168 (e-mail chain between Klein and Fortune deal team, Mar. 14, 2015) (Klein: "So, I spoke to [Buller] this morning, and he would like to buy Urban Effects."); JX 11 (Reilly Dep.) at 156:3-9.
134 JX 71 (Norcraft Board Minutes Mar. 19, 2015) at NCFT0165034-35. According to Buller, since he never engaged in preclose negotiations with Fortune to acquire Norcraft Canada, he did not recuse himself from Norcraft-Fortune negotiations. JX 3 (Buller Dep.) at 235:12-240:20. In contrast, Reilly testified that Buller did recuse himself from certain Norcraft Board meetings. JX 11 (Reilly Dep.) at 158:11-24. Remarkably, the Norcraft Canada conflict was the first Buller conflict that seemed to percolate up to the Board's attention. As discussed below, the Board apparently was content to have Buller negotiate TRA payments and Merger consideration at the same time (even though the TRA payments were to be made only to select TRA Beneficiaries who were competing with Norcraft stockholders for consideration), and also content to have Buller negotiate for his own post-Merger employment with Fortune while simultaneously taking the lead for Norcraft in Merger negotiations. See JX 13 (Biggart Dep.) at 89:7-11; JX 5 (Klein Dep.) at 139:3-140:14.
135 See JX 13 (Biggart Dep.) at 97-100; id. at 121:4-10 ("[Q.] As of Thursday, March 19th, was [it] your understanding that Mr. Buller was insisting on some understanding pre-signing with respect to the sale to him of the Canada business? A. That's my understanding. I believe [Buller] continued this up right until we signed the [Merger Agreement]."); TT 125:3-21 (Biggart) (explaining that Buller was upset because Fortune would not commit to sell him Norcraft Canada).
136 See JX 168 (e-mail chain between Klein and Fortune deal team, Mar. 14, 2015) (Klein: "I told [Buller that his proposed acquisition of Urban Effects] would likely be a subsequent transaction - a week later or something like that, post close."); JX 195 (e-mail chain between Klein and Fortune deal team, Mar. 25, 2015) (Klein: "[Eldridge] said I need to call [Buller] and calm him down and make him feel good"); TT 114-15 (Biggart) (explaining that Fortune did not feel comfortable negotiating a Norcraft Canada transaction with Buller pre-closing).
137 JX 195 (e-mail chain between Klein and Fortune deal team, Mar. 25, 2015) (Klein: "[Eldridge] said I need to call [Buller] and calm him down and make him feel good.").
138 JX 197 (e-mail chain between Buller and Reilly, Mar. 26, 2015).
139 JX 202 (e-mail from Buller to PwC, Mar. 27, 2015).
140 JX 198 (e-mail chain between Norcraft and Fortune deal teams, Mar. 26, 2015) at NCFT0168392; TT 126:6-16 (Biggart) ("I got Chris Klein to agree ... that [Fortune] would waive [Buller's] noncompete in Canada, as a showing of good faith to ... Buller that we were serious when we say we're going to ... have a negotiation after the closing.... ").
141 JX 219 (Amendment to Buller's Employment Agreement).
142 JX 204 (e-mail from Reilly to Maselli, Mar. 27, 2015).
143 TT 123-26 (Biggart) (explaining the TRA-related difficulties); id. at 126:2-5 (Biggart) ("I called [Ropes \& Gray] and said ... [w]e better do something quick or this whole deal is going to fall apart.").
144 TT 123-24 (Biggart).
145 JX 13 (Biggart Dep.) at 168:2-3; JX 198 (e-mail chain between Norcraft and Fortune deal teams, Mar. 26, 2015); JX 207 (e-mail from Klein to Fortune deal team, Mar. 27, 2015); TT 126:8 (Biggart) ("FFortune was] willing to pay 2 out of the \(\$ 3\) million.").
146 JX 207 (e-mail from Klein to Fortune deal team, Mar. 27, 2015) (Klein: "We[ ] heard through [Buller's] personal lawyer that he rejects our offer of 2 of 3 million [of the] disputed TRA amount, needs all 3.... I've been very reasonable here in all of this, but really cannot go any farther. I do not wish to call [Buller] and go through all of this again with him - it could do more harm than good.") (formatting altered); TT 128:12-23 (Biggart) ("Q. What was [Buller's] response to that proposal? A. He said no. And he said, I want... everything that my accountant says I'm entitled to. He said, [my accountant] has calculated my TRA payment at 19.7 [million], I want 19.7.").
147 JX 207 (e-mail from Klein to Fortune deal team, Mar. 27, 2015).

148 JX 212 (Mar. 27, 2015 e-mail from Buller to Maselli, Reilly et al., thanking Maselli and Reilly for agreeing that Trimaran and SKM, respectively, would transfer the \(\$ 1\) million sum to the Norcraft LLC unitholders); TT 129:6-24 (Biggart).
149 JX 238 (Norcraft Schedule 14D-9) at 16-17.
150 PTO II 2y; JX 238 (Norcraft Schedule 14D-9) at 17.
151 PTO \| \(2 z\). Under the TRA termination agreements, the Norcraft LLC unitholders would receive approximately \(\$ 19.7\) million, SKM would receive approximately \(\$ 15.9\) million and Trimaran would receive approximately \(\$ 7.9\) million. Id.
152 PTO ๆ 2 bb .
153 JX 229 (Buller Tender and Support Agreement ["Buller TSA"] ) § 3; JX 230 (SKM Tender and Support Agreement ["SKM TSA"] ) § 3; JX 231 (Trimaran Tender and Support Agreement ["Trimaran TSA"] ) § 3. Fortune initiated Tahiti's tender offer on April 14, 2015, PTO II 2ee, and the offer's initial expiration date was May 11, 2015. JX 239 (Norcraft Schedule TO, filed Apr. 14, 2015, attaching Tahiti's tender offer) at 9.
154 JX 229 (Buller TSA) § 3(b); JX 230 (SKM TSA) § 3(b); JX 231 (Trimaran TSA) § 3(b).
155 PTO 『 2cc.
156 TT 45:14-46:8 (Eldridge); JX 8 (Eldridge Dep.) at 49:8-12, 89:17-90:22.
157 JX 3 (Buller Dep.) at 199-200; JX 9 (Maselli Dep.) at 76:5-16; JX 11 (Reilly Dep.) at 122-29.
158 JX 12 (Baab Dep.) at 100-02; see also JX 149 (Feb. 27, 2015 email from Klein to Fortune deal team outlining Fortune's conditions for the go-shop, explaining their intended effect of avoiding an auction); JX 232 (e-mail chain between RBC, Klein and other members of Fortune's deal team, Apr. 7, 2015, explaining RBC should emphasize to other potential buyers that Fortune has matching rights).
159 TT 26:22-27:1 (Eldridge). Citi's contact list was developed with input from Buller and Reilly, who "suggested [certain] companies to put on the list, including companies that had reached out to [Norcraft] historically." TT 27:7-12 (Eldridge).
160 TT 27 (Eldridge); JX 243 ("Buyers Log" dated May 4, 2015, prepared by Citi ["Citi Go-Shop Log"] ). The six private equity firms were The Carlyle Group ("Carlyle"), TPG Capital, Wind Point Partners, Olympus Partners, American Industrial Partners and another unidentified private equity firm. TT 27 (Eldridge); JX 243 (Citi Go-Shop Log).
161 JX 240 ("Go-Shop Process Update" dated Apr. 20, 2015, prepared by Citi); TT 157 (Biggart).
162 PTO I 2cc.
163 JX 243 (Citi Go-Shop Log) at 5 ("no interest in going head-to-head with Fortune on this"), 7 ("Fortune is a logical buyer here, so hard for us to compete"), 8 ("[n]ot that interested in competing against Fortune"), 10 ("[c]an't compete with Fortune"), 11 ("[c]an't compete with Fortune").
164 Id. at 6, 14 ("[v]alue too high").
165 Id. at 15; seeid. at 2 ("investment is too big [ ] to consider in a short period"); TT 46:9-19 (Eldridge) ("Q. And, sir, you testified at your deposition that there were go-shop participants in this process who indicated that they would like to have more time. Correct? A. Yes. Q. And what parties were those? A. I don't recall specifically. I recall it being a general comment from a couple of people that we spoke with. They may not have been people that signed NDAs. It was just a general comment from various people that we contacted.").
166 JX 233 (e-mail chain between Klein, RBC and other members of Fortune's deal team, Apr. 7, 2015) at FB0089016.
167 ld.
168 Id.
169 ld.
170 ld.
171 TT 144:3-4 (Biggart).
172 TT 144:5-6 (Biggart).
173 TT 144:16-18 (Biggart).
174 JX 5 (Klein Dep.) at 275:6-276:14.
175 JX 221 (Merger Agreement), pmbl. \& § 1.1; PTO \(\mathbb{1}\) I 2cc, 2ee.
176 PTO ॥ 2cc.
177 JX 250 (May 12, 2015 Fortune press release); PTO II 2 ff .
178 TT 455-56 (Clarke); TT 698 (Austin Smith).
179 YT 455-56 (Clarke); TT 698 (Austin Smith). By any measure, both experts are well qualified. See JX 18 (Report of David G. Clarke, ASA ["Clarke Report"]) at 8 (describing qualifications); JX 20 (Austin Smith Report) at 3 (describing qualifications). And both did what they were engaged to do here - advocate their side's position on fair value - quite effectively. It is
accepted in Delaware appraisal litigation that paid valuation experts have assumed more of an advocacy role, and less of a traditional expert witness role (as illustrated by the wide deltas we regularly see in their valuation conclusions). SeeDell, 177 A.3d at 24 ("the price produced by an efficient market is generally a more reliable assessment of fair value than the view of a single analyst, especially an expert witness who caters her valuation to the litigation imperatives of a well-heeled client"); Global GT LP v. Golden Telecom, 993 A.2d 497, 498-99 (Del. Ch. 2010) ("Both these men of valuation science purported to apply the same primary method of valuation-the discounted cash flow ('DCF') method-but the expert for the petitioners came up with a value of \(\$ 139\) per share and the expert for Golden came up with a value of only \(\$ 88\) per share-a modest \(\$ 51\) per share value gap." (emphasis supplied) ). Despite the repeated expressions of frustration by our courts, the practice continues. When a rushing river flows against a resisting rock, eventually the river wins out. Perhaps that is the hope among appraisal advocates and the valuation experts they engage to sponsor their positions.
180 TT 243-14 (Subramanian). Subramanian is "the H. Douglas Weaver Professor of Business Law at the Harvard Business School (HBS) and the Joseph Flom Professor of Law and Business at the Harvard Law School (HLS)." JX 19 (Expert Report of Guhan Subramanian ["Subramanian Report"] ) at 2; see id. (describing qualifications).
181 JX 18 (Clarke Report) at 17 (quoting JX 19 (Subramanian Report) at 25) (internal quotation marks omitted). Clarke did not offer any independent analysis as to why the Merger Price is not a reliable indicator of Norcraft's fair value as of the Merger date; instead, he adopted in full Subramanian's conclusion on that point. See JX 18 (Clarke Report) at 6, 17. Seeid. at 2.
183 Id.
184 Id. at 2-3. The extension of the projections, according to Clarke, was required to reduce Norcraft's growth rates gradually to a "steady state." In this regard, Clarke notes that "if [he] had to use 2019 as the final year of [his] projections, [he] would then need to use a higher [PGR of \(4.4 \%\) ] to account for the tapering of [Norcraft's] growth to a steady state." JX 21 (Rebuttal Report of David G. Clarke, ASA ["Clarke Rebuttal Report"]) at 27 n. 62.
185 JX 18 (Clarke Report) at 24; JX 1 (Ginter Dep.) at 44-45.
186 JX 18 (Clarke Report) at 3, 42. To derive Norcraft's WACC, Clarke first "calculated [1] Norcraft's cost of equity based on the capital asset pricing model ('CAPM') and [2] Norcraft's long-term[,] [after-tax] cost of debt." Id. at 3, 33. Clarke next multiplied (1) Norcraft's estimated cost of equity (11.4\%) by the proportion of equity in Norcraft's capital structure (approximately \(75 \%\) ), as measured by Norcraft's (undiluted) market capitalization immediately before the Merger's announcement ( \(\$ 396\) million); and (2) Norcraft's estimated after-tax cost of debt \((4.31 \%\) ) by the proportion of debt in Norcraft's capital structure (approximately \(25 \%\) ), as measured by the book value of Norcraft's long-term debt on March 29, 2015 ( \(\$ 147.5\) million). Id. at 33,42 \& sched. 5-B. Finally, Clarke summed the product of each calculation to obtain a WACC of \(9.6 \%\). Id. at 33.
187 Id., sched. 2-A (DCF analysis).
188 Id., sched. 2-A (DCF analysis). Terminal year free cash flow is the future value implied by (1) the subject company's projected revenue and expense items in the final year of the discrete projection period; and (2) the subject company's estimated PGR. See id. Clarke calculated Norcraft's capitalization rate as the positive difference of Norcraft's estimated WACC (9.6\%) and estimated PGR (3.5\%). Id. at 43. Id., sched. 2-A (DCF analysis).
190 ld.
191 Id. Operating value, as stated here, represents the present value of Norcraft's future unlevered free cash flows. Id. A DCF analysis, however, attempts to derive the value of the subject company's equity. Id. at 45 . Thus, adjustments to the operating value are generally necessary to add in equity in the form of excess cash (or cash equivalents) and to remove debt. Id. at 45-47. Clarke based his excess cash and "cash from option exercise" estimates on the information disclosed in the Base Case projections and Norcraft's Form 10-Q for Q1 FY2015. Id. at 45. He based his estimation of the TRArelated tax benefits on the "[l.R.C. §] 743(b) and [net operating loss] utilization" projections included in Citi's March 28, 2015 presentation to the Norcraft Board. Id. at 46.
192 ld. at 48.
193 Id. Clarke calculated Norcraft's "fully diluted shares outstanding" as the sum of (1) the total number of Norcraft shares and stock options outstanding as of the Merger date; and (2) the total number of convertible Norcraft LLC units (convertible into Norcraft stock) outstanding on that date. Id.
194 ld. at 2-4.
195 Id. at 51.
196 ld. at 4.

Id. at 2.
JX 20 (Austin Smith Report) at 29 (emphasis in original). Austin Smith based her \(\$ 3.60\) per share "synergies" figure on "the presentations of Citi and the work done by RBC." TT 704:24-705:1 (Austin Smith).
JX 20 (Austin Smith Report) at 1. ld.

201 Id. at 20-21, 23 \& Ex. 6 (DCF Analysis). Austin Smith performed two additional DCF analyses, one relying on the Ginter 2014 Projections, which valued Norcraft at \(\$ 15.59\) per share, and another relying on a Capitalization of Cash Flow methodology, which valued Norcraft at \(\$ 12.65\) per share. Id. at 23-24.
202 ld. at 23 \& Ex. 6 (DCF Analysis).
203 ld. at 20 .
Id., Ex. 6 (DCF Analysis). To derive Norcraft's WACC, Austin Smith first calculated (1) Norcraft's cost of equity based on CAPM and (2) Norcraft's after-tax cost of debt (using a \(37.69 \%\) tax rate). Id., Ex. 5 (Calculation of WACC). She next multiplied (1) Norcraft's estimated cost of equity ( \(12.4 \%\) ) by a target proportion of equity in Norcraft's capital structure ( \(86 \%\) ), based on the capital structure of selected comparable companies; and (2) Norcraft's estimated after-tax cost of debt (3.6\%) by a target proportion of debt in Norcraft's capital structure (14\%), again based on a "comparable capital structure" approach. Id., Exs. 4 (Calculation of Beta) and 5 (Calculation of WACC). Finally, Austin Smith summed the product of each calculation to obtain a WACC of \(11.2 \%\). Id., Ex. 5 (Calculation of WACC).
205 See id., Ex. 5 (Calculation of WACC). This is the same approach Clarke followed to determine terminal value (with different inputs). JX 18 (Clarke Report), sched. 2-A (DCF analysis). JX 20 (Austin Smith Report), Ex. 6 (DCF Analysis).
207 ld.
208 JX 537 (native Excel version of Austin Smith's DCF model). Austin Smith calculated Norcraft's excess cash on the Merger date based on the "Cash from Norcraft" figure in the "Funds Flow Memorandum" prepared in connection with the Merger ( \(\$ 54,396,335.01\) ), JX 249 at 2 , less a \(\$ 20\) million cash balance (cash for operations, per the Base Case projections) plus the product of (1) Norcraft's total options outstanding as of the Merger date \((1,142,383)\) and (2) the weighted average exercise price of those options (\$16.01). JX 20 (Austin Smith Report), Ex. 6 (DCF Analysis) (drawing option-related information from Norcraft's Q1 FY 2015 10-Q, JX 248 at 14).
209 JX 20 (Austin Smith Report), Ex. 6 (DCF Analysis).
210 ld.
211 Id. Austin Smith calculated Norcraft's fully diluted shares outstanding as 20,869,976. JX 20 (Austin Smith Report) at \(13 \& n .25\). It is unclear how Austin Smith derived this figure, and the figure conflicts with the information set forth in Norcraft's Form 10-a for Q1 FY2015 and the "Funds Flow Memorandum" prepared in connection with the Merger. See JX 248 (Norcraft's Q1 FY2015 Form 10-Q) at 4, 11 ( \(17,311,573\) shares of Norcraft common stock outstanding, 2,426,167 convertible Norcraft LLC units outstanding and 1,142,383 options on Norcraft stock outstanding as of March 31, 2015); JX 249 (Funds Flow Memorandum) at 3, 11 ( \(18,947,886\) shares of Norcraft common stock outstanding, 789,854 convertible Norcraft LLC units outstanding and 1,142,383 options on Norcraft stock outstanding as of May 11, 2015). Both documents indicate a figure of \(20,880,123\) fully diluted shares outstanding as of the Merger date.
212 JX 20 (Austin Smith Report) at 23.
213 ld. at 25-28.
214 ld. at 29.
215 ld. In her reports and trial testimony, Austin Smith provided only a cursory-and mostly conclusory-discussion of Norcraft's deal process. Seeid. at 19-20; TT 701-703 (Austin Smith). She also acknowledged that she had never before been called upon to offer expert testimony on the efficacy of a sales process. TT 791:20-24 (Austin Smith).
216 JX 19 (Subramanian Report) at 24-25.
217 ld. at 26.
218 ld.
219 7d. at 25, 33-36.
220 ld. at 25, 45-52.
221 ld. at 30 (internal quotation and footnote omitted).
222 Id. at 31; see TT 100:4-17 (Biggart); JX 238 (Norcraft Schedule 14D-9) at 13.
223 JX 19 (Subramanian Report) at 31.
224 ld. at 32.

Id. at 32-33.

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h serve done the best I can here."
    DFC, 172 A.3d at 364 (quoting 8 Del. C. § 262(h) ).

253 Dell, 177 A.3d at 21 (quoting Weinberger v. UOP, 457 A.2d 701, 713 (Del. 1983); Golden Telecom, 11 A.3d at 218; and In re PetSmart, Inc., 2017 WL 2303599, at *26 (Del. Ch. May 26, 2017) ) (alteration in original).
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Dell, 177 A.3d at 22.
256 \(l d\).
257 Id. at 366.

258 See, e.g., id.;Golden Telecom, 11 A.3d at 217-18.
259 DFC, 172 A.3d at 366.
260 ld.
261 TT 13-15 (Eldridge).
262 Seeln re Fort Howard Corp. S'holders Litig., 1988 WL 83147, at *13-14 (Del. Ch. Aug. 8, 1988) (finding board-chosen single-bidder process satisfied Revlon duties); In re Pennaco Energy, Inc., 787 A.2d 691, 706 (Del. Ch. 2001) ("[T]he mere fact that the Pennaco board decided to focus on negotiating a favorable price with Marathon and not to seek out other bidders is not one that alone supports a breach of fiduciary duty claim."); In re MONY Gp. Inc. S'holder Litig., 852 A.2d 9, 21 (Del. Ch. 2004) (same) (quoting Pennaco, 787 A.2d at 706).

263 JX 31 (Guhan Subramanian, Go-Shops vs. No-Shops in Private Equity Deals: Evidence and Implications, 63 Bus. Law. 729 (2008) ) at 755 (" \([A]\) pure go-shop can be a valuable tool for extracting the highest possible price in the sale of [a] company.").
264 M.P.M. Enters., Inc. v. Gilbert, 731 A.2d 790, 797 (Del. 1999) ("A fair merger price in the context of a breach of fiduciary duty claim will not always be a fair value in the context of determining going concern value."); In re Trados Inc. S'holder Litig., 73 A.3d 17, 78 (Del. Ch. 2013) ("A court could conclude that a price fell within the range of fairness and would not support fiduciary liability, yet still find that the point calculation demanded by the appraisal statute yields an award in excess of the merger price."); Reis v. Hazelett Strip-Casting Corp., 28 A.3d 442, 466 (Del. Ch. 2011) (same).
265 Petitioners urge the Court to conclude that "a go-shop only process" is, per se, inadequate to generate fair value. Pet'rs' Post Trial Opening Br. 3 (citing IQ HIdgs. v. Am. Commercial Lines, 2013 WL 4056207 (Del. Ch. Mar. 18, 2013) and Huff Fund Inv. P'ship v. CKX, Inc., 2013 WL 5878807, at *13 (Del. Ch. Nov. 1, 2013) ). Having reviewed the cited authority, I do not see where IQ Holdings addressed the issue at all. As for CKX, Inc., while the court acknowledges that a scenario where the only market check is an unsuccessful go-shop might undermine the reliability of the deal price as an indicator of fair value, the court says nothing of adopting a rule that a go-shop alone will never produce fair value for the target. Id. at * 13 . I see no basis in law or fact to adopt such a rule.
266 JX 140 (e-mail from Reilly to Buller, Maselli and Citi representatives, Feb. 20, 2015) (Reilly: "I do believe we are leaving \$ on the table"); TT 29:19-22 (Eldridge) (Buller "eager to try and find a buyer at a higher valuation"); JX 138 (e-mail from Ginter to Buller, Feb. 19, 2015) ("Current offer will be \(10.9 x\) or less by the time we close in April at \(\$ 25.50\). so we weren't happy with the deal in [O]ct[ober] but now we are?").
267 See JX 3 (Buller Dep.) at 85-86.
268 JX 185 (e-mail chain between Fortune director David Mackay and Klein, Mar. 20, 2015) (Mackay: "Looks very positive[.] A good strategic fit at a reasonable price ... I fully support the deal and hope no one comes along and offers more."); \(i d\). (Klein: "You are spot on - its [sic] a good price, and there is a risk someone comes along and tries to top the offer."); JX 300 (Mar. 31, 2015 e-mail from Fortune director Mackay to Fortune's other directors and deal team members) ("Let's hope no one bids!").
269 TT 146:18-147:9 (Biggart) (explaining a Fortune presentation analyzing potential go-shop competitors "[b]ecause at this point in time, we're about to agree to a go-shop, and our CEO is very upset about the idea of doing this"); see also JX 5 (Klein Dep.) at 164:11-22 ("Q. And Norcraft insisted on some type of go-shop process, right? A. Yes. Q. And in the context of negotiating that, your goal was to minimize the chances that the go-shop process would result in a higher bidder, - A. I wanted to - Q. - correct? A. - give them what they needed - the minimum amount they needed to satisfy their fiduciary responsibility which I know they had."). Of course, it is not unusual-or inherently problematic-for a prospective acquiror to want to avoid being outbid after having expended considerable time, effort and funds. Fortune's attitude, however, suggests that it appreciated the pre-sign process did not yield fair value for Norcraft stockholders and that it wanted to protect that advantage throughout the go-shop process. Again, this is precisely what the Board reasonably should have expected from the party sitting on the other side of the table.
270 JX 166 (e-mail from Klein to Fortune deal team, Mar. 12, 2015); TT 205 (Biggart) (On March 6, 2015, Fortune "definitively told [Buller] he didn't have the job.").
271 See JX 189 (e-mail chain between Dave Randich, head of Fortune's cabinet division, Klein and members of Fortune's deal team, Mar. 23, 2015); JX 199 (Mar. 26, 2015 e-mail from RBC to Klein and other members of Fortune's deal team); JX 202 (Mar. 27, 2015 email from Buller to PwC); JX 194 (e-mail chain between members of Norcraft and Fortune deal teams, Mar. 25, 2015).
272 JX 11 (Reilly Dep.) at 158-160.
273 JX 13 (Biggart Dep.) at 107-109, 111:6-112:3; JX 194 (e-mail chain between members of Norcraft and Fortune deal teams, Mar. 25, 2015).

274 In re AOL, Inc., 2018 WL 1037450, at *9 (Del. Ch. Feb. 23, 2018) (observing "if front-end information sharing is truncated or limited, the post-agreement period should be correspondingly robust, so to ensure that information is sufficiently disseminated that an informed sale can take place and bids can be received without disabling impediments").
275 The Merger Agreement was publicly announced on March 30, 2015. See JX 227 (Norcraft Mar. 30, 2015 Proxy Statement) at 3. That same day, the Go-Shop Period began. PTO \| 2 cc .
276 JX 19 (Subramanian Report) at 34; JX 243 (Citi Buyers Log) at 2 ("investment is too big [ ] to consider in a short period"); \(i d\). at 12 ("can't move fast enough in 35 days"); id. at \(2,5,7-9\) (prospective bidders explaining they had no interest in competing against Fortune).
277 See, e.g., JX 3 (Buller Dep.) at 207:5-24 ("Q. Do you know what Norcraft's rights were if another proposal came in during the go-shop period? A. Don't recall. Q. Do you have any knowledge of what Norcraft could have done if one of the go-shop parties was interested and made a bid? A. We could have pursued the offer. Q. Were there any restrictions on Norcraft's ability to pursue an offer? A. Some, but I don't recall what they were.... Q. Do you recall anything about Fortune's rights if another offer came in? A. I don't recall."); JX 8 (Eldridge Dep.) at 85:17-19 ("Q. What kind of matching rights did Fortune have in this transaction? A. I don't recall."); JX 9 (Maselli Dep.) at 75:5-78:5 ("Q. Under the terms of the merger agreement, what needed to occur for a go-shop participant to continue to negotiate with Norcraft regarding a possible sale after the go-shop period ended? ... A. I don't know what the threshold was, but ... if it was a sufficiently robust offer, they would have an opportunity to complete the transaction."); JX 11 (Reilly Dep.) at 121:3-130:20 ("Q. Did you personally ever consider what effect the tender and support agreements would have on the go-shop process? A. I can't recall.... To be honest with you, I'm not an expert in going private transactions, though l've been around for a while; and, in my estimation, the retention of both Ropes and Citibank and to rely on their advice and counsel with respect to the process was, you know, doing my duty. So that's kind of what we really looked to the experts to help us.... Q. What are matching rights? A. I have no idea.... Q. Okay. Well, do you know what type of matching rights Fortune had in Norcraft's go-shop process? ... A. I don't recall.... Q. Do you recall any discussions among Norcraft's directors or officers with respect to Fortune's matching rights in this go-shop process? A. I do not. Q. Under the merger agreement that Norcraft signed with Fortune Brands, what needed to happen for a go-shop participant to continue to negotiate with Norcraft regarding a possible sale after the go-shop period ended? A. I don't recall."); cf. JX 1 (Ginter [CFO] Dep.) at 140:9-14 ("A. My knowledge of a go-shop is limited in that regard. I know the banks ran it for us and prepared a list of potential investors that may be interested in looking at Norcraft. But my knowledge of a go-shop is limited to that and what I learned during the process.").
278 JX 5 (Klein Dep.) at 137-139; JX 11 (Reilly Dep.) at 164-165; JX 130 (Feb. 9, 2015 RBC presentation regarding TRA value); JX 162 (Mar. 10, 2015 RBC email attaching questions regarding TRAs).
279 JX 221 (Merger Agreement) §5.4(g); seeLender Processing, 2016 WL 7324170, at *25 ("In this case, the most persuasive explanation is that the existence of an incumbent trade bidder holding an unlimited match right was a sufficient deterrent to prevent other parties from perceiving a realistic path to success.... Without a realistic path to success, it made no sense to get involved."). Fortune's Vice President of M \& A confirmed that "the team at Fortune understood that unlimit[ed] matching rights would discourage potential bidders in a go-shop process." JX 12 (Baab Dep.) 99-100. And, Fortune's CEO touted Fortune's match right when instructing RBC how to dissuade potential go-shop participants from bidding. JX 232 (e-mail chain between RBC, Klein and other members of Fortune's deal team, Apr. 7, 2015).
280 In re Lear Corp. S'holder Litig., 926 A.2d 94, 119-20 (Del. Ch. 2007).
281 TT 289:1-7 (Subramanian).
282 PTO I 2ee. As noted, the Go-Shop Period began on March 30, 2015. PTO I 2cc.
283 JX 229 (Buller TSA); JX 230 (SKM TSA); JX 231 (Trimaran TSA).
284 JX 232 (e-mail chain between RBC, Klein and other members of Fortune's deal team, Apr. 7, 2015) (RBC describing its planned efforts to dissuade potential buyers); id. (Klein expressing his interest in RBC "shutting the door on [potential buyers] and their willingness to look at [Norcraft]").
285 DFC, 172 A.3d at 366. Respondent advanced deal price less synergies as reflecting Norcraft's fair value. Accordingly, it was Respondent's burden to prove the reliability of Norcraft's deal process. Respondent, however, failed to meet that burden-its witnesses struggled to recall basic aspects of the deal process and its valuation expert presented only a cursory, mostly conclusory, analysis of that process. Petitioners, on the other hand, presented credible evidence demonstrating that deal price less synergies is not a reliable indicator of Norcraft's fair value.
286 This, of course, means that I give no weight to Austin Smith's deal price less synergies valuation. D.I. 91 .

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SeeAOL, 2018 WL 1037450, at *10, n. 118 (declining to engage in an extensive analysis of the efficient market hypothesis when the parties did not present either an argument to that effect or sufficient evidence to allow the court to undertake the analysis on its own). JX 216 (e-mail from RBC to Biggart, Mar. 29, 2015, attaching RBC presentation on Norcraft) at FB0047792, FB0047795. See JX 68 (Sept. 18, 2014 Fortune Presentation) at FB0089499; JX 215 (Citi Board Discussion Materials) at FB0049833. See JX 215 (Citi Board Discussion Materials) at FB0049845.
SeeDell, 177 A. \(3 d\) at 25 ("A market [for a company's stock] is more likely efficient, or semi-strong efficient, if [the company] has many stockholders; no controlling stockholder; 'highly active trading'; and if information about the company is widely available and easily disseminated to the market." (quoting DFC, 172 A.3d at 373-74) ).
293 SeeVerition P'rs Master Fund Ltd. v. Aruba Networks, Inc., 2018 WL 922139, at *24 (Del. Ch. Feb. 15, 2018) ("DFC and Dell teach that if a company's shares trade in a market having atributes consistent with the assumptions underlying a traditional version of the semi-strong form of the efficient capital markets hypothesis, then the unaffected trading price provides evidence of the fair value of a proportionate interest in the company as a going concern." (footnote omitted)). MG. Bancorp., Inc. v. Le Beau, 737 A.2d 513, 525-26 (Del. 1999).
IQ HIdgs., Inc., 2013 WL 4056207, at *1 (quoting Doft \& Co. v. Travelocity.com Inc., 2004 WL 1152338, at *8 (Del. Ch. May 20, 2004) ) (internal quotation omitted); see alsoMerion Capital, 2013 WL 3793896 , at \({ }^{*} 5\); James R. Hitchner, Financial Valuation: Applications and Models 291-93, 297 (4th ed. 2017) (cited in JX 21 (Clarke Rebuttal Report) ).
296 In re Orchard Enters., Inc., 2012 WL 2923305, at *9 (Del. Ch. July 18, 2012) ("Reliance on a comparable companies or comparable transactions approach is improper where the purported 'comparables' involve significantly different products or services than the company whose appraisal is at issue, or vastly different multiples."); see also Hitchner, supra, at 292-93.
297 See JX 13 (Biggart Dep.) at 75:1-76:23, 152:22-153:1 (explaining he could not recall any precedent transaction in the dealer channel since 2010). Many of the precedent transactions identified by Austin Smith preceded the NorcraftFortune Merger by three or more years during a time in which the housing market was still recovering from the Great Recession. See JX 20 (Austin Smith Report), Ex. 14 (Precedent Transaction Method) (showing that 11 out of the 16 transactions predated 2012). The remaining transactions involved very small, non-public companies, making them unfit for comparison. See id. Under these circumstances, I see no reason to dwell on a precedent transaction analysis in determining Norcraft's fair value on the Merger date. SeeMerion Capital, 2013 WL 3793896, at *5 ("The utility of a marketbased method depends on actually having companies that are sufficiently comparable that their trading multiples provide a relevant insight into the subject company's own growth prospects."); see also Hitchner, supra, at 304-06.
298 See JX 20 (Austin Smith Report), Ex. 14 (Precedent Transaction Method) (showing that 11 out of the 16 transactions predated 2012); JX 18 (Clarke Report) at 4 n .8 ; JX 21 (Clarke Rebuttal Report) at 6.
299 Cf. JX 20 (Austin Smith Report) at 25-28 (explaining, "of the guideline public companies, [Norcraft] is most similar to (though smaller than) American Woodmark, the only other pure-play cabinet manufacturer," "Norcraft is significantly smaller than most of the guideline public companies based on revenue, EBITDA, or assets"); TT 510:10-13 (Clarke) ("I view Norcraft being somewhat unique in that regard. So these are not - you know, these are not perfect comps."). JX 18 (Clarke Report) at 32, 55; TT 636:17-637:6 (Clarke); JX 20 (Austin Smith Report) at 29.
301 JX 18 (Clarke Report) at 32, 55; TT 636:17-637:6 (Clarke); JX 20 (Austin Smith Report) at 29.
302 Dell, 177 A. \(3 d\) at 35.
303 Merion Capital, 2013 WL 3793896, at *10 (internal citation omitted).
304 See Shannon P. Pratt \& Roger J. Grabowski, Cost of Capital: Applications and Examples 223 (5th ed. 2014) (cited in JX 18 (Clarke Report) ) ("Using betas of guideline public companies for estimating a proxy beta has been found to provide reasonably accurate estimates of the subject company"); Duff \& Phelps, 2015 Valuation Handbook, Guide to Cost of Capital 5-3 (2015) (cited in JX 18 (Clarke Report) ); Andaloro v. PFPC Worldwide, Inc., 2005 WL 2045640, at *15 (Del. Ch. Aug. 19, 2005). "A company's debt capital can be measured by [gross] debt or net debt, where net debt is equal to total debt less excess cash." JX 23 (Austin Smith Rebuttal Report) at 23 (emphasis in original).
305 The capital structure used to relever the subject company's unlevered beta should also be used when calculating its WACC (for weighting purposes). TT 854:17-857:10 (Austin Smith).
306 AOL, 2018 WL 1037450, at *11 (quoting Del. Open MRI Radiology Assocs., P.A. v. Kessler, 898 A.2d 290, 332 (Del. Ch. 2006) ). See also Shannon P. Pratt, Robert F. Reilly \& Robert P. Schweihs, Valuing a Business: The Analysis and Appraisal of Closely Held Companies 156 (4th ed. 2000) (cited in JX 18 (Clarke Report)) (hereinafter "Valuing a Business").

307 As noted, Austin Smith performed two additional DCF analyses, one relying on the Ginter 2014 Projections and another relying on a Capitalization of Cash Flow methodology. See JX 20 (Austin Smith Report) at 23-24. Neither analysis, however, formed the basis for her final conclusion regarding fair value. Seeid. at 1.
308 JX 1 (Ginter Dep.) at 27:2-28:14, 34:5-10; JX 3 (Buller Dep.) at 101:20-24.
309 JX 3 (Buller Dep.) at 115:8-18 (explaining that the Base Case projections were "something [management] felt very, very comfortable in doing"); id. at 114:11-22; JX 1 (Ginter Dep.) at 93:23-25 (stating the Board approved the Base Case projections); JX 11 (Reilly Dep.) at 55:9-19.
310 JX 3 (Buller Dep.) at 115:8-18. Cf. Petsmart, 2017 WL 230359, at * 12 (noting that the respondent company's management characterized their projections as "bordering on being too aggressive"-even "approaching 'insan[ity]' ") (alteration in original) (internal quotation marks, footnote and record citation omitted).
311 TT 473-75 (Clarke) (explaining why the Base Case projections are reasonable). Austin Smith found several "significant limitations" to the Base Case projections: (1) they were not created in the ordinary course; (2) they were not created using the same procedure as Norcraft's annual budgets (i.e., bottoms-up); (3) they projected an additional five years of growth after two years of already achieved growth in a cyclical industry; and (4) Ginter and Buller, who prepared the Base Case projections, allegedly knew they were going to lose their jobs if the transaction was completed-introducing the possibility of bias. TT 734:10-736:14 (Austin Smith). Despite all of her concerns, however, Austin Smith relied on the Base Case projections for her primary DCF analysis. TT 737:13-23 (Austin Smith). See In re Appraisal ofAncestry.com, Inc., 2005 WL 399726, at *18 (Del. Ch. Jan. 30, 2015) (noting that "in a number of cases Delaware Courts have relied on projections that were prepared by management outside of the ordinary course of business and with the possibility of litigation") (collecting cases).
312 JX 18 (Clarke Report) at 2.
313 Id. 2-3. Clarke "gradually reduce[d] growth rates over time until reaching the PGR," id., by applying a "straight line reduction in growth" from the end of the Base Case projections to the end of his additional five-year projection period. TT 606-607. According to Clarke, "if [he] had to use 2019 as the final year of [his] projections, [he] would need to use a higher [PGR of \(4.4 \%\) ] to account for the tapering of [Norcraft's] growth to a steady state." JX 21 (Clarke Rebuttal Report) at 27 n. 62.
314 JX 23 (Rebuttal Report of Yvette R. Austin Smith ["Austin Smith Rebuttal Report"]) at 5-6.
315 Seeid. at 4-6.
316 See JX 20 (Austin Smith Report) at 21-22 \& Ex. 3 (Indexed Growth of Norcraft Adjusted EBITDA versus Key Economic Indicators 2013-2015); TT 21:8-9 (Eldridge) ("[B]uilding products companies are cyclical .... "); JX 23 (Austin Smith Rebuttal Report), Fig. 1 (Comparison of Normalized Growth Patterns); id. at Fig. 2 (Historical and Forecasted EBITDA Margins); TT 607:23-608:1 (Clarke) ("Q: Mr. Clarke, the cabinet business is cyclical, isn't it? A. Yes."); see also JX 23 (Austin Smith Rebuttal Report), Fig. 1 (Comparison of Normalized Growth Patterns); id. at Fig. 2 (Historical and Forecasted EBITDA Margins); JX 5 (Klein Dep.) at 312:4-10. In light of this determination, I decline to apply Petitioners' suggested \(4.4 \%\) PGR since that PGR is based on an unrealistic assessment of Norcraft's future financial performance. See JX 21 (Clarke Rebuttal Report) at 27 n. 62.
317 See JX 112 (Gabelli Report) (stating, as of January 2015, "[w]e see a gradual recovery in housing that will materialize over the next several years"); JX 535 (Fortune Investor Presentation, "Maximum Long-Term Value," May 1, 2015) ("Expectation is for the housing market to return to steady state ( 1.5 million [new construction] starts and \(5-6 \%\) [average] annual [repair and remodeling] growth) by 2017 or 2018."). According to "accepted financial principles," Dell, 177 A.3d at 22, "terminal value must reflect an appropriate estimate of sustainable growth." Pratt, supra, at 49. "[F]or cyclical businesses [ ] the discrete [projection] period commonly corresponds to the number of years or periods until the point is reached where the net cash flow represents an average base net cash flow expected over an entire business cycle," i.e., until the midpoint of the cycle. Id. at 47 (emphasis supplied); see also Robert W. Holthavsen \& Mark E. Zmijewski, Corporate Valuation: Theory, Evidence \& Practice 216 (2014) ("TT]he steady state for a company in a cyclical industry should be at the midpoint of the cycle."). Clarke's extension of the Base Case projections posits a ten-year growth trend but does not account for cyclicality in the cabinetry industry and the impact of such cyclicality on Norcraft's free cash flows. See JX 14 (Clarke Dep.) at 60-61 (explaining his extension does not reflect cyclicality prior to 2025); JX 23 (Austin Smith Rebuttal Report), Fig. 1 (Comparison of Normalized Growth Patterns); JX 18 (Austin Smith Report), Fig. 1 (Norcraft Net Sales and EBITDA (Historical 2003-2014) (citing JX 99 (Norcraft Jan. 2015 Management Presentation) ) ). See alsoAOL, 2018 WL 1037450, at *19 ("In a fast-paced industry with significant fluctuations, where management is hesitant to project beyond four years, using a three-stage DCF model or a ten year projection period seems particularly brazen.").
318 Pratt, supra, at 8; see also Duff \& Phelps, supra, at 10-15.

319 Pratt, supra, at 546 ("WACC generally works as a substitute for the enterprise-cash-flow discount rate."). See also Valuing a Business, supra, at 184.
320 Valuing a Business, supra, at 184; Duff \& Phelps, supra, at 10-16.
321 JX 18 (Clarke Report) at 33; JX 20 (Austin Smith Report), Ex. 5 (WACC Calculation).
322 Duff \& Phelps, supra, at 2-13.
323 JX 21 (Clarke Rebuttal Report) at 27.
324 JX 18 (Clarke Report) at 41.
325 JX 20 (Austin Smith Report), Ex. 5 (WACC Calculation). The BofA Merrill Lynch US High Yield B Effective Yield "represents the effective yield of the ICE BofA[ ] [Merrill Lynch] US Corporate B Index, a subset of the ICE BofA[ ] [Merrill Lynch] US High Yield Master II Index tracking the performance of US dollar denominated below investment grade rated corporate debt publically issued in the US domestic market. This subset includes all securities with a given investment grade rating B." ICE BofAML US High Yield B Effective Yield, retrieved from FRED, Fed. Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/BAMLHOA2HYBEY (last visited July 24, 2018). By way of reference, Citi used a pre-tax cost of debt of \(5.3 \%\) in its calculation of Norcraft's WACC and RBC used \(4.5 \%\). See JX 18 (Clarke Report) at 41 n. 91. Bank of St. Louis; https://fred.stlouisfed.org/series/BAMLHOA2HYBEY (last visited July 24, 2018); S \& P U.S. High Yield Corporate Bond 10+ Year Index, available online athttps://us.spindices.com/indices/fixed-income/sp-us-high-yield-corporate-bond-10-year-index (last visted on July 24, 2018). The experts do not challenge each other's estimates of Norcraft's pre-tax cost of debt. See JX 21 (Clarke Rebuttal Report) at 31 ("Austin Smith's conclusion [regarding Norcraft's pre-tax cost of debt] is in the range of reasonableness given Norcraft's improving performance and generally positive industry outlook as well being consistent with the financial advisors' cost of debt estimate.").
327 This average figure tracks the ICE BofA Merrill Lynch US High Yield B Effective Yield as of the Merger date (6.39\%) and the S \& P U.S. High Yield Corporate Bond 10+ Year Yield to Maturity as of that date (6.34\%). ICE BofAML US High Yield B Effective Yield, retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/ BAMLH0A2HYBEY (last visited July 24, 2018); S \& P Dow Jones Indices LLC, S \& P U.S. High Yield Corporate Bond 10+ Year Index, available online at https://us.spindices.com/indices/fixed-income/sp-us-high-yield-corporate-bond-10-yearindex (last visited on July 24, 2018).
328 Duff \& Phelps, supra, at 5-1.
329 Id. at 5-3.
330 Id.; Pratt, supra, at 223. When calculating a company's beta, change in the trading price of the company's stock is measured relative to change in the returns of the overall market (or a proxy therefor) over the relevant observation period. JX 18 (Clarke Report) at 34.
331 JX 18 (Clarke Report) at 34-35.
332 See Duff \& Phelps, supra, at 5-25 and 10-17.
333 See JX 18 (Clarke Report) at 34-35.
334 See Duff \& Phelps, supra, at 10-21; Pratt, supra, at 244.
335 See JX 18 (Clarke Report) at 37-39; JX 23 (Austin Smith Rebuttal Report) at 18-20. While Clarke found Norcraft's observed beta "statistically relevant," he did not rely upon that beta beyond using it to define the lower end of a range of betas. He ultimately selected the higher end for his DCF. See JX 18 (Clarke Report) at 37-39.
336 JX 18 (Clarke Report) at 51 . Clarke notes in his report that RBC used all four of his chosen companies and Citi used three of the four in their respective analyses of Norcraft. Id.
337 Id. at 48-49. Clarke's screening criteria were: (1) public company; (2) industry classification of "Building Products"; (3) 2014 Calendar Year Revenue between \(\$ 40\) million and \(\$ 4\) billion; (4) primary geographic location in the U.S. or Canada; and (5) no recent major divestures or pending significant acquisitions. Id. Clarke's application of these criteria yielded a set of sixty-five companies, which Clarke then screened "for companies with a minimum expected EBITDA margin of \(7.5 \%\) for fiscal year 2016 (approximately half of Norcraft's EBITDA margins) and a maximum expected EBITDA margin of 22.5\% for fiscal year 2016 (approximately \(50 \%\) above Norcraft's margins). In addition, [he] screened for companies that had forecasted 2016 revenue growth between \(5 \%\) (approximately half of Norcraft's expected growth) and \(15 \%\) (approximately \(50 \%\) above Norcraft's expected growth). Based on those two criteria, the 65 companies were reduced to 28 ." Id. at 50 . Clarke then determined that four of those companies-his four chosen GPCs-"had a primary business in manufacturing products for the [repair and remodeling] and/or new construction residential home construction [markets]." Id. Id. at 38 \& sched. 5-C; JX 517 (native Excel version of Clarke's DCF model).

339 JX 18 (Clarke Report) at 39 ("An unlevered beta of 0.80 is slightly above the median and average of the one-year daily betas of the [GPCs] ( 0.75 to 0.79 ) while slightly below the median and average two-year weekly betas of the [GPCs] ( 0.81 to 0.87 )."). Clarke relevered his concluded unlevered beta for Norcraft based on Norcraft's actual (observed) capital structure as of the Merger date ( \(75 \%\) equity, \(25 \%\) debt, per Clarke). Id., sched. 5-B. This resulted in a relevered beta for Norcraft of 0.97. Id.
340 JX 20 (Austin Smith Report) at 26 \& Ex. 4 (Beta Calculation). The other ten GPCs were: Armstrong World Industries, Inc., Beacon Roofing Supply, Inc., Builders FirstSource, Inc., Caesarstone Ltd., Continental Building Products, Inc., Mohawk Industries, Inc., Patrick Industries, Inc., Quanex Building Products Corporation, Trex Company, Inc. and Universal Forest Products, Inc. Id., Ex. 4 (Beta Calculation). Austin Smith divided her sixteen GPCs into two groups: Group I (comprising American Woodmark, Masco and Fortune), "which consists of companies operating specifically (though not exclusively) in the cabinet market, and Group II [comprising the rest of the GPCs], which consists of companies operating in the general residential building products sector." Id. at 26.
341 Id., Exs. 4 (Beta Calculation) and 5 (WACC Calculation).
342 Id., Exs. 4 (Beta Calculation) and 5 (WACC Calculation). Austin Smith relevered her concluded unlevered beta for Norcraft based on a target capital structure comprising \(86 \%\) equity and \(14 \%\) debt. Id., Ex. 5 (Calculation of WACC). This yielded a relevered beta for Norcraft of 1.12. Id.
343 JX 21 (Clarke Rebuttal Report) at 28.
344 JX 23 (Austin Smith Rebuttal Report) at 17.
345 See JX 112 (Gabelli Report) at CITI-00053582.
346 See Pratt, supra, at 223 ("The more guideline companies used in the sample size, the better the accuracy."); id. ("The accuracy is also enhanced if the guideline public companies are reasonably close in size to the subject company. When the guideline public companies are larger than the subject company, the beta estimate for the subject company is likely biased low because of the propensity of betas of larger companies to be smaller than the betas of smaller companies."). My selection of GPCs is further supported by RBC and Citi's choices of GPCs. RBC included all six of the selected companies, JX 216 (Mar. 29, 2015 e-mail from RBC to Biggart, attaching RBC presentation) at FB0047799, and Citi included five out of the six (it did not include Masonite). JX 505 (Citi Discussion Materials for the Fairness Opinion Committee) at CITI-00075076.
347 See Pratt, supra, at 204 (explaining that to derive a proxy beta, one will take the median or an average of the unlevered betas). This approach also avoids additional risk for error that might flow from assigning different weights. See JX 530 (Bradford Cornell, Corporate Valuation, Tools for Effective Appraisal and Decision Making (1993) ) at 68. As previously explained, Austin Smith derived a proxy beta for Norcraft based on the median of the unlevered betas of her selected GPCs. JX 20 (Austin Smith Report), Exs. 4 (Beta Calculation) and 5 (WACC Calculation). Clarke's proxy beta calculation, by contrast, took into account both the median and the mean of the unlevered betas of his selected GPCs. JX 18 (Clarke Report) at 39. My proxy beta calculation utilizes the median rather than the mean of the unlevered GPC betas. I took that approach to account for Masonite. Austin Smith and Clarke included Masonite in their respective analyses but both acknowledged that its business was less comparable to Norcraft than some of the other companies considered. Indeed, Masonite exhibited a significantly lower unlevered beta that risked distorting the Court's measurement of Norcraft's relative operating risk (if the Court were to use the mean for summary measure purposes).
348 JX 18 (Clarke Report), sched. 5-B (Cost of Equity Calculation per CAPM); JX 20 (Austin Smith Report), Exs. 4 (Calculation of Beta) and 5 (Calculation of WACC).
349 Pratt, supra, at 243. The Hamada unlevering formula is as follows:
\[
\beta_{\text {unievered }}=\frac{\beta_{\text {levered }}}{(1+((1-\text { tax rate }) \times(\text { Total Debt } / \text { Equity })))}
\]

Id. at 247.
By corollary, the Hamada relevering formula is:
\[
\begin{aligned}
& \beta_{\text {levered }}=\beta_{\text {unlevered }} \times\left[1+(1-\operatorname{tax} \text { rate }) \times \frac{\text { Total Debt }}{\text { Total Equity }}\right] \\
& I d .
\end{aligned}
\]

Seeid. at 262-63.
351 JX 16 (Austin Smith Dep.) at 192:5-12.
Id. at 192:13-16.
Id. at 192:18-21.
See JX 23 (Austin Smith Rebuttal Report) at 22; TT 764:1-19 (Austin Smith).
See TT 764:1-19; JX 23 (Austin Smith Rebuttal Report) at 22.
TT 506:11-17 (Clarke).
See Duff \& Phelps, supra, at 1-15, 1-16.
TT 859:4-16 (Austin Smith) ("Q. And you testified earlier that you found no evidence in the record which would guide you in selecting what that target capital structure would be for Norcraft. Correct? A. That's right. Q. And so you had to use the data from comparable companies. Correct? A. Right. Q. And just to be explicit, there's no evidence in the record that Norcraft had any expectation of changing its capital structure after the transaction. Correct? A. That's correct."). Austin Smith herself recognizes that use of a target capital structure is only appropriate when "the company's existing capital structure is not equal to the company's target capital structure." JX 23 (Austin Smith Report) at 21-22. According to Austin Smith, Clarke's estimation of Norcraft's actual capital structure as of the Merger date is erroneous because it fails to account for Buller et al.'s ownership of Norcraft LLC units convertible into a \(12.3 \%\) equity ownership interest in Norcraft (in the form of shares of Norcraft common stock). Id. at 21. Austin Smith's criticism in this regard is based on her (apparent) assumption that the conversion of the Norcraft LLC units into Norcraft common stock would not affect the per share trading price of that stock. See id. (calculating Norcraft's fully diluted market capitalization on the Merger date without adjusting for the potential dilutive effect of a Norcraft-LLC-unit-to-Norcraft-common-stock conversion on the per share trading value of Norcraft common stock). Upon reviewing the record, it is unclear how such a conversion would affect Norcraft's market capitalization-and, by extension, the equity component of Norcraft's capital structure. In addition, Austin Smith's calculation of Norcraft's fully diluted market capitalization on the Merger date does not account for the exercise of all outstanding options on Norcraft stock on that date. See id. ("The total equity in Norcraft['s] capital structure was \(\$ 452\) million ... not the \(\$ 396\) [million] calculated by Mr. Clarke. The operating cash flows of Norcraft were supported not just by the equity of Norcraft Inc. but also by [Buller et al.'s] ownership interest [in Norcraft] LLC."); but cf.id. at 13 \& n .25 ("[Norcraft's] implied fully diluted market capitalization was \(\$ 532\) million based on the transaction price of \(\$ 25.50\) [multiplied by] 20,869,976 fully diluted shares [outstanding].") (emphasis supplied). Moreover, as previously noted, Austin Smith's calculation of Norcraft's fully diluted shares outstanding as of the Merger date is inconsistent with the information set forth in Norcraft's Form 10-Q for Q1 FY2015 and the Funds Flow Memorandum prepared in connection with the Merger. The inclusion of all options on Norcraft stock outstanding as of the Merger date in the equity component of Norcraft's fully diluted capital structure (together with all Norcraft common stock and convertible Norcraft LLC units outstanding on that date) implies a capital structure of approximately \(76 \%\) equity and \(24 \%\) debt. I am satisfied, therefore, that Clarke's estimation of Norcraft's actual capital structure on the Merger date captures Norcraft's "operative reality" on that date. Accordingly, I have adopted that estimation.
359 For these same reasons, I refer to that same capital structure to calculate Norcraft's WACC (for weighting purposes).
360 The calculation of Norcraft's NOPAT (and unlevered free cash flow) for FY2015 is based on the Base Case projections for the May-December 2015 period. Hence the "Stub" notation. Austin Smith took this same approach in her DCF analysis. JX 20 (Austin Smith Report), Ex. 6 (DCF Analysis). I have adopted Austin Smith's approach in this regard, given that the operative valuation date here is May 12, 2015 (the Merger date).
361 See JX 18 (Clarke Report), sched. 2-A (DCF Analyis); JX 20 (Austin Smith Report), Ex. 6 (DCF Analysis). In calculating the period-over-period change in Norcraft's NWC, both experts excluded Norcraft's current TRA liability in each of the projected years. JX 20 (Austin Smith Report), Ex. 6 (DCF Analysis) ("Working capital excludes tax-related items."); see JX 517 (native Excel version of Clarke's DCF model). The rationale for this exclusion appears to be that Norcraft's payment obligations under the TRAs are non-ordinary-course, non-operating liabilities. See JX 18 (Clarke Report) at 29, 46. It is, therefore, more accurate to describe the experts' respective NWC-related computations as calculating period-over-period change in Norcraft's net operating working capital ("NOWC"). The Court's calculation of period-over-period change in Norcraft's NWC—or rather, its NOWC-likewise excludes Norcraft's current TRA liability in each of the projected years. I also note that both experts departed from the Base Case projections' forecast of Norcraft's "current portion of longterm debt" in FYs 2018 and 2019. See JX 20 (Austin Smith Report), Ex. 6 (DCF Analysis); JX 517 (native Excel version of Clarke's DCF model); JX 509 (native Excel version of Base Case projections). Both experts projected a \(\$ 1.5\) million figure for each year, whereas the Base Case projects zero for both years. Compare JX 20 (Austin Smith Report), Ex. 6
(DCF Analysis) and JX 517 (native Excel version of Clarke's DCF model), with JX 509 (native Excel version of Base Case projections). The record is unclear as to why, exactly, the experts chose to depart from the Base Case in this particular respect. Nevertheless, because both experts made the same adjustment to the Base Case projections with regard to Norcraft's "current portion of long-term debt" in FYs 2018 and 2019, i have followed suit.
JX 18 (Clarke Report) at 43 ("I calculated [Norcraft's] terminal value using the Perpetuity Growth Method[.]"); JX 20 (Austin Smith Report) at 20 ("To calculate [Norcraft's] terminal value I relied upon the Gordon Growth (or Perpetuity Growth) model.").
363 In the Perpetuity Growth model, the capitalization rate is calculated as the positive difference between the applicable discount rate and the subject company's PGR. JX 18 (Clarke Report) at 43 . I have used Norcraft's WACC (10.60\%) as the applicable discount rate and a \(3.5 \%\) PGR for Norcraft, which together imply a capitalization rate of \(7.10 \%\).
364 Id. Mindful of Clarke's justified criticism of Austin Smith's calculation of Norcraft's terminal year free cash flow, my calculation of that value adjusts for the fact that Norcraft's projected depreciation and amortization expense in the final year of the Base Case projections (FY2019) exceeds Norcraft's projected capital expenditures in that year by approximately \(\$ 100,000\). The adjustment entails implying a 3:4 relationship between Norcraft's depreciation/amortization expense and capital expenditures in perpetuity and thereby avoids "underinvesting in net PP \& E." JX 21 (Clarke Rebuttal Report) at 25; see Hitchner, supra, at 138 ("[l]n a growing business, long-term annual estimated capital expenditures exceed annual depreciation, primarily due to inflation."); see also Gilbert E. Matthews \& Arthur H. Rosenbloom, Delaware's Unwarranted Assumption that Capex Should Equal Depreciation in a DCF Model, (May 15, 2018), https://corpgov.law.harvard.edu/2018/05/15/delawares-unwarranted-assumption-in-dcfpricing/ ("The assumption that depreciation equals capital expenditures is only appropriate if it is also assumed that there is no growth and no inflation. However,... the normalized capital expenditures of a [perpetually] growing company must materially exceed depreciation over time.").
365 Both experts added Norcraft's estimated excess cash to its operating value in order to calculate the Company's total equity value. JX 18 (Clarke Report), sched. 2-A (DCF Analysis); JX 20 (Austin Smith Report), Ex. 6 (DCF Analysis). The experts differed, however, in how they calculated Norcraft's excess cash and thus reached different estimates of that figure. As noted, Austin Smith calculated Norcraft's excess cash on the Merger date based on the "Cash from Norcraft" figure in the "Funds Flow Memorandum" for the Merger ( \(\$ 54,396,335.01\) ), JX 249 at 2, less a \(\$ 20\) million cash balance (cash for operations, per the Base Case projections), plus the product of (1) Norcraft's total options outstanding as of the Merger date \((1,142,383)\) and (2) the weighted average exercise price of those options (\$16.01). JX 20 (Austin Smith Report), Ex. 6 (DCF Analysis). Clarke, by contrast, calculated Norcraft's excess cash on the Merger date as the sum of (1) the cash balance indicated in Norcraft's Q1 FY2015 Form 10-Q (\$63,135,000), JX 248 at 4, and (2) the Merger-related fees indicated in that same filing ( \(\$ 1.2\) million), less \(\$ 20\) million cash for operations (per the Base Case projections). JX 18 (Clarke Report) at 45 . I have adopted Clarke's approach, but have added to his excess cash figure Norcraft's cash receipts from the exercise of all options outstanding on the Merger date \((1,142,383)\) at the weighted average exercise price (\$16.01). JX 248 (Norcraft's Q1 FY2015 Form 10-Q) at 14. I find that this holistic approach best approximates Norcraft's "operative reality" as of the Merger date.
366 Clarke valued the TRA-related tax benefits realized by Norcraft in each of the projected years at \(\$ 4.4\) million, JX 18 (Clarke Report) at 46, while Austin Smith valued them at \(\$ 4.2\) million. JX 20 (Austin Smith Report), Ex. 7 (Tax Characteristics Analysis). Having considered each expert's (quite complicated) approach to valuing those tax benefits, I find that both approaches-and both resulting valuations-are reasonable (they differ by approximately \(\$ 200,000\) ). Accordingly, I have adopted the average of the experts' respective value estimates.
367 Like Clarke and Austin Smith, I have drawn this figure directly from Norcraft's Q1 FY2015 Form 10-Q. JX 248 (Norcraft's Q1 FY2015 Form 10-Q) at 4; JX 18 (Clarke Report) at 47; JX 20 (Austin Smith Report), Ex. 6 (DCF Analysis).
368 JX 248 (Norcraft's Q1 FY2015 Form 10-Q) at 11.
369 SeeAOL, 2018 WL 1037450, at *2 ("I take the parties' suggestion to ascribe full weight to a [DCF] analysis ... [and thus] relegate transaction price to a role as a check on that DCF valuation: any such valuation significantly departing from even the problematic deal price here should cause me to closely revisit my assumptions.").
370 I am mindful that "[ t\(]\) he issue in an appraisal is not whether a negotiator has extracted the highest possible bid. Rather, the key inquiry is whether the dissenters got fair value and were not exploited." Dell, 177 A.3d at 33 . Here, in light of the identified flaws in Norcraft's deal process (pre- and post-sign), I find it more likely than not that the Board "left a portion of [Norcraft's] fundamental value on the table." Verition P'rs Master Fund, 2018 WL 922139, at *44.
371 SeeAOL, 2018 WL 1037450, at *2.

\section*{2004 WL 286963 \\ UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.}

\author{
Court of Chancery of Delaware.
}

\author{
CEDE \& CO., Petitioner, v. \\ JRC ACQUISITION CORP., L \& LR, Inc., and 800-JR Cigar, Inc., Respondents.
}

\author{
No. Civ.A. 18648-NC. \\ I \\ Submitted Dec. 5, 2003. \\ | \\ Decided Feb. 10, 2004.
}

\section*{Attorneys and Law Firms}

Joseph A. Rosenthal and Herbert W. Mondros, of Rosenthal, Monhait, Gross \& Goddess, P.A, Wilmington, Delaware; Arthur N. Abbey and Joshua N. Rubin, of Abbey Gardy, LLP, New York, New York, for Petitioner, of counsel.

Peter J. Walsh, Jr. and Sarah E. DiLuzio, of Potter Anderson \& Corroon LLP, Wilmington, Delaware; Michelle A. Coffey and Ari C. Burstein, of Morgan, Lewis \& Bockius LLP, New York, New York, for Respondents, of counsel.

\section*{MEMORANDUM OPINION}

\section*{CHANDLER, J.}
*1 This action, brought under 8 Del. C. § 262, seeks an appraisal of 652,400 shares of \(800-\) JR Cigar, Inc. ("Respondent," "JR Cigar" or the "Company") held of record by Cede \& Co. ("Petitioner" or "Cede") for the benefit of various investment funds. This Opinion determines the fair value of those shares, together with an appropriate rate of interest. For the reasons set forth in greater detail below, I conclude that the fair value of JR Cigar stock as of the merger date is \(\$ 13.58\) per share. The Company must pay Petitioner \(\$ 8,859,592\). In addition, I award Petitioner \(4.73 \%\) interest on the principal, compounded monthly, from October 4, 2000 to the date of payment.

\section*{I. BACKGROUND}

\section*{A. The Stipulated Facts}

On August 29, 2000, pursuant to a merger agreement dated the day before, the Rothman family commenced an offer to purchase all shares of common stock of JR Cigar that they did not already own. The Rothmans, before the offer, owned 78\% of the outstanding common shares of JR Cigar. After the offer closed on September 26, 2000, the Rothmans, through an acquisition corporation owned by them, beneficially owned over \(90 \%\) of the outstanding shares of JR Cigar. Because the Rothmans owned more than \(90 \%\) of the outstanding shares following the offer, the merger was accomplished pursuant to 8 Del. C. § \(253 .{ }^{1}\) The merger became effective on October 4, 2000.

Under the merger agreement, each share of common stock outstanding immediately before the merger was converted into the right to receive \(\$ 13.00\) per share in cash. From before the offer commenced, through the effective date of the merger, Cede \& Co. was the record owner, on behalf of the Royce family of funds, of 652,400 shares of JR Cigar. Petitioner complied with the provisions of 8 Del. C. § 262 and is entitled to a determination of the fair value of, and payment for, the JR Cigar shares it held as of the date the merger became effective.

The only issue in this case is the fair value of Petitioner's shares, together with the appropriate rate of interest. The matter was tried on October 15, 2003. There were only two live witnesses: Petitioner's expert and Respondent's expert. Testimony of Lewis Rothman, JR Cigar's President and CEO, was introduced by deposition designation.

\section*{B. The Experts}

Cede's expert, Charles DeVinney, has his MBA in Finance, is Vice President of Curtis Financial Group, Inc., an Accredited Senior Appraiser, and a Chartered Financial Analyst. DeVinney is in the business of appraising companies. He used two methods to value JR Cigar. First, he looked at transactions comparable to the acquisition of JR Cigar. Based on these purportedly comparable transactions, DeVinney found that JR Cigar was worth \(\$ 16.80\) per share as of October 4, 2000, the date the merger became effective. Second, DeVinney performed a discounted cash flow ("DCF") analysis. His DCF analysis resulted in an estimated fair value of \(\$ 19.80\) per share. Placing equal weight on the two valuation methods,

DeVinney opined that JR Cigar was worth between \(\$ 16.80\) and \(\$ 19.80\) per share.
*2 JR Cigar's expert, Dr. Gregg Jarrell, is a Professor of Economics and Finance at the University of Rochester's William E. Simon Graduate School of Business. Jarrell holds a Ph.D. in Business Economics and was formerly the Chief Economist for the SEC. He teaches graduate courses in finance, is well-published, and has served as an expert witness in several valuation cases. In rendering his opinion, Jarrell relied principally on a DCF analysis, but he also conducted two market-based analyses to verify his DCF analysis. First, he performed what he referred to as a "market check," which consisted of a determination of whether other reasonably bona fide offers were made for JR Cigar. Second, Jarrell conducted an analysis of the control premium in this case as compared to control premiums obtained in over 2,000 other deals during a five-year period. He concluded that the fair value of JR Cigar was \(\$ 12.67\) per share.

As noted, both experts testified at trial. Additionally, both experts prepared a report shortly before trial summarizing their valuation work. Those reports, along with numerous other documents, were introduced as exhibits at trial. \({ }^{2}\)

\section*{II. LEGAL FRAMEWORK}

Under 8 Del. C. § 262, dissenting stockholders are entitled to their pro rata share of the "fair value" of the corporation in which they held stock before the merger. "Accordingly, the Court of Chancery's task in an appraisal proceeding is to value what has been taken from the shareholder, i.e., the proportionate interest in the going concern." "The application of a discount to a shareholder is contrary to the requirement that the company be viewed as a 'going concern'.," But the valuation is "exclusive of any element of value arising from the accomplishment or expectation of the merger,"5 although it may "encompass known elements of value" not the product of speculation. \({ }^{6}\)

The corporation may be valued "by any techniques or methods which are generally considered acceptable in the financial community and otherwise admissible in court." \({ }^{7}\) In recent years, the DCF valuation methodology has featured prominently in this Court because it "is the approach that merits the greatest confidence" within the
financial community. \({ }^{8}\) In appropriate cases, this Court has relied exclusively on DCF models. \({ }^{9}\) Regardless of the methodology, however, this Court prefers valuations based on management projections available as of the date of the merger and holds a healthy skepticism for post-merger adjustments to management projections or the creation of new projections entirely. Expert valuations that disregard contemporaneous management projections are sometimes completely discounted. \({ }^{10}\)

In this proceeding, "both sides have the burden of proving their respective valuation positions by a preponderance of the evidence." \({ }^{11}\) If neither party satisfies its burden, however, the Court must use its own independent judgment to determine fair value. \({ }^{12}\) The Court can reject the views of both experts. \({ }^{13}\)

\section*{III. ANALYSIS}
*3 In this section, I evaluate the respective valuations of the parties' experts. I begin with DeVinney's comparable transactions analysis, turn to the dueling DCF models, assess Jarrell's "market checks," and then reach the Court's determination as to the fair value of JR Cigar as of October 4, 2000.

\section*{A. DeVinney's Comparable Transactions Analysis}

DeVinney used the comparable transactions found in Merrill Lynch's "Presentation to the Special Committee of the Board of Directors of Leaf." \({ }^{14}\) A special committee of JR Cigar's Board of Directors retained Merrill Lynch to advise them in connection with the then-proposed merger, and it rendered a fairness opinion dated August 28, 2000. \({ }^{15}\) "Merrill Lynch noted that nearly all of the Comparable Transactions represent the acquisition of control of the target company which may not be directly comparable to the acquisition of a minority stake of a target company, as in the Offer and the Merger." \({ }^{16}\) Nonetheless, "Merrill Lynch determined a reference multiple range LTM [latest twelve months] EBITDA [earnings before interest, taxes, depreciation, and amoritization] for the Company of 6.0 x to 7.5 x , resulting in a reference range for an implied value per Share of \(\$ 12.00\) to \(\$ 15.50 .{ }^{17}\) Merrill Lynch found that "the most comparable transaction," one involving Swisher International, "represents 6.2x LTM EBITDA or \(\$ 12.00\) per share." \({ }^{18}\) The Swisher International transaction was the most comparable because, like the JR Cigar deal, it
did not involve a change of control. But even that transaction, as well as all the other "comparable" transactions, involved companies that manufacture cigars and related products. \({ }^{19}\) JR Cigar is not a manufacturer; it only sells cigars, cigarettes, and related products \({ }^{20}\)

DeVinney looked at the same set of transactions as Merrill Lynch, but altered their calculations in one significant respect. One of the transactions reviewed by Merrill Lynch was Swedish Match's acquisition of General Cigar. Merrill Lynch calculated the LTM EBITDA multiple in that transaction at \(10.4 x\). DeVinney calculated the multiple at \(12.8 x\) because he included EBITDA of General Cigar for a 13 -week period ending after the transaction was announced. During this period, General Cigar's EBITDA declined, which has the effect of inflating the transaction multiple. I cannot discern any principled basis for this alteration of General Cigar's EBITDA. As DeVinney admitted on cross-examination, Swedish Match did not use the post-transaction EBITDA data in arriving at its offer price. \({ }^{21}\) Moreover, Merrill Lynch did not use the post-transaction EBITDA data, even though it advised Swedish Match on the transaction and had "expertise in evaluating similar transactions., 22

Moreover, contrary to DeVinney's expert report, \({ }^{23}\) the Swedish Match transaction is not comparable to the transaction in this case. Swedish Match's acquisition of General Cigar was, unlike the going private merger here, a strategic acquisition. \({ }^{24}\) The synergistic nature of the deal accounts for some of the premium, which DeVinney conceded on cross-examination. \({ }^{25}\) Additionally, Swedish Match was acquiring \(64 \%\) of the equity of General Cigar. Again, DeVinney testified on cross-examination that this "may explain some of the premium. \({ }^{, 26}\) Merrill Lynch, also Swedish Match's advisor, determined that the transaction in that case was not the most comparable to the JR Cigar merger. Merrill Lynch's opinion was that the Swisher International transaction was the most comparable. \({ }^{27}\) The Swisher transaction multiple was 6.2 x , less than half of the "adjusted" multiple DeVinney derived for the Swedish Match transaction. \({ }^{28}\)
*4 The problems identified above render DeVinney's comparable transactions analysis unreliable. Most of these errors were exposed on cross-examination, as he was unable to fully defend his methodology. Witnessing DeVinney's testimony first-hand convinces me once again that "no substitute has ever been found for cross-examination as a
means of ... reducing exaggerated statements to their true dimensions., \({ }^{29}\)

\section*{B. Discounted Cash Flow Analysis of DeVinney and Jarrell} The DCF method estimates the value of a business such as JR Cigar based on projected future free cash flows that are discounted to present value, Based on a DCF analysis, DeVinney concluded that the fair value of JR Cigar was \(\$ 19.80\) per share. Jarrell, using the same basic DCF methodology, concluded that the range of fair value of JR Cigar was from \(\$ 11.76\) to \(\$ 13.58\) per share. By way of comparison, Merrill Lynch performed a DCF analysis in connection with its fairness opinion that produced a reference range for an implied value per share of \(\$ 9.49\) to \(\$ 12.63 .{ }^{30}\)

The parties agree that most of the difference between the experts' DCF calculations is the result of four variables: (1) JR Cigar's estimated growth rate in perpetuity; (2) the Company's debt-to-equity ratio; (3) the Ibbotson equity size premium applied in the capital asset pricing model (CAPM); and (4) JR Cigar's tax rate. \({ }^{31}\) The latter three factors collectively contribute to JR Cigar's weighted average cost of capital (WACC), which is used to discount future cash flows. I will discuss each variable in turn.

\section*{1. Growth Rate in Perpetuity}

In a DCF valuation, the cash flow is projected for each year into the future for a period of years, typically five. After that point, one uses a single value representing all subsequent cash flows to calculate a company's terminal value. The terminal value may be determined by using multiples from comparable transactions, referred to as an exit multiple, or may be ascertained by assuming a constant growth rate after the initial five year forecast period, i.e., the growth rate in perpetuity. The terminal value calculation is critical here because it represents well over half of JR Cigar's total estimated present value. \({ }^{32}\)

Jarrell used the perpetuity growth approach and computed a range of values based on growth rates of \(2.5 \%\) to \(3.5 \%\), rates equal to or exceeding the long-term rate of inflation. \({ }^{33}\) DeVinney used both the comparable transactions approach and the perpetuity growth approach to calculate JR Cigar's terminal value. DeVinney used the multiple of 8.5 x (ascertained in his comparable transaction analysis) and applied that multiple to JR Cigar's estimated 2004 EBITDA.

DeVinney also used a perpetuity growth rate of \(5 \% .{ }^{34}\) DeVinney opined that each method of calculating terminal value is equally appropriate and averaged the two indications of value.

Regardless of whether ascertaining a company's terminal value by applying a transaction multiple is appropriate as a matter of finance theory, I have already determined that the 8.5x multiple derived by DeVinney is unreliable and should not be used in any DCF analysis. As such, in determining the terminal value of JR Cigar, the analysis is necessarily limited to the appropriate perpetual growth rate. DeVinney on crossexamination agreed that this was the appropriate route if the Court concluded that his comparable transaction analysis was not valid. \({ }^{35}\)
*5 Although DeVinney's report is silent as to the rationale for using a \(5 \%\) growth rate into perpetuity, at trial he indicated reliance on a document prepared by Fleet Bank, N.A. \({ }^{36}\) DeVinney testified on direct examination that "it appears that there were management projections provided to Fleet that utilized a five percent growth rate through 2009., "37 The document at issue does in fact show \(5 \%\) growth from 2000 through 2009 and includes small type in the lower left that reads "Management Case." Jarrell testified, however, that upon conversation with JR Cigar's CFO Michael Colleton, he understood that JR Cigar had not prepared projections beyond five years. \({ }^{38}\) Moreover, he testified that it appeared from the face of the document that Fleet merely extrapolated upon management's five-year projections. \({ }^{39}\) This conclusion is sustainable given that only five-year projections are shown in another portion of the document that discusses the "Management Case." \({ }^{40}\)

Petitioner is anxious to have the Fleet document characterized as a "management projection" because of the Court's preference for such projections. After reviewing the document and after considering the testimony of both experts, however, I cannot conclude with confidence that the projections in the Fleet document for the years 2004 to 2009 are actually "management projections." Petitioner attempts to create the inference that the later year projections were management's with several novel arguments that, to be candid, are mostly sophistry. The bottom line is that nothing in the document states affirmatively that JR Cigar provided Fleet with ten-year projections and Colleton stated that this was because JR Cigar did not give Fleet such projections.

Because I cannot safely conclude that management projected growth of \(5 \%\) after 2004 does not mean that calculating JR Cigar's terminal value based on such a growth rate is inaccurate. Nor does it mean, presumptively, that Jarrell's lower perpetual growth rate of \(2.5 \%\) to \(3.5 \%\) is accurate. The lack of definite, long-term management projections simply means that the experts, and ultimately this Court, must ascertain some independently justifiable growth rate with which to calculate JR Cigar's terminal value.

In Jarrell's opinion, JR Cigar's likely growth rate in the longterm was only at or slightly above the rate of inflation. \({ }^{41}\) Jarrell based this opinion initially on the fact that the management forecasted growth rate of \(5 \%\) for 2000 to 2004 was modest and that it is "quite common and normal in discounted cash flow analysis to observe a higher growth rate in the forecast period than in the perpetuity period. \({ }^{, 42}\) Jarrell buttressed this opinion with empirical and contemporaneous evidence that sales of JR Cigar's two main products, cigars and cigarettes, were on the decline. \({ }^{43}\) Merrill Lynch's presentation to JR Cigar shows that sales of premium cigars were on the decline. \({ }^{44}\) Rothman testified in his deposition that sales of premium cigars were on the decline. \({ }^{45}\) And since the early 1980s, there has been a "steep and steady" decline in the domestic consumption of cigarettes. \({ }^{46}\) Based on the foregoing, Jarrell testified that it was "conservative on behalf of the petitioners, to assume that over the long haul after 2004 that this company's sales, dollar sales, will keep up with the inflation rate., \({ }^{47}\)
*6 In support of using a 5\% perpetual growth rate, Petitioner turns back to the Fleet document. In that document, prepared as part of a credit offering, Fleet notes JR Cigar's impressive pre-2000 results and that "the U.S. cigar market [was] expected to grow by \(2.0 \%\) to \(5.0 \%\) in the medium to long term. \({ }^{, 48}\) Additionally, in his deposition, Rothman noted that, although cigar prices were declining, JR Cigar's revenues grew by \(10.6 \%\) in 1999 and that the Company increased its market share. \({ }^{49}\) Perhaps realizing that JR Cigar's performance before 2000 was no indication of growth beyond the year 2004, especially given the declining state of the domestic market, Petitioner offered a couple of other rationales for a \(5 \%\) perpetual growth rate. First, DeVinney testified that JR Cigar could eliminate competitors in a declining market due to its advantageous distribution systems. \({ }^{50}\) Second, Petitioner hypothesized that JR Cigar could have seized upon international sales, sales over the internet, and sales in non-
tobacco related products to grow at \(5 \%\) in perpetuity in spite of a declining domestic market. \({ }^{51}\)

As to international expansion, there is simply no record support for this theory. It is the product of speculation. As to the sale of non-tobacco related products, again, there is no record support that JR Cigar had any plans to enhance revenue in this fashion. In fact, JR Cigar's already minimal sales of fragrances and other merchandise declined in 2000 from the previous year. \({ }^{52}\)

The most compelling rationale offered by Petitioner for JR Cigar's ability to maintain growth at \(5 \%\) is through the elimination of competitors. This rationale has some historical support. Rothman testified that JR Cigar increased revenues and market share in the late 1990s even though the tobacco market was beginning to contract. \({ }^{53}\) Notwithstanding Rothman's testimony, there is no persuasive evidence that JR Cigar's ability to sustain growth in the face of an initial market decline would have translated into long-term growth prospects. Increased market share could explain the \(5 \%\) growth forecasted by management in years 2000 to 2004, but it does not follow that JR Cigar would grow by \(5 \%\) per year into perpetuity. Additionally, increasing market share when the market is declining overall is not a recipe for growth: half of two is one, but all of one is still one.

The problem with ascertaining a growth rate in perpetuity is that it is an inherently speculative enterprise, Jarrell, under questioning by the Court, was refreshingly candid when he stated: "Who knows what the growth rate in perpetuity is going to be. It's a judgment call. \({ }^{, 54}\) The experts, and ultimately the Court, are asked to surmise what rate a company will grow at five years into the future. This is hardly an exact science. In this type of circumstance it is difficult (if not impossible) for litigants to "prov[e] their respective valuation positions by a preponderance of the evidence. \({ }^{" 55}\) Nevertheless, the Court must assess whether one expert's judgment is more defensible than the other. And, on this record, it appears that Jarrell's judgment that JR Cigar's growth rate in perpetuity is at or slightly above the rate of inflation is more credible. Jarrell used a range of \(2.5 \%\) (roughly equal to the long-term rate of inflation in 2000) to \(3.5 \%\) in his DCF analysis. \({ }^{56}\) In my opinion, the upper end of that range is appropriate and fair. Using a rate of \(3.5 \%\) accounts for the possibility, however marginal, that JR Cigar may be able to expand in an otherwise declining domestic market for cigars and cigarettes.

\section*{2. Debt-to-Equity Ratio}
*7 Under a DCF analysis, JR Cigar's future cash flows must be discounted to present value. DeVinney and Jarrell based their discount rates on the weighted average cost of capital ("WACC") methodology. DeVinney explained WACC quite concisely at trial: "It's the cost of equity times the percentage of equity in the capital structure plus the cost of debt times that percentage of debt." \({ }^{, 57}\) The parties dispute the "percentage of debt" part of this equation, primarily because the more weight one gives to debt, the lower the discount rate and the higher the valuation. \({ }^{58}\) Petitioner argues that the appropriate percentage of debt to ascribe to JR Cigar is \(25 \%\). Respondent urges a debt percentage of \(10 \%\) or less.

Respondent's position that \(10 \%\) debt is appropriate is based on three factors. First, before the merger, JR Cigar had no debt. \({ }^{59}\) Second, Jarrell testified that at the time of the transaction JR Cigar did not anticipate any large capital expenditures and that management believed that the Company optimally was run with minimal debt. \({ }^{60}\) Third, Jarrell noted that the only other publicly-traded retail cigar company operated with no debt. \({ }^{61}\)

Petitioner's support for \(25 \%\) debt-allocation is based on four factors. First, Petitioner points to JR Cigar's pre-IPO capital structure, which was approximately \(17 \%\) debt. \({ }^{62}\) Second, DeVinney opined that \(25 \%\) debt was similar to that of comparable companies. \({ }^{63}\) Third, Petitioner argues that JR Cigar had expansion opportunities that would require additional capital. And, fourth, Petitioner notes that JR Cigar borrowed \(\$ 55\) million for the merger. \({ }^{64}\)

Reviewing the record and submissions by the parties, I am convinced that the appropriate percentage of debt for the WACC calculation is \(10 \%\). The pre-IPO structure is not indicative of JR Cigar's going-forward capital structure precisely because it was "pre-IPO." The IPO was in 1997, three years before the valuation date, and the IPO was used to reduce JR Cigar's debt. \({ }^{65}\) Moreover, the comparable companies relied upon by Petitioner are not comparable. The companies used as reference points by DeVinney are manufacturing companies, not retailers. DeVinney conceded on cross-examination that the capital structure of those companies "would be different most likely." 66 As noted above, the only other publicly-traded retail cigar company had no debt. Finally, although I agree that JR Cigar may
have pursued expansion opportunities, no evidence exists to suggest that those opportunities would have required such debt as to justify a \(25 \%\) capital allocation, especially since management did not plan on incurring significant debt and since the Company already had over \(\$ 13\) million in cash and equivalents as of June 30, 2000. \({ }^{67}\)

Petitioner's final justification for a \(25 \%\) debt allocation is that JR Cigar incurred \(\$ 55\) million of debt to finance the merger. Petitioner's argument is that " \([\mathrm{t}]\) he merger did not enhance JR Cigar's ability to borrow; therefore valuing it based on its optimal capital structure instead of its actual capital structure does not contravene, but instead comports with, 8 Del C . 262(h)." \({ }^{68}\) Although Petitioner cites to ONTI, Inc. v. Integra Bank, \({ }^{69}\) that case does not support Petitioner's argument. In ONTI, this Court decided that certain transactions that affected the valuation were "not the product of speculation" and were in place at the time of the merger, "as Cede requires., \({ }^{, 70}\) Nothing in ONTI supports the position the merger itself, in this case the debt incurred because of the merger, can be included as an element of value. Petitioner's consideration of such debt contravenes the valuation statute's command to appraise shares "exclusive of any element of value arising from the accomplishment or expectation of the merger., \({ }^{71}\) Additionally, the fact that the merger did not enhance JR Cigar's ability to borrow does not condone ignoring its actual capital structure in favor of some "optimal capital structure." In In re Radiology Assocs., Inc., \({ }^{72}\) the petitioner argued that the respondent's debt to equity ratio should mimic the overall industry's debt-to-equity ratio because it was more efficacious than the respondent's actual debt-to-equity ratio. The Court dismissed this effort because an appraisal proceeding does "not attempt [ ] to determine the potential maximum value of the company." \({ }^{73}\) I must value JR Cigar, "not some theoretical company."74
*8 JR Cigar had no debt before the merger. Petitioner has introduced no evidence of non-speculative plans to incur significant debt that is not due to the accomplishment of the merger. Therefore, a capital structure of \(25 \%\) debt is not appropriate. A debt ratio of \(10 \%\) is, however, reasonable and accounts for the probability that JR Cigar may seek to incur limited debt to pursue expansion opportunities.

\section*{3. Ibbotson Equity Size Premium}

The parties also disagree about another component of the WACC formula-the cost of equity. A standard method of
ascertaining the cost of equity is CAPM. CAPM is based on the premise that the expected return of a security equals the rate on a risk-free security plus a risk premium. Under CAPM the cost of equity is equal to the risk-free rate (the yield on 20 year Treasury bonds) plus a large company equity risk premium multiplied by the specific company adjusted beta for JR Cigar. Added to this figure is an equity size premium. An equity size premium is added because smaller companies have higher returns on average than larger ones, \({ }^{75}\) i.e., small companies have a higher cost of equity. The equity size premium for all sized companies is published by Ibbotson Associates.

Both experts used CAPM to derive JR Cigar's cost of equity, but applied different equity size premiums. Both used a chart published in Ibbotson to find the premium. \({ }^{76}\) The Ibbotson chart indicates that the size premium for companies with capitalization between \(\$ 192\) and \(\$ 840\) million is \(1.1 \%\), the "low-cap" category. The premium is \(2.6 \%\) for companies with capitalization below \(\$ 192\) million, the "micro-cap" category. DeVinney added an equity size premium of \(1.1 \%\), while Jarrell added 2.6\%. Jarrell placed JR Cigar in the micro-cap category because its market capitalization, based on the traded price of the stock before the announcement of the merger (or based on the merger price), was well below \(\$ 192\) million. \({ }^{77}\) On the other hand, DeVinney placed JR Cigar in the low-cap category because he "determined that the value, the market capitalization, should be more at the fair value implied market capitalization., \({ }^{, 78}\) DeVinney made this determination because the stock price was, in his opinion, depressed. \({ }^{79}\)

Respondent argues that basing the equity size premium on JR Cigar's implied fair value contravenes finance theory. When asked on cross-examination if the Ibbotson text suggested that his methodology was sound, DeVinney answered in the negative. \({ }^{80}\) Jarrell testified that implying the fair value, rather than using a market measurement, is somewhat circular because the whole purpose of the DCF analysis is to ascertain JR Cigar's fair value. \({ }^{81}\) Additionally, Jarrell testified that the Ibbotson data already incorporates illiquidity and depressed values since it is derived exclusively from traded stock prices. \({ }^{82}\) Although one valuation textbook suggests that simply estimating the market value of the equity is appropriate for some WACC calculations, \({ }^{83}\) it does not state whether it is appropriate to imply a fair value to determine the equity size premium, a number derived from actual market prices.
*9 Regardless of whether or not adjusting the equity size premium based on implied fair value is appropriate in some circumstances, I ultimately determine that the record in this case does not support DeVinney's methodology. According to Petitioner, JR Cigar's stock was depressed because Rothman held an abnormally large majority position and because the minority portion of the stock was very illiquid. In order for Petitioner's argument to stand, JR Cigar's stock would have needed to be depressed by over five dollars per shareover half its value. \({ }^{84}\) Petitioner cites to two First Union presentations as support for this position. \({ }^{85}\) These documents reveal that First Union believed JR Cigar's shares were discounted in the public markets because of Respondent's "[s]mall public float," \({ }^{86}\) i.e., the number of shares available for trading, "[s]ignificant inside ownership," 87 and " \([1]\) ack of research coverage., \({ }^{\circ 8}\) But the same documents indicate that the stock was also depressed because of JR Cigar's small market capitalization \({ }^{89}\) and "[n]egative public, legal and governmental sentiment toward tobacco" \({ }^{90}\) These documents offer mixed support for the position that JR Cigar's stock was significantly depressed because they do not quantify the extent to which the stock was depressed by illiquidity as opposed to generalized industry factors. The sour state of the tobacco market would undoubtedly depress JR Cigar's stock price, but would also depress JR Cigar's fair value.

The failure to isolate the specific impact of JR Cigar's illiquidity on its stock price undermines Petitioner's analysis. The illiquidity of a particular security is usually measured by the size of the bid/ask spread. \({ }^{91}\) In general, the lower the liquidity, the higher the bid/ask spread. And when the spread is higher, the "discount" to a firm's fundamental value increases. Petitioner introduced no evidence regarding JR Cigar's bid/ask spread. The only evidence introduced related to JR Cigar's trading volume. That evidence shows that 7.9 million shares of JR Cigar were traded during the 12 months preceding the announcement of the merger-more than double the number of shares not controlled by Rothman. \({ }^{92}\) During this period, JR Cigar's stock price never rose above \(\$ 12.75\) per share-well within the Ibbotson micro-cap category. \({ }^{93}\)

Even assuming that JR Cigar's stock price was depressed because of its illiquidity, Petitioner cannot justify categorizing JR Cigar as a low-cap, rather than micro-cap, company (for the purposes of CAPM) based on this fact. CAPM identifies the expected return on a particular security, an expected return
that is inputted into the WACC and used to discount JR Cigar's future cash flows to present value. The Ibbotson size premium number reflects the empirical evidence that smaller firms have higher returns than larger firms. Petitioner's position that JR Cigar is a low-cap company (rather than a microcap company) decreases the expected rate of return on JR Cigar's stock by lowering the "size premium" applied. The problem with using liquidity as a basis for justifying a lower expected return, however, is that low liquidity is associated with higher expected returns. Investors seek compensation for the high transaction costs of illiquid securities, e.g., the bid/ask spread. In other words, even if JR Cigar had a higher market capitalization than the market price of its stock suggested because of its illiquidity, investors would still expect higher returns because of its illiquidity.
*10 Petitioner also seeks to justify the categorization of JR Cigar as a low-cap company based on its beta. A company's beta is the measure of its volatility in relation to the overall market, in this case the S \& P 500. Petitioner's argument is that JR Cigar's adjusted beta, calculated by DeVinney at .62, is much lower than the betas of the other companies in its Ibbotson micro-cap group. \({ }^{94}\) This argument is unavailing for several reasons. First, there is no evidence that DeVinney categorized JR Cigar as a low-cap company based on its low beta. DeVinney only testified that he thought that JR Cigar's stock was "depressed." \({ }^{\text {" }}\) Second, Petitioner did not introduce evidence that JR Cigar's beta is outside the ranges of betas for the micro-cap category. Lastly, the size premium is not dependent on the beta of the firm. In fact, it is because the beta does not capture all the systemic risk that a size premium is included. " \([E]\) ven after adjusting for the systematic (beta) risk of small stocks, they outperform large stocks."96

\section*{4. Tax Rate}

Petitioner argues that JR Cigar's tax rate is \(36 \%\). DeVinney arrived at this figure after reviewing JR Cigar's income statement contained in Merrill Lynch's August 28, 2000 presentation to the JR Cigar Board. \({ }^{97}\) The income statement does not actually list JR Cigar's tax rate, but the rate used by Merrill Lynch can be deduced by calculating the difference between the yearly EBIT and net income figures over the historical and forecast period. Merrill Lynch's figures imply a tax rate near the \(36 \%\) rate used by DeVinney. \({ }^{98}\) The August 28, 2000 presentation, as well as other documents, \({ }^{99}\) indicate that Merrill Lynch's income statement was based on management forecasts and estimates. It is unclear from
the face of these documents, however, what exactly JR Cigar management provided to Merrill Lynch. Merrill Lynch's due diligence request list does not show that Merrill Lynch ever asked for JR Cigar's effective tax rate. \({ }^{100}\) No evidence indicates that Merrill Lynch ever received such information.

Even if management did provide Merrill Lynch with information regarding its effective tax rate, the presentation upon which Petitioner relies does not imply that management gave Merrill Lynch the \(36 \%\) figure that DeVinney used for his calculations. A colloquy between DeVinney and Respondent's counsel on cross-examination demonstrated that the Merrill Lynch presentation may have included other items in JR Cigar's net income, resulting in an implied tax rate lower than the actual tax rate. \({ }^{101}\) DeVinney could have made some inquiry, but did not speak to anybody at Merrill Lynch or JR Cigar to identify the actual effective tax rate. \({ }^{102}\)

Fortunately, the Court does not need to engage in guesswork to determine JR Cigar's tax rate. Note 6 to JR Cigar's financial statements in its 1999 Annual Report explicitly states that the tax rate was \(40.9 \%\) in 1997, \(40.1 \%\) in 1998, and \(40.2 \%\) in 1999. \({ }^{103}\) This information came from management. \({ }^{104}\) Nothing indicates that management understood that the \(40 \%\) tax rate would decline. \({ }^{105}\) JR Cigar's CFO indicated that the tax rate was \(40 \%\) and, generally, \(40 \%\) is a common tax rate to use. \({ }^{106}\) At the end, JR Cigar's historical tax rate published in its annual report is more reliable than speculation regarding Merrill Lynch's analysis.

\section*{5. Reconciling the Differences in the DCF Analyses}
*11 The parties anticipated that the validity of the DCF calculations would hinge on the four differing assumptions examined above. Respondent introduced a demonstrative exhibit at trial that purported to recast DeVinney's DCF analysis by integrating Jarrell's assumptions. \({ }^{107}\) Respondent, for example, introduced a demonstrative exhibit that showed the impact that changing the tax rate had on DeVinney's DCF calculations. \({ }^{108}\) According to Respondent, changing the four variables discussed at length in this section has the effect of reducing DeVinney's imputed fair value by \(\$ 9.95\) per share. \({ }^{109}\) In its opening brief, Petitioner took issue with these calculations and stated that the composite effect of the four variables is to decrease DeVinney's DCF value per share by \(\$ 8.03 .{ }^{110}\) In other words, the parties put Jarrell's
assumptions into DeVinney's model and came up with two different values. \({ }^{111}\)

Failing to adhere to elementary principles and to "show your work," the Court was unable to ascertain the nature of the \(\$ 1.92\) (the difference between \(\$ 9.95\) and \(\$ 8.03\) ) discrepancy. Nonetheless curious as to why the DCF estimates were off by almost two dollars per share, I sought the parties input on this issue. \({ }^{112}\) The parties' responses were less than satisfactory as they largely regurgitated exhibits already submitted at trial. Although Respondent was able to ascertain some of the discrepancy, it was ultimately unable to reconcile \(\$ 0.69\) per share difference. \({ }^{113}\) Despite having the benefit of Respondent's submission, Petitioner was unable to explain the reason for any of the discrepancy. \({ }^{114}\) As such, insufficient evidence has been presented to enable the Court to integrate Jarrell's assumptions (those largely accepted by the Court) into DeVinney's DCF model. \({ }^{115}\) Consequently, the Court must rely on Jarrell's DCF model exclusively.

\section*{C. Jarrell's Market-Based Analysis}

\section*{1. Measurement of Control Premiums}

Jarrell, in addition to his DCF analysis, looked at how the premium paid in the JR Cigar merger compared with control premiums paid in 2,077 deals between January 1995 and August 2000. \({ }^{116}\) For that sample, the median one-day control premium was \(25 \%\) and the mean one-day control premium was \(30.4 \%\). Isolating the 31 mergers out of 2,077 where the buyer already owned \(75 \%\) or more of the stock (as is the case here), Jarrell found that the median one-day control premium for those 31 transactions was \(17 \%\), as compared with the \(21 \%\) premium paid by the Rothmans. Petitioner argues, among other things, that this analysis "violate[s] any concept of comparability, including the 'law of one price.", \({ }^{117}\) I agree.

The only thing that the transactions in Jarrell's sample have in common are that they are all transactions. The data is not segmented by industry or date. The one-day premiums vary considerable; the standard deviation is \(32 \%\). \({ }^{118}\) Additionally, it is not clear that any analysis of premiums over all transactions has any bearing on "fair value" in an appraisal action, even if it may bear on how efficiencies arising from a merger could equitably be apportioned between the buyer and the sellers.

\section*{2. "Market Check"}
*12 Jarrell considered the fact that First Union was unable to find any interested potential acquirers and that none emerged once the deal was publicly announced at \(\$ 13\) per share. \({ }^{119} \mathrm{He}\) testified that "in my judgment, the evidence clearly indicated that there were no such offers and that there were no such folks out there willing to pay that, because if there were, they would have shown up ."120

Although Jarrell's testimony has a certain intuitive appeal, there is insufficient record support from which a reliable conclusion can be drawn about this "market check." First Union, JR Cigar's financial advisor at the time, was only authorized to conduct a "limited market check." \({ }^{121}\) As such, First Union only contacted two possible buyers. \({ }^{122}\) Little can be drawn from the fact that these two buyers declined to make an offer. Additionally, simply because no rival bidders appeared after the announcement of the going private proposal does not help the Court ascertain the fair value of JR Cigar.

\section*{D. The Court's Determination}

The comparable transactions looked at by DeVinney are not reliable indicators of the fair value of JR Cigar. The only transaction worth noting is the Swisher International transaction that was, in the opinion of Merrill Lynch, the most comparable to the JR Cigar transaction. \({ }^{123}\) That transaction implies a fair value of \(\$ 12.00\) per share. \({ }^{124}\) Jarrell's market based analysis, the measurement of control premiums and his "market check," are not reliable indicators of JR Cigar's fair value. In my opinion, the more "reliable" indicator of JR Cigar's fair value is a DCF analysis.

The four key DCF variables identified by the parties are JR Cigar's growth rate in perpetuity, its debt to equity ratio, the equity size premium, and JR Cigar's tax rate. As discussed earlier in the Court's analysis, the appropriate growth rate in perpetuity is \(3.5 \%\), the WACC calculation should reflect a \(10 \%\) debt ratio, the equity size premium included in the CAPM calculation should be 2.6 , and JR Cigar's effective tax rate is \(40 \%\). Jarrell's DCF calculations include an equity size premium of 2.6 and a tax rate of \(40 \%\). Jarrell uses a range of growth rates ( \(2.5 \%\) to \(3.5 \%\) ) and a range of discount rates \((13 \%\) to \(15 \%)\). The range of discount rates reflect a debt weighting of \(0 \%\) to \(10 \%\) ( \(13 \%\) discount rate reflecting \(10 \%\) debt). Looking at the upper end of Jarrell's ranges, i.e.,
\(10 \%\) debt and \(3.5 \%\) growth, his DCF model produces a value of \(\$ 13.58\) per share. \({ }^{125}\) Given that the parties are incapable of reconciling divergent results when Jarrell's variables are placed in DeVinney's model, I will not engage in my own quixotic attempt to do so. The fair value of JR Cigar as of October 4, 2000 is \(\$ 13.58\) per share.

\section*{E. Interest}

\section*{1. Legal Framework}

This Court's decision in Gonsalves v. Straight Arrow Publishers, Inc. \({ }^{126}\) is an accepted method for determining the rate of interest in appraisal actions. Gonsalves rests on the principle that the interest award should serve two purposes. First, it should disgorge the respondent of any benefit it received from the use of the petitioner's funds. Second, the interest award should compensate the petitioner for the loss of the use of its money. The second purpose, however, is countenanced with the understanding that the election to "reject the merger amount and to pursue appraisal does not shift to the corporation all responsibility for losses [the petitioner] may incur as a result of [its] inability to use the funds retained by the corporation" and that the petitioner can mitigate its losses and obtain perfect "compensation for the loss of the use of their funds by borrowing the fair value of their shares." \({ }^{127}\) Gonsalves, and several other decisions, \({ }^{128}\) have found that these twin purposes are served by awarding interest by weighing equally the respondent's actual costs of borrowing and, based on an objective prudent investor standard, the petitioner's opportunity cost. The prudent investor portfolio in Gonsalves consisted of \(20 \%\) in broadly diversified common stocks, \(40 \%\) in United States Treasury and corporate bonds, and \(40 \%\) in money markettype instruments or their equivalent, i.e., bank certificates of deposit. \({ }^{129}\) The S \& P 500 was used as a proxy for broadly diversified stocks. \({ }^{130}\)

\section*{2. Rate of Interest}
*13 DeVinney's expert report stated that the appropriate rate of interest was \(8 \%\), compounded annually. \({ }^{131}\) Cede's position as to the appropriate rate of interest has changed twice since that report. DeVinney testified at trial that the appropriate rate was \(5.5 \%{ }^{132}\) and that he had "abandoned" the proposed rate of \(8 \% .{ }^{133}\) DeVinney changed his opinion about the fair rate of interest upon review of this Court's opinion in Gonsalves. \({ }^{134}\)

In arriving at an interest rate of \(5.5 \%\) at trial, DeVinney used the Gonsalves approach with two exceptions.

First, DeVinney averaged several commonly used stock indices to serve as a proxy for broadly diversified stocks, instead of using the S \& P 500 exclusively. \({ }^{135}\) Second, DeVinney, instead of simply averaging JR Cigar's cost of borrowing and the returns of a prudent investor portfolio, weighted JR Cigar's borrowing costs at \(75 \%\). He testified that this weighting was based on Petitioner's subjective opportunity cost. \({ }^{136}\) Specifically, DeVinney increased the emphasis on Respondent's borrowing costs because the Royce family of funds that held JR Cigar stock over the period had returns that were higher than an objective prudent investor portfolio. \({ }^{137}\)

Respondent does not advocate using DeVinney's opinion at trial as to the fair rate of interest, but instead argues for an interest rate of \(8 \%\), i.e., the rate that DeVinney originally espoused and later abandoned. In its post-trial brief, Petitioner proposes using a version of the Gonsalves approach to arrive at the fair rate of interest, albeit in a manipulated fashion. Petitioner advocates using the prime rate at the time of the merger, \(9.5 \%\), as JR Cigar's cost of borrowing. \({ }^{138}\) Petitioner does not adjust that rate, however, to reflect the changes in the prime rate from the time of the merger to the date of judgment. Petitioner then weighs JR Cigar's unadjusted cost of borrowing thrice and DeVinney's prudent investor portfolio rate of return once to arrive at an interest rate of \(8 \% .{ }^{139}\)

Petitioner's use of \(9.5 \%\) as JR Cigar's cost of borrowing is incorrect. The parties agree that Petitioner's cost of borrowing from the time of the merger to the present has been the prime rate. And it is undisputed that the prime rate was \(9.5 \%\) at the time of the merger. The prime rate, however, has declined significantly since the date of the merger. Jarrell accounted for this fact, as did this Court's opinion in Gonsalves. \({ }^{140}\) The prime rate at the time of the merger may have been JR Cigar's borrowing costs three years ago, but it is not JR Cigar's actual borrowing costs during the relevant period, which is from the time of the merger to the date of judgment. In order to determine the cost of borrowing for the relevant period, one must ascertain Respondent's borrowing costs from the date of the merger and at regular intervals, i.e., monthly, until an appropriate ending point near the judgment date. Respondent's borrowing costs should also be compounded during that period. Based on monthly compounding of the historical values for the prime rate, Jarrell calculated JR

Cigar's cost of borrowing to be \(5.96 \% .{ }^{141}\) Accordingly, I find that \(5.96 \%\) is JR Cigar's borrowing costs, not \(9.5 \%\) as suggested by Cede.
*14 Petitioner's weighting of JR Cigar's borrowing costs more than its own opportunity cost, as reflected by a prudent investor portfolio, is also incorrect. At trial, DeVinney testified that the excess weight given to Respondent's borrowing costs was due to Cede's subjective opportunity costs. \({ }^{142}\) DeVinney stated that because Cede's own funds achieved a rate of return around \(9 \%\), it was his judgment that JR Cigar's cost of borrowing should be given more weight. \({ }^{143}\) In its post-trial brief, Royce makes the same assertion. \({ }^{144}\) I reject Petitioner's position for two reasons. First, it does not make any sense for this Court to adjust for the higher, subjective opportunity cost of Petitioner by increasing the emphasis on Respondent's borrowing costs. Second, this Court rejected approaches geared towards a petitioner's subjective opportunity cost in Gonsalves. \({ }^{145}\) The language of Gonsalves was clear: "Although the Court may look at the actual cost of borrowing by the respondent company, the Court determines the petitioner's opportunity cost based on an objective standard., \({ }^{146}\) Several other decisions have similarly rejected consideration of a petitioner's subjective opportunity cost in awarding interest. \({ }^{147}\) Petitioner voluntarily relinquished funds it could have otherwise invested as it pleased and cannot now argue that in hindsight it would have used those funds to achieve higher returns than the objectively prudent investor. \({ }^{148}\) Respondent's cost of borrowing and Petitioner's opportunity cost shall have equal weight.

Although I have found that the prudent investor portfolio should have equal weight as Respondent's borrowing costs, that portion of the portfolio that represents broadly diversified common stocks does not have to use the S \& P 500 as its exclusive proxy. Gonsalves does not suggest that the \(\mathrm{S} \& \mathrm{P}\) 500 is the only representative index of the types of stocks that the prudent investor would hold. Even JR Cigar's expert noted at trial that "you have some choices" \({ }^{149}\) and that he selected the S \& P 500 simply because it is the most well known. \({ }^{150}\) DeVinney averages a variety of indices to arrive at the rate of return of broadly diversified common stocks. There is no error with this approach, especially where, as here, the S \& P 500 had the worst returns of all the major stock indices. JR Cigar's only objection to this approach is that it will result in the double counting of some stocks. This objection is without
merit. In fact, this simply reflects the reality that some stocks, i.e., those included in the S \& P 500, are more widely held than others. As such, I find that the rate of return on the prudent investor portfolio is \(3.5 \%\), as calculated by DeVinney.

JR Cigar's cost of borrowing is \(5.96 \%\). Petitioner's opportunity cost, as measured by the objective prudent investor, is \(3.5 \%\). Giving equal weight to each element, the appropriate rate of interest in this appraisal action is \(4.73 \%\).

\section*{3. Form of Interest}
*15 The last matter for consideration is the form of interest. "The compounding interval should ... reflect the interval available to the petitioners had they the use of their funds as well as, if possible, the interval actually received by the corporation." \({ }^{151}\) Petitioner requests that interest be compounded daily. Although I have commented that daily compounding may be appropriate in some cases, \({ }^{152}\) Petitioner has not introduced evidence that daily compounding is appropriate in this case. In fact, DeVinney compounded interest annually in his report. \({ }^{153}\) JR Cigar's post-trial brief is silent regarding the compound interval, as is Jarrell's report. Jarrell does, however, compound the prime rate on
a monthly basis in order to determine JR Cigar's annual borrowing costs. \({ }^{154}\) Ultimately, given that neither side has provided evidence as to the appropriate interval, "I find that the dual purposes of compensation and restitution may only be served by a compounding interval at least as frequent as one month." \({ }^{155}\)

\section*{IV. CONCLUSION}

The fair value of Petitioner's 652,400 shares of JR Cigar stock as of the merger date is \(\$ 13.58\) per share. Respondent must pay Petitioner \(\$ 8,859,592.00\), plus interest of \(4.73 \%\), compounded monthly, from October 4, 2000 to the date of payment.

Counsel shall confer and agree upon a form of Order to implement this decision.

\section*{All Citations}

Not Reported in A.2d, 2004 WL 286963, 29 Del. J. Corp. L. 887

\section*{Footnotes}

1 Section 253 allows an owner of \(90 \%\) of a corporation to "cash-out" the minority.
2 Ex. 65 (Expert Report of Gregg A. Jarrell); Ex. 66 (Expert Report of Charles M. DeVinney).
3 Cede \& Co. v. Technicolor, Inc., 684 A.2d 289, 298 (Del.1996) (citing Cavalier Oil Corp. v. Harnett, 564 A.2d 1137, 1145 (Del.1989).
4 Cavalier Oil Corp., 564 A.2d at 1145.
58 Del. C. § 262(h).
6 Cede \& Co., 684 A.2d at 299 (citing Weinberger v. UOP, 457 A.2d 701, 713 (Del.1983)).
7 Weinberger, 457 A.2d at 713.
8 Ryan v. Tad's Enterprises, Inc., 709 A.2d 682, 702 (Del.Ch.1996), aff'd, 693 A.3d 1082 (Del.1997) (TABLE).
9 See, e.g., Gilbert v. MPM Enterprises, Inc., 709 A.2d 663, 668 (Del.Ch.1997), aff'd, 731 A. 2 d 790 (Del.1999).
10 See, e.g., Taylor v. American Specialty Retailing Group, 2003 WL 21753752, at *2 (Del.Ch. July 25, 2003) (disregarding expert opinion that did not use management projections); Gray v. Cytokine Pharmasciences, Inc., 2002 WL 853549, *8 (Del.Ch. Apr.25, 2002) (same).
11 M.G. Bancorporation, Inc. v. LeBeau, 737 A.2d 513, 520 (Del.1999).
12 Gonsalves v. Straight Arrow Publishers, Inc., 701 A.2d 357, 360-61 (Del.1997).
13 ld.
14 Ex. 3. Leaf was the codename for JR Cigar.
15 Id.; Ex. 1 (Offer to Purchase).
16 Ex. 3.
17 Id. at JRC 0325. Only some exhibits are Bates numbered. Where possible, I cite to a specific page of an exhibit by referencing its Bates number. In some circumstances, however, I must cite to whatever pagination is found in the exhibit.
18 ld.

Cede \& Co. v. JRC Acquisition Corp., Not Reported in A.2d (2004)
29 Del. J. Corp. L. 887
19 Tr. at 136 (DeVinney Cross).
20 Ex. 27 (800-JR Cigar, Inc. Form 10-K filed with the SEC for the year ended December 31, 1998) at Item 1.
21 Tr. at 143-44.
22 Ex. 43 (General Cigar Holding Inc. Amendment No. 2 to Schedule 14A) at 25.
23 Ex. 66 at 17 n. 11.
24 Ex. 43 at 32.
25 Tr. at 139:16-17 ("It would probably explain some of the premium."). See also Ex. 43 at 20 (describing Swedish Match transaction as a strategic acquisition).
26 Tr. at 142:19.
27 Ex. 3 at JRC 0325.
28 Ex. 66 at 17. The wide divergence in transaction multiples is troubling because it violates the law of one price, which holds that in a well-informed and efficient market, similar assets should sell for similar prices, adjusting for scale. See Bradford Cornell, Corporation Valuation: Tools for Effective Appraisal and Decision Making 56-57 (1993); Tr. at 229-30 (Jarrell Direct). It is notable that Jarrell raised this issue before knowing that DeVinney would use a comparable transactions analysis. Ex. 65 at 29-31.
29 Francis L. Wellman, The Art Of Cross-Examination 7 (4th rev. ed.1948).
30 Ex. 3 at JRC 0312.
31 Petitioner's Opening Brief ("OB") at 7-8; Respondent's Answering Brief ("AB") at 14.
32 See Ex. 66 at Ex. B (DCF worksheet); Ex. 65 at Ex. 4 (same).
33 Ex. 65 at 20.
34 Ex. 66 at 25.
35 Tr. 165:8-14.
36 Ex. 24 (Fleet Credit Offering Memorandum). Fleet provided part of a \(\$ 55\) million loan to finance the merger. Ex. 1 at 38.
37 Tr. at 60:14-16.
38 Tr. at 261-62, Petitioner urges the Court to be skeptical of Colleton's recollections on this and certain other matters citing Taylor, 2003 WL 21753752, at *2, and Gray, 2002 WL 853549, at *8, without elaboration. These cases, if anything, support the Court's reliance on the information Colleton provided to Jarrell because in both of those cases the Court held that an expert's opinion was unreliable because it disregarded information prepared by management in favor of projections that the expert prepared on his own. In this case Respondent's expert sought the input of management. Petitioner's expert is the one that had the opportunity to seek information from management, but declined the opportunity. Tr. at 130-31. Additionally, DeVinney did not speak to any industry analysts, Merrill Lynch, or First Union, even though he is admittedly unfamiliar with the industry in which JR Cigar operates. Id.
39 Tr. at 261-62.
40 Ex. 24 at 18-19.
41 Ex. 65 at 20; Tr. 216-18.
42 Tr. at 216-17.
43 Ex. 65 at 13-15.
44 Ex. 3 at JRC 0292.
45 Deposition of Lewis Rothman ("Rothman Dep.") at 50-51.
46 Ex. 67 (Report of Congress: U.S. Tobacco Production, Consumption, and Export Trends). Petitioner objected at trial to the use of this evidence by Respondent because the document is dated June 3, 2003, but this post-merger data is admissible because the declining domestic consumption of cigarettes was "known or susceptible of proof as of the date of the merger and not the product of speculation." Weinberger, 457 A.2d at 713.
47 Tr. at 217:22-218:1.
48 Ex. 24 at 4 . I am not sure where Fleet finds support for the assertion that the cigar market will grow by \(5 \%\) since Merrill Lynch, with its history of advising clients in the cigar industry, reached a different conclusion, as did Rothman and the Congressional Research Service. Moreover, there is no indication in the Fleet document that this reference refers to periods after 2004. It could easily refer to management's five-year projections.
49 Rothman Dep. at 80:18-24; 221:20-222:5.
50 Tr. at 17-18.

51 See Ex. 67 at 26-29 (international market); OB at 10-11 (citing exhibits related to internet sales); Tr. at 17-18 (internet sales); Tr. 170-71 (non-tobacco products).
52 Ex. 3 at JRC 0295.
53 Rothman Dep. at 80:18-24, 222:20-222:5.
54 Tr. 260:12-13.
55 M.G. Bancorporation, 737 A.2d at 520.
56 Ex. 65 at 20.
57 Tr. 64:24-65:4.
58 Tr. at 164 (DeVinney Cross).
59 Ex. 65 at 18.
60 Tr. 200-01. As noted earlier, I am unmoved by concerns regarding Jarrell's discussions with JR Cigar's CFO, especially where, as here, DeVinney conceded on cross-examination that Colleton would have a better understanding of JR Cigar's optimal capital structure than he did. Tr. at 163-64.
61 Tr. at 215.
62 Ex. 71 (800-JR Cigar, Inc. Common Stock—Prospectus date June 6, 1997) at 20.
63 Tr. 66:12-23.
64 Ex. 1 at 38.
65 Ex. 71 at 5 (discussion regarding "Use of Proceeds").
66 Tr. at 163:6.
67 Tr. at 200-01; Ex 65 at 18.
68 Petitioner's Reply Brief ("RB") at 8.
69751 A.2d 904, 910-11 (Del.Ch.1999).
70 Id. at 910.
718 Del. C. 262(h). Simply because the merger did not enhance JR Cigar's ability to borrow does not mean that the debt is not an "element of value" under the statute. The fact that the debt was incurred is itself the "element of value."
72611 A.2d 485 (Del.Ch.1991).
73 Id. at 493.
74 ld
75 Ibbotson Associates, Ibbotson, stocks, bonds, bills and inflation: Valuation edition 2001 Yearbook 107 (2001) ("lbbotson").
76 Id. at 244.
77 Tr. at 210-11.
78 Tr. at 91:8-10. In other words, DeVinney thought the Company was worth more than the market thought it was worth.
79 Tr. at 91-92.
80 Tr. at 151-52.
81 Tr. at 207-208.
82 Id.
83 See, e.g., Cornell, supra note 28 , at 224-25 (suggesting iterative process for estimating equity weight).
84 The low-cap grouping where DeVinney placed JR Cigar is reserved for companies with a market capitalization of \(\$ 192\) million, "implying" a "fair value" of over \(\$ 15.50\) per share.
85 Ex. 41 (First Union Securities, Inc. Materials for Discussion dated Jan. 1, 2000); Ex. 70 (First Union—Materials for Discussion dated Jan. 11, 1999).
86 Ex. 70 at 33.
87 Ex. 41 at 10.
88 Ex. 70 at 33.
89 Ex. 41 at 10.
90 Id. See also Ex. 3 at 4 (stock prices in tobacco industry depressed).
91 Ibbotson, supra note 77, at 134.
92 Ex. 10 (Stock prices and volume for 800-JR Cigar, Inc., Stand and Poor's 500 Index and the Standard and Poor's 600 Small Cap. Index from June 25, 1997 through October 5, 2000).
93
ld.

94 DeVinney calculated a beta of . 62 based on a period beginning six months after JR Cigar's IPO. Tr. at 84-85. Jarrell calculated a beta of .67 based on a period beginning a week after the IPO. Id. Neither period is presumptively valid. A longer period of time, such as the period used by Jarrell, is generally preferred. A five-year period, longer than the period used by either expert, is the most common. Shannon P. Pratt, Cost of Capital: Estimations and Applications 82 (2d ed.2002). Petitioner's argument that the stock should be given time to "season" after an IPO is understandable, but I am unsure why this takes six months.
95 Tr. at 91-92.
96 Ibbotson, supra note 77, at 44. Separately, Petitioner suggests that JR Cigar's raw beta is more appropriate than the adjusted beta. Petitioner's own expert did not use the raw beta, probably because doing so is inaccurate. Betas based on observed historical data are more representative of future expectations when they are adjusted. Pratt, supra note 96, at 89.
97 Ex. 3 at JRC 0306.
98 The average tax rate for all eight years shown on the income statement is over \(37 \%\). Id.
99 Ex. 1 at 11.
100 Ex. 37 (Project Leaf Due Diligence Request List dated July 12, 2000).
101 Tr. at 158:11-24.
102 Tr. at 131-32.
103 Ex. 45 at 17-18.
104 Tr. at 154-56 (DeVinney Cross).
105 Tr. at 159.
106 Tr. at 211-12.
107 Ex. 77.
108 Id., Chart A.
109 ld., Chart E.
110 OB at 25 . These estimates do not assume the use of an exit multiple in the DCF calculation, as I have determined that the exit multiple used by DeVinney is unreliable.
111 This discrepancy is in addition to the fact that Jarrell's model generates a fair value per share that is different from using his assumptions in DeVinney's model.
112 Letter from Chandler, C. to Counsel of \(1 / 2 / 04\).
113 Letter from Walsh to Chandler, C. of \(1 / 12 / 04\), at 2. It is notable that some \(\$ 0.83\) of the discrepancy was attributed to possible calculation errors by DeVinney. Id.
114 Petitioner's submission was a day late and (almost literally) a dollar short. Letter from Mondros to Chandler, C. of 1/13/04. Importantly, Petitioner did not deny that DeVinney made calculation errors.
115 This problem was compounded by Petitioner's decision to not comply with my request to "provide the Court with electronic versions (Microsoft Excel compatible) of the DCF worksheets," e.g ., "Exhibit 4 of Prof. Jarrell's report." Letter from Chandler, C. to Counsel of \(1 / 2 / 04\), at 2 . Only Respondent complied with this request.
116 See Ex. 65 at 21-26.
117 OB at 29.
118 Ex. 11 (Data on mergers between January 1995 and August 200 from Thomson Financial SDC database).
119 See Ex. 65 at 27-29.
120 Tr. at 225.
121 Ex. 69 (Special Meeting Minutes of the Board of Directors) at JRC 0033; Ex. 38 (Presentation to Board of Directors by First Union Securities, Inc.) at JRC 94.
122 Ex. 50 (First Union Situation Overview: Proposed Offer from Lew and Lavonda Rothman) at ML 186.
123 Ex. 3 at JRC 0325.
124 Id.
125 Ex. 65 at Ex. 4. Jarrell calculated a discount rate of \(13.12 \%\) based on a debt ratio of \(10 \%\) and a beta of .67 . Ex. 65 at 19 . He rounded this number down to \(13 \%\). Keeping everything else the same, but substituting DeVinney's "seasoned" beta of .62 , results in a discount rate of \(12.77 \%\). I find that a discount rate of \(13 \%\) is reasonable.
1262002 WL 31057465 (Del.Ch. Sept.10, 2002).
127 Grimes v. Vitalink Communications Corp., 1997 WL 538676, at *10 (Del.Ch. Aug.28, 1997).

128 See Hintmann v. Fred Weber, Inc., 1998 WL 83052, at *12 (Del.Ch. Feb.17, 1998) (Steele, V.C.); Ryan v. Tad's Enterprises, Inc., 709 A.2d 682, 705 (Del.Ch.1996) (Jacobs, V.C.); Kleinwort Benson Ltd. v. Silgan Corp., 1995 WL 376911, at *10 (Del.Ch. June 15, 1995).
129 Gonsalves, 2002 WL 31057465, at *13 n. 59.
130 ld. at *11.
131 Ex. 66 at 28. DeVinney arrived at \(8 \%\) after consideration of the rate of return of certain corporate bonds and various investment funds managed by Royce (the investment fund that Cede held Respondent's shares on behalf of). DeVinney initially gave no consideration to JR Cigar's cost of borrowing.
132 Tr. at 115-16.
133 Tr. at 174.
134 Tr. at 115.
135 Tr. at 118. DeVinney, using this broadened prudent investor portfolio, calculated a return of \(3.5 \%\). Id.
136 Tr. at 119-20.
137 ld.
138 The parties agree that Respondent's cost of borrowing is the prime rate. \(O B\) at 32 ; \(A B\) at 34 .
139 OB at 32 . Those calculations actually result in a figure of \(8.3 \%\), but Respondent only argues for \(8 \%\) interest.
140 In Gonsalves the Respondent's cost of borrowing was "compounded monthly [from] the date of the merger." Id. at *13.
141 Ex. 65 at 39.
142 Tr. at 119-20.
143 ld.
144 OB at 32.
1452002 WL 31057465, at *12.
146 Id.
147 See Grimes, 1997 WL 538676, at *10; Chang's Holdings S.A. v. Universal Chems. \& Coalings, 1994 WL 681091, at *4 (Del.Ch. Nov.22, 1994); Lebman v. National Union Electric Corp., 414 A.2d 824, 829 (Del.Ch.1980).
148 Petitioner also cannot argue that it is forwarding an objective standard because it only changes the weight given to the objective prudent investor portfolio. Ultimately, Petitioner advocates de-emphasizing the objective opportunity cost portion of the interest award in order to account for its returns on the Royce family of funds, a subjective consideration.
149 Tr. at 232.
150 ld.
151 Grimes, 1997 Del. Ch. LEXIS 124, at *55, 1997 WL 538676.
152 See ONTI, 751 A. \(2 d\) at 927 \& n. 93.
153 Ex. 66 at 28.
154 Ex. 65 at 39.
155 Grimes, 1997 Del. Ch. LEXIS 124, at *55, 1997 WL 538676.
KeyCite Red Flag - Severe Negative Treatment
Judgment Affirmed in Part, Reversed in Part by Cede \& Co. v. Technicolor,Inc., Del.Supr., May 4, 2005
2003 WL 23700218
Only the Westlaw citation is currently available.
UNPUBLISHED OPINION. CHECKCOURT RULES BEFORE CITING.
Court of Chancery of Delaware.
CEDE \& CO. andCinerama, Inc., Petitioners,
            V.TECHNICOLOR, INC., Respondent.
No. Civ.A. 7129.
        ।
        Submitted July 11, 2003.

\section*{TABLE OF CONTENTS}
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Decided Dec. 31, 2003.
Revised July 9, 2004.

\section*{Attorneys and Law Firms}

Robert K. Payson, Arthur L. Dent, and Catherine A. Strickler, of Potter Anderson \& Corroon LLP, Wilmington, Delaware; Gary J. Greenberg, New York, New York, for Petitioners, of counsel.

Thomas J. Allingham II, Edward B. Micheletti, James A. Whitney, and T. Victor Clark, of Skadden, Arps, Slate, Meagher \& Flom LLP, Wilmington, Delaware, for Respondent.

MEMORANDUM OPINION
CHANDLER, J.
I. PROCEDURAL AND FACTUAL BACKGROUND. ..... 1
II. VALUATION OF TECHNICOLOR ..... 5
A. The Valuation Experts ..... 5
B. The Experts' Methodology. ..... 10
III. VALUATION UNDER THE PERELMAN PLAN. ..... 11
IV. VALUATION OF THE RETAINED BUSINESSES. ..... 16
A. North hollywood. ..... 16
1. Management Forecasts. ..... 17
a. Management forecasts are beneficial in an appraisal context. ..... 18
b. Technicolor management's projections were consistently accurate ..... 20
c. Trends in the industry ..... 22
2. Torkelsen's Regression Analysis. ..... 24
a. When regression analysis is appropriate. ..... 25
b. Regression analysis is not appropriate for valuing North Hollywood. ..... 26
c. Even if appropriate, Torkelsen's use of regression analysis leads to ..... 30 unreasonable results.
31
i. Footage
ii. Revenues, costs, and margins. ..... 35
iii. Growth rates ..... 42
3. Easton's Analysis. ..... 48
a. Revenue and sales ..... 48
i. Footage. ..... 49
ii. Price and revenue ..... 53
iii. Margins ..... 55
iv. Net investment in fixed capital and working capital ..... 57
v. Conclusion. ..... 59
B. newbury park. ..... 61
1. Business Prospects for the Pre-recorded Videocassette Industry. ..... 61
a. Low barriers to entry ..... 66
b. Competing technologies ..... 67
c. Legal complications. ..... 68
d. Marketing strategies ..... 69
2. Business Prospects for Newbury Park Specifically. ..... 71
3. Valuation of Newbury Park ..... 74
a. Rejection of the Torkelsen Report. ..... 74
b. Easton Report. ..... 83
i. Sales and sales growth ..... 86
ii. Operating margins ..... 91
iii. Fixed/working capital investment, depreciation, and change in net operating ..... 93 assets.
iv. Newbury Park valuation conclusion ..... 95
C. other businesses. ..... 97
1. East Coast (New York), ..... 101
2. Technicolor, Ltd. (London) ..... 102
3. Technicolor, S.p.A. (Rome). ..... 103
4. Government Services ..... 104
5. Vidtronics. ..... 105
6. Magna Crafts. ..... 106
7. Conclusion. ..... 107
D. Corporate headquarters. ..... 107
1. Cost of Operations. ..... 110
2. Fixed and Working Capital Investment: Depreciation. ..... 111
3. Conclusion. ..... 113
V. VALUATION OF THE BUSINESSES TO BE SOLD ..... 114
VI. DISCOUNT RATE ..... 119
A. capital structure. ..... 120
1. Long-Term Debt. ..... 120
2. Debt-to-Equity Capital Structure ..... 122
B. cost of equity capital. ..... 122
1. Risk-free Rate. ..... 123
2. Technicolor's Beta. ..... 123
3. Equity Risk Premium. ..... 125
4. Conclusion. ..... 127
C. after-tax cost of debt. ..... 127
D. technicolor's cost of capital. ..... 128
VII. THE FINAL VALUATION OF TECHNICOLOR UNDER THE PERELMAN ..... 128 PLAN. ..... 128129
A. The Supreme Court's fairness opinion. ..... 131
B. The Market price. ..... 131
C. knowledgeable insiders accept \$23/share. ..... 132
D. conclusion ..... 133
IX. POST-JUDGMENT INTEREST. ..... 134
A. Form of Interest. ..... 139
B. Applicable period. ..... 141
C. rate of interest. ..... 141
D. conclusion ..... 142
X. CONCLUSION ..... 143
*1 This case involves the appraisal of 201,200 shares of respondent Technicolor, Inc. owned by petitioner Cinerama, Inc. The litigation began in 1983. There have been five remands by the Supreme Court and two appraisal trials before two different trial judges. The second appraisal trial was completed in May 2003. This is the Court's decision, following the May 2003 trial and post-trial briefing.

For the reasons that follow, I conclude that the per share going concern value of Technicolor at the time of the merger, taking into account the implementation of the so-called Perelman plan, is \(\$ 21.98\) per share. Petitioner is entitled to \(\$ 21.98\) per share, or \(\$ 4,422,376\). In addition, petitioner is entitled to prejudgment interest of \(10.32 \%\) from January 24, 1983 to August 2, 1991. Finally, I award post-judgment interest of simple interest (on the principal amount only) at the statutory legal rate of 7.0 percent, from August 3, 1991 until the date the judgment is paid.

\section*{I. PROCEDURAL AND FACTUAL BACKGROUND}

Only a brief review of the facts will be given since the history of this action is thoroughly recorded in the annals of Chancery litigation. In the early 1980s, MacAndrews and Forbes Group, Inc. ("MAF"), through a wholly-owned subsidiary, sought to purchase Technicolor. On December 31, 1982, MAF closed a public cash tender offer at \(\$ 23.00\) per share for up to all of the Technicolor common stock. All but \(17.81 \%\) of the
outstanding stock was tendered. Next, on January 24, 1983, a cash-out merger occurred, converting all common stock not owned by MAF into the right to receive \(\$ 23.00\) in cash. Petitioner Cinerama, Inc., a beneficial shareholder that owned 201,200 Technicolor shares through its nominee, Cede \& Co., dissented from the merger and sought judicial appraisal of its stock under 8 Del. C. § 262.

The first appraisal trial was held in 1989 and included a related fiduciary duty case. \({ }^{1}\) After the entire fairness action was resolved in Technicolor's favor and affirmed by the Supreme Court, petitioner appealed the Court's first appraisal decision rendered by my predecessor, Chancellor William Allen, and the case was remanded to me (as the successor judge) for a new appraisal. \({ }^{2}\) Following this remand, I entered an order making several decisions concerning the nature and scope of the new appraisal proceeding on remand (the fourth remand from the Supreme Court). Petitioner took an interlocutory appeal from this order and the case was remanded yet again, the Supreme Court directing that I conduct a completely "new trial" on the valuation of the Technicolor shares. \({ }^{3}\) The current (fifth) remand requires the Court to value Technicolor as a going concern as of January 24, 1983, taking into account that the Perelman plan \({ }^{4}\) was the operating plan for Technicolor at that time. Before the second trial, the Court decided the issue of pre-judgment interest, concluding that former Chancellor Allen's ruling regarding prejudgment interest (at the rate of \(10.32 \%\) per year compounded annually) was the law of the case. All that
remains to be decided, therefore, is the value of Technicolor and the applicable post-judgment interest rate. To that end, a nine-day trial was held from May \(12^{\text {th }}\) to the \(22^{\text {nd }}\) of 2003.
*2 Although 8 Del. C. § 262 requires this Court to determine "the fair value" of a share of Technicolor on January 24, 1983, it is one of the conceits of our law that we purport to declare something as elusive as the fair value of an entity on a given date, especially a date more than two decades ago. Experience in the adversarial, battle of the experts' appraisal process under Delaware law teaches one lesson very clearly: valuation decisions are impossible to make with anything approaching complete confidence. Valuing an entity is a difficult intellectual exercise, especially when business and financial experts are able to organize data in support of wildly divergent valuations for the same entity. For a judge who is not an expert in corporate finance, one can do little more than try to detect gross distortions in the experts' opinions. This effort should, therefore, not be understood, as a matter of intellectual honesty, as resulting in the fair value of a corporation on a given date. The value of a corporation is not a point on a line, but a range of reasonable values, and the judge's task is to assign one particular value within this range as the most reasonable value in light of all of the relevant evidence and based on considerations of fairness. \({ }^{5}\)

\section*{II. VALUATION OF TECHNICOLOR}

\section*{A. The Valuation Experts}

Both petitioner and respondent retained valuation experts who testified at trial. Petitioner's expert was John B. Torkelsen, a Chartered Financial Analyst who also testified for Cinerama in the first trial. Torkelsen is the Managing Director of Equity Value Advisors, LLC, which provides security analysis consulting services, including business valuation and financial expert witness services. He received a Masters in Business Administration from Harvard University and a Bachelor of Science in Chemical Engineering from Princeton University.

In general, I found Torkelsen's testimony and his report on value unreliable. Without considering the fundamental credibility issues that were argued vigorously by respondent, \({ }^{6}\) I have concluded, independently, that the Torkelsen methodology, and in particular his repeated discarding or modification of contemporaneous (i.e., 1981-1983) management forecasts, cast serious doubt upon the integrity
and reliability of his expert report. Not only does Torkelsen value Technicolor at an amount nearly triple the deal price that the Supreme Court has affirmed as the highest price reasonably available and entirely fair ( \(\$ 23\) per share), but he arrives at a nearly identical price for Technicolor as his first report, after inexplicably making significant revisions to his 1989 report. Specifically, Torkelsen increased his valuation of Technicolor under the Perelman plan by \(\$ 1.02\) per share \({ }^{7}\) by: (1) increasing his discount rate from \(12.5 \%\) to \(14.6 \%\); (2) increasing his growth in perpetuity rate from \(5 \%\) to \(7.35 \%\) (nearly a \(50 \%\) increase); and (3) considerably altering his depreciation forecast for each of the years in his 1983-1987 forecast period. If Torkelsen had changed his discount rate alone, his valuation figure would have dropped \(\$ 12.12\) per share. \({ }^{8}\) Torkelsen partially offset that reduction, however, by increasing the growth in perpetuity rate, which added \(\$ 9.73\) to the per share result, bringing it up to \(\$ 60.36\).
*3 When asked about these changes, Torkelsen dismissed them as minor variations and offered no plausible justification for making them. Respondent offers one-that Torkelsen changed his report because this Court heavily criticized his 1989 weighted average cost of capital (WACC) in its 1990 appraisal opinion. \({ }^{9}\) Respondent further points out that Torkelsen offers no new evidence to support the upward revision of the terminal value growth rate that restored much of the value lost after his revision of the discount rate. Respondent observes that Torkelsen also altered his depreciation assumptions to fully restore the value to his previously forecasted levels, as well as to address criticism leveled against his old \(5 \%\) growth in perpetuity rate. \({ }^{10}\) This allowed him, respondent argues, to grow his forecasted revenue at a faster rate and to increase his terminal value base year cash flow-resulting in a higher terminal value. \({ }^{11}\)

Although I agree that these unexplained modifications produce skepticism, Torkelsen's casual discarding of contemporaneous management forecasts raises (to my mind) even more red flags. As a general matter, I find Torkelsen's rejection of management projections erroneous and unreasonable. After considering all of the evidence, I am convinced that Technicolor management was in the best position to project the short-term prospects of the company, as they created projections ex ante, based upon information gleaned from their particular customers. I find it unreasonable to reject these forecasts (as Torkelsen did) in favor of information that is not in any way specific to Technicolor, but instead to create (as Torkelsen did) hindsight
forecasts based primarily upon the industry as a whole. The specifics of Torkelsen's rejection of management forecasts will be discussed in more detail in the respective unit valuations. As a general matter, however, his overall rationale for rejecting them was not that Technicolor's management had some sort of bias or improper motive when creating them, but that management was incompetent. This rationale is wholly unpersuasive and demonstrably inaccurate. As will be shown below, management forecasts for Technicolor were historically accurate and, therefore, the best evidence regarding the short-term prospects of Technicolor. Although some aspects of Torkelsen's report and testimony were helpful, I have found that much of it is discredited by contemporaneous pre-merger evidence.

Respondent hired as its expert Professor Peter Easton, \({ }^{12}\) the John J. Gerlach Chair in Accounting at Fisher College of Business at Ohio State University. Easton's relevant educational experience includes a Bachelors degree in Economics from the University of Adelaide in Adelaide, Australia, a Diploma in Financial Management at the University of New England in Armidale, Australia, and a Ph.D in Business Administration from the University of California at Berkeley. He also serves on the faculties of the University of Chicago Graduate School of Business and the University of Melbourne's School of Economics. As a professor and consultant, he focuses on financial statement information and valuation. As a scholar, he has published numerous scholarly articles in leading academic journals regarding the role of accounting information in security valuation. He also serves as the Associate Editor for four of the five leading academic journals in the United States, and for leading journals both in Australia and in the United Kingdom.
*4 In general, I found Easton's testimony and his report on valuation to be more reliable and persuasive. First, he begins his valuation by adopting contemporaneous management forecasts-a much more credible exercise at the start. Second, his projections are significantly more straightforward, directly projecting the necessary variables as contrasted with Torkelsen's contortionist projections-uponprojections to come up with a relevant proxy for a necessary input. Not only are Easton's projections easier to follow, they make more logical sense and leave less room for error. Third, Easton's projections are supported by several independent indicia of value, while Torkelsen does not even attempt to perform reasonableness checks upon his valuation. These reasonableness checks will be discussed below in Section
VIII. Because I found Easton's analysis more reliable overall, I have begun with his projections and modified them only as necessary throughout most of the business units.

\section*{B. The Experts' Methodology}

Both experts used the discounted cash flow ("DCF") method to determine Technicolor's value. Discounted cash flow has been accepted as an appropriate valuation method in Delaware. \({ }^{13}\) Easton also used the residual operating income method. I choose not to use this alternate form of valuation without actually deciding whether it is a viable valuation method.

A DCF analysis projects operating cash flows for an extended period, determining a terminal value upon sale at the end of the period, and then discounting those values at a set rate to determine the net present value of the common stock. \({ }^{14}\) Discounted cash flow is based upon three inputs: (1) the free cash flow projections for a certain number of years; (2) the terminal value estimate; and (3) the discount rate. The free cash flow and terminal value projections are evaluated for each business within Technicolor. A uniform discount rate adjusted for Technicolor's risk is used throughout. In addition, and finally, the post-judgment rate of interest must be determined.

I begin my analysis by defining the Perelman plan. Then I evaluate the free cash flow projections and terminal value of each business within Technicolor. Next, I examine the discount rate, including the amount of Technicolor debt in that calculation. Finally, I establish the rate and form of postjudgment interest. Once all the inputs are established, the final valuation of Technicolor can be calculated.

\section*{III. VALUATION UNDER THE PERELMAN PLAN}

Former-Chancellor Allen's decision to value Technicolor under the Kamerman plan and not the Perelman plan constitutes the overriding basis behind the Supreme Court's reversal and remand, and consequently the fundamental cause of the great expenditure of time and energy occasioned by holding a second appraisal trial. \({ }^{15}\) According to the remand instructions, I first must determine what the Perelman plan means. Then, I must establish an approach for valuing Technicolor under that plan. Only non-speculative elements of value may be considered. \({ }^{16}\)
*5 The parties basically agree as to the nature of the Perelman plan. \({ }^{17}\) This plan sought to capitalize on the steady cash flow of Technicolor by retaining certain core businesses and selling off four non-profitable businesses. The plan itself did not change the value of the retained businesses, but focused solely on trimming the company's losses by selling off the four non-profitable businesses: Gold Key, Audio Visual, One Hour Photo, and Consumer Photo Processing.

As with the retained businesses, I need to individually determine the value of each of these divisions. Certain assumptions will be made, specifically that the discount rate used for the retained businesses is the same for the businesses being sold, and that the businesses were to be sold within six months of the merger. \({ }^{18}\) I directly address the value of the four divisions being sold in Section V of this decision.

It is important to note at this time that the major issue in this dispute, according to the remand opinion, was the value added to Technicolor by the Perelman plan. The Perelman plan did not seek to change the retained businesses in any way. It is undisputed that MAF was merely a holding company and MAF did not seek to change the operation of the retained businesses, but merely to harness the cash flow of those operations. MAF's other holdings at the time were a chocolate company and a licorice extract supplier business, thus creating no synergies through the merger with Technicolor.

The only value added by the Perelman plan, therefore, was the cash flow generated by selling off the four non-profitable divisions within six months of the merger. The difference between the parties' valuations of that cash flow is less than \(\$ 3\) million. Petitioner expected \(\$ 46,043,000\) (or an undiscounted \(\$ 50.2\) million), and respondent expected \(\$ 43,070,000\) (or an undiscounted \(\$ 47\) million). \({ }^{19}\) Taking the difference of \(\$ 2,973,000\) and dividing it by the \(4,567,491\) outstanding Technicolor shares yields a difference in valuation of the Perelman plan by the parties of sixty-five cents per share. \({ }^{20}\) After seven years of additional litigation since the first remand, \({ }^{21}\) with extensive costs both to the parties and to the judicial system, and an entirely new trial to resolve the main issue (include the value of the Perelman plan)-all over a difference in value per share of only sixty-five cents, or a total of \$130,780 for Cinerama's 201,200 shares.

Of course, the ultimate difference between petitioner and respondent is much greater. Petitioner's expert opines that Technicolor's value per share on January 24, 1983 was \(\$ 63.77\), while respondent's expert opines that value was \(\$ 22.62\) per share, for a spread of \(\$ 41.15\). My point is simply that the Perelman plan ultimately does not assume a large role in the final analysis, despite the emphasis it has received throughout these protracted proceedings.

Nevertheless, as directed on remand, I have conducted a completely new appraisal of the entire company under the Perelman plan, which is described below. To determine the final valuation of Technicolor per share, I must first determine the value of the retained businesses. Then, I determine the cash flow generated through selling off the four divisions under the Perelman plan. Finally, I sum the value of the retained businesses and the sold businesses, discounting each according to a reasonable discount rate, subtract the value of Technicolor's outstanding debt, \({ }^{22}\) and divide by the number of outstanding shares.
*6 One important point bears emphasizing at the outset. The Supreme Court reversed the first appraisal decision, and remanded for an entirely new trial. I understood this mandate for what it is-an instruction to hear and consider the evidence regarding valuation completely afresh in order to reach a new, independent determination of Technicolor's fair value on January 24,1983 . Based on the complete reversal in this case (Technicolor IV, 684 A.2d at 302), the 1991 valuation of \(\$ 21.60\) per share has been rendered a nullity. Thus, the \(\$ 21.60\) value found in the original decision exists no more. For this reason, one cannot view the \(\$ 21.60\) as a "floor" or as a "ceiling" on the valuation to be determined on retrial. In addition, one cannot simply add the independent value of the "Perelman plan" to former Chancellor Allen's Kamerman plan valuation of Technicolor, and arrive at the fair value of Technicolor. The Supreme Court specifically noted that the \(\$ 21.60\) valuation had been impermissibly tainted by former Chancellor Allen's majority acquirer principle. It thus becomes impossible to rely upon the \(\$ 21.60\) number at all, and \(I\) have ignored it for purposes of the retrial. My valuation of Technicolor at \(\$ 21.98\) per share is an independent and objective judicial determination based solely on the evidence adduced during the May 2003 retrial.

\section*{IV. VALUATION OF THE RETAINED BUSINESSES}

\section*{A. North Hollywood}

It is undisputed that Technicolor's most important line of business was professional film processing, and that North Hollywood was the largest of Technicolor's film processing operations. \({ }^{23}\) Easton's analysis provides that North Hollywood comprises \(\$ 15.88\) of his ultimate \(\$ 22.62\) per share value for the company, or roughly \(70 \%\) of Technicolor. \({ }^{24}\) Torkelsen did not provide a separate value for North Hollywood alone. \({ }^{25}\) Petitioner contends that Easton's method of valuing Technicolor as a sum of its parts is novel and improper. It argues that Easton's approach "ignores all synergistic benefits of an integrated enterprise" and that "if each division were treated as a stand-alone business for valuation purposes, a specific divisional discount rate would be required for each." To the contrary, I have found Easton's analysis far more complete and reasonable than Torkelsen's. This is, in part, precisely because Easton has broken down Technicolor into its various divisions, making his calculations and conclusions of value more explicit and understandable. Although applying a separate discount rate to each division would theoretically yield a more accurate result, it appears, as partially evidenced by the dispute regarding Technicolor's beta and discount rate as a whole, that the data necessary to determine divisional discount rates with any reasonable degree of certainty and validity do not exist. Easton used Technicolor's overall discount rate as a reasonable proxy, especially given that the discount rate for the entire company is, in reality, a form of weighted-average discount rate based on the appropriate discount rates of the various divisions.

\section*{1. Management Forecasts}
*7 One of the key areas of contention between Easton and Torkelsen relates to the applicability of management forecasts. Easton derives his analysis from management projections, especially those contained in the calendar year 1983 Profit Plan ("CY 1983 Plan"). \({ }^{26}\) He also relies on Technicolor's historical results. Torkelsen, on the other hand, considers short-term management forecasts to be inadequate, and uses less than three years of historic data in deriving the statistical regressions from which he values North Hollywood. \({ }^{27}\) As of the time of the merger, Technicolor did not have long-term (post 1983) projections. \({ }^{28}\)
a. Management forecasts are beneficial in an appraisal context
Management forecasts are an appropriate starting point from which to derive data in performing an appraisal analysis. \({ }^{29}\)

Contemporary pre-merger management projections are particularly useful in the appraisal context because management projections, by definition, are not tainted by post-merger hindsight and are usually created by an impartial body. In stark contrast, post hoc, litigation-driven forecasts have an "untenably high" probability of containing "hindsight bias and other cognitive distortions." \({ }^{30}\) Additionally, thenVice Chancellor Steele noted in Gilbert v. MPM Enterprises, Inc. that "management was in the best position to forecast [the company]'s future before the merger....."31 If management forecasts are prepared a significant period of time before the merger, it may be necessary to make minor changes to them reflecting actual results as of the merger date. \({ }^{32}\) Such alterations are not necessary in this instance, however, because the CY 1983 Plan was being prepared beginning in December 1982 and was finished by March 1983. \({ }^{33}\) Although March 1983 is post-merger, the CY 1983 Plan contains information that only validates what was known or knowable and susceptible of proof on or about January 24, 1983. I therefore find that for purposes of determining the fair value of Technicolor as of the merger date, use of the CY 1983 Plan as a contemporary management forecast is most suitable. \({ }^{34}\)

When management projections are made in the ordinary course of business, they are generally deemed reliable. \({ }^{35}\) Experts who then vary from management forecasts should proffer legitimate reasons for such variance. \({ }^{36}\) Torkelsen significantly alters management forecasts in his valuation of North Hollywood. Petitioner has attempted to discredit Technicolor's internal projections and assert the reasonableness of Torkelsen's alterations to management's forecasts, but do so unpersuasively for several reasons, as discussed below.

\section*{b. Technicolor management's projections were consistently accurate}

First and foremost, both experts have testified to and demonstrated the uncanny accuracy of Technicolor's management in preparing financial forecasts. \({ }^{37}\) It has been shown that, once normalized for abnormal silver reclamation profits, the average operating margin variance (the difference between actual and projected profit margins) for North Hollywood during fiscal years 1979-82 was a mere \(0.1 \%\). \({ }^{38}\) The average sales variance (as a percentage of the Plan) was \(2.1 \%\)-an extremely accurate projection. \({ }^{39}\)
*8 Second, Technicolor management did not produce calendar year forecasts prior to MAF's assuming control of Technicolor in late 1982. Petitioner has attempted to show that actual calendar year 1981 and 1982 results varied greatly from the fictional calendar year forecasts by reconstructing calendar year plans for 1981 and 1982. This is an activity in which Technicolor management never engaged. For example, when switching from a fiscal year to a calendar year in December of 1982, Technicolor management did not borrow the last six months of the fiscal year 1982 projection when creating the CY 1983 Plan. Instead, it created new projections in order to make the CY 1983 Plan as accurate as possible. \({ }^{40}\)

Third, petitioner attacks the reasonableness of the CY 1983 forecasts by comparing them to actual post-merger 1983 results. It does so in contravention of my previous evidentiary rulings in this case. \({ }^{41}\) In a March 27, 2003 hearing, I stated that "[p]ost-merger evidence may be used to validate or invalidate what was known or knowable at the time of the merger, but only in the limited sense of crediting or discrediting pre-merger projections." \({ }^{42}\) I qualified this, however, by stating that "the evidentiary weight of such post-merger evidence" will "necessarily be of less weight than pre-merger or contemporaneous evidence of post-merger value, and of no weight whatsoever without such contemporaneous evidence. Basically it is useful only to supplement contemporaneous evidence supporting or refuting an allegation that the pre-merger projections were intended for strategic purposes rather than for accuracy., 43 Despite this caution, petitioner's briefs repeatedly attempt to use post-merger information to denigrate the accuracy of management forecasts as opposed to using post-merger information properly to demonstrate strategic motives. For example, in its post-trial brief, petitioner points out that for the first quarter of 1983, revenues exceeded the CY 1983 Plan by \(22.4 \%\). This information does not suggest that the premerger projections were for strategic purposes rather than for accuracy. Additionally, were petitioner to continue its use of post-merger information, it would have to state that for the second quarter of 1983 , there was less than a \(5 \%\) variance between actual and Plan revenues. \({ }^{44}\) Therefore, this use of post-merger information was unhelpful and improper and has been ignored in my valuation process.

\section*{c. Trends in the industry}

In the course of preparing their forecasts, there is no evidence that Technicolor management had reason to skew the figures
in any way. \({ }^{45}\) Despite this knowledge, Cinerama argues that the CY 1983 Plan was inconsistent with current trends in the motion picture industry. \({ }^{46}\) Cinerama has failed to demonstrate, however, that Technicolor's management was unaware of these trends. Cinerama has further failed to demonstrate that Technicolor's performance had a correlation to "trends" in the motion picture industry. For example, though only about two-thirds of film processing revenues were derived from the motion picture industry (the remaining third coming mostly from the television industry), the evidence presented at trial by petitioner focused almost entirely, if not exclusively, on the trends in, and state of, the motion picture industry. Torkelsen first rejects management's projections, though he later admitted that the "management at Technicolor understood the economics of the company very well., \({ }^{, 47}\) He then testified that Technicolor management's projections were untenable based upon the very same data available to Technicolor years after Technicolor's management came to their conclusions. \({ }^{48}\) Even assuming, for the sake of argument, that Cinerama's portrayal of the motion picture industry in early 1983 is accurate, it is hard to believe that Technicolor management would have been ignorant of the trends affecting its industry. It is much more plausible, and in accord with the long-standing respect for management financial projections, that Technicolor made a conscientious effort to produce accurate forecasts, and that any variations in Technicolor's projections from industry trends were consciously and reasonably made based upon management's experience and information gleaned from Technicolor customers. \({ }^{49}\)
*9 For the foregoing reasons, I conclude that management forecasts, and the CY 1983 Plan in particular, were the appropriate starting point for an appraisal analysis of North Hollywood.

\section*{2. Torkelsen's Regression Analysis}

Finally, as will be shown below, Torkelsen's replacement of management forecasts with litigation-driven regression analyses leads to wholly unreasonable and unsustainable valuation inputs. Of great concern to the Court are Torkelsen's regression analyses. Although it is generally agreed that the developments announced in Weinberger v. UOP, Inc. regarding appropriate valuation methods for appraisal were positive, the multiplicity of accepted valuation methods and analyses often leads to an "apples and oranges" comparison of the competing experts' opinions. \({ }^{50}\) While both
experts in this matter used a DCF framework, Easton and Torkelsen took very different approaches in reaching their ultimate valuations. Despite the utility of and preference for contemporary management forecasts, if it can be shown that the regression analyses are more reasonable and accurate, it may still be appropriate to use them for determining the inputs to the DCF framework. \({ }^{51}\)
a. When regression analysis is appropriate

In order for regression analysis to be an appropriate tool for forecasting economic relationships, the analysis must be based on a mature business with stable economic relationships. \({ }^{52}\) Further, there should be a significant relationship between the dependent (factor) and independent (response) variables throughout the historical period from which the regression is derived. \({ }^{53}\) It should also be reasonable and expected that this relationship will continue throughout the forecast period. \({ }^{54}\)
b. Regression analysis is not appropriate for valuing North Hollywood
Torkelsen only used thirty months-two-and-a-half years-of historical data in developing his regressions. Admittedly, from a purely statistical perspective, a statistically valid regression model can be constructed with twenty data points. \({ }^{55}\) This was done notwithstanding the fact, as has been touched on above, that data from only thirty months may include month-to-month variations that can easily skew the regression's forecasts from true long-term historical relationships developed over an appropriate business cycle. \({ }^{56}\) As Easton pointed out, " \([\mathrm{m}]\) onthly data is highly variable and is not indicative of margins going forward., \({ }^{57}\) From the outset, the Court is therefore suspicious of Torkelsen's regression analysis for North Hollywood as being based on very little historical data when additional data had been available.

Based on the above criteria and for the additional reasons discussed below, I have reservations about the appropriateness of a regression analysis in determining the value of North Hollywood. First, the North Hollywood operation, although it had been functioning for many years, had recently undergone a significant retooling and upgrade designed to modernize the facility. \({ }^{58}\) This modernization program is apparently largely why Torkelsen only used data from 1980-82 in his analysis. Torkelsen then assumes that the
advantages in efficiency obtained by the modernization effort will continue into perpetuity. This assumption is erroneous. Although this limitation may create a better fit for the data, it begs the question of whether the rewards reaped from the modernization program would continue through 1987 (the end of the explicit forecast period) and beyond. It is more plausible that competition from other processing firms as well as advancements and changes in the technology of film processing, distributing, and projection would cause the modernization program (as largely completed in 1980) to diminish in value as time progressed.
*10 Second, the film processing business, although it was a mature operation, was facing some potential "bumps in the road" as of the merger. United Artists, previously one of Technicolor's largest contract customers, indicated that it would not renew its contract when it expired in May 1983. \({ }^{59}\) This information was known to Technicolor management before the merger. \({ }^{60}\) Torkelsen makes no attempt to correct for this known certainty, but simply dismisses it by asserting that Technicolor would "make up" the difference in growth from other customers. \({ }^{61}\) Respondent rightly points out that it is highly unlikely that Technicolor could instantly "make up" the loss of \(11 \%\) of its customer base in 1983 and into perpetuity by Torkelsen's estimated annual growth of \(2.31 \%{ }^{62}\) Torkelsen's assumption also ignores the fact that Technicolor had been losing market share, was having a difficult time retaining its contract customers, and was facing the potential of non-film based motion picture delivery and projection systems in only a few years. \({ }^{63}\) These major issuesthe unknown future effects of the modernization program, potential technology threats, and the loss of the business from a substantial customer coupled with a demonstrated inability to retain key clients-lead to my conclusion that North Hollywood was not necessarily the type of business with stable economic relationships sufficient to support a forecast based on regressions, especially given a hesitance among authors of scholarly texts on regression to use it for forecasting purposes.
c. Even if appropriate, Torkelsen's use of regression analysis leads to unreasonable results
Even if regression analysis is the appropriate method with which to forecast North Hollywood's performance and determine its fair value, the manner in which Torkelsen performed the regressions leads to incredulous results that are so far outside the realm of reasonableness that they must be
rejected. Easton calculated that the value Torkelsen attributed to North Hollywood was \(\$ 42.54\) per share, \({ }^{64}\) or almost twice the \(\$ 23\) per share merger consideration paid for the entire company, even though the \(\$ 23\) price per share consideration was found by the Delaware Supreme Court to be entirely fair and the "highest reasonably available." \({ }^{65}\) Regression analysis is most useful when a given independent (or response) variable is difficult to predict, and that variable is well correlated over the applicable time periods with another dependent (or factor) variable that is significantly easier to predict. \({ }^{66}\) Such is not the case in the analyses performed by Torkelsen. Furthermore, as demonstrated below, his inputs to a regression model, already on shaky ground, are fatally flawed.

\section*{i. Footage}

Preliminarily, and to reinforce a point made above, all the data from which Torkelsen derives his regressions are tainted by his inclusion of United Artists' business, which would not be retained from the latter half of 1983 onward. This is just one of many unsubstantiated deviations from management's untainted, contemporary forecasts. Torkelsen justifies his variations with respect to the number of prints and footage forecast largely by surmising that Technicolor management was out of touch with respect to purported industry trends toward more major releases and wider release patterns.
*11 I find it very interesting to note at this point that Torkelsen actually visited the North Hollywood facility in \(1986 .{ }^{67}\) He specifically points out in his report that his degree in chemical engineering enabled him to "ask questions concerning the technology and the economics of the facility both as to the past, the present and the future.,"68 Unfortunately for Cinerama, in 1986, both the present and the future (as well as several years of the past) of the technology and economies of the facility constituted improper postmerger information. \({ }^{69}\) Once Torkelsen rejects contemporary management forecasts and decides to replace them with his own post hoc idea of what would have been more reasonable as of the merger date, there is a substantial risk of errors entering into the analysis, even with the best of intentions.

To help determine the footage figure to apply to his regression analysis, Torkelsen uses 35 mm theatrical release prints as a surrogate for all film processed by North Hollywood. \({ }^{70}\) Torkelsen mentions that Technicolor management prepared its forecasts in much the same way as he does, but provides no
legitimate reasons for arriving at vastly different conclusions with respect to CY 1983 footage. \({ }^{71} \mathrm{He}\) continues by stating that by January 24, 1983, the number of films Technicolor would process during CY 1983 would be known. \({ }^{72}\) If that were the case, there is no obvious need to revise the number of prints projected in the CY 1983 Plan.

Instead of using the number of prints forecast by the persons who worked in the motion picture industry at Technicolor day in and day out at the time of the merger, Torkelsen chooses to forecast for 1983 the same level of release prints per studio as in \(1982 .^{73}\) Mr. Jay Cipes was the Technicolor employee responsible for these projections. \({ }^{74}\) In the CY 1983 Plan, Cipes forecast 37,800 release prints, down from 44,700 in the FY 1983 Plan. \({ }^{75}\) Nevertheless, Torkelsen decides that Cipes' projections-projections made contemporaneously with the merger and representing a downward correction from the FY 1983 Plan-were inconsistent with industry trends. \({ }^{76}\) Torkelsen instead forecasts 45,358 release prints for CY 1983. \({ }^{77}\) I find this arbitrary (and quite substantial) increase in projected release prints unreasonable and unpersuasive. Cipes' forecast was based on the specific films anticipated in 1983 and his personal contact with Technicolor's customers. \({ }^{78}\) Additionally, other members of Technicolor management carefully scrutinized, and when necessary, revised, Cipes' projections. \({ }^{79}\) That 1983 projections vary from 1982 projections is not surprising: the films projected for 1983 were different from those released in 1982 and would have a different release strategy and audience.

The length of each print is also an essential element in determining footage. Cipes' forecast was based on an average of 10,000 feet per release print. \({ }^{80}\) Torkelsen derives a figure of 11,087 feet processed per release print because he divides total footage for fiscal 1982 by the number of release prints made in that same year. \({ }^{81} \mathrm{He}\) attempts to justify this by saying that the 11,087 feet includes the dailies, answer prints, trailers, etc. that are part of making a movie. \({ }^{82}\) This exercise results in double-counting those types of non-release print work. Since the Technicolor forecasts were exploded from the release print forecasts, \({ }^{83}\) adding footage from other work to release print forecasts will result in unwarranted inflation of the footage figures. Between his inflation of the number of release prints and the size of each print, Torkelsen manages to inflate projected motion picture release print footage for CY 1983 from 378 million feet to more than 502 million-a nearly
\(33 \%\) increase. \({ }^{84}\) This is unwarranted and entirely outside the realm of reasonableness based upon historic data. \({ }^{85} \mathrm{I}\) therefore conclude that Torkelsen's use of a regression model based upon CY 1983 footage of 502.9 million feet yields an unreasonable and untenable result and must be rejected.
ii. Revenues, costs, and margins
*12 The parties disagree as to the elasticity of demand for film processing services and its effects on footage. Torkelsen cites to the deposition testimony of Raymond Gaul, the President of Technicolor once it was under Perelman's control, saying that all the major processors' pricing "was about the same" and that the industry was driven by service and capacity, not price. \({ }^{86}\) James Wilson, a longtime executive of Technicolor, and vice-president of finance and administration for the motion picture and television division at the time of the merger, testified at trial that the industry was very competitive as to price. \({ }^{87}\) As objective evidence supporting Wilson's very credible testimony, the contracts between Technicolor and three of its largest clients (Warner Brothers, MCA Universal, and Disney) contained "most favored nation" clauses that required that the lowest price offered to any customer for similar types and volumes of work be offered also to those contract customers. \({ }^{88}\) If price was of little import to the producers, it is illogical for their contracts to contain these clauses. Accordingly, I find that the most reasonable view of the motion picture film processing industry as of January 24, 1983 was that it was very competitive as to price.

Torkelsen performs a series of regressions apparently designed to enhance his analysis. By adding a time variable to his revenue per foot analysis, he is able to add a "price increase variable" to his analysis that has the effect of increasing Technicolor's revenues, and by logical extension its prices, by \(\$ 713\) per million feet per month. \({ }^{89}\) This means that revenues in month one of Torkelsen's analysis are \(\$ 0.102374\) per foot processed and by month thirty, revenues have increased to \(\$ 0.123764\) per foot processed, an increase of more than \(20.89 \%\) over only two-and-a-half years. With active customers so keen on price, and with all of Technicolor's major contract customers being advantaged by "most favored nation" clauses, it seems highly unlikely that such an enormous price increase would be even remotely possible, as discussed below.

The constant ( \(y\)-intercept) derived from Torkelsen's regression analysis implies that North Hollywood revenues for non- 35 mm film processing would be \(\$ 28.128\) million in CY \(1983{ }^{90}\)-almost double management's forecast of only \(\$ 14.8\) million in (net of contractual discounts) revenue for \(8 \mathrm{~mm}, 16 \mathrm{~mm}\) and 70 mm film processing for CY 1983. \({ }^{91}\) This is yet another example of the unreasonableness of Torkelsen's analysis.

In analyzing the costs at North Hollywood, Torkelsen essentially performs the same analysis as he did with revenues. His cost constant is \(\$ 2.17\) million, or in other words, excluding costs associated with 35 mm film processing, \(\$ 2.17\) million in costs would be incurred as fixed costs and in connection with processing \(8 \mathrm{~mm}, 16 \mathrm{~mm}\), and 70 mm film..\(^{92}\) His cost increase variable is constructed in much the same way as his revenue increase variable discussed above. The cost increase variable found by Torkelsen implies that every month the cost of processing one million feet of 35 mm film will increase by \(\$ 369\), or roughly half of the monthly increase in revenues per million feet of film processed. \({ }^{93}\)
*13 This result leads to some interesting projections regarding Technicolor's operating margins. Torkelsen's bivariate revenue and cost regressions yield an operating margin of \(22.6 \%\) for 1983 , increasing to \(27.1 \%\) by \(1987 .{ }^{94}\) Yet historically, operating margins (as a percentage of sales) at North Hollywood ranged from \(16 \%\) to \(21 \%\). There was one exception in 1980, when the operating margin was \(28.2 \%\). \({ }^{95}\) The \(28.2 \%\), however, included a windfall in silver reclamation income. \({ }^{96}\) In fiscal year 1980, silver reclamation income represented \(11.5 \%\) of North Hollywood sales. \({ }^{97}\) Excluding FY 1980, from FY 1978 through FY 1982, the average reclamation income as a percentage of sales was \(4.9 \%\). \({ }^{98}\)

Easton testified that Torkelsen's regressions based on footage and time instead of just time had the effect of almost doubling operating profit for \(1987 .{ }^{99} 1987\) was the last year of the explicit forecast and used to determine the terminal value. \({ }^{100}\) Terminal values are easily manipulated. \({ }^{101}\) Although Torkelsen did not provide the figures himself, Easton prepared an estimate of what North Hollywood's terminal value would be under Torkelsen's analysis. He calculates Torkelsen's discounted free cash flow terminal value for North Hollywood at \(\$ 146,552,000\) out of a total North Hollywood value of \(\$ 209,420,000 .{ }^{102}\) In other words,
roughly three-quarters of the value Torkelsen attributes to North Hollywood is due to the terminal value, as opposed to roughly half for Easton's analysis-yet another reason for my deep distrust of Torkelsen's conclusion. \({ }^{103}\)

This back-loaded terminal value is a direct result of Torkelsen's over-projection of North Hollywood's operating margins. Wilson testified that as a result of the contracts between Technicolor and the major studios, he did not think Torkelsen's projected increase in margins were reasonable. \({ }^{104}\) Wilson explained that Technicolor's contract customers had a keen interest in Technicolor's margins, to the extent that when Technicolor wanted to raise prices it would essentially have to obtain approval from its customers. \({ }^{105}\) Margin increases were basically not possible based on the key contracts in place on January 24 , 1983. \({ }^{106}\) Torkelsen's projections into perpetuity would essentially increase margins to and eventually beyond margins achieved only at the height of the silver bubblea result entirely inconsistent with North Hollywood's past performance. \({ }^{107}\) I find Wilson's testimony credible and, therefore, that Torkelsen's projections regarding operating margins are unreasonable, are based upon suspect methods, and must be rejected.

One final observation before I turn to growth rates. Torkelsen attributes his use of separate regression analyses for revenues and costs to a need to develop an income statement. \({ }^{108} \mathrm{He}\) also stated that "[y]ou're going to get the same results" using the combined or separate analyses. \({ }^{109}\) Statistically, however, the results are quite different. The combined revenue and cost regression performed by Torkelsen is PNX 2, and its omission from Torkelsen's report is strange, indeed. This combined analysis is a very poor predictor of North Hollywood performance. The R-squared of the model (or the changes in profits explained by the regression formula) is only \(58 \%\). \({ }^{110}\) That means that more than \(40 \%\) of the changes in profits from month-to-month are not captured by Torkelsen's regression and are due to other factors. Furthermore, the absolute average monthly error is greater than \(21 \% .{ }^{111}\) Additionally, the T-statistic of 1.752 means that the model is not statistically significant at the \(95 \%\) confidence interval for a two-tailed test. \({ }^{112}\) Thus, Torkelsen's combined revenue/costs regression analysis is such a poor predictor of profit over the July 1980December 1982 period (the period for which the regression was performed) that it would be worthless as a predictive tool for forecasting future profits. This fact is cleverly disguised by Torkelsen's summary page regarding North Hollywood
operating profit. \({ }^{113}\) At the end of his analysis, Torkelsen returns to annual figures, presented in tabular form that falsely represent the accuracy of Torkelsen's back cast when compared with the high variances observed in the monthly data. \({ }^{114}\) In sum, these errors further undermine Torkelsen's methodology, at least to my mind.
iii. Growth rates
*14 Both parties presented a great deal of evidence relating to the state of the motion picture industry in the early 1980s. In particular, there has been much dispute regarding a statement made by Mr. A.D. Murphy, \({ }^{115}\) quoted in the 1983 edition of The Movie Business Book, that "there will probably be another reduction in the number of screens from the current 18,000 total to a level of \(8,000 .{ }^{1116}\) On cross-examination as an expert witness in the previous trial, \({ }^{117}\) and in a statement made to the Court for the current trial, \({ }^{118}\) Murphy attempted to recast his past comments in a light more favorable to petitioner. In brief, Murphy claims that his statement in The Movie Business Book was taken out of context, not properly updated from when it was originally made, and misrepresents his contemporaneously expressed views on the industry. I find Murphy's attempts to recharacterize his previous statements unpersuasive. At best, Murphy's statements from the late 1970s and early 1980s, when analyzed in their totality and in context, show that an observer could conclude that the motion picture industry had rough times ahead. Although true that Easton did not portray Murphy's statement in the manner most favorable to Cinerama, Easton's report, in my opinion, is highly persuasive; Easton's selective quotations of Murphy \({ }^{119}\) are certainly not unexpected in an adversarial process-especially in a "battle of the experts" appraisal trial.

Barry Reardon testified on behalf of Cinerama regarding the explosive growth of the film industry at the time of the merger. Though I find him credible as a witness overall, the little weight I gave his testimony was tempered with the cautiousness requisite to the realization that he is a close personal friend of the Forman family, Cinerama's owners, who would directly benefit from a favorable outcome for the petitioner. Reardon admittedly agreed to testify as a personal favor to them, which could easily (though perhaps unintentionally) bias his opinions in favor of petitioner. \({ }^{120}\) I am also cautious with the treatment of his testimony because he relied upon post-Merger documents to refresh his recollection about pre-Merger events. Though seemingly harmless, such reliance would likely exacerbate the hindsight
bias he may have already had due to his twenty years of post-Merger industry experience as an executive at Warner Brothers. \({ }^{121}\) Therefore, I find that Reardon's testimony was not helpful in this adjudication, since it was tainted with the infirmities of personal bias, hindsight bias, and because it was geared toward the industry as a whole, rather than providing any information specific to Technicolor or its customers.

Torkelsen references both the Murphy and Wilkofsky Gruen reports in support of the proposition that the motion picture industry was booming and that rapid growth was expected in the industry. \({ }^{122}\) Torkelsen notes that overall industry growth was forecast at over \(8 \% .{ }^{123} \mathrm{He}\) also cites statistics from the Motion Picture Association of America ("MPAA") that theater admissions from 1972 to 1982 had increased at an annual rate of \(2.66 \%\) and that box office revenue growth had grown annually over that same period at a rate of \(8.50 \%\). \({ }^{124}\) Torkelsen continues by assuming that "[i]f the average number of days that a print is shown were held constant, then the number of prints required to fill all theatres would have to grow at the rate of all theatre screens." \({ }^{125}\) Borrowing again from the MPAA statistics, Torkelsen states that historically the number of movie screens in the United States grew at \(2.31 \%\) annually from 1972-1982. Citing this figure as a conservative estimate, he then uses this historic average annual growth rate as a proxy for the growth rate of the number of prints produced by North Hollywood. This aspect of Torkelsen's report is particularly troubling because no evidence was presented establishing a correlation between the past screen growth and the number of release prints processed by North Hollywood. \({ }^{126}\) This is another example of the unreasonableness of Torkelsen's analysis. \({ }^{127}\)
*15 The terminal value is used to determine the value of the entity being valued beyond the explicit forecast period since it is impractical to forecast free cash flow into perpetuity. \({ }^{128}\) Torkelsen calculates his terminal value based on normalized net cash flow for 1987, then grows that figure based upon the Gordon Growth Model into perpetuity. \({ }^{129}\) Torkelsen discusses the growth rates projected for North Hollywood and Videocassette by the Wilkofsky Gruen reports but decides not to adopt them. \({ }^{130}\) Instead, Torkelsen chooses to grow the terminal value at the stipulated rate of inflation \((5 \%)^{131}\) plus the rate of real long-term growth in the United States' gross domestic product ("GDP"), which he calculates at \(2.35 \%\) compounded annually. \({ }^{132}\) The only support Torkelsen
provides for this inexplicable substitution is the assumption that "it is reasonable to expect that Technicolor's real growth over the long-term should be in line with national real economic growth. Technicolor's market, the entertainment industry, should at least maintain its share of [GDP] going forward." \({ }^{133}\) Again, Torkelsen has failed to explain why he substituted a figure that would be Technicolor-specific (i.e., the growth rate of \(6.3 \%\) found by Wilkofsky Gruen) for a generic figure (GDP) that has not been shown to have any relation to or correlation with either Technicolor or North Hollywood. Accordingly, Torkelsen's determination of the terminal value is inherently flawed and unreasonable. \({ }^{134}\)

Having demonstrated and discussed the unreasonableness of Torkelsen's analysis and the plethora of errors throughout, it is clear that his valuation of North Hollywood cannot be sustained. He bases his regression model on an artificially small data sample-less than three years. He makes perplexing alterations to contemporaneous management forecasts that have been shown to be historically very accurate and prepared with great care. He determines footage, margins, and other inputs to his model inconsistently and arbitrarily. Finally, the growth rates he applies to the data are not specific to Technicolor, but rather are proxies that have no demonstrated statistically significant or practical relationship to Technicolor's past performance. Torkelsen's valuation of North Hollywood is rejected in its entirety as unreasonable.

\section*{3. Easton's Analysis}

It now remains to be seen whether Easton provides a reasonable valuation of North Hollywood. Easton's report relies heavily upon management forecasts, especially Technicolor's CY 1983 Plan. \({ }^{135}\)
a. Revenue and sales

The CY 1983 Plan projected net sales revenues for North Hollywood of \(\$ 81.409\) million. \({ }^{136}\) This was part of a downward trend experienced by Technicolor in the late 1970s and early 1980s. \({ }^{137}\) For CY 1983, management projected the following footages and gross sales (all figures in thousands): \(35 \mathrm{~mm}, 460,209\) feet and \(\$ 79,065 ; 16 \mathrm{~mm}, 91,960\) feet and \(\$ 14,905 ; 8 \mathrm{~mm}, 7,862\) feet and \(\$ 640 ; 70 \mathrm{~mm}, 3,309\) and \(\$ 1,943 .{ }^{138}\) These figures translate into the following revenues per foot: \(35 \mathrm{~mm}, \$ 0.172 ; 16 \mathrm{~mm}, \$ 0.162 ; 8 \mathrm{~mm}, \$ 0.081 ; 70 \mathrm{~mm}\), \(\$ 0.587 .{ }^{139}\)

\section*{i. Footage}
*16 Easton accepts management's figures for 1983, but then adjusts to correct for the loss of the United Artists business in the future. \({ }^{140}\) I agree with Easton's use of management figures for CY 1983 and accept them as part of my appraisal analysis. \({ }^{141}\) I also agree with Easton's desire to correct the CY 1983 footage in order to obtain accurate forecasts going forward, although I disagree with his method.

With respect to the United Artists business, Easton essentially extracts \(11 \%\) of CY 1983 footage for five of twelve months to arrive at a corrected CY 1983 footage (for purposes of forecasting from 1984-87) of \(439,116,000\) feet. I find this to be unreasonable and incorrect. It was apparent and documented that United Artists' work under an expiring contract was to represent \(6.6 \%\) of the CY 1983 release prints. \({ }^{142}\) I conclude that a more appropriate adjustment would be to subtract \(6.6 \%\) from the CY 1983 figures for moving forward. This results in a footage reduction greater than that made by Easton. Since the footage figures from the other gauges are exploded out from the 35 mm figures, it is appropriate to similarly reduce the \(16 \mathrm{~mm}, 8 \mathrm{~mm}\), and 70 mm footage projections. Therefore, I find that the appropriate corrected footage figures for North Hollywood CY 1983
\begin{tabular}{ll}
1983 & 460,209 \\
1984 & 429,835 \\
1985 & 429,835 \\
1986 & 429,835 \\
1987 & 429,835
\end{tabular}

With respect to 16 mm and 8 mm film, severe declines in footage had occurred between 1979 and 1982. This was due in large part to the introduction of videocassettes as an alternative medium for industrial and educational use. \({ }^{149}\) Given that the use of videocassette was expected to increase at the expense of these gauges, Easton applied the historical
\begin{tabular}{ll}
1983 & 85,891 \\
1984 & 74,725 \\
1985 & 65,011 \\
1986 & 56,559 \\
1987 & 49,207
\end{tabular}
declines to the corrected CY 1983 figures, with no growth or decline projected after 1987. I agree with this analysis and adopt it. \({ }^{150}\) Therefore, the footage figures I adopt for my analysis are as follows:
*17 16mm:
\begin{tabular}{ll}
1983 & 7,343 \\
1984 & \multicolumn{1}{c}{ 8mm: } \\
1985 & 4,186 \\
1986 & 2,386 \\
1987 & 1,360 \\
175
\end{tabular}

70 mm film was essentially an alternative to 35 mm , with the overwhelming majority of its use in the theatrical area. \({ }^{151}\) In the few years before the merger, 70 mm film had grown more popular as demonstrated by an overall annual increase of \(11 \%\) between 1979 and 1982. \({ }^{152}\) Easton projects this significant increase to continue until 1987, but then flat growth of
\begin{tabular}{ll}
1983 & 3,091 \\
1984 & 3,431 \\
1985 & 3,808 \\
1986 & 4,227 \\
1987 & 4,692
\end{tabular}

To summarize:

\section*{North Hollywood Projected Footage}
\begin{tabular}{llllll}
\hline (in 000s) & \(\mathbf{3 5 m m}\) & \(\mathbf{1 6 m m}\) & \(\mathbf{8 m m}\) & \(\mathbf{7 0 m m}\) & Total \\
\hline CY 1983 & 460,209 & 91,960 & 7,862 & 3,309 & 563,340 \\
Corrected CY 1983 & 429,835 & 85,891 & 7,343 & 3,091 & 526,160 \\
Growth Rate & \(0 \%\) & \(-13 \%\) & \(-43 \%\) & \(11 \%\) & - \\
1984 & 429,835 & 74,725 & 4,186 & 3,431 & 512,176 \\
1985 & 429,835 & 65,011 & 2,386 & 3,808 & 501,039 \\
1986 & 429,835 & 56,559 & 1,360 & 4,227 & 491,981 \\
1987 & 429,835 & 49,207 & 775 & 4,692 & 484,508
\end{tabular}
ii. Price and revenue

In his report, Easton analyzes the historical growth rates in prices by Technicolor and one of its largest competitors,

70 mm footage from 1987 onward. Again, I find this to be a reasonable assumption, supported by the empirical evidence available contemporaneously with the merger, and I adopt it. These footage figures are:
\(70 \mathrm{~mm}:\)

MGM, using the data provided in the Hope Reports. \({ }^{153}\) Easton concludes that price increases between 1977 and 1982 were largely in line with inflation. \({ }^{154} \mathrm{He}\) also finds that relative market share was constant, such that it was
unlikely that Technicolor would be able to raise prices and maintain market share. \({ }^{155}\) This inability to increase prices significantly more than inflation is also due to the contracts by which North Hollywood obtained the vast majority of its business. \({ }^{156}\) Easton assumes that growth in prices at the rate of inflation (5\%) over the prices derived from the CY 1983 Plan would be reasonable. I agree and adopt that same framework for my valuation analysis. The difference between
North Hollywood Projected Sales Revenue
gross and net sales is attributable to the discounts granted to contract customers. \({ }^{157}\) Similar to Easton, I adopt the ratio of net-to-gross sales that was projected in the CY 1983 Plan (approximately \(84.3 \%\) ). At the end of the explicit forecast period, Easton expected sales to grow at the rate of inflation. I find that to be a reasonable determination, and accept it.

In summary:
\begin{tabular}{llllllll}
\hline (in 000s) & \(\mathbf{3 5 m m}\) & \(\mathbf{1 6 m m}\) & \(\mathbf{8 m m}\) & \(\mathbf{7 0 m m}\) & Gross & Net & Growth \\
\hline 1983 Price & \(\$ 0.172\) & \(\$ 0.162\) & \(\$ 0.081\) & \(\$ 0.587\) & - & - & - \\
1983 Sales & \(\$ 79,065\) & \(\$ 14,905\) & \(\$ 640\) & \(\$ 1,943\) & \(\$ 96,553\) & \(\$ 81,409\) & \(-9.0 \%\) \\
1984 Price & \(\$ 0.180\) & \(\$ 0.170\) & \(\$ 0.085\) & \(\$ 0.617\) & - & - & - \\
1984 Sales & \(\$ 77,539\) & \(\$ 12,717\) & \(\$ 358\) & \(\$ 2,115\) & \(\$ 92,729\) & \(\$ 78,185\) & \(-4.0 \%\) \\
1985 Price & \(\$ 0.189\) & \(\$ 0.179\) & \(\$ 0.090\) & \(\$ 0.647\) & - & - & - \\
1985 Sales & \(\$ 81,416\) & \(\$ 11,617\) & \(\$ 214\) & \(\$ 2,465\) & \(\$ 95,712\) & \(\$ 80,700\) & \(3.2 \%\) \\
1986 Price & \(\$ 0.199\) & \(\$ 0.188\) & \(\$ 0.094\) & \(\$ 0.680\) & - & - & - \\
1986 Sales & \(\$ 85,487\) & \(\$ 10,612\) & \(\$ 128\) & \(\$ 2,873\) & \(\$ 99,100\) & \(\$ 83,557\) & \(3.5 \%\) \\
1987 Price & \(\$ 0.209\) & \(\$ 0.197\) & \(\$ 0.099\) & \(\$ 0.714\) & - & - & - \\
1987 Sales & \(\$ 89,761\) & \(\$ 9,694\) & \(\$ 77\) & \(\$ 3,349\) & \(\$ 102,881\) & \(\$ 86,744\) & \(3.8 \%\)
\end{tabular}

\section*{iii. Margins}
*18 As discussed above, margins at North Hollywood were traditionally in the \(16 \%\) to \(21 \%\) range. \({ }^{158}\) The CY 1983 Plan projected an \(18.9 \%\) margin. \({ }^{159}\) Easton uses this figure for his analysis, having testified at trial that it was in accordance with previously observed margins at North Hollywood, especially when adjusted for abnormal silver reclamation income. \({ }^{160}\) I find his analysis credible and sensible. Exhibits 3 and 7 of his report analyzing the operating margins and silver reclamation revenue at North Hollywood were very helpful. \({ }^{161}\)

The parties presented conflicting evidence regarding whether further abnormal silver reclamation profits would be possible in the future. \({ }^{162}\) I find that the more sensible conclusion is that Technicolor would be unable to reap large windfalls from silver reclamation in the future for two reasons. First, a
portion of Technicolor's windfall in late 1979 and early 1980 was a result of the rapid increase in the price of silver. A more gradual increase would increase the cost of film stock more or less in line with the excess profits expected from silver reclamation. Second, Technicolor's contract customers had a great deal of leverage in keeping prices down and North Hollywood's margins constant. \({ }^{163}\) It would be unreasonable to assume that these customers would ignore the effects of silver reclamation in their negotiations with Technicolor management. I find, therefore, that Easton's conclusions regarding silver reclamation are reasonable, and I adopt them for my analysis.

Because silver reclamation profits would not continue, margins would be unlikely to increase significantly for reasons set forth by Easton as well, with which I agree and find reasonable. \({ }^{164}\) First, as I have determined, footage will decrease and revenue will increase approaching 1987.

As footage decreases, the fixed cost per foot increases. The increase in revenue would be largely attributable to the increase in price per foot to account for variable costs. Second, with the "most favored nation" clause in Technicolor's contracts, it would seem reasonable that retaining clients and raising margins would be mutually exclusive. I find that use of an \(18.9 \%\) margin for CY 1983 and onward is appropriate and reasonable.
iv. Net investment in fixed capital and working capital \({ }^{165}\) The DCF model calculates enterprise value based on free cash flow, not income, as measured by Generally Accepted Accounting Principles or the Internal Revenue Service. \({ }^{166}\) Therefore, it is vitally important to account for working capital requirements and fixed capital investment (net of depreciation) in determining the free cash flow that will be discounted back to present value. \({ }^{167}\)

Due to the modernization program discussed briefly above, capital expenditures at North. Hollywood had been high in the past. \({ }^{168}\) It would seem unreasonable that these high levels of capital investment would continue, and indeed, the CY 1983 Plan reflects that assumption. For fiscal years 1979-1982, capital expenditures averaged \(\$ 2.0\) million, or \(2.4 \%\) of the following year's net sales. \({ }^{169}\) For CY 1983, however, management projected only \(\$ 704,000\) in capital investment, a marked decrease representing only \(0.9 \%\) of
my projected 1984 net sales. \({ }^{170}\) It does not, however, seem probable that this low level of capital investment would be sustainable into perpetuity. As a result, capital expenditures should be higher than \(0.9 \%\) of next year's sales from 1984 forward. Easton projects fixed capital investment equal to \(1.8 \%\) of the following year's sales going forward. This is equal to the depreciation rate (as a percentage of net sales) he projects. Depreciation at North Hollywood historically had been between \(1.5 \%\) and \(2.1 \%\) of net sales, with an average of \(1.8 \% .{ }^{171}\) I find Easton's assumptions reasonable and in accord with both the CY 1983 Plan and Technicolor's historic results. Accordingly, after CY 1983, I will calculate fixed capital investment as \(1.8 \%\) of the following year's net sales, and depreciation as \(1.8 \%\) of net sales. \({ }^{172}\)
*19 Between 1979 and 1982, working capital (as a percentage of net sales) had averaged \(17.8 \% .{ }^{173}\) The CY 1983 Plan projected working capital at \(17 \%\) of net sales. Easton uses \(17 \%\) for his analysis, and finding it reasonable and supported by the evidence, I do so as well.

\section*{v. Conclusion}

I present the summary of my findings regarding North Hollywood's fair value in tabular form below. As can be seen, and for the reasons discussed above, I find that the fair value of North Hollywood as of January 24, 1983 is \(\$ 53,991,172\), or \(\$ 11.82\) per share.

\section*{Key Value Driver Assumptions}


Cede \& Co. v. Technicolor, Inc., Not Reported in A.2d (2003)
\begin{tabular}{llllllllll}
\hline Net Sales & \(\$ 81,409\) & \(\$ 78,185\) & \(\$ 80,700\) & \(\$ 83,557\) & \(\$ 86,744\) & \(\$ 91,081\) & \(\$ 95,635\) & - \\
\hline \begin{tabular}{l} 
Operating \\
Margin (as \% of \\
Sales)
\end{tabular} & \(18.9 \%\) & \(18.9 \%\) & \(18.9 \%\) & \(18.9 \%\) & \(18.9 \%\) & \(18.9 \%\) & \(18.9 \%\) & \(18.9 \%\) \\
\hline \begin{tabular}{l} 
Operating \\
Income before \\
taxes
\end{tabular} & & & & & & & & \\
\hline
\end{tabular}
\(\left.\begin{array}{lllllllll}\text { Plus: } & \$ & \$ & \$ & \$ & \$ & \$ & \$ \\ \text { Depreciation } & 1,749 & 1,407 & 1,453 & 1,504 & 1,561 & 1,639 & 1,721\end{array}\right]\)
\begin{tabular}{lllllllll} 
Free Cash Flow & \(\$\) & \(\$\) & \(\$\) & \(\$\) & \(\$\) & \(\$\) & \(\$\) & \(\$\) \\
& 9,695 & 8,482 & 7,758 & 7,986 & 8,234 & 8,478 & 8,901 & 62,771 \\
WACC & & & & & & & & \\
\hline
\end{tabular}

North Hollywood Value
\$ 53,991.172

\section*{B. Newbury Park}
*20 The videocassette recorder was introduced in the United States in 1976. \({ }^{174}\) Technicolor opened its videocassette duplication division in Newbury Park, California five years later, in January 1981. This division offered mass reproduction of pre-recorded videocassettes for film copyright owners and distributors. Technicolor opened the division after agreeing to perform all of Warner Brothers' duplication for three years. \({ }^{175}\) Technicolor's Newbury Park videocassette duplication plant had an initial capacity of approximately two million units per year. \({ }^{176}\) At trial, I heard testimony regarding the prospects of both the videocassette industry as a whole and of Technicolor's videocassette division in particular.

\section*{1. Business Prospects for the Pre-recorded Videocassette Industry}

Overall, the wildly divergent testimony at trial pointed to one simple fact: the future of the prerecorded videocassette industry was not certain. As anticipated, petitioner viewed the industry's future through rose-colored glasses, predicting quite lucrative prospects for duplicating prerecorded videocassettes, despite the admitted uncertainty rampant in the industry. In contrast, respondent predicted a rocky path, despite increasing sales and VCR acceptance in American households.

One Cinerama witness, Stephen Roberts, offered glowing reports of the videocassette industry as of the time of the merger. Drawing upon his expertise as a Fox executive, he testified that as of the time of the merger, he believed that the prerecorded videocassette industry would grow fifteen-fold by \(1986 .{ }^{177}\) Yet interestingly enough, just four months before the merger Roberts testified before Congress and stated a completely opposite proposition-that the unauthorized rentals of videocassettes was acting as a "ravaging steamroller" and would "crush" the videocassette business. \({ }^{178}\)

Though Roberts brushes these former contradictory statements aside as hyperbole, this Court is unwilling to play a game of "believe me now that I was lying then." If anything, his statements before the House Subcommittee only four months before the merger seem more reliable, though they may be to some extent exaggerated due to the persuasive intent of his speech. Unable to reconcile these contrary views, I am reluctant to give any weight to Roberts' current rosy predictions regarding the videocassette industry. In any event, his predictions du jour evaluated the industry as a whole and were not tailored to the prospects of Technicolor's videocassette division.

Cinerama's industry expert, Dr. Arthur Gruen, projects dramatic future growth for the videocassette industry in his expert report and trial testimony as well. Besides the fact that Torkelsen rarely relies upon Gruen's predictions in his calculations for Newbury Park, Gruen's testimony may be somewhat influenced with hindsight bias due to the great deal of knowledge he has amassed about the industry as it existed from 1986 onward. This extensive post-merger knowledge, though impressive, may have unconsciously, yet impermissibly, colored Gruen's analysis and opinions. In fact, Gruen conceded as much at trial. \({ }^{179}\) Additionally, Gruen relied upon post-merger documents to refresh his recollection about the pre-merger state of the industry. More importantly, the relevance of his testimony and report is limited because of its complete failure to evaluate Technicolor specifically, even though information was available upon which such an analysis could have been executed. Instead, Cinerama seems to have strategically ignored the less-pleasant reality of latecoming Technicolor in favor of the rosier forecasts of the industry as a whole.
*21 Further, Gruen may have erroneously based his opinions on some significant legal inaccuracies, as adeptly pointed out by Technicolor. For example, he maintained in every draft of his expert report, until the final draft, that the federal courts as of the time of the merger had held that the recording of television programs and movies for home use did not constitute copyright infringement. This was simply incorrectindividuals were prohibited at the time from using their VCRs
to copy movies and television programs. This feature was one of the only advantages of VCRs over competing technologies. Even his final version of the report omitted another detail that was of profound consequence in the industry-that the Ninth Circuit had found the mere sale of videocassette recorders to be illegal and as constituting contributory copyright infringement. \({ }^{180}\) It was not until well after the merger that VCRs could be legally sold and that consumers could use their VCRs to copy televised material and movies without fear of infringing a copyright. Uninformed of these legal obstacles that existed at the time of the merger, Gruen projected that the industry would grow in leaps and bounds, despite the fact that VCRs could not be sold and consumers could not use their VCRs to record copyrighted materials. \({ }^{181}\) His testimony was further undermined by a document he published in 1985 entitled "Video 1995." In this report, Gruen stated that by the end of 1982 (i.e., pre-merger), the prerecorded videocassette rental market had "almost totally overwhelmed retail sales." \({ }^{182}\) Intuitively, and as he confirmed at trial, a rental market requires a much smaller inventory than does a sales market, which would not be good for prerecorded videocassette distributors or duplicators. \({ }^{183}\) Although I find several portions of his report interesting and somewhat enlightening, my reliance upon his expert report took into account its infirmities described above.

In general, after hearing all of the testimony at trial, and reviewing the voluminous paper record, I cannot avoid the conclusion that the growth of the videocassette industry as a whole was uncertain at the time of the merger. Respondent Technicolor provided ample evidence that the industry stood on shaky grounds, as it was complicated by several factors, such as low barriers to entry, competing technologies, legal complications, and confused marketing strategies.

\section*{a. Low barriers to entry}

Duplicating prerecorded videos was a fairly simple business that required only an original tape and an army of VCRs with which to copy it. \({ }^{184}\) To illustrate, when Technicolor entered the market, it simply leased a facility and installed about 2,000 VCRs in it. This provided it an initial duplication capacity of approximately two million tapes per year for a relatively modest capital investment. \({ }^{185}\) Additionally, videocassette duplicating did not require significant technical expertise. Technicolor used virtually the same VCR machines that any consumer could purchase. \({ }^{186}\) This was a business simple
enough that virtually anyone could enter the market at any time as a matter of logic.
*22 At the time of the merger, there were relatively few main competitors in the prerecorded videocassette industry: CBS/Fox Home Video and Bell \& Howell/Columbia Video Services. \({ }^{187}\) CBS/Fox Home Video was then operating at full capacity and was seeking to expand its capacity with a \(\$ 15\) to \(\$ 20\) million project to build a new plant. \({ }^{188}\)

\section*{b. Competing technologies}

Besides the competition generated by the industry's relatively low barriers to entry, video competed with other technologies for consumer attention as well. At the time, a movie could be seen on videocassette, videodisc, cable or broadcast television. \({ }^{189}\) The VCR was a relatively new technology and had not yet achieved widespread consumer acceptance. \({ }^{190}\) VCRs did, however, have one primary advantage over videodisc-their ability to record television programs. This was an activity that would reduce, not increase, consumer demand for Newbury Park's prerecorded videocassettes. \({ }^{191}\) Therefore, even if VCRs penetrated more households because consumers found the recording feature desirable, it does not immediately follow that demand for prerecorded videocassettes would increase at the same rate, as Torkelsen assumed, especially when it would be less costly for a consumer to purchase a VCR and premium cable television to record films at home \({ }^{192}\) than it would be to purchase a VCR and pay the prevailing \(\$ 60-\$ 100\) price per prerecorded video. \({ }^{193}\) In fact, blank tape sales grew rapidly during this period. \({ }^{194}\)

\section*{c. Legal complications}

As mentioned earlier, the prerecorded videocassette industry as a whole was turbulent due to various legal obstacles. At the time of the merger, home recording of television broadcasts had been held illegal, as was the sale of VCRs. \({ }^{195}\) The first sale doctrine, which allowed a prerecorded videocassette purchaser to rent the copyrighted materials to the public without permission, threatened to extinguish the profitability of the industry. \({ }^{196}\) Significant lobbying efforts were underway and court challenges had been brought to minimize the effects of these legal barriers, but as of the merger date, no headway had been gained. As Roberts testified before Congress, Fox's business was hurting because of the first sale doctrine. \({ }^{197} \mathrm{He}\) further stated that " \([t]\) he future
of the prerecorded cassette business is now bogged down in uncertainties, marketplace distortions and artificial pricing mechanisms."198

\section*{d. Marketing strategies}

Just before the merger, the videocassette industry had undergone a significant restructuring. The marketing of prerecorded videocassettes began as a direct sales model, selling videos directly to customers. Although Technicolor's directors heard lofty reports of Newbury Park's business in November of 1981, \({ }^{199}\) they were hearing a very different story by the spring of 1982. This is because in early-tomid 1982, its major flagship customer, Warner Brothers, championed a "rental plan" movement that led to marketing confusion and ripples in videocassette sales. \({ }^{200}\) Accordingly, Technicolor directors learned in May of 1982 that its Newbury Park division was suffering because "the videocassette business with Warner Brothers has been less than anticipated, as Warner Brothers has not made any firm commitment as to how it will market its video cassettes-sale or rental., \({ }^{201}\) Arthur Ryan, at the time a Technicolor director, partially blamed Newbury Park's poor 1982 fiscal performance on Warner Brothers' inconsistent orders and its "indecision regarding the method of marketing their videocassettes (i.e., rental or sale)., \({ }^{202} \mathrm{He}\) also indicated that the division was attempting to stem costs and expenses by cutting back on labor and overhead. \({ }^{203}\)
*23 By the time of the merger, the direct sales model had almost completely transformed into a rental model, where videos would instead be sold to rental chains that would then rent the videos to customers for a fee. \({ }^{204}\) As Gruen admitted, by the end of 1982 (pre-merger), the prerecorded videocassette rental market had "completely overwhelmed the sales market, the rental market had completely reversed the growth in prerecorded videocassette shipments, and Hollywood was striking out in its efforts to deal with those problems in Congress and the courts." \({ }^{205} \mathrm{He}\) also conceded that a rental market requires a much smaller inventory than does a sales market, which would not be good for prerecorded videocassette distributors or duplicators. \({ }^{206}\) As expected, the number of prerecorded videos sold per VCR began to decline as a result, from 1.72 in 1981 to 1.18 in 1982, while the number of blank tapes sold grew. \({ }^{207}\)
2. Business Prospects for Newbury Park Specifically Although Technicolor's Newbury Park facility suffered from the same infirmities that affected the entire industry, its future was further clouded by other factors, such as its late entrance into a market with relatively low barriers to entry. Technicolor did have a competitive advantage in the market due to its strong pre-existing relationships with many of the major movie distributors, \({ }^{208}\) but it was somewhat disadvantaged because it entered the market later in the game than many of its competitors. \({ }^{209}\) By year-end 1982, most of the major movie distributors had already formed contractual ties or a long-standing relationship with one of the existing video duplicators. In fact, it was only MGM that was not bound in such a way, which provided a limited universe of potential clients for Technicolor to acquire. The evidence suggests that this limited universe was unlikely to expand since Newbury Park's competitors did not seem to anticipate leaving the business. \({ }^{210}\)

As a new business, Newbury Park did not begin to turn a profit until the last six months of \(1982 .{ }^{211}\) Its 1982 annual report to stockholders, dated September 7, 1982, reported that the company expected Newbury Park to "realize a significant sales increase in the current fiscal year and to provide an important profit contribution to the Company.,"212 As expected, it recorded \(\$ 1,379,000\) in profit in the last half of 1982. Almost a third of this profit, however, was attributable to rebates on raw material stock (i.e., blank tape rebates), \({ }^{213}\) which seemed unlikely to accrue to Technicolor in the future. \({ }^{214}\) Both Wilson and Easton testified that the large customers would likely demand that the rebates be passed through to them once they were discovered. Though Torkelsen believes that these rebates would continue to accrue to Technicolor, Technicolor management apparently did not believe that these rebates would continue to do so because they did not include them in their profit forecasts for Newbury Park. This assumption seems the more reasonable one, in light of the fact that Technicolor's contract with Warner Brothers provided that it would pay only the manufacturer's invoice price less any discount. \({ }^{215}\) Even if technically the rebates were not yet considered a "discount" under the contract, Warner Brothers could have easily acquired the material rebates to itself because it was also permitted to designate its own supplier for raw videocassette stock. \({ }^{216}\) And if Technicolor did not keep its prices competitive, Warner Brothers had the contractual right to unilaterally terminate its
duplicating contract. \({ }^{217}\) It seems clear to me that Technicolor had plenty of incentive to shave off the rebates to keep its prices as low as possible. Because management likely had the most current and thorough information regarding the future of material rebates at the time of the merger, I accept their projection that these rebates would not continue to accrue to Technicolor. \({ }^{218}\)
*24 Even though material rebates would be taken out of the profit equation in the future, Newbury Park did have some relatively important advantages in the industry. As part of Technicolor, it benefited from the good will that Technicolor had already established with its major film customers. Further, it was one of the newest and largest videocassette duplicating facilities in the United States at the time. \({ }^{219}\)

\section*{3. Valuation of Newbury Park}

The experts differ quite significantly in their respective valuations of Newbury Park. \({ }^{220}\) The magnitude of this difference accounts for \(18.5 \%\), or \(\$ 7.63\) per share, of the total difference in the parties' valuations. \({ }^{221}\) Though both experts use the DCF method to value Newbury Park, that is almost the end of the similarities between their reports.

Because both experts agree that the Perelman plan was not expected to impact the value or profitability of Newbury Park, its consideration is not necessitated in this section. \({ }^{222}\)
a. Rejection of the Torkelsen Report

Consistent with the majority of his expert report, Torkelsen inexplicably ignores contemporaneous management projections in favor of his own post-hoc calculations, even though management forecasts were shown to be extremely accurate. \({ }^{223}\) As pointed out in Easton's supplemental expert report, \({ }^{224}\) Torkelsen's projections include an inconsistency that directly affects his calculation of Newbury Park's working capital investment. Although he uses management's CY 1983 Plan for his 1983 working capital forecast and he intends to grow working capital with net revenue going forward, Torkelsen overstates the net revenue forecast by incorporating the pass-through revenue of blank tape sales. This results in a similarly overstated working capital investment. Easton notes that:
[t]his inconsistency highlights the use of incompatible net revenue and working capital investment forecasts for Videocassette in 1983. Management's 1983 Videocassette net revenue forecast was \(\$ 5.3\) million and management specifically projected Videocassette net working capital of \(\$ 1.732\) million at the end of 1983 in the same forecast. Mr. Torkelsen employs a year-end 1983 working capital balance that is virtually identical to the assumption in the management forecast (\$1.726 million versus management's \(\$ 1.732\) million), and thus the implied 1983 working capital investment levels, yet he inflates the 1983 Videocassette net revenue forecast to \(\$ 26.65\) million-five times management's forecast level of \(\$ 5.3\) million. Thereafter, Mr. Torkelsen grows this already inflated 1983 Videocassette net revenue from \(\$ 26.65\) million in 1983 to \(\$ 60.483\) million in 1987-an annual growth rate of \(17.8 \%\) from his highly inflated base. \({ }^{225}\)
Correcting for this mistake alone to comply with Torkelsen's stated working capital investment forecast methodology yields a significantly lower figure for 1984 through 1987, which leads to a higher overall value for the division-an increase of \(\$ 2.49\) per share. \({ }^{226}\)
*25 It appears that Torkelsen's mistaken calculation of Newbury Park's duplicating revenue ( \(\$ 10.7\) million) was \(101.8 \%\) greater than management's original CY 1983 sales projection alone, and \(87.3 \%\) greater than the \(\$ 5.7\) million 1983 base year projection Easton used. Even more shocking is Torkelsen's projected margin of \(50.1 \%\), as compared to management's projected \(26.8 \% .{ }^{227}\) Such extreme divergence from a contemporaneous management forecast that has not been discredited is simply unreasonable on its face.

Besides these very basic problems, Torkelsen's valuation is less reliable due to its indirect methodology. Torkelsen's forecast consists of two basic elements: (1) a unit forecast and (2) a profit margin per unit assumption. His analysis of both results in base year amounts that are extremely inflated over the CY 1983 Plan. Specifically, he projects a unit level of \(171 \%\) over plan and a margin level of more than \(50 \%\) over plan. This further leads to an absolute dollar profit of \(377 \%\) over management's 1983 plan ( \(\$ 5.383\) million versus \(\$ 1.427\) million). \({ }^{228}\)

Additionally, both key inputs to Torkelsen's forecast are convoluted. The unit forecast is indirectly derived, using contortionist calculations and inappropriate proxies
for growth. Torkelsen largely ignores management's unit forecasts and instead creates base year values by annualizing the units sold in July through December of 1982 (i.e., by multiplying those results by two), not taking into account seasonality or other factors. This simple oversight leads to a unit projection for 1983 that is \(71 \%\) higher than management forecasts for this same period ( 2.4 million units instead of 1.4 million units). Torkelsen's unit projection calculation is so grossly in excess of management's calculation that it seems to lack all credibility-especially in light of the fact that Technicolor management indicated that they generated their projections by relying upon information gleaned from the videocassette customers themselves, the studios. Further, management was aware of the data Torkelsen annualized when drafting their projections and drew from it strikingly different conclusions.

Even though these flaws alone are enough to reject Torkelsen's projections for this business unit, there are additional errors. Not only does Torkelsen begin with erroneous base numbers that will be carried forward through the forecast period, he then inflates these excessive numbers by using a convoluted measure of growth. He generates an all-new revenue forecast in a round-about way, using indirect (and, some would argue, extremely attenuated and inappropriate) indicia of future revenue growth. Specifically, he uses a logistic curve forecasting methodology to project the aggregate number of VCRs (not prerecorded videocassettes) owned by consumers over the 1983 to 1987 forecast period to arrive at a growth forecast that changes from \(59.6 \%\) to \(26.7 \%\).

To do this, Torkelsen uses a product life-cycle methodology to predict growth in household VCR penetration using a logistic S-curve analysis and an experience curve model. According to this theory, growth of a new consumer electronic product follows the shape of an S-curve, divided into four stages: introduction of the new product, growth, maturity, and decline. \({ }^{229}\) Torkelsen analogizes to the examples of mainly unrelated products in demonstrating this sort of growth curve: clothes dryers, AM radio stations, radios, telephones, and color TVs. \({ }^{230}\) This S-curve analysis, while enticingly complicated, erroneously assumes that all new products maintain identical, successful life cycles. In reality, we all know this to be untrue. For a relevant example, videodisc players had been introduced during that era, but they did not follow this successful S-curve of growth. Throughout the ages, several new technologies have been introduced and some have been quickly replaced by better technologies before they have even had the chance to realize
full acceptance into American households. At that time, VCRs were still new enough to lack the growth stability predicted in this methodology, especially in light of the various competitive and legal challenges the industry faced at the time. Torkelsen relies upon examples of unrelated technologies without demonstrating how they were similar to the VCR experience and specifically whether these technologies were subject to competing technologies as was the VCR. Further, S-curve forecasts are not extremely reliable because they are highly sensitive to their data inputs and can be dramatically skewed by even small differences in their factors. \({ }^{231}\)
*26 Going forward with his VCR penetration calculation, Torkelsen then substitutes the projected growth in VCR households as a proxy for growth in the prerecorded videocassette industry. The statistics at the time, in contrast, showed that there was actually a declining ratio of prerecorded videocassette sales to VCRs and an increasing ratio of blank cassettes to VCRs. \({ }^{232}\) In fact, while VCR penetration was growing at \(60 \%\) in 1982, the growth in prerecorded videocassette sales was stagnant or declining. \({ }^{233}\) Therefore, even the 1982 data demonstrates that VCRs are an unreliable proxy.

Moving on, Torkelsen's second key input, as indicated above, is his operating margin per unit for duplication. Rather than passing through the cost of raw materials (i.e., blank videotapes) to its customers as required by contract, and as forecasted by management, Torkelsen includes this cost in his Newbury Park margin calculation. In fact, Torkelsen's profit forecast rests upon the assumption that Newbury Park will realize a \(\$ 2.22\) profit per tape, which he maintains will continue from 1983 through 1985. Yet, at the tape duplicating volumes that he predicts, Technicolor would be paid only \(\$ 2.49\) in duplicating fees, according to its contracts in place at the time of the merger. \({ }^{234}\) Accepting these figures would result in an operating margin of \(89 \%\) for duplication (i.e., \(\$ 2.22 / \$ 2.49\) ), \({ }^{235}\) an improbable result that would be impossible to sustain in a competitive market. \({ }^{236}\) Wilson illustrated by chart these absurd results at trial \({ }^{237}\) and petitioners contested them, insisting instead that Torkelsen's margin ranged from only \(49.9 \%\) to \(55.6 \%\) once material costs were extracted, not \(89 \% .{ }^{238}\) Even this profit margin, however, does not comport with reality. Wilson also calculated the actual profits for each half-inch tape \({ }^{239}\) during the last six months of 1982 -arriving at a figure of only \(\$ 0.86\), a figure
that included \(\$ 0.60\) in material rebates, a figure much lower than the \(\$ 2.22\) calculated by Torkelsen. All remaining profit was attributable to the lower volume three-quarter inch tape, master tape and dubbing tapes. \({ }^{240}\) Simply put, Torkelsen's numbers do not add up.

Although Technicolor management specifically forecasted its expected volume and the revenues to be produced by that volume, Torkelsen rejects these contemporaneous projections as "unrealistic." 241 Torkelsen attempts to arrive at more "realistic" results with a hindsight valuation that completely ignores the seasonality of the business, completely ignores the closest insiders' projections, and results in a strikingly high number. This is simply inexcusable. Similar to the expert employed by Dunham's in Taylor v. American Specialty Retailing Group, Inc., \({ }^{242}\) Torkelsen's "valuation lacks credibility because ... he ignored a contemporaneous set of projections prepared by [Technicolor's] management, choosing instead to rely on far more [optimistic] assumptions of [Technicolor's] future prospects that he prepared on his own.,243
*27 Though there was limited historical data to rely upon, management had proven accurate in its predictions. At trial, Wilson demonstrated this accuracy. For the period of July through December 1982 (i.e., just prior to the merger), management's actual results for Newbury Park were within \(5 \%\) of the half-inch volume forecast ( 748,489 versus 782,000 ), and net duplicating revenue per unit was exactly as forecast ( \(\$ 2.85\) per tape). Instead, Torkelsen substitutes his judgment, annualizes base numbers that ignore the seasonality of the business by cleverly using the results of the six most profitable months of the business and multiplying them by two. Further, his resultant revenue forecast assumes an absolute operating profit per tape that fails to exclude blank tape rebates that were not expected even by management to continue. \({ }^{244}\)

Finally, Torkelsen forecasts Newbury Park's videocassette duplication unit volume as a certain portion of the industry's sales, from which he forecasts revenue. \({ }^{245}\) This revenue figure is a final output provided solely to generate a working capital investment ratio. \({ }^{246}\) This complex, and elusive, projection results in a base year projection for Newbury Park's duplicating revenue that was more than double Technicolor management's projection for that same year ( \(\$ 10.742\) million as opposed to \(\$ 5.323\) million). \({ }^{247}\) And
despite all of the uncertainty facing the industry at this time, Torkelsen glowingly projects a value of Newbury Park that is roughly nine times its net operating assets at the time of the merger. \({ }^{248}\) Further, Torkelsen's per-share value of Newbury Park alone is approximately equal to the pre-merger stock price of Technicolor in its entirety. \({ }^{249}\) If Newbury Park were so valuable at the time, it seems that another bidder would have come forward to purchase Technicolor or its assets or that competitors would have rushed into the business.

\section*{b. Easton Report}

Easton acknowledges that creating projections for Newbury Park was the most difficult portion of his report, due to the manifest uncertainties in the industry and limited information available for a new division. In contrast to Torkelsen, however, Easton chooses to begin with management's CY 1983 forecast for the business. Because I find Easton's expert report, which was based upon contemporaneous management projections, more credible and reliable, I will use his report as a starting point, diverging from it as necessary.

Technicolor management painstakingly created projections for the Newbury Park facility very close to the time of the merger. Management went through quite a long process to arrive at their projections, which had proven extremely accurate even in the face of the uncertainty in the business and its newness in the industry. \({ }^{250}\) Thus, I believe that Easton correctly identifies the CY 1983 Plan as the best source for reliable data regarding the business expectations of Newbury Park. Technicolor management was paid well for their expertise in analyzing these business expectations just before the merger, they took their job seriously, and had proven reliable and accurate in their results.
*28 Regardless of this, petitioner attacks Easton's reliance upon management's CY 1983 Plan. As part of this attack, however, petitioner attempted to disprove the accuracy of management forecasts by erroneously adopting Torkelsen's method of annualizing the last six months of Newbury Park's performance (i.e., simply multiplying by two the profitable results of July through December of 1982). Petitioner then attempts to establish that the CY 1983 Plan was completely unreliable because the annualized results showed that Newbury Park was "substantially in excess of plan."251 I find this criticism wholly unfounded. Annualizing data in an industry subject to seasonality is simply inappropriate-especially when the six-month period includes the six most profitable months of the season-
summer through Christmas. \({ }^{252}\) Further, these were the only profitable months in Newbury Park's history. Therefore, I find petitioner's attack on Easton's use of the CY 1983 Plan unpersuasive.

Easton valued the business primarily using the DCF methodology. As explained above in Section II.B., a DCF analysis projects operating cash flows for an extended period, determining a terminal value upon sale at the end of the period, and then discounting those values at a set rate to determine the net present value of the common stock. \({ }^{253}\) Free cash flows are equal to after-tax operating income minus changes in net operating assets (i.e., changes in fixed and working capital minus depreciation). Thus, two variables are critical in the DCF analysis: after-tax operating income and net operating assets. To predict these variables, Easton first projects sales revenue and sales revenue growth, the operating margin ratio, and the change in the net book value of the operating assets.

\section*{i. Sales and sales growth}

In FY 1982, Technicolor realized sales of \(\$ 2.6\) million \({ }^{254}\) and projected sales of \(\$ 5.323\) million in its CY 1983 Plan. \({ }^{255}\) In his valuation, Easton uses a slightly higher figure ( \(\$ 5.7\) million) as his 1983 net sales assumption, but selects this number from an earlier draft of the CY 1983 Plan. This divergence from the CY 1983 Plan was appropriately criticized by petitioner as "strange" and as erroneously resulting in a revenue forecast that was "some \(\$ 400,000\) in excess of the actual plan forecast." \({ }^{256}\) This error, as petitioner pointed out, similarly affected Easton's revenue forecast by inflating it \(\$ 110,000\) (to \(\$ 1.537\) million rather than the \(\$ 1.427\) million found in management's plan). \({ }^{257}\) Because I agree with petitioner's criticism on this point, I have corrected for these errors by using \(\$ 5.323\) million as the 1983 sales assumption.

To estimate sales growth for the following years of the forecast period, Easton offers four wide-ranging scenarios. Of the four, two are easily disposable. One is based upon growth at only the \(5 \%\) rate of inflation during the entire forecast period, concededly an extremely pessimistic assumption. \({ }^{258}\) The other is overly optimistic, and is based upon a one-to-one ratio of VCR-to-prerecorded videocassette growth-an assumption I rejected in Torkelsen's report. \({ }^{259}\)
*29 The other two forecasts seem much more closely to represent the growth of Newbury Park's business at the
time of the merger. All four of the growth forecasts use Technicolor management's CY 1983 Plan as a starting point for growth into the immediate future. From that point, one of the four remaining scenarios selects a growth rate based upon a contemporaneous industry study performed by a neutral entity, International Resource Development, Inc. ("IRD"). The other projection carries management's CY 1983 Plan projection forward at a constant rate (33.1\%) through 1987. After 1987, both projections drop the growth rate to the expected rate of inflation (5\%), as projected by IRD.

Easton chooses to accept the latter scenario, carrying forward management's projection of \(33.1 \%\) growth during the period of 1984-1987. I have difficulty accepting this conservative projection for several reasons. First, Easton too readily dismisses Technicolor's competitive advantage in the industry. Although I have acknowledged that logically there were few barriers to entry, in all practicality, Technicolor stood a much better chance of acquiring the business of the large studios with which it had pre-existing relationships than would a complete stranger to the industry. Second, this was a fairly new business that was still ramping up in its operations. It was just starting to realize a profit on the eve of its second birthday. A business emerging from net operating losses to finally reap positive gains seems to be a business in the process of positive, not steady state, growth. Even Easton acknowledges later in his report that the Newbury Park unit was "in a high growth stage., \({ }^{260}\) Though I accept management's CY 1983 Plan projected growth of \(33.1 \%\) for the first year, I believe that it would be an error to carry this same growth rate forward for several years.

Instead, I believe that the IRD projection seems to be the most neutral and comprehensive evidence of prerecorded videocassette growth for this time period. The IRD report is an impartial analysis of the industry and specifically assesses videocassette demand, taking into account factors that added turbulence to the industry's future at the time, such as longterm competing technologies. Therefore, in the absence of better information, such as management projections, I believe that this study is the best secondary source for projecting Newbury Park's future growth rate.

I acknowledge Gruen's expert opinion that similarly predicts a high level of growth in prerecorded videocassette sales over the few years following the merger. As he explained, the VCR had achieved a critical mass of acceptance into American households, allowing manufacturers to begin realizing economies-of-scale from their mass-production. \({ }^{261}\)

Such mass-production would reduce prices for consumers, making VCRs more financially accessible to households. \({ }^{262}\) At the time, for example, retail prices of VCRs had declined to about \(\$ 600^{263}\) and growth in VCR sales had been rapid, characterized by an upward trajectory in the annual number of units sold: 430,000 in 1978; 500,000 in 1979; 800,000 in 1980; 1,400,000 in 1981; and 1,900,000 in \(1982 .{ }^{264}\) Though I do not agree that one could foresee prerecorded videocassette growth would grow at a one-to-one ratio with VCR sales (or TV households for that matter), a trend of positive growth in VCR sales would inevitably lead to some level of positive growth (not flat sales) in the rerecorded videocassette market. In fact, consumer spending on home video had been growing rapidly: from \(\$ 260\) million in 1981 to \(\$ 520\) million in \(1982 .{ }^{265}\)
*30 Admittedly both the IRD and Gruen reports are not specifically tailored to Technicolor and its clients. They are, however, at a minimum less flawed than conservatively carrying forward for several years a management projection designed only to project the growth of the third year of an infant operation. Further, the IRD report seems more reliable and less subject to manipulation than any other evidence presented by either party as to the growth of prerecorded videocassettes. Thus, I accept the IRD forecast for the remaining forecast period and I accept Easton's scenario of a growth rate that begins with management's forecast for 1983 and adopt the IRD report's forecasts for the subsequent years in the forecast period.

These growth rates are as follows:
the duplication industry. With barriers to entry much lower than that of its film processing business, competitors would have plenty of incentive to enter a business with such high margins, driving the prices down. Technicolor's customers had the power to unilaterally terminate their duplication contracts with Technicolor, forcing Technicolor to keep its prices competitive.

Therefore, I accept Easton's conclusion that the profit margin would erode over time, as demonstrated in his second scenario, but I reject his conclusion that it would quickly plummet to a mature business level. Easton's second scenario begins with management projections of operating margins in 1983 (26.8\%) and then immediately drops down for the remaining period to mirror the margin of Technicolor's more mature business-its film processing business (19\%). I believe that it is likely that the margin would eventually erode to its mature business margin level, but not the year immediately following the merger-especially when sales growth was rapidly increasing. As petitioners point out,

Easton erroneously employed a "margin from a mature, slow growth business into a new business poised to grow very rapidly., \({ }^{266}\) Therefore, to be reasonable, I have carried management's 1983 margin projection forward until 1987, the point at which the IRD predicted a leveling-off of sales to the rate of inflation. Rather than an immediate decline to the mature-business margin of \(19 \%\), I gradually decrease the

1987 margin by averaging management's predicted margin (26.8\%) with the mature business margin (19\%), resulting in a margin of \(22.9 \%\) for 1988 . Thereafter, I accept the mature business margin of \(19 \%\).
*31 To be explicit, the projected Operating Margins are as follows:
\begin{tabular}{ll}
1983 & \(26.8 \%\) \\
1984 & \(26.8 \%\) \\
1985 & \(26.8 \%\) \\
1986 & \(26.8 \%\) \\
1987 & \(26.8 \%\) \\
1988 & \(22.9 \%\) \\
1989 & \(19 \%\)
\end{tabular}
iii. Fixed and working capital investment, depreciation, and change in net operating assets
As a new facility, Newbury Park incurred large capital expenditures in its first full fiscal year of operations (approximately \(\$ 2.9\) million). In April 1981, analysts estimated that videocassette-duplicating equipment for two million units of capacity alone would cost approximately \(\$ 1.2\) million and would be depreciated over two years. \({ }^{267}\) Consistent with this projection, Wilson testified that Newbury Park would incur approximately \(\$ 500,000\) of normal capital expenditures per year, assuming that capacity remained the same. \({ }^{268}\) Though Technicolor management projected only \(\$ 0.373\) million in fixed capital expenditures for CY 1983, \({ }^{269}\) this low number was likely due to the recent investments that grew capacity over the preexisting levels of production. As Easton notes, capital expenditures would likely increase after 1983 to achieve the capacity required to produce the sales projections determined above.

To make these determinations, Easton relies primarily upon Technicolor management's testimony and contemporaneous estimates of Newbury Park's projected investments to determine fixed and working capital investment and depreciation. After accepting management's projected \(\$ 0.373\) million in capital expenditures for 1983, he predicts increases of fixed capital investments to \(\$ 0.6\) million per each incremental 1 million units of capacity. I accept these figures,
as they seem reasonable in light of the two-year depreciation estimates for equipment that cost approximately \(\$ 1.2\) million to achieve Newbury Park's then-current capacity.

Lacking historical data, Easton projects investment in working capital to equal \(11 \%\) of incremental net sales, to produce a ratio of working capital-to-net sales of just over \(16 \%\) by 1988, within what I consider a reasonable range as compared to other film divisions. I accept this working capital investment projection as supported by the evidence.

In determining depreciation expenses, Easton acknowledges Newbury Park's past depreciation figures of \(24 \%\) of net sales in FY 1982 and approximately \(21 \%\) of net sales in CY 1983. Easton projected that these figures would decline to \(16.1 \%\) of net sales by 1986 to equal projected fixed capital investments as a percentage of next year's sales. This is a reasonable assumption for this type of division and is supported by the evidence and is adopted in my valuation.

As for changes in net operating assets, Easton calculates the changes in each period by summing investments in fixed and working capital net of depreciation and adding the balance to the prior year's net operating assets. \({ }^{270}\) This calculation leads to a declining ratio of net operating assets as a percentage of sales that is consistent with a long-term growth expectation. Again, I accept these conclusions as reasonable and supported by the evidence.

Cede \& Co. v. Technicolor, Inc., Not Reported in A.2d (2003)
iv. Newbury Park valuation conclusion
*32 In sum, after calculating the historical and forecasted value drivers, I arrive at a DCF valuation of \(\$ 10,398,185\), or \(\$ 2.28\) per share.

Key Value Driver Assumptions-Newbury Park
\begin{tabular}{llllllll} 
(\$s in 000s) & \(\mathbf{1 9 8 3}\) & \(\mathbf{1 9 8 4}\) & \(\mathbf{1 9 8 5}\) & \(\mathbf{1 9 8 6}\) & \(\mathbf{1 9 8 7}\) & \(\mathbf{1 9 8 8}\) & \(\mathbf{1 9 8 9}\) \\
\hline Net Sales & \(\$ 5,323\) & \(\$ 11,290\) & \(\$ 13,232\) & \(\$ 15,508\) & \(\$ 18,175\) & \(\$ 19,084\) & \(\$ 20,038\) \\
Sales Growth (net) & \(33.2 \%\) & \(112.1 \%\) & \(17.2 \%\) & \(17.2 \%\) & \(17.2 \%\) & \(5.0 \%\) & \(5.0 \%\) \\
Operating Margin & \(26.8 \%\) & \(26.8 \%\) & \(26.8 \%\) & \(26.8 \%\) & \(26.8 \%\) & \(22.9 \%\) & \(19.0 \%\) \\
Depreciation as \% of Sales & \(20.8 \%\) & \(18.2 \%\) & \(16.4 \%\) & \(16.0 \%\) & \(16.2 \%\) & \(16.1 \%\) & \(16.1 \%\) \\
FCI as \% of Next Years Sale s & \(3.3 \%\) & \(15.9 \%\) & \(16.0 \%\) & \(16.2 \%\) & \(16.1 \%\) & \(16.1 \%\) & \(16.0 \%\) \\
WC as \% of Sales & \(30.2 \%\) & \(20.1 \%\) & \(18.7 \%\) & \(17.6 \%\) & \(16.6 \%\) & \(16.4 \%\) & \(16.1 \%\) \\
\multicolumn{1}{c}{ DCF Valuation Inputs Summary } & & & & & & & \\
\hline
\end{tabular}


Cede \& Co. v. Technicolor, Inc., Not Reported in A.2d (2003)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{WACC} & \multicolumn{2}{|r|}{\multirow[t]{2}{*}{19.89\%}} & \multicolumn{2}{|r|}{\multirow[t]{2}{*}{19.89\%}} & \multicolumn{2}{|r|}{\multirow[t]{2}{*}{19.89
\(\%\)}} & \multicolumn{2}{|r|}{\multirow[t]{2}{*}{19.89\%}} & \multicolumn{2}{|r|}{\multirow[t]{2}{*}{19.89\%}} & \multicolumn{2}{|r|}{\multirow[t]{2}{*}{19.89\%}} & \multicolumn{2}{|r|}{\multirow[t]{2}{*}{19.89\%}} & \multicolumn{2}{|r|}{\multirow[t]{2}{*}{19.89\%}} \\
\hline & & & & & & & & & & & & & & & & \\
\hline Discount Period & & 0.4274 & & 1.4274 & & 2.4274 & & 3.4274 & & 4.4274 & & 5.4274 & & 6.4274 & & 6.4274 \\
\hline Discount Factor & & 0.9254 & & 0.7719 & & 0.6438 & & 0.5370 & & 0.4479 & & 0.3736 & & 0.3116 & & 0.3116 \\
\hline Discounted Free & \$ & 1.627 & \$ & 712 & \$ & 900 & \$ & 820 & \$ & 992 & \$ & 782 & \$ & 567 & \$ & 3.998 \\
\hline \multicolumn{17}{|l|}{Cash Flow} \\
\hline Newbury Park & & & & & & & & & & & & & \$ & & & ,185 \\
\hline \multicolumn{17}{|l|}{Value} \\
\hline Per Share Value & & & & & & & & & & & & & \$ & & & 2.28 \\
\hline
\end{tabular}
*33 Although this estimate was difficult due to the uncertainties in the industry, conflicting information regarding Newbury Park's facility, and the uncertainty inherent in performing a hindsight valuation, I take comfort from the simple fact that an unbiased average of the eight scenarios presented by Easton (using his assumptions) yields a valuation of \(\$ 12.741\) million-within \(23 \%\) of what I consider to be the most reasonable result ( \(\$ 10.398\) million). Easton performed this unbiased average to capture the considerable uncertainty of the business, arriving at a figure that would thus average out the very best and worst prospects for Newbury Park. \({ }^{271}\) I find it reassuring that when averaging eight wildly different scenarios of a turbulent industry to capture the uncertainties, one arrives at a result closely resembling the figure I calculated above using reasonable forecasts based upon the best contemporaneous information available.

\section*{C. Other Businesses}

The valuation of Technicolor's East Coast facilities, Technicolor, Ltd. (London), Technicolor, S.p.A. (Rome), Government Services, Vidtronics, and Magna Crafts (collectively the "Other Businesses") is rendered both simpler and more difficult by the fact that the parties valuations are not wildly divergent and because very little evidence was offered with respect to the valuation of these entities. Vidtronics presents the greatest discrepancy-as the experts differ by \(\$ 11\) million. Easton projects its value at \(\$ 3.711\) million and Torkelsen projects its value at \(\$ 14.642\) million. The difference in valuation between the experts for the other businesses accounts for only \(\$ 0.42\) per share of their total \(\$ 41.15\) per share difference, a difference that is explained mostly by their different discount rates.

Easton's report bases revenues and costs on management's CY 1983 Plan for each division. His projections for
subsequent years take varying approaches to predicting rates of growth for both costs and revenues. Notably for businesses anticipating declining or flat revenues from 1982 to 1983, Easton projects lower growth rates (sometimes negative) going forward for a few years until at some point he projects the businesses to grow at the anticipated inflation rate of \(5 \% .{ }^{272}\) For businesses anticipating revenue growth, Easton projects annual growth at the rate of inflation or \(5 \%\) for the period 1984-89. \({ }^{273}\) Although the report offers various justifications in each instance for the rates of growth projected, none of the explanations seem sufficient to offset the appearance that the report considers detailed information when such information is beneficial to Technicolor's position and uses more general projections when the details would suggest that the value of the underlying business would be higher if a more nuanced approach were adopted.

Torkelsen states that his projections for these entities are based entirely on management's CY 1983 Plan for each entity. His method is to accept the 1983 projections for revenues and costs and grow both annually at the expected inflation rate of \(5 \%\) annually. This approach, while certain to less accurately predict particular details, is likely to provide a fairly accurate rough measure of the value of an aggregate of the six businesses for which accurate detail is not available. Torkelsen's argument is well taken that had the Perelman plan anticipated declining revenues in any of these businesses, it seems quite likely that they too would have been selected for disposal under that plan. Since they were not, at least as of the time of the merger, it seems reasonable to presume that on January 24, 1983, the revenue streams of these other businesses were expected to at least keep pace with inflation in the foreseeable future. In addition, this method, when applied to a group of six businesses in which roughly half predicted flat or declining revenues for 1983 and the other half predicted revenues increasing at or above the rate of inflation,
unfairly favors the interests of neither party and is perhaps more fair ex ante.
*34 I adopt the sales and operating expenses projected in the CY 1983 Plan for each of the businesses in this group and grow both at an annual rate of \(5 \%\) through the forecast period. This will have the effect of holding operating margins constant at the margin forecast in the CY 1983 Plan. I note that, although both experts purport to use CY 1983 Plan projections as their basis for 1983 sales and profits, the actual dollar amounts reported by each expert differ for three of the businesses. For London and Rome, the difference is easily explained. \({ }^{274}\) For the third, Government Services, it is not. I have referred to Government Services CY 1983 Plan \({ }^{275}\) in order to derive the sales and costs for its valuation of this business.

Torkelsen's report does not provide separate valuations for the businesses in this group. For this reason, he provides no separate forecasts of depreciation, fixed capital investment, or working capital investment, instead addressing the effects of these factors as they relate to Technicolor as a whole.
Key Value Driver Assumptions-East Coast (N.Y.)

Easton bases his projections for these values on historical information for each of the businesses. Because I find that Easton's projections represent a reasonable estimate of these factors going forward from the date of the merger, I adopt Easton's projections of depreciation (as a percentage of sales); fixed cost investments (as a percentage of the following year's sales); and working capital (as a percentage of current year sales). As each of these value drivers are based on percentages of net sales and my projections for annual net sales vary from Easton's, the actual dollar values projected for depreciation, fixed capital investment, and changes in working capital differ from the actual dollar values projected by Easton. Finally, the change to working capital in 1983 is derived from Easton's report, which takes the historical 1982 working capital for each business, compares it to the projected working capital in the CY 1983 Plan, and calculates the 1983 change to working capital.

The following tables report the values I find when applying this method for each of the other businesses:
1. East Coast (New York)
\begin{tabular}{llllllll}
\hline (\$s in 000s) & \(\mathbf{1 9 8 3}\) & \(\mathbf{1 9 8 4}\) & \(\mathbf{1 9 8 5}\) & \(\mathbf{1 9 8 6}\) & \(\mathbf{1 9 8 7}\) & \(\mathbf{1 9 8 8}\) & \(\mathbf{1 9 8 9}\) \\
\hline Net Sales & \(\$ 11,387\) & \(\$ 11,956\) & \(\$ 12,554\) & \(\$ 13,182\) & \(\$ 13,841\) & \(\$ 14,533\) & \(\$ 15,260\) \\
Sales Growth (net) & \(-7.4 \%\) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) \\
Operating Margin & \(7.1 \%\) & \(7.1 \%\) & \(7.1 \%\) & \(7.1 \%\) & \(7.1 \%\) & \(7.1 \%\) & \(7.1 \%\) \\
Depreciation as \% of Sales & \(2.4 \%\) & \(2.3 \%\) & \(2.2 \%\) & \(2.1 \%\) & \(2.0 \%\) & \(2.0 \%\) & \(2.0 \%\) \\
FCI as \% of Next Years Sales & \(2.0 \%\) & \(2.0 \%\) & \(2.0 \%\) & \(2.0 \%\) & \(2.0 \%\) & \(2.0 \%\) & \(2.0 \%\) \\
WC as \% of Sales & \(10.3 \%\) & \(10.3 \%\) & \(10.3 \%\) & \(10.3 \%\) & \(10.3 \%\) & \(10.3 \%\) & \(10.3 \%\) \\
& & & & & & & \\
\hline
\end{tabular}

DCF Valuation Inputs Summary


Cede \& Co. v. Technicolor, Inc., Not Reported in A.2d (2003)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Taxes @ 46\% & \$ & (370) & \$ & (390) & \$ & (410) & \$ & (431) & \$ & (452) & \$ & (475) & \$ & (498) & & - \\
\hline Operating & \$ & 434 & \$ & 458 & \$ & 481 & \$ & 505 & \$ & 531 & \$ & 557 & \$ & 585 & & - \\
\hline \multicolumn{17}{|l|}{Income after} \\
\hline \multicolumn{17}{|l|}{taxes} \\
\hline Plus: & \$ & 276 & \$ & 275 & \$ & 276 & \$ & 277 & \$ & 277 & \$ & 291 & \$ & 305 & & - \\
\hline \multicolumn{17}{|l|}{Depreciation} \\
\hline Less: Fixed & \$ & 239 & \$ & 251 & \$ & 264 & \$ & 277 & \$ & 291 & \$ & 305 & \$ & 320 & & - \\
\hline \multicolumn{17}{|l|}{Capital} \\
\hline \multicolumn{17}{|l|}{Investment} \\
\hline Working Capital & \$ & 1,168 & \$ & 1,226 & \$ & 1,288 & \$ & 1,352 & \$ & 1,420 & \$ & 1,491 & \$ & 1,565 & & - \\
\hline Less: Working & \$ & (86) & \$ & 58 & \$ & 61 & \$ & 64 & \$ & 68 & \$ & 71 & \$ & 75 & & - \\
\hline \multicolumn{17}{|l|}{Capital} \\
\hline \multicolumn{17}{|l|}{Investment} \\
\hline Free Cash Flow & \$ & 557 & \$ & 424 & \$ & 433 & \$ & 441 & \$ & 449 & \$ & 472 & \$ & 495 & \$ & 3,492 \\
\hline WACC & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% \\
\hline Discount Period & & 0.4274 & & 1.4274 & & 2.4274 & & 3.4274 & & 4.4274 & & 5.4274 & & 6.4274 & & 6.4274 \\
\hline Discount Factor & & 0.9254 & & 0.7719 & & 0.6438 & & 0.5370 & & 0.4479 & & 0.3736 & & 0.3116 & & 0.3116 \\
\hline Discounted Free & \$ & 515 & \$ & 327 & \$ & 278 & \$ & 237 & \$ & 201 & \$ & 176 & \$ & 154 & \$ & 1,088 \\
\hline \multicolumn{17}{|l|}{Cash Flow} \\
\hline East Coast (N.Y.) & & & & & & & & & & & & & \$ & 2,978.096 & & \\
\hline Value & & & & & & & & & & & & & & & & \\
\hline Per Share Value & & & & & & & & & & & & & \$ & & & 0.65 \\
\hline
\end{tabular}

\section*{Key Value Driver Assumptions-Tech. LTD (London)}
\begin{tabular}{llllllll}
\hline (\$s in 000s) & \(\mathbf{1 9 8 3}\) & \(\mathbf{1 9 8 4}\) & \(\mathbf{1 9 8 5}\) & \(\mathbf{1 9 8 6}\) & \(\mathbf{1 9 8 7}\) & \(\mathbf{1 9 8 8}\) & 1989 \\
\hline Net Sales & \(\$ 20,483\) & \(\$ 21,507\) & \(\$ 22,583\) & \(\$ 23,712\) & \(\$ 24,897\) & \(\$ 26,142\) & \(\$ 27,449\) \\
Sales Growth (net) & \(-2.0 \%\) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) \\
Operating Margin & \(10.3 \%\) & \(10.3 \%\) & \(10.3 \%\) & \(10.3 \%\) & \(10.3 \%\) & \(10.3 \%\) & \(10.3 \%\) \\
Depreciation as \% of Sales & \(4.9 \%\) & \(4.2 \%\) & \(3.5 \%\) & \(2.8 \%\) & \(2.2 \%\) & \(2.2 \%\) & \(2.2 \%\) \\
FCI as \% of Next Years Sales & \(1.3 \%\) & \(2.2 \%\) & \(2.2 \%\) & \(2.2 \%\) & \(2.2 \%\) & \(2.2 \%\) & \(2.2 \%\) \\
WC as \% of Sales & \(26.2 \%\) & \(16.5 \%\) & \(16.5 \%\) & \(16.5 \%\) & \(16.5 \%\) & \(16.5 \%\) & \(16.5 \%\)
\end{tabular}

DCF Valuation Inputs Summary
\begin{tabular}{llllllllll}
\((\$ s\) in 000s) & 1983 & 1984 & 1985 & 1986 & 1987 & 1988 & Terminal
\end{tabular}

Cede \& Co. v. Technicolor, Inc., Not Reported in A.2d (2003)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Net Sales & \$ & 20,483 & \$ & 21,507 & \$ & 22,583 & \$ & 23,712 & \$ & 24,897 & \$ & 26,142 & \$ & 27,449 & & - \\
\hline \multicolumn{2}{|l|}{Operating Margin (as \% of Sales)} & 10.3\% & & 10.3\% & & 10.3\% & & 10.3\% & & 10.3\% & & 10.3\% & & 10.3\% & & 10.3\% \\
\hline Operating & \$ & 2,105 & \$ & 2,215 & \$ & 2,326 & \$ & 2,442 & \$ & 2,564 & \$ & 2,693 & \$ & 2,827 & & - \\
\hline \multicolumn{17}{|l|}{Income before taxes} \\
\hline Taxes @ 46\% & \$ & (968) & \$ & \((1,019)\) & \$ & \((1,070)\) & \$ & \((1,123)\) & \$ & \((1,180)\) & \$ & \((1,239)\) & \$ & \((1,301)\) & & - \\
\hline Operating & \$ & 1,137 & \$ & 1,196 & \$ & 1,256 & \$ & 1,319 & \$ & 1,385 & \$ & 1,454 & \$ & 1,527 & & - \\
\hline \multicolumn{17}{|l|}{Income after taxes} \\
\hline Plus: & \$ & 1,010 & \$ & 903 & \$ & 790 & \$ & 664 & \$ & 548 & \$ & 575 & \$ & 604 & & - \\
\hline \multicolumn{17}{|l|}{Depreciation} \\
\hline Less: Fixed & \$ & 280 & \$ & 497 & \$ & 522 & \$ & 548 & \$ & 575 & \$ & 604 & \$ & 634 & & - \\
\hline \multicolumn{17}{|l|}{Capital} \\
\hline \multicolumn{17}{|l|}{Investment} \\
\hline Working Capital & \$ & 5,369 & \$ & 3,549 & \$ & 3,726 & \$ & 3,912 & \$ & 4,108 & \$ & 4,313 & \$ & 4,529 & & - \\
\hline Less: Working & \$ & 954 & \$ & \((1,820)\) & \$ & 177 & \$ & 186 & \$ & 196 & \$ & 205 & \$ & 216 & & - \\
\hline \multicolumn{17}{|l|}{Capital} \\
\hline \multicolumn{17}{|l|}{Investment} \\
\hline Free Cash Flow & \$ & 913 & \$ & 3,423 & \$ & 1,347 & \$ & 1,249 & \$ & 1,162 & \$ & 1,220 & \$ & 1,281 & \$ & 9,032 \\
\hline WACC & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% \\
\hline Discount Period & & 0.4274 & & 1.4274 & & 2.4274 & & 3.4274 & & 4.4274 & & 5.4274 & & 6.4274 & & 6.4274 \\
\hline Discount Factor & & 0.9254 & & 0.7719 & & 0.6438 & & 0.5370 & & 0.4479 & & 0.3736 & & 0.3116 & & 0.3116 \\
\hline Discounted Free & \$ & 845 & \$ & 2.642 & \$ & 867 & \$ & 671 & \$ & 520 & \$ & 456 & \$ & 399 & \$ & 2.815 \\
\hline \multicolumn{17}{|l|}{Cash Flow} \\
\hline Technicolor's & \$ & 591 & \$ & 1,849 & \$ & 607 & \$ & 469 & \$ & 364 & \$ & 319 & \$ & 279 & \$ & 1.970 \\
\hline \multicolumn{17}{|l|}{70\% Interest} \\
\hline \multicolumn{17}{|l|}{Value} \\
\hline \multicolumn{3}{|l|}{Tech., Ltd. (London) Value (70\% Interest)} & & & & & & & & & & & \$ & 6,450,561 & & \\
\hline Per Share Value & & & & & & & & & & & & & \$ & & & 1.41 \\
\hline
\end{tabular}

Key Value Driver Assumptions-Tech. SPA (Rome)
\begin{tabular}{llllllll}
\hline (\$s in 000s) & \(\mathbf{1 9 8 3}\) & \(\mathbf{1 9 8 4}\) & \(\mathbf{1 9 8 5}\) & \(\mathbf{1 9 8 6}\) & \(\mathbf{1 9 8 7}\) & \(\mathbf{1 9 8 8}\) & \(\mathbf{1 9 8 9}\) \\
\hline Net Sales & \(\$ 13,954\) & \(\$ 14,651\) & \(\$ 15,384\) & \(\$ 16,153\) & \(\$ 16,961\) & \(\$ 17,809\) & \(\$ 18,699\) \\
Sales Growth (net) & \(0.0 \%\) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) \\
\hline WESTLAW © 2020 Thomson Reuters. No claim to original U.S. Government Works. & & & \\
\hline
\end{tabular}

Cede \& Co. v. Technicolor, Inc., Not Reported in A.2d (2003)

4. Government Services

\section*{Key Value Driver Assumptions-Gov't Svcs.}
\begin{tabular}{llllllll}
\hline (\$s in 000s) & \(\mathbf{1 9 8 3}\) & \(\mathbf{1 9 8 4}\) & \(\mathbf{1 9 8 5}\) & \(\mathbf{1 9 8 6}\) & \(\mathbf{1 9 8 7}\) & \(\mathbf{1 9 8 8}\) & \(\mathbf{1 9 8 9}\) \\
\hline Net Sales & \(\$ 24,608\) & \(\$ 25,838\) & \(\$ 27,130\) & \(\$ 28,487\) & \(\$ 29,911\) & \(\$ 31,407\) & \(\$ 32,977\) \\
Sales Growth (net) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) \\
Operating Margin & \(3.5 \%\) & \(3.5 \%\) & \(3.5 \%\) & \(3.5 \%\) & \(3.5 \%\) & \(3.5 \%\) & \(3.5 \%\) \\
Depreciation as \% of Sales & \(2.44 \%\) & \(2.54 \%\) & \(2.64 \%\) & \(2.74 \%\) & \(2.80 \%\) & \(2.80 \%\) & \(2.80 \%\) \\
FCI as \% of Next Years Sales & \(2.8 \%\) & \(2.8 \%\) & \(2.8 \%\) & \(2.8 \%\) & \(2.8 \%\) & \(2.8 \%\) & \(2.8 \%\) \\
WC as \% of Sales & \(4.48 \%\) & \(4.48 \%\) & \(4.48 \%\) & \(4.48 \%\) & \(4.48 \%\) & \(4.48 \%\) & \(4.48 \%\)
\end{tabular}

DCF Valuation Inputs Summary


Cede \& Co. v. Technicolor, Inc., Not Reported in A.2d (2003)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Discount Factor & & 0.9254 & & 0.7719 & & 0.6438 & & 0.5370 & & 0.4479 & & 0.3736 & & 0.3116 & & 0.3116 \\
\hline Discounted Free & \$ & 125 & \$ & 255 & \$ & 240 & \$ & 226 & \$ & 206 & \$ & 180 & \$ & 158 & \$ & 1.114 \\
\hline \multicolumn{17}{|l|}{Cash Flow} \\
\hline Gov't Services & & & & & & & & & & & & & \$ & 2,503,479 & & \\
\hline \multicolumn{17}{|l|}{Value} \\
\hline Per Share Value & & & & & & & & & & & & & \$ & & & 0.55 \\
\hline
\end{tabular}

\section*{Key Value Driver Assumptions-Vidtronics}
\begin{tabular}{llllllll}
\hline (\$s in 000s) & \(\mathbf{1 9 8 3}\) & \(\mathbf{1 9 8 4}\) & \(\mathbf{1 9 8 5}\) & \(\mathbf{1 9 8 6}\) & \(\mathbf{1 9 8 7}\) & \(\mathbf{1 9 8 8}\) & \(\mathbf{1 9 8 9}\) \\
\hline Net Sales & \(\$ 16,160\) & \(\$ 16,968\) & \(\$ 17,816\) & \(\$ 18,707\) & \(\$ 19,643\) & \(\$ 20,625\) & \(\$ 21,656\) \\
Sales Growth (net) & \(9.2 \%\) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) \\
Operating Margin & \(16.6 \%\) & \(16.6 \%\) & \(16.6 \%\) & \(16.6 \%\) & \(16.6 \%\) & \(16.6 \%\) & \(16.6 \%\) \\
Depreciation as \% of Sales & \(5.8 \%\) & \(6.3 \%\) & \(6.8 \%\) & \(7.3 \%\) & \(7.8 \%\) & \(8.3 \%\) & \(8.8 \%\) \\
FCI as \% of Next Years Sales & \(5.2 \%\) & \(14.0 \%\) & \(14.0 \%\) & \(14.0 \%\) & \(14.0 \%\) & \(14.0 \%\) & \(14.0 \%\) \\
WC as \% of Sales & \(20.1 \%\) & \(20.1 \%\) & \(20.1 \%\) & \(20.1 \%\) & \(20.1 \%\) & \(20.1 \%\) & \(20.1 \%\) \\
\multicolumn{1}{c}{ DCF valuation Inputs Summary } & & & & & & & \\
\hline
\end{tabular}

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Less: Working & \$ & (57) & \$ & 162 & \$ & 171 & \$ & 179 & \$ & 188 & \$ & 197 & \$ & 207 & & - \\
\hline \multicolumn{17}{|l|}{Capital} \\
\hline \multicolumn{17}{|l|}{Investment} \\
\hline Free Cash Flow & \$ & 1,570 & \$ & (62) & \$ & 23 & \$ & 118 & \$ & 222 & \$ & 336 & \$ & 461 & \$ & 3.254 \\
\hline WACC & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% \\
\hline Discount Period & & 0.4274 & & 1.4274 & & 2.4274 & & 3.4274 & & 4.4274 & & 5.4274 & & 6.4274 & & 6.4274 \\
\hline Discount Factor & & 0.9254 & & 0.7719 & & 0.6438 & & 0.5370 & & 0.4479 & & 0.3736 & & 0.3116 & & 0.3116 \\
\hline Discounted Free & \$ & 1.453 & \$ & (48) & \$ & 15 & \$ & 63 & \$ & 99 & \$ & 126 & \$ & 144 & & 1.014 \\
\hline \multicolumn{17}{|l|}{Cash Flow} \\
\hline Vidtronics Value & & & & & & & & & & & & & \$ & 2,866.241 & & \\
\hline Per Share Value & & & & & & & & & & & & & \$ & & & 0.63 \\
\hline
\end{tabular}

Key Value Driver Assumptions-Magna Crafts
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline (\$s in 000s) & & 1983 & & 1984 & & 1985 & & 1986 & & 1987 & & 1988 & & 1989 \\
\hline Net Sales & & \$1,060 & & \$1,113 & & \$1,169 & & \$1,227 & & \$1,288 & & \$1,353 & & \$1,421 \\
\hline Sales Growth (net) & & 20.2\% & & 5.0\% & & 5.0\% & & 5.0\% & & 5.0\% & & 5.0\% & & 5.0\% \\
\hline Operating Margin & & 42.9\% & & 42.9\% & & 42.9\% & & 42.9\% & & 42.9\% & & 42.9\% & & 42.9\% \\
\hline Depreciation as \% of Sales & & 0.3\% & & 0.4\% & & 0.5\% & & 0.6\% & & 0.7\% & & 0.7\% & & 0.7\% \\
\hline FCI as \% of Next Years Sales & & -0.5\% & & 0.7\% & & 0.7\% & & 0.7\% & & 0.7\% & & 0.7\% & & 0.7\% \\
\hline WC as \% of Sales & & 19.2\% & & 17.9\% & & 17.9\% & & 17.9\% & & 17.9\% & & 17.9\% & & 17.9\% \\
\hline \multicolumn{15}{|l|}{DCF Valuation Inputs Summary} \\
\hline (\$s in 000s) 1983 & & 1984 & & 1985 & & 1986 & & 1987 & & 1988 & & 1989 & & Terminal Value \\
\hline Net Sales \$ & 1,060 & \$ 1 & 1,113 & \$ 1 & 1,169 & \$ & 1,227 & \$ & 1,288 & \$ & 1,353 & \$ & 1,421 & - \\
\hline Operating Margin (as \% of Sales) & 42.9\% & & 42.9\% & & 42.9\% & & 43.0\% & & 42.9\% & & 42.9\% & & 42.9 & 42.9\% \\
\hline \begin{tabular}{l}
Operating Income \\
before taxes
\end{tabular} & 455 & \$ 4 & 478 & \$ 5 & 502 & \$ & 527 & \$ & 553 & \$ & 581 & \$ & 610 & - \\
\hline Taxes @ 46\% \$ & (209) & \$ & (220) & \$ & (231) & \$ & (242) & \$ & (254) & \$ & (267) & \$ & (281) & - \\
\hline \begin{tabular}{l}
Operating Income \\
after taxes
\end{tabular} & 246 & \$ 2 & 258 & \$ 27 & 271 & \$ & 285 & \$ & 299 & \$ & 314 & \$ & 329 & - \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Plus: Depreciation & \$ & 3 & \$ & 4 & \$ & 6 & \$ & 7 & \$ & 9 & \$ & 9 & \$ & 10 & & - \\
\hline Less: Fixed Capital & \$ & (6) & \$ & 8 & \$ & 8 & \$ & 9 & \$ & 9 & \$ & 10 & \$ & 10 & & - \\
\hline Investment & & & & & & & & & & & & & & & & \\
\hline Working Capital & \$ & 204 & \$ & 199 & \$ & 209 & \$ & 220 & \$ & 231 & \$ & 242 & \$ & 254 & & - \\
\hline Less: Working & \$ & 13 & \$ & (5) & \$ & 10 & \$ & 11 & \$ & 11 & \$ & 11 & \$ & 12 & & - \\
\hline Capital Investment & & & & & & & & & & & & & & & & \\
\hline Free Cash Flow & \$ & 242 & \$ & 259 & \$ & 259 & \$ & 272 & \$ & 288 & \$ & 302 & \$ & 317 & \$ & 2.238 \\
\hline WACC & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% \\
\hline Discount Period & & 0.4274 & & 1.4274 & & 2.4274 & & 3.4274 & & 4.4274 & & 5.4274 & & 6.4274 & & 6.4274 \\
\hline Discount Factor & & 0.9254 & & 0.7719 & & 0.6438 & & 0.5370 & & 0.4479 & & 0.3736 & & 0.3116 & & 0.3116 \\
\hline Discounted Free & \$ & 224 & \$ & 200 & \$ & 167 & \$ & 146 & \$ & 129 & \$ & 113 & \$ & 99 & \$ & 697 \\
\hline Cash Flow & & & & & & & & & & & & & & & & \\
\hline Magna Crafts Value & & & & & & & & & & & & & \$ & 1.774.26 & & \\
\hline Per Share Value & & & & & & & & & & & & & \$ & & & 0.39 \\
\hline
\end{tabular}

\section*{7. Conclusion}
*35 Therefore, I find that the total value of the other businesses are as follows:

Total Value of Other Businesses (\$s in 000s)
Per share Value

\section*{D. Corporate Headquarters}

Technicolor's corporate headquarters provided oversight and both managerial and accounting support for the company. \({ }^{276}\) This corporate unit would be retained even after the merger, as there was no equivalent corporate unit within MAF to merge the Technicolor operations into. \({ }^{277}\) The only change expected was that either Kamerman or Ryan would be let go following the merger. \({ }^{278}\) Therefore, it is undoubted that Technicolor's corporate headquarters would continue to incur corporate expenses, even under the Perelman plan. The remaining question is whether MAF is entitled to a management fee in this valuation for the costs it incurred to manage Technicolor, or whether these costs arose only because of the pending merger. Respondent points out that MAF management became involved in the management of Technicolor-it had begun to develop and maintain new financial relationships, and had been working to orchestrate the restructuring contemplated under the Perelman plan. \({ }^{279}\) For example, by the time of the merger, Bruce Slovin, an MAF
executive, stated that he had already made approximately 33 trips to California on Technicolor business. \({ }^{280}\) Perelman testified that he attempted to strengthen ties with the studios in the industry by making loans and investments in production companies to get their processing work. \({ }^{281}\) I have no doubt that MAF provided various services to Technicolor following the merger. Wilson indicated that, following the merger, MAF offered tax service, treasury service, and accounting and financial services, and that MAF assisted with the divestiture of the assets. \({ }^{282}\) Easton reported that he believed that any benefits of the Perelman plan must be offset by the costs incurred in achieving those benefits, and that management fees to MAF were foreseeable and reasonable as of January 24, 1983. \({ }^{283}\) At first blush, this seems like a reasonable assumption.

Upon further study, however, assessing a management fee to Technicolor seems erroneous because Technicolor's own corporate headquarters would have simply performed all of these provided services but for the merger. Wilson
acknowledged that Technicolor had provided all of these services in the past and could provide them to itself in the future at no cost beyond its base corporate expenses. \({ }^{284}\) Therefore, MAF's services, though useful, were fairly redundant.

The costs that would arise to implement the Perelman plan would have been incurred by Technicolor management rather than MAF had these two entities not merged. Petitioner argues that MAF should not receive a management fee because the costs of the Perelman plan implementation occurred premerger, because it was a conceptual plan and because the Delaware Supreme Court characterized it as the operative reality on the date of the merger. \({ }^{285}\) Although I agree that the concept of Perelman's plan had been established, I do not agree that its implementation, or the costs associated with its implementation, had taken place before the merger. As discussed above, Perelman's plan was simply to capitalize on the steady cash flow by retaining certain core businesses and selling off four units that were not profitable. \({ }^{286}\) At the time of the merger, these businesses had not been sold and it was foreseeable that certain expenses would be incurred for their disposal. It was not foreseeable, however, that MAF would incur these expenses rather than Technicolor, because Technicolor had the capability to do all of the things that MAF took upon itself. Thus, I do not believe that MAF is entitled to a management fee under the Perelman plan.
*36 The factors left to determine before I can calculate the value of corporate headquarters, then, are what the cost of corporate headquarters operations were (and how they would have been affected by the selling off of the discontinued operations) and its fixed and working capital investment figures, depreciation, and the change in net operating assets.

\section*{1. Cost of Operations}

Easton indicated that corporate headquarters' operating loss was approximately \(2 \%\) of total Technicolor net sales in fiscal year 1982. \({ }^{287}\) He uses this number going forward, but adjusts it to add a management fee, which I have already rejected. The problem with using his projected operating loss of \(2 \%\) of net sales is that he adopts the highest, rather than the average, of the past four historic operating margins. In fact, the operating margins as a percentage of Technicolor net sales for the years of 1979 through 1982 were: \(-1.9 \%,-1.8 \%,-0.7 \%\), and \(-2.0 \%-\) for an average of-1.6\%. \({ }^{288}\) I have adopted this average of the historic operating margin as the assumption going forward.

Petitioner suggests that Easton erred by failing to account for the impact the Perelman plan would have on corporate headquarters, once the discontinued businesses shrank the fiscal revenue and once major concerns regarding One Hour Photo were alleviated. I believe that my approach of carrying forward the historical figures as a percentage of sales addresses this concern because most of the historical figures predate the 1981 implementation of One Hour Photo and because One Hour Photo carried many of its own administrative expenses. Further, because the calculations are based upon percentages of the net sales of Technicolor, shrinkage in future revenue is reflected in the calculations.

\section*{2. Fixed and Working Capital Investment: Depreciation} Corporate headquarters historically incurred small investments in fixed capital as a percentage of the following year's total net sales \((0.15 \%)\). I continue this trend forward throughout the forecast period.

Similarly, depreciation averaged \(0.05 \%\) of sales over the past four years (specifically, \(0.03 \%\) in 1979, \(0.07 \%\) in \(1980,0.05 \%\) in 1981 , and \(0.04 \%\) in 1982), which I carry forward throughout the forecast period. In contrast, Easton gradually increases the depreciation percentages over the forecast period to equal the percentage of fixed capital expenditures \((0.15 \%)\). I believe, however, that this was unwarranted for corporate headquarters even though I agreed with a similar Easton assumption for the videocassette business. This is because there was no corresponding reason to accept such an assumption for corporate headquarters, which was a stable, mature operation quite different from Newbury Park. Newbury Park had little historical data to rely upon and would presumably incur much more significant depreciation expenses since each duplicating machine had a useful life of only two years. Further, the historical data for corporate headquarters did not suggest an increasing trend in depreciation, but was relatively stable.
*37 The historic average of working capital as a percentage of net sales was \(-1.3 \%(-1.3 \%\) in 1979, \(3.4 \%\) in 1980, \(-5.3 \%\) in 1981, and \(-2.1 \%\) in 1982). \({ }^{289}\) I carry this average forward as well, rejecting Easton's roundabout approach of deriving working capital by projecting working capital investment as a percentage of incremental sales (using an unexplained \(0.1 \%\) ) and subtracting that number from the prior year's working capital. Instead, I rely upon Technicolor's historic working capital as a percentage of sales and carry this \(-1.3 \%\)
figure forward through the historic period. Working capital for the base year was \(-\$ 4.548\) million. Working capital for the following year is then derived by multiplying \(-1.3 \%\) by the following year's sales. Working capital investment is determined by calculating the difference between the base and following year's working capital.

\section*{3. Conclusion}

In sum, my findings regarding the value of Corporate Headquarters are as follows:
\begin{tabular}{llllllll}
\multicolumn{7}{l}{ Key Value Driver Assumptions-Corporate HQ } \\
\hline (\$s in 000s) & \(\mathbf{1 9 8 3}\) & \(\mathbf{1 9 8 4}\) & \(\mathbf{1 9 8 5}\) & \(\mathbf{1 9 8 6}\) & \(\mathbf{1 9 8 7}\) & \(\mathbf{1 9 8 8}\) & \(\mathbf{1 9 8 9}\) \\
\hline Net Sales & \(\$ 174,384\) & \(\$ 181,509\) & \(\$ 190,568\) & \(\$ 200,532\) & \(\$ 211,460\) & \(\$ 222,034\) & \(\$ 233,135\) \\
Sales Growth & \(4.1 \%\) & \(5.0 \%\) & \(5.2 \%\) & \(5.4 \%\) & \(5.0 \%\) & \(5.0 \%\) & \(5.0 \%\) \\
Operating Margin as e of Sales & \(1.6 \%\) & \(1.6 \%\) & \(1.6 \%\) & \(1.6 \%\) & \(1.6 \%\) & \(1.6 \%\) & \(1.6 \%\) \\
Depreciation as \% of Sales & \(0.05 \%\) & \(0.05 \%\) & \(0.05 \%\) & \(0.05 \%\) & \(0.05 \%\) & \(0.05 \%\) & \(0.05 \%\) \\
FCI as \% of Next Years Sale s & \(0.15 \%\) & \(0.15 \%\) & \(0.15 \%\) & \(0.15 \%\) & \(0.15 \%\) & \(0.15 \%\) & \(0.15 \%\) \\
WC as \% of Sales & \(-1.3 \%\) & \(-1.3 \%\) & \(-1.3 \%\) & \(-1.3 \%\) & \(-1.3 \%\) & \(-1.3 \%\) & \(-1.3 \%\)
\end{tabular}


Cede \& Co. v. Technicolor, Inc., Not Reported in A.2d (2003)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Free Cash & \$ & \((1,866)\) & \$ & \((3,952)\) & \$ & \((1,734)\) & \$ & \((1,820)\) & \$ & \((1,912)\) & \$ & \((2,020)\) & \$ & \((2,121)\) & \$ & \((14,954)\) \\
\hline \multicolumn{17}{|l|}{Flow} \\
\hline WACC & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% & & 19.89\% \\
\hline Discount & & 0.4274 & & 1.4274 & & 2.4274 & & 3.4274 & & 4.4274 & & 5.4274 & & 6.4274 & & 6.4274 \\
\hline \multicolumn{17}{|l|}{Period} \\
\hline Discount & & 0.9254 & & 0.7719 & & 0.6438 & & 0.5370 & & 0.4479 & & 0.3736 & & 0.3116 & & 0.3116 \\
\hline \multicolumn{17}{|l|}{Factor} \\
\hline Discounted & \$ & (1.727) & \$ & (3.050) & \$ & (1.117) & \$ & (977) & \$ & (857) & \$ & (755) & \$ & (661) & \$ & (4.660) \\
\hline \multicolumn{17}{|l|}{Free Cash} \\
\hline \multicolumn{17}{|l|}{Flow} \\
\hline Corporate HQ & & & & & & & & & & & & & \$ & & & 2.515) \\
\hline \multicolumn{17}{|l|}{Value} \\
\hline Per Share & & & & & & & & & & & & & \$ & & & (3.02) \\
\hline Value & & & & & & & & & & & & & & & & \\
\hline
\end{tabular}

\section*{V. VALUATION OF THE BUSINESSES TO BE SOLD}
*38 The Perelman plan contemplated that four Technicolor divisions would be sold "as quickly as [MAF] could" in the course of the takeover: Consumer Photo Processing ("CPPD"), One Hour Photo, TV Program Licensing ("Gold Key"), and Audio Visual. \({ }^{290}\) Audio Visual also owned real property in Costa Mesa, California, for which a contract of sale was entered into on January 12, 1983. \({ }^{291}\) That contract was to close on March 31, 1983 with aggregate proceeds of \(\$ 6,839,200\). Perelman's intentions with respect to these divisions are demonstrated by the "TCompany" projections provided to MAF's lenders prior to the Technicolor acquisition. \({ }^{292}\) Both experts relied upon the TCompany projections.

The T-Company projections anticipated \(\$ 50\) million in gross proceeds from asset dispositions, less \(\$ 4\) million in debt to be retired, combined with a tax benefit of \(\$ 4\) million due to losses on the sale of those divisions, for a bottom-line figure of \(\$ 50\) million realized from the sales. \({ }^{293}\) The \(\$ 50\) million was not discounted to its present value nor adjusted for profits or losses incurred in operation of the divisions before disposition. \({ }^{294}\) The T-Company projections were made very early-the chart on which both experts relied is dated June 26, 1982. \({ }^{295}\) By January 4, 1983, Bear Stearns had been retained to assist MAF in selling these divisions. \({ }^{296}\) Bear Stearns,
consistent with Perelman's testimony, indicated that MAF's goal was to have the divisions disposed of quickly-by the end of June 1983. \({ }^{297}\) MAF's intention was to sell these divisions as going concerns, which would require Technicolor to absorb any operating profit or loss incurred before the sale. \({ }^{298}\)

Neither expert's valuation of the sold businesses was terribly persuasive. Torkelsen claims to have forecast sales based on "book value as scheduled by MAF as part of the Perelman Plan," reaching an undiscounted total of \(\$ 50.2^{299}\) million (including \(\$ 6.8\) million from the Costa Mesa property) in cash proceeds from the sale of these four businesses. \({ }^{300}\) Easton projects cash proceeds of \(\$ 41\) million plus a tax savings of \(\$ 6\) million for an undiscounted net cash benefit of \(\$ 47\) million \({ }^{301}\) by June 30, 1983. After a detailed analysis of Audio Visual and Gold Key, Easton returns to the rough estimates of the T-Company document and arbitrarily discounts those projections at a rate of \(10 \%{ }^{302}\) Easton purports to accept the T-Company projections, but fails to include the roughly \(\$ 6.8\) million to be received in March 1983 from the sale of the Costa Mesa property. \({ }^{303}\) I find that since both experts based their analysis on the T-Company document, and that neither expert adequately explains their variations from that document, which I find to be the best available evidence, I will accept the already discounted book value projections made in the T-Company document. Therefore, I project that in addition to the roughly \(\$ 6.8\) million realized from the Costa Mesa sale, Technicolor will realize \(\$ 50\) million in proceeds
from the company sales and retire \(\$ 4\) million in debt in 1983. I include a tax benefit of \(46 \%\) ( \(\$ 3.7\) million) in my calculation.
*39 Two issues remain before the net present value of the sold companies can be determined: the date the proceeds are expected, and any operating profit or loss incurred before disposition. The proceeds from the Costa Mesa sale were expected by March 31, 1983. \({ }^{304}\) Easton projects that the divisions would have been sold by June 30, 1983, consistent with Bear Stearns' correspondence and MAF's goal. \({ }^{305}\) Torkelsen largely agrees with this disposition date, but arbitrarily decides that since there were some problems associated with Gold Key, a more appropriate disposition date would be December 31, 1983. I have found no evidence to support this decision. I conclude, therefore, that the most reasonable expectation would be that the proceeds from these sales would be available on June 30, 1983.

With respect to the cash flow of the sold businesses before sale, Torkelsen clearly lays out that from July 1982 through December 1982, the four divisions had a pre-tax cash outflow of \(\$ 1.214\) million, and a post-tax free cash flow of \$134,640. \({ }^{306}\) Easton, analyzing June 1982 through November 1982 numbers, determines that the after-tax operating loss was \(\$ 1.179\) million. \({ }^{307}\) Since Torkelsen's figures clearly represent cash flow, the proper measure of a DCF analysis, I will accept them. \({ }^{308}\) It is reasonable to expect a similar outflow in the operations of those divisions during the first half of 1983. Therefore, I project a cash flow of \$134,640, discounted for simplicity's sake (and for lack of more detailed evidence) as if the entire cash flow occurred on June 30, 1983. I find that the net value of the sold businesses as of January 24,1983 was \(\$ 52,761,127\) or \(\$ 11.55\) per share. Below my conclusions are detailed in tabular form.
*40 I note that my projection for the sold businesses is higher than both experts' projections. I project \(\$ 52.8\) million, Torkelsen projects \(\$ 50.2\) million, and Easton projects \(\$ 47\) million. This discrepancy is easily explained, however. Torkelsen selects one of the only businesses in this category that contributed positive cash flow (Gold Key) to Technicolor and, rather than projecting it to be sold by mid-1983, projects that it would not be sold until December 1983. This allows Technicolor to reap the positive cash flows Torkelsen projected for an additional six months. More importantly, Torkelsen's discount rate is much lower than the discount rate I have selected. Easton inexplicably fails to include the \(\$ 6.839\) million in proceeds resulting from the Costa Mesa sale. This
contract was entered into before the merger date and was to close post-merger (March 31, 1983) and should have been incorporated into Easton's projection. Easton also discounted the T-Company projections by \(10 \%\) for no valid reason that is readily apparent from reading his report.

\section*{VI. DISCOUNT RATE}

Now that the forecasted cash flows are determined, I need to discount those cash flows to their present value. The Weighted Average Cost of Capital ("WACC") is used to determine the discount rate based on Technicolor's cost of capital. WACC is equal to the sum of: (1) the percentage of the capital structure financed with equity multiplied by the cost of equity capital; and (2) the percentage of the capital structure financed with debt multiplied by the after-tax cost of debt. Each of these inputs will be determined to establish Technicolor's WACC.

\section*{A. Capital Structure}

\section*{1. Long-Term Debt}

To determine Technicolor's debt-to-equity capital structure, I must first determine Technicolor's outstanding longterm debt at the time of the merger. The only financial statement available to determine Technicolor's debt is the Macanfor consolidated statement dated December 31, 1982. \({ }^{309}\) Macanfor was created solely to merge with Technicolor. Therefore, the debt listed on that financial statement is limited to the debt used to purchase Technicolor and the debt attributable to Technicolor itself. All but \(\$ 21.3\) million is attributable to the purchase of Technicolor. \({ }^{310}\) The debt used to acquire the company cannot be figured into the calculation when determining Technicolor's long-term debt. Since all the remaining debt is Technicolor's, the resulting long-term debt of Technicolor is \(\$ 21.3\) million.

Petitioner asserts that only \(\$ 19.9\) million should be attributable to long-term debt because this is the figure that appears on MAF's 1983 10-K Annual Report filed with the SEC. This figure reflects MAF's bank loan agreement, that called for all outstanding, pre-existing Technicolor debt to be repaid by January 24, 1983, subject to a limitation that the debt could not exceed \(\$ 20\) million. \({ }^{311}\) Appropriately, the MAF 10-K stated that the \(\$ 19.9\) million in Technicolor pre-existing debt was repaid to the bank on January 24, 1983. \({ }^{312}\) The MAF \(10-\mathrm{K}\), however, is not the best evidence available, as it merely reports the payment of Technicolor debt that was capped at
\$20 million and, therefore, was not necessarily an accurate reflection of the true outstanding Technicolor debt.
*41 Petitioner further criticizes Easton's reliance upon Macanfor's balance sheet because Macanfor is not the same as Technicolor-an assertion that ignores the fact that Macanfor existed only to purchase Technicolor. Even petitioner acknowledges that "Macanfor was an MAF subsidiary created to accomplish the Technicolor acquisition.,313 Therefore, any long-term operational debt not related to the purchase of Technicolor had to have been debt owed by Technicolor. Accordingly, I find petitioner's assertion without merit. After deducting the debt not related to the purchase of Technicolor, I find that Technicolor's outstanding debt at the time of the merger is \(\$ 21.3\) million.

\section*{2. Debt-to-Equity Capital Structure}

Torkelsen determines the capital structure of Technicolor by analogizing to the capital structure of the average manufacturing business. \({ }^{314}\) Easton uses the actual debt-toequity structure of Technicolor at the time of the merger. Since Technicolor operated in a highly competitive area with a small customer base, I find that Technicolor is not typical of the average manufacturing business. It seems hardly necessary to state that the capital structure of Technicolor at the time of the merger is the best indication of the capital structure of the company in determining its future value.

I estimate Technicolor's capitalization by using the purchase price at the time of the merger- \(\$ 105.1\) million. Using the longterm debt of \(\$ 21.3\) million, the total capital is \(\$ 126.4\) million. Therefore, of the total capital, \(16.9 \%\) [21.3 / \(126.4=16.9]\) was debt and \(83.1 \%\) [105.1 / 126.4 \(=83.1\) ] was equity.

\section*{B. Cost of Equity Capital}

The cost of equity capital is the risk-free rate of return plus Technicolor's risk under the Perelman plan. Risk is determined by multiplying Technicolor's beta \({ }^{315}\) by the equity risk premium. The required inputs to be determined are (1) the risk-free rate of return; (2) Technicolor's beta; and (3) the equity risk premium.

\section*{1. Risk-free Rate}

Petitioner uses a risk-free rate of \(10.37 \%\), based on U.S. Treasury Bonds with greater than ten years to maturity without citing to any source. \({ }^{316}\) Respondent uses a risk-free
rate of \(10.88 \%\) based on the 30 -Year Total Constant Maturity Yield as of January 24, 1983, citing the Federal Reserve's website as its source. \({ }^{317}\) According to the Federal Reserve, the risk-free rate never dropped below \(10.39 \%\) the entire month of January 1983, and varied between \(10.39 \%\) and \(10.99 \%\) for that month. \({ }^{318}\) I think it is reasonable to adopt the risk-free rate on the closing date of the merger, which was \(10.88 \%\).

\section*{2. Technicolor's Beta}

Beta measures the relative risk of a company. Torkelsen does not calculate a beta specific to Technicolor, but instead makes an assumption that it should be around one without any verifiable reason other than his own opinion. \({ }^{319}\) Easton lists the various betas for Technicolor from January 1980 through December 1982, listing separate periods with varying betas. \({ }^{320}\) Five different sources are used for the historical betas. \({ }^{321}\) Easton then averages Technicolor beta from January 1980 through December 1982, ending with a pre-Perelman plan beta of 1.43. \({ }^{322}\)
*42 Since I am required to evaluate Technicolor under the Perelman plan, and not the Kamerman plan, I am concerned that using the two-year historical beta created under the Kamerman plan would be viewed as an error by the Supreme Court. Thus, I will use the average beta for December 1982 (after the Perelman plan became the guiding force for Technicolor) as the appropriate beta. That beta, which is equal to 1.60 , is appropriate because it incorporates the risks of the Perelman plan, as is indicated by the increase in Technicolor's post-offer, pre-Perelman beta (1.57) to the post-Perelman beta (1.60). \({ }^{323}\) It thus takes account of the market's perception of the changing riskiness of an investment in Technicolor after the tender offer, and for that reason is the most appropriate beta.

It is standard to use the derivable beta from market information when valuing a public company. \({ }^{324}\) As stated earlier in this opinion, Technicolor was in a highly competitive industry with a small customer base. It had already lost its United Artists contract, and was facing increased competition. The videocassette business was suspect in its potential, and there was no guarantee as to the sale or purchase price of the divisions Perelman sought to sell. Coupled with a new business plan, the Technicolor beta of 1.60 in December 1982, as actually reflected by the market, is the most accurate indication for purposes of valuing the
company. Accordingly, I use a beta equal to 1.60 for my calculation.

\section*{3. Equity Risk Premium}

Petitioner uses the average equity risk premium for longterm market risk in 1982, which is \(8.3 \%\). \({ }^{325}\) Petitioner states that the arithmetic mean of the differences between returns on common stock and the risk-free rate is most commonly used. \({ }^{326}\) Respondent lists both the geometric and arithmetic means, but comes up with a slightly different number of \(7.2 \%\) for the arithmetic mean. \({ }^{327}\)

Easton, however, uses a different equity risk premium for his discount rate calculation. In his review of the previous trial he found an equity risk premium equal to \(4.6 \% .{ }^{328} \mathrm{He}\) did not independently verify this number, but yet deems it reliable for his use. Since my mandate was to hold a completely new trial, I choose not to use an unverified equity risk premium from the first trial. Instead, I agree with petitioner's assertion that the arithmetic mean of the differences is the best source for the equity risk premium. Petitioner's arithmetic mean is based on 1982 historical averages. \({ }^{329}\) Respondent's is based on the mean at the time of the merger. \({ }^{330}\) Recognizing the differences between the two experts, I find that respondent's arithmetic mean at the time of the merger is the more appropriate value to determine Technicolor's cost of capital. Accordingly, the equity risk premium is \(7.2 \%\).

\section*{4. Conclusion}

Using the formula that Technicolor's cost of equity capital equals the risk-free rate added to the product of beta multiplied by the equity risk premium, I find this value to be \(22.4 \%\) (i.e., \(10.88 \%+(1.60)(7.2 \%)=22.4 \%)\).

\section*{C. After-tax Cost of Debt}
*43 The after-tax cost of debt is equal to the cost of debt multiplied by the difference of one minus the tax rate (i.e., (cost of debt) (1-tax rate)). The cost of debt is the borrowing cost of Technicolor at the valuation date. Petitioner does not analyze any borrowing cost, but simply assumes that the prime rate should be the borrowing cost. Respondent evaluates the borrowing cost as equivalent to the rate paid in acquiring Technicolor. Macanfor had a credit facility at \(13.0 \%\) and a note payable to its parent at \(15.625 \% .{ }^{331}\) Easton weighted the interest in proportion to the balance of each debt to obtain a borrowing cost of \(13.96 \% .{ }^{332}\) I find this to be a more accurate borrowing cost than the prime rate since it accurately reflects the rate at which Technicolor would borrow under the Perelman plan. Using the \(46 \%\) tax rate agreed upon by both experts, the resulting after-tax cost of debt is \(7.54 \%(\) i.e., \((13.96 \%)(1-46 \%)=7.54 \%)\).

\section*{D. Technicolor's Cost of Capital}

Using all of the above inputs, I obtain the resulting discount rate:

\section*{WACC \(=(\) cost of equity capital \()(\) percentage of equity capital structure \()+(\) after-tax}
```

cost of debt) (percentage of debt capital structure) = (22.40)(0.831) +

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\section*{VII. THE FINAL VALUATION OF TECHNICOLOR UNDER THE PERELMAN PLAN}

To determine the final valuation of Technicolor per share, I sum the value of the retained businesses and the sold businesses, subtract the value of the outstanding debt, \({ }^{333}\) and divide by the number of outstanding shares.

\footnotetext{
* *4,567,491 shares outstanding
}

\section*{VIII. REASONABLENESS CHECKS}

The above analysis sets forth the basis for the Court's valuation of Technicolor. As a check on that analysis, I examined the following corroborative indicia of value. Each supports the Court's final result as to the per share value of Technicolor.
*44 Before I begin, however, I address each expert's reasonableness checks. Torkelsen uses the MAF T-Company projections from PX 99, but then changes several of the assumptions to match his position. \({ }^{335}\) I find it to be unreasonable to begin with an outside source as a reasonableness check and then to alter the assumptions of that source to match one's own position. That removes the credibility of the petitioner's check, and I disregard it entirely. Easton uses several indicia of reasonableness. \({ }^{336}\) I adopt his use of market price, even though I address its significance in a different manner, but I reject his use of the T-Company projections and alternative forecast methodologies. The TCompany projections strike me as self-serving since they are basically a reiteration of respondent's original position. Accordingly, I use the Supreme Court's fairness opinion and the market value at the time of the merger, and the conduct of knowledgeable insiders, to check the reasonableness of my final valuation.

\section*{A. The Supreme Court's Fairness Opinion}

In petitioner's personal liability action filed against respondent and several others alleging a breach of fiduciary duty in approving the Technicolor merger with MAF, the Supreme Court affirmed this Court's "holding that the MAF transaction was entirely fair to the Technicolor stockholders." \({ }^{337}\) As part of that decision, the Supreme Court held that "[s]ubstantial record evidence supports the Court of Chancery's finding that the \(\$ 23\) deal price was the highest price reasonably available. That conclusion is the result of an orderly and logical deductive process., 338 The Supreme Court's holding that \(\$ 23\) was the highest price reasonably available comports reasonably with the value I have ultimately found for Technicolor (\$21.98).

\section*{B. The Market Price}

The Technicolor board agreed to Perelman's \(\$ 23\) tender offer on October 29, 1982. \({ }^{339}\) On October 27, 1982, Technicolor
stock traded at \(\$ 17.375\) per share, with a volume of over 88 million shares. Immediately after Perelman's \(\$ 23\) tender offer, Technicolor shares traded at \(\$ 22.375\) per share, with a volume of over 655 million. On January 24, 1983, Technicolor shares were trading at \(\$ 22.875\) per share, with a volume of only 1.9 million. It is reasonable to assume that the market was weighing and reacting to all the competing information because the price immediately reflected the tender offer, yet no one attempted to outbid the tender offer. Accordingly, a value ranging from \(\$ 17\) to \(\$ 23\) appears to be reasonable in relation to the market value for Technicolor shares around the time of the merger.

\section*{C. Knowledgeable Insiders Accept \$23/Share}

Morton Kamerman and Guy Bjorkman, Technicolor insiders at the time of the AMF merger, had substantial ownership interests in Technicolor. As directors (and, in Kamerman's case, CEO) Kamerman and Bjorkman were very knowledgeable about Technicolor. If Torkelsen was even close to correct in his opinion on value, the opportunity costs involved in the sale of the company would be enormous for insiders like Kamerman and Bjorkman.
*45 As the Supreme Court noted in an earlier opinion in this case, "the fact that major shareholders, including Kamerman and Bjorkman, who had the greatest insight into the value of the company, sold their stock to MAF at the same price paid to the remaining shareholders powerfully implies that the price received was fair. If Technicolor was worth more than \(\$ 62\) per share, as Cinerama contends, Kamerman (with 128,874 shares) and Bjorkman (with 409,406 shares) would have lost more than \(\$ 5,000,000\) and \(\$ 16,000,000\), respectively, by tendering their shares to MAF for \(\$ 23\) per share., 340 Accordingly, the fact that sophisticated, knowledgeable persons did not act in a manner consistent with the belief that Technicolor stock had an inherent value of \(\$ 63.77\) as of January 24, 1983, is a significant factor in determining the reasonableness of the experts' competing valuations. The actions of these knowledgeable and sophisticated insiders strongly supports the Court's determination that \(\$ 21.98\) is a reasonable assessment of the fair value of Technicolor stock on January 24, 1983.

\section*{D. Conclusion}

The above three checks were used to evaluate the reasonableness of the Court's final Technicolor valuation. Using the Supreme Court's holding that \(\$ 23\) per share was the highest price reasonably available, the final value
of \(\$ 21.98\) reasonably approximates that determination. In addition, using the market price variation of \(\$ 17\) to \(\$ 23\) as an external indicator, and the actions of sophisticated insiders as a reasonable barometer of fair value, the final appraisal value of \(\$ 21.98\) per share appears highly reliable. Accordingly, I find that \(\$ 21.98\) is the fair value of a share of Technicolor stock at the time of the merger.

\section*{IX. POST-JUDGMENT INTEREST}

As previously determined, the pre-judgment interest established in the first appraisal trial constitutes the law of the case. \({ }^{341}\) Accordingly, \(10.32 \%\) annual compound interest applies from January 24, 1983 to August 2, 1991. \({ }^{342}\) The only issues left to decide are the appropriate form of postjudgment interest, the relevant post-judgment period, and the appropriate rate.

After the fair value of the dissenting shareholders' shares is ascertained, 8 Del. C. § 262(h) requires the Court to determine "the fair rate of interest, if any" through the consideration of "all relevant factors." \({ }^{343}\) Section 262(i) states that the interest applicable to an award "may be simple or compound." \({ }^{344}\) The Supreme Court has acknowledged that this Court's discretion to award simple or compound interest is broad, but requires explanation for the choice. \({ }^{345}\) In addition, the exercise of that discretion is entitled to deference absent abuse. \({ }^{346}\)

Generally, interest awards require the Court to determine both the rate of interest and the form of interest in a way that is fair to both the dissenting stockholder and the surviving corporation. \({ }^{347}\) Awarding post-judgment interest serves three purposes. First, similar to prejudgment interest, it compensates the dissenting stockholder for the loss of use of the fair value of shares during the appraisal process and requires the surviving corporation to disgorge any benefit obtained from the use of those funds found to rightfully belong to the petitioner. \({ }^{348}\) This first purpose is "substantive" in nature, i.e., it ensures shareholders receive the full value of their shares without regard to the time necessary to efficiently prosecute an appraisal action. Second, post-judgment interest ensures that neither party is punished for one party's decision to appeal. And third, it encourages the surviving corporation to promptly pay, eliminating the need for judicial proceedings to enforce the award. The second and third purposes are not compensatory in nature, but are borne out of concerns for
the orderly administration of justice, and the avoidance of improper manipulation of the appeals process.
*46 Prejudgment interest is distinct from post-judgment interest in that prejudgment interest is an essential element of fully compensating a dissenting stockholder-this is why prejudgment interest is often awarded at rates that a "prudent investor" could expect to receive and why prejudgment interest is frequently compounded. Post-judgment interest has more modest aims, however, and merely ensures that the dissenting shareholder remains whole during any postjudgment litigation. Post-judgment interest should not serve to punish the surviving corporation, nor should it provide a windfall to the dissenting stockholder in excess of the principal award. \({ }^{349}\)

The prejudgment interest award of \(10.32 \%\) compound interest from January 24, 1983 to August 2, 1991 fairly compensated petitioner. But as noted above, the goals of postjudgment interest are to ensure the petitioner remains whole during post-judgment litigation and prevent improper judicial machinations, either through frivolous appeal or willful delay of payment. Since the statute allows the Court to consider all relevant factors in determining the fair rate of interest, \({ }^{350}\) the procedural posture and relative change in position of the parties is a factor in this Court's post-judgment interest award.

Before the first judgment, Technicolor was holding Cinerama's money pending the outcome of the trial. At the end of the trial, however, Technicolor was required to pay \(\$ 21.60\) per share, plus prejudgment interest, to Cinerama. Rather than accepting its award, Cinerama chose to appeal the judgmentforcing Technicolor to continue holding Cinerama's money. Cinerama sought to appeal both on the fairness of the dispute and the appraisal value. Since those appeals were bifurcated, the appeal process took even longer. The Supreme Court held that the appraisal case was moot while Cinerama appealed the entire fairness action. Thus, during the entire course of Cinerama's pursuit of its entire fairness appeal, the appraisal action lay dormant. Once the appraisal decision was eventually reversed and remanded, Cinerama then took an interlocutory appeal from an earlier decision of the successor judge, resulting in further delay.

None of these appeals constituted bad faith or misconduct by either party. Therefore, no punitive aspect is appropriate in determining the appropriate rate and form of interest. Nonetheless, the post-judgment goal of putting the parties back in the position they would have been had the judgment
been paid requires consideration of the party initiating the appeal. Equity is the guiding force behind this factor. Were it not a factor, and prejudgment interest applied throughout, unjust incentives might arise due to the varying nature of interest rates. Petitioner could opportunistically appeal just to increase the amount of interest paid and have an almost guaranteed rate of return on its money. Conversely, respondent might appeal in order to have use of the money owed to petitioner at a low rate of interest. \({ }^{351}\) Regardless, the proper application of the law, and not the time-value of money, should govern a decision to appeal.
*47 The post-judgment interest award, in order to remove any improper incentive to appeal, must consider the identity of the appealing party. \({ }^{352}\) Accordingly, if respondent appealed, it is more likely that the post-judgment interest would be closer to what petitioner would have received had the judgment been invested by a prudent investor. Since petitioner appealed in this case, the more appropriate postjudgment interest will reflect what the petitioner would have received had the judgment been placed in escrow pending the outcome. This principle removes any tactical incentive petitioner may have had in its appeal and ensures that neither party is punished nor rewarded for the length of the appeals process. Since respondent did not choose to be in the appeals process, there is no reason to require that petitioner's opportunity cost be a factor since petitioner chose its current position. " \([\mathrm{P}]\) etitioners' election to exercise their statutory right to reject the merger amount and to pursue appraisal does not shift to the corporation all responsibility for losses they may incur as a result of their inability to use the funds retained by the corporation., \({ }^{353}\) Therefore, I now determine the post-judgment interest, starting with the form, then the applicable period, and, finally, the appropriate rate based on that principle.

\section*{A. Form of Interest}

Since the interest is likely to exceed the principal due to the longevity of this action, whether it is simple or compound is of great significance. Initially, simple interest was most favored in Delaware. \({ }^{354}\) Over time, the Court of Chancery recognized that compound interest more accurately reflects the time value of money in the modern commercial world. \({ }^{355}\) Nonetheless, in Technicolor IV the Supreme Court stated that "[a]n award of compound interest is the exception rather than the rule, \({ }^{356}\) a point the Supreme Court later reiterated in M.G. Bancorporation, Inc. v. Le Beau. \({ }^{357}\) I also take note
of the Supreme Court's concern that this Court should not award compound interest "routine[ly]"358 or as "a matter of course., 359

I have said on other occasions that it is hard to imagine any corporation or sophisticated investor seeking only simple interest on the funds they hold. \({ }^{360}\) I have also noted that an award of simple interest may not fully disgorge a defendant company from the benefit it received from using the plaintiff's funds. \({ }^{361}\) But since the purpose of post-judgment interest in an appeal by petitioner is to basically treat the funds as if in escrow, the form of interest should be neutral with respect to the length of the appeals process. In the unique circumstances of this case, the only way to achieve neutrality with respect to the length of the appeals process is through simple interest. Any improper incentive in the appeal becomes moot, and neither party is rewarded for the length of the delay. Compound interest would reward petitioner for delay caused by the appeals process, and punish respondent for defending the original judgment. Equity should not allow that. Accordingly, I award post-judgment simple interest on the \(\$ 21.98\) per share principal award only.

\section*{B. Applicable Period}
*48 Respondent argues that certain time periods, specifically the time petitioner spent appealing the entire fairness aspect of this action, should not be considered in the time period for establishing interest. I reject this argument because post-judgment interest already takes this delay into effect in its goal of treating the principal as if it had been placed in escrow. Moreover, the use of simple interest further prevents any injustice associated with the entire fairness appeal delay. The principles described earlier preclude the need to remove certain time periods from the interest calculation. Consideration of who appealed the original judgment and the award of simple interest by its nature removes any impropriety. Accordingly, the applicable post-judgment time period commenced on August 3, 1991, and runs until the date the judgment is finally paid.

\section*{C. Rate of Interest}

As stated earlier, petitioner seeks to continue the prejudgment rate of interest ( \(10.32 \%\) ) through the post-judgment period. Respondent, however, asserts that the first \(\$ 21.60\) of any award should receive the risk-free rate of interest, and any award over that amount should receive interest based on an
equally weighted average of respondent's borrowing cost and the prudent investor rate. I reject both of these positions.

The purpose of the post-judgment rate in this situation is to place the parties in the same position they would have been if the judgment had been paid on the judgment date. Neither party's position meets this goal. Petitioner's desire to continue the pre-judgment interest rate just rewards petitioner for its appeal and would result in a windfall to petitioner. After the August 2, 1991 judgment, petitioner's expectation of receiving at least \(\$ 21.60\) per share was all but certain-reducing the investment risk and also the expected return. Respondent's proposal, however, goes too far the other way. There is some risk inherent in an appeal, \({ }^{362}\) and the risk-free rate punishes petitioner for exercising its legal right to appeal.

The best rate to apply to the funds held (as though) in an escrow account is the current legal rate. \({ }^{363}\) The current statutory legal rate equals \(7.0 \%\).

\section*{D. Conclusion}

Post-judgment interest serves to remove any improper incentives on appeal by including in its relevant factors the appealing party. The ultimate purpose of post-judgment interest is to place the parties in the position they held at the
time of the original judgment. Accordingly, post-judgment interest is awarded, on the principal amount of \(\$ 4,422,376\) only, as simple interest at the current statutory legal rate of \(7.0 \%\) from August 3, 1991, to the date the judgment is paid. Post-judgment interest is awarded only on the principal amount of the judgment \((\$ 4,422,376)\) in order to preserve the fundamental fairness imperative of the simple interest determination.

\section*{X. CONCLUSION}

For the above reasons, I conclude that Technicolor must pay Cinerama \(\$ 21.98\) per share (a total of \(\$ 4,422,376\) ), together with prejudgment interest of \(10.32 \%\) compounded annually from January 24, 1983 to August 2, 1991, plus post-judgment simple interest on the principal amount only at \(7.0 \%\) from August 3, 1991 until the date the judgment is paid.
*49 Counsel shall confer and submit a form of Order consistent with this decision.

\section*{All Citations}

Not Reported in A.2d, 2003 WL 23700218

\section*{Footnotes}

1 Petitioners also filed a personal liability action related to the merger. This Court found that the merger met the standard of entire fairness. Cinerama, Inc. v. Technicolor, Inc., 1991 WL 111134 (Del.Ch. June 24, 1991), aff'd, 663 A.2d 1156 (Del.1995). Thus, all that remains is to determine the fair value of petitioners' shares and the appropriate post-judgment interest.
2 Cede \& Co. v. Technicolor, Inc., 684 A.2d 289 (Del.1996) (hereinafter "Technicolor IV").
3 Cede \& Co. v. Technicolor, Inc., 758 A.2d 485 (Del.2000) (hereinafter "Technicolor V"). The Supreme Court reversed my decision to appoint an expert in corporate finance as a Special Master who could assist the Court, holding that the appraisal statute implicitly prohibits the Chancellor and Vice Chancellors from appointing a neutral expert as a special master in an appraisal proceeding. But see 73 Del. Laws c. 201 (amending 10 Del. C. § 372(a) to allow appointment of a master in any cause pending in the Court of Chancery unless a statute explicitly provides to the contrary).
4 Ron Perelman was the controlling shareholder of MAF and the driving force behind the Technicolor merger. Once the first step of the merger was completed in December 1982, Mr. Perelman's business plan was found by the Supreme Court to have replaced that of Technicolor's Chief Executive Officer before the merger, Morton Kamerman. See Technicolor IV, 684 A.2d at 300. Throughout this Opinion, the Perelman plan is the plan in place at the time the second step of the merger was completed on January 24, 1983. The exact nature of the Plan was one of the issues before the Court during the second trial.
5 See, e.g., Taylor v. American Specialty Retailing Group, Inc., Del. Ch., C.A. No. 19239, Lamb, V.C. (July 25, 2003) (valuing company by averaging values yielded by DCF and guideline companies analysis when one analysis was about 10\% higher than the other analysis); Gotham Partners, L.P. v. Hallwood Realty Partners, L.P., et al., Del. Ch., C.A. No. 15754, Strine, V.C. (July 8, 2003) (valuing a company using the average of four valuations, where those valuations diverged by more than 173\%). Many commentators have recognized the indeterminate nature of the search for the fair or intrinsic value of a company. Professors Allen and Kraakman have also noted the institutional disinclination of Chancery
judges to engage in the valuation process in certain circumstances precisely because those judges recognize it as a "daunting task" subject to significant uncertainty. The same institutional pressures that result in this disinclination at the Chancery Court level, of course, do not apply at the appellate level and may explain why the Supreme Court exhibits more confidence in the ability to ascertain the fair value of an enterprise. See W.T. Allen and R. Kraakman, Commentaries and Cases on the Law of Business Organization at 312 (2003).
6 Respondent repeatedly sought to undermine Torkelsen's credibility in this trial by highlighting his "hired gun" relationship with the Milberg Weiss law firm, including allegations that Torkelsen performed expert witness services for Milberg, Weiss on a contingency fee basis. Respondent's Proposed Findings of Fact and Conclusions of Law [hereinafter Technicolor Proposed Findings or "TPF"] at 27, citing Tr. 1341-57. References to Petitioners' Proposed Findings of Fact and Conclusions of Law throughout the opinion will be designated as "Cinerama Proposed Findings" or "CPF".
7 From \(\$ 62.75\) per share at the first trial (total Technicolor value of \(\$ 286.629\) million) to \(\$ 63.77\) per share at the second trial (total Technicolor value of \(\$ 291.253\) million). Compare RX 18 with PNX 15 at 212. Trial exhibits will be designated throughout the opinion as follows: (1) Plaintiffs' exhibits from the first trial: PX [number] at [pg.]; (2) Petitioners' exhibits from the second trial: PNX [number] at [pg.]; (3) Defendant's exhibits from the first trial: DX [number] at [pg.]; (4) Respondent's exhibits from the second trial: RX [number] at [pg.].
From \(\$ 62.75\) per share to \(\$ 50.63\) per share.
9 Cede \& Co. v. Technicolor, Inc., 1990 WL 161084, at *30 (Del.Ch. Oct.19, 1990) (mem.op.) (finding that Torkelsen's "technique of estimating a discount rate is decidedly less reliable than Professor Rappaport's technique. It is not an acceptable professional technique for estimating Technicolor's cost of capital to look to the cost of capital (CAPM derived) of the acquiring company. Torkelsen's alternative of the average of all industrial concerns is far too gross a number to use except where no finer determination is feasible, which is not the case here.").
10 TPF at 90.
11 ld. at 90-91.
12 Respondent's expert at the first trial was Professor Alfred Rappaport, at the time a professor at the Northwestern University Graduate School and participant in a consulting firm, Alcar. He was not available to testify at the second trial.
13 See, e.g., Erickson v. Centennial Beauregard Cellular, L.L.C., 2003 WL 1878583 (Del.Ch. Apr.1, 2003); Union Illinois v. Korte, 2001 WL 1526303 (Del.Ch. Nov.28, 2001); Parnes v. Bally Entertainment Corp., 2001 WL 224774 (Del.Ch. Feb.23, 2001).
Taylor v. American Specialty Retailing Group, Inc., 2003 WL 21753752 at *3 (Del.Ch. July 25, 2003).
Technicolor IV, 684 A.2d at 300.
ld. at 299.
PNX 15 at 9; RX 4 at 10 . The plan changed somewhat during its implementation, but I only address the plan as it was developed on the date of the merger.
18 The parties divide the time between six months and a year for the various divisions. I find that the Perelman plan intended to sell all four within six months, if possible. Therefore, since this is the best evidence as to sales time lines, I find that six months is the proper time for discounting the expected cash flows.
RX 30; see also text accompanying notes 303 and 304, infra.
20
Id.
21 The Supreme Court remanded the appraisal action on October 14, 1996. See Technicolor IV, 684 A.2d at 284.
22 Outstanding debt is determined in the discount rate section as long-term debt.
23 PNX 15 at 2 n. 3, 5, 60-61; RX 4 at 18, 23.
24 RX 30. Easton came to this by dividing his projected value of North Hollywood ( \(\$ 72,547,000\) ) by \(4,567,491\) shares outstanding as of January 24, 1983.
25 Petitioners' Reply Brief Concerning Respondents Proposed Findings of Fact and Conclusions of Laws [hereinafter Cinerama Reply Brief or "CRB"] at 13.
26 RX 4 at 17.
27 PNX 15 at 22, 62. It is interesting to note, however, that Torkelsen only performs regression analyses for North Hollywood and Newbury Park. For the other film processing facilities (East Coast, S.p.A., and London) and Technicolor's other divisions, Torkelsen relies on management's CY 1983 Plan.
28 Tr. at 1983. Testimony is cited within as follows: New Trial Testimony is "Tr. at __"; Deposition Testimony is "[Name] at _"; Old Trial Testimony is "[Volume Number] [Name] at [pg.]".

29 In re Radiology Assocs., Inc. Litig., 611 A.2d 485, 490-91 (Del.Ch.1991); see Harris v. Rapid-American Corp., 1990 WL 146488 at *6-*7 (Del.Ch.), aff'd in part, rev'd in part on other grounds, 603 A.2d 796 (Del.1992) (rejecting petitioners' valuation method because the inputs were too speculative, largely due to the fact that management did not create them or give any input to the third party which did create them).
30 Agranoff v. Miller, 791 A.2d 880, 892 (Del.Ch.2001).
31709 A.2d 663, 669 (Del.Ch.1997), aff'd, 731 A.2d 790 (Del.1999).
32 ld.
33 Tr. at 1081; PX 348-55.
34 Petitioner's attempt to strike respondent's valuation of North Hollywood as being tainted by post-merger bias through the use of the CY 1983 Plan is disingenuous and somewhat troubling considering that petitioner's own expert heavily relied on the CY 1983 Plan for all portions of his valuation other than North Hollywood and Newbury Park. See Tr. at 1277-1278. In re Radiology Assocs., Inc. Litig., 611 A.2d 485, 490-91 (Del.Ch.1991).
36 See Gray v. Cytokine Pharmasciences, Inc., 2002 WL 853549 at *8 (Del.Ch.) (rejecting valuation because it inexplicably ignored and altered management forecasts in favor of litigation-driven projections); Kleinwort Benson Ltd. v. Silgan Corp., 1995 WL 376911, at *5 (Del.Ch.) (remarking that variations from management projections merit "close inspection" and may impeach the credibility of an expert witness).
37 Tr. at 1435-45, 2182; RX 4 at 16-17; PNX 1 (demonstrating an average profit margin variance of only \(1.8 \%\) for fiscal years 1981-82).
38 RX 4, Ex. 3; Tr. at 2179-80. Even if the abnormal silver reclamation profits are not corrected for, the absolute average operating margin variance is still only \(3.0 \%\) RX4, Ex. 3.
39 Id.; Tr. at 2182. The absolute average sales variance (as a percentage of the Plan) would be about 9\%. RX 4, Ex. 3.
40 Tr. at 1602. The seasonal, sensitive, and volatile nature of scheduling in the motion picture industry testified to by petitioners' witnesses meant that release dates for movies and demand for North Hollywood's services (and therefore, also, its revenues) could vary greatly from month to month. See tr. at 111-31, 1427-28.
41 See Cede \& Co. v. Technicolor, Inc., 1999 Del. Ch. LEXIS 32, 1999 WL 65042 (Del. Ch.); Cede \& Co. v. Technicolor, Inc., C.A. No. 7129, bench ruling (Del. Ch. Mar. 27, 2003) ("March 27 Hearing").
42 March 27 Hearing, tr. at 90.
43 ld. at 91-92 (emphasis added).
44 PNX 1 at 6.
45 See In re Radiology Assocs., Inc. Litig., 611 A.2d 485, 490-91 (Del.Ch.1991) (concluding that forecasts prepared with a "business purpose" were reliable and should be used to determine DCF inputs).
46 CPF at 59-61. RX 4 at 18.
47 Tr. at 1439-40.
48 Torkelsen agreed under cross-examination to the proposition that he claims to have analyzed the data "in a more rigorous manner" than Technicolor management. Tr. at 1439-40.
49 There is a presumption that directors-and by inference, officers-"acted on an informed basis, in good faith and in the honest belief that the action taken was in the best interests of the company." Aronson v. Lewis, 473 A.2d 805, 812 (Del.1984). In such instances, the court should "not substitute its own notions of what is or is not sound business judgment [for those of management]." Sinclair Oil Corp. v. Levien, 280 A.2d 717, 720 (Del.1971). Technicolor management engaged in a rigorous process in creating the CY 1983 Plan because such plans were very important to management. Tr. at 1601-02.
50457 A.2d 701, 712-13 (Del. 1983); see Jack B. Jacobs, Reappraising Appraisal: Some Judicial Reflections, Speech at 15th Annual Ray Garrett, Jr. Corporate and Securities Law Institute, Northwestern University School of Law 10 (unpublished manuscript Apr. 27, 1995). This problem could be largely overcome by a method similar to that adopted by the British High Court of Justice, in which competing experts discuss their reports (usually outside the presence of counsel) and file a joint report with the Court detailing the items in their respective reports on which they agree and disagree. See Civil Procedure Rules, Rules 35.10, 35.12 (Sweet \& Maxwell 2002).
51 Petitioner cites several federal cases for the proposition that regression analysis is a well-recognized statistical technique that has met with widespread judicial acceptance. I do not disagree with this proposition, but point out that in this instance, a statistical technique is very different from a valuation technique. With one exception, all the cases that petitioner cites use regression analyses merely to demonstrate a connection between the dependent and independent variables (a statistical technique)-not to forecast costs, revenues, or profits (a valuation technique). See CPF at 64-65; Reply Brief
in Opposition to Petitioners' Proposed Findings of Fact and Conclusions of Law [hereinafter Technicolor Reply Brief or "TRB"] at 18, n. 11.
52 Tr. at 1255-56. It should also be borne in mind that "[r]egression analysis is widely used and, unfortunately, frequently misused." Douglas C. Montgomery \& Elizabeth A. Peck, Introduction to Linear Regression Analysis 42 (2nd ed.1992) (emphasis in original).
53 Tr. at 1194-95. Furthermore:
The purpose of a regression analysis is to estimate or explain a response variable \((y)\) for a specified value of a factor variable ( \(x\) ). This purpose implies that the variable \(x\) is chosen or "fixed" by the experimenter ... and the primary interest of a regression analysis is to make inferences about the dependent variable using information from the independent variable.
Rudolf J. Freund \& William J. Wilson, Regression Analysis: Statistical Modeling of a Response Variable 52 (Academic Press 1998). This purpose is distinguished as being different from using regressions to determine a relationship or correlation between two random variables, though the authors note that the two concepts are often confused. Id. at 52-53.

Tr. at 2230.
ld. at 2064.
ld.
PNX 15 at 63; Tr. at 1626.
RX 4 at 26 .
Id. at 21.
Tr. at 1370, 1464-65.
PNX 15 at 95.
DX 238; Tr. at 524-25, 1624-25. For example, even though Warner Brothers' contract with Technicolor was not due to expire until 1984, Technicolor had already been informed that Warner Brothers intended to seek competing bids. Gaul 47 (Mr. Raymond Gaul was Technicolor's president once it was under Perelman's control); Ryan 215-16 (Mr. Arthur Ryan was a Technicolor director before the merger). Some of these technological threats included videocassette and videodisc, cable television, and direct satellite transmission of movies to theaters. Tr. at 881-82; 963-66; 1163-64. Contracts with Disney and Universal were scheduled to expire in 1985 and 1986, respectively. PX 372. Perelman did not see North Hollywood as having great growth potential, in large part because there were so few major studios (a maximum of eight) that were potential customers, and two already had their own labs. PNX 15 at 33 n . 20. See also tr. at 1839-40
Q. You bought a company that you expected not to grow?
A. When we bought it, I didn't know how it would grow.
Q. Well, you expected it to grow and that's why you bought it. Yes?
A. How would I expect it to grow? We couldn't get any more customers. You've got to look at the base. There are six customers, two of whom own their own laboratory.... We couldn't grow outside the industry. We were tied to that one industry. So that our future was determined by A, could we keep the customers; and, B, at what price they would pay us to service them."
RX 30. \$194,289,000/4,567,491 shares outstanding as of January 24, 1983.
Cinerama, Inc. v. Technicolor, Inc., 663 A.2d 1156, 1177 (Del.1995) ("Technicolor IIf" ).
Tr. at 1194.
PNX 15 at 2 n. 3.
Id. (emphasis added).
I do not mean to say that any such visits by witnesses, especially valuation experts, in an appraisal context are entirely prejudicial, but I do harbor serious doubts as to whether an observer in that setting can make a truly impartial determination of only what was known, knowable, or susceptible of proof as of the merger date.

70 PNX 15 at 86 . It should be noted that 35 mm theatrical release prints, as a proxy for all North Hollywood revenue is incomplete, especially when placed in the context of Torkelsen's regression analyses. Only two-thirds of North Hollywood revenues came from the motion picture industry, and of the motion picture work, only two-thirds were release prints. One-third of North Hollywood 35 mm motion picture volume consisted of dailies. Dailies and release prints were quite different to Technicolor, as the margins on dailies were higher; therefore dailies accounted for more than one-third of North Hollywood motion picture film processing revenues. In addition, at the time of the merger, there was speculation that dailies would be eliminated entirely through the use of high-definition videotape. RX 4 at 18.
71 PNX 15 at 86 . I do not agree with Torkelsen's characterization of Technicolor's forecasting as being done in the "exact same way." Pretending that 35 mm motion picture release prints represent all of North Hollywood's business is quite different from exploding a forecast of the other types (dailies, trailers, etc.) and gauges ( \(8 \mathrm{~mm}, 16 \mathrm{~mm}\), and 70 mm ) of prints based on historical ratios. See PNX 15 at 87.
ld.
73 Id. Much has been made of the "trend" toward wider film releases. The problem inherent in that statement is the definition of a wide release. As argued by petitioner and defined by Murphy, a wide release is a release on more than 500 screens. This wholly arbitrary figure yields the conclusion that the "trend" is heavily dependent on how a wide release is defined, and as such, Torkelsen's arguments that Technicolor's forecasts varied from industry trends carry even less weight. See PNX 14 at 24.
74 Cipes was the senior vice president of marketing for Technicolor. Tr. at 1604.
PNX 15 at 91.
Id. at 92.
Id. at 91. It is interesting to note that Cipes forecasts fewer prints per release in 1983 than 1982 for Disney and Universal, but forecasts more prints per release in 1983 for United Artists and Warner Brothers. This appears to show a concerted effort by Cipes to make the CY 1983 Plan projections conform to the ebb and flow of the individual industry participants as of January 1983.
78 PX 388; tr. at 1603-04.
79 It is known that at least Wilson and Ryan were involved in the process. Tr. at 1603-07.
80 PX 153, reproduced in PNX 15 at 87-88.
81 PNX 15 at 88.
82 Id.
83 See supran. 71.
84 Cipes projected 37,800 prints at 10,000 feet each. Torkelsen projects 45,358 prints at 11,087 feet each. PNX 15 at \(87-88,91\). Torkelsen also arbitrarily substitutes the number of prints forecast for non-contract customers with the actual non-contract prints made in fiscal 1982, with his only potential justification again being that Technicolor's management must have been sorely mistaken when preparing the CY 1983 Plan. PNX 15 at \(90-91\). This is simply another example of Torkelsen's unjustified post hoc decisions to substitute his own post-merger hindsight judgment for the unbiased, contemporary forecasts of Technicolor's management.
85 There is great discrepancy and confusion as to what the actual footage results were, though I need not make a specific finding as to this narrow issue. I believe a great part of the confusion is due to differences in fiscal/calendar years and what footage was analyzed (release print, total theatrical, or something else). Petitioner argues that actual total 1982 footage was 479.5 million feet in an attempt to validate Torkelsen's figure of 502.9 million feet. CPF at \(63-64\). Presumably, total footage would include release prints, dailies, trailers, etc. That footage of release prints alone would exceed the total footage from the prior year seems specious. Respondent argues that actual total CY 1982 footage was 507.9 million feet. RX 29 at 10. Regardless, Torkelsen's conclusion regarding release print footage is far too high. The 378 million feet projected by Technicolor management for release prints seems quite reasonable when one recalls that release prints only accounted for two-thirds of Technicolor's motion picture processing work. See supra note 70.
86 PNX 15 at 51 (quoting Gaul 31). Torkelsen's portrayal of Gaul's testimony strikes me as somewhat incomplete and almost a blatant mischaracterization when in addition to the quoted passage, he references Gaul's statement that no single laboratory could handle the volume of work required by Warner Brothers in support of the proposition that service was more important than price. PNX 15 at 53 (citing Gaul 47). On the very same page of Gaul's deposition, however, he testified, as has been noted above, that Warner Brothers would be seeking competitive bids when their contract with Technicolor expired in 1984, and furthermore, that the reason Warner Brothers was doing so would be to solicit bids at lower processing prices. Gaul 47.

87 Tr. at 1623.
88 ld. at 1623-25
89 PNX 15 at 82-84. Analyzing the scatter graph shown on page 77 of Torkelsen's report, it is interesting to note that the four data points representing August through November of 1982 vary greatly from the fitted line. PNX 15 at 77 . Without engaging in a full, scientific analysis myself, it appears that the coefficient (or slope) of the line would be decreased significantly if those data points were corrected for or omitted. Torkelsen's use of a small sample enhances any outlier effect that these four points may have. See Federal Judicial Center, Reference Manual on Scientific Evidence 199, 217 (2d ed.2000) (stating that "Eestrimated regression coefficients can be highly sensitive to particular data points," that "the coefficients in a multiple regression [can] change substantially if the data point[s] in question were removed from the sample," and that "the sensitivity of the [fitted] line to individual points sometimes can be substantial"). Furthermore, if the profit per foot derived from Torkelsen's analysis is laid out, it is clear that his 1983 figures ( \(\$ 0.042\) ) equal a profit per foot attained only at the height of the silver bubble ( \(\$ 0.043\) ) and unlikely to be repeated. From there, he manages to increase the profits per foot to \(\$ 0.058\) by 1987, a \(76 \%\) increase over historic levels. RX 24 .
90 PNX 15 at 84.
91 RX 5 at 12
92 PNX 15 at 108. These two constants, when combined, would imply that North Hollywood would have an operating profit of almost \(\$ 26\) million if only \(8 \mathrm{~mm}, 16 \mathrm{~mm}\), and 70 mm film were processed. This leads to a ludicrous operating margin of \(92.3 \%\).
93 Id.; supran. 89.
94 RX 23.
95 RX 4 at Ex. 7.
96 Silver prices greatly affect the cost of film stock. During processing, however, some of this silver is reclaimed. Technicolor management would sell this reclaimed silver from time to time. During late 1979 and the first half of 1980 , there was a significant run-up in the price of silver from \(\$ 6.25\) per ounce in January 1979 to \(\$ 38.27\) in January 1980 and decreasing to \(\$ 16.06\) by July 1980. PNX 15 at 63-65.
97 RX 4 at Ex. 7.
98 ld
99 Tr. at 2072-73; RX 44.
100 PNX 15 at 208.
101 Richard A. Brealey \& Stewart C. Myers, Principles of Corporate Finance 81 (6th ed.2000) (teaching that "the horizon [or terminall value can change dramatically in response to apparently minor changes in assumptions").
102 RX 5, Appendix B at 2.
103 ld. Easton projects \(\$ 34,128,000\) as the discounted free cash flow terminal value out of a total value for North Hollywood of \(\$ 72,547,000\). Id. See Gray v. Cytokine Pharmasciences, Inc., 2002 WL 853549, at *9 (Del.Ch. Apr.25, 2002) (noting that the results of a DCF valuation must be regarded with great suspicion and given little weight when the terminal value accounts for over \(75 \%\) of a DCF analysis); The Union Illinois 1995 Investment Limited Partnership, et al. v. Union Financial Group, Ltd., Del. Ch., C.A. No. 19586, Strine, V.C. (Dec. 19, 2003) (noting unreliability of a DCF model in which \(97 \%\) of the value was derived from the terminal value).
104 Tr. at 1631.
105 ld.
106 Id.
107 See RX 23.
108 Tr. at 1261.
109 ld.
110 PNX 2 at 2.
111 Id. at 1.
112 Tr. at 2074-76; Federal Judicial Center, Reference Manual on Scientific Evidence 127, 194 (2d ed.2000) (remarking that the level of statistical significance required in most scientific work is the \(95 \%\) confidence level, that one-tailed tests at the \(95 \%\) level are the weakest standard used in technical literature, and that courts have expressed a preference for two-tailed tests).
113 PNX 15 at 113.

114 Compare PNX 15 at 113 with PNX 2 at 1.
115 Murphy was Cinerama's expert on the movie industry for the first trial. He did not testify at retrial due to failing health, and passed away on June 16, 2003. Lorenza Munoz, Arthur Murphy, 70; Turned Box Office Data Into a Studio Science, Los Angeles Times, June 18, 2003, at B12.
116 Tr. at 149; DX 258; DX 263.
117 Murphy's cross-examination from the original trial is found at Tr. Vol. II at 167-228 and Tr. Vol. III at 14-136. On crossexamination, Murphy admitted that "lots of people," including Jack Valenti, President of the Motion Picture Association of America, and Richard Orear, then President of the National Association of Theater Owners, were predicting that screens would decline. Tr. Vol. III at 40-47. He also stated that he revised the numbers that appeared in the 1983 The Movie Business Book. Tr. Vol. II at 210-12.
118 PNX 13.
119 RX 4 at 19.
120 Tr. 79-81.
121 Besides the fact that he admitted that he did not attempt to wall off the events that occurred after the merger, Reardon contemporaneously published views that seem inconsistent with his current testimony at trial. For example, at trial Reardon testified that screen growth was on an upward trend as of the merger date. (Tr. 156-61) Though he testified that he had never held a contrary view, respondents pointed out that he opined in a late-1981 industry publication that cable television could negatively affect screen growth in three to five years. (RX 14 at 16)
122 PNX 15 at 95.
123 Interestingly, Torkelsen does not cite to any specific proposition in either the Murphy or Wilkofsky Gruen reports for this assertion, but rather summarily instructs the reader to "see the Wilkofsky Gruen and Murphy reports." Id. Furthermore, a growth rate means absolutely nothing when taken out of the context of the time period over which the growth will occur. Torkelsen's report does not provide the Court with any ability to give an iota of credence to his bare assertion of "over 8 percent industry growth." Id.
124 Given that Technicolor's business was processing film, increases in admissions are not necessarily probative. That increase could simply be a product of larger theaters. Similarly, average annual box office revenue growth of \(8.50 \%\) could be a function of larger theaters, inflation, or any number of other factors.
125 Id. at 93 . Torkelsen, as is rather common throughout his report, and this section in particular, fails to justify this assumption or provide evidence that this assumption is true.
126 Given Torkelsen's affinity for regression analyses, it is remarkably befuddling why he did not perform a regression based on past screen growth nationwide and the number of release prints processed by North Hollywood to determine if there is any correlation between the two. This would be an appropriate use of multiple regression analysis. "Multiple regression analysis is a statistical tool for understanding the relationship between two or more variables." Federal Judicial Center, Reference Manual on Scientific Evidence 181 (2d ed.2000).
127 Petitioner offered PNX 10 to demonstrate a relationship between screen growth and film footage. Without a more detailed analysis, however, petitioners have provided me no legitimate grounds for determining that there is a significant statistical (as contrasted with a purely practical) correlation between the two. Easton testified that in the four years from 1979-1982, Technicolor experienced an overall decrease in footage, which tends to undermine petitioners' argument. Tr. at 1988-90. In this instance, Torkelsen and the petitioner have the burden of showing that their conclusions and assumptions were reasonable. They have failed to do so.
128 Richard A. Brealey \& Stewart C. Myers, Principles of Corporate Finance 80 (6th ed.2000).
129 PNX 15 at 208.
130 ld. at 209-11.
131 Pre-Trial Order for Retrial at 12.
132 PNX 15 at 211.
133 ld. at 210-11.
134 Easton also points out a serious flaw in Torkelsen's discounting of the terminal value for Technicolor. See RX 5at 4-5. Torkelsen essentially discounted the terminal value by one too many years. Although his error reduced his value for Technicolor, it is a mistake that is not expected in litigation of this caliber. When asked on direct examination during Cinerama's rebuttal if there were errors in RX 5, Torkelsen had an opportunity to contest Easton's report, but he did not disagree that his terminal value calculation in PNX 15 had been performed incorrectly. Tr. at 2327-30.
135 RX 4 at 17.

136 PX 347 at 077181.
137 See RX 4 at 24; RX 4 Exs. 8C, 8D.
138 PX 348 at 114796-97.
139 RX 4 at 25.
140 RX 4 at 26; Tr. at 1986-87. The United Artists' contract was going to expire in 1983 and was not expected to be renewed.
141 See supra notes 29-36 and accompanying text.
142 2,500/37,800. Historically, United Artists was 11\% of North Hollywood's business. See supra notes 59-62 and accompanying text. Easton was unable to explain why he performed the reduction the way he did instead of simply subtracting 6.6\%. Tr. at 2268-69; See PNX 15 at 87-88.
143 Hope Reports, Inc. compiled industry data received from the major film labs for publication in quarterly reports, to which many of the major film labs subscribed.
144 RX 4 at 25; DX 238.
145 Id. at 25-26.
146 ld. at Ex. 4.
147 Id. at 25; Tr. at 1988-90.
148 RX 4 at 25; DX 238.
149 Tr. at 1991.
150 In support of Easton's conclusion, Wilson testified at trial that Technicolor's management was aware that 16 mm "was going down," and that 8 mm and 16 mm "was a declining business." He testified that knowledge of these declining historical relationships affected Technicolor's budgeting process. Tr. at 1607-13.
151 PX 348 at 114796-97; Tr. at 1991-92.
152 RX 4 Ex. 4.
153 RX 4 at 26; RX 4 Exs. 5, 6.
154 RX 4 at 26 . Technicolor's prices slightly outpaced inflation while MGM's real prices were falling, though this may not be entirely accurate as to Technicolor because there were missing data. Id.
155 ld. at 26-27.
156 See supra Section IV(A)(2)(c)(i) and accompanying footnotes.
157 RX 4 at 27; PX 348 at 114773; Tr. at 1615-16.
158 See supra text accompanying notes 98 and 959.
159 PX 348 at 114780 . Wilson testified at trial that margins at North Hollywood were expected to be around \(21 \%\), though he was emphatic that the CY 1983 Plan represented the views of Technicolor management at the time it was prepared, and that although he could not recall a specific reason for the projections twenty years later, he was sure that the variation had been explained. Tr. at 1714-17.
160 Reference was made both to \(19 \%\) and \(18.9 \%\). As will be seen below, I use exactly \(18.9 \%\) in my calculations. Tr. at 2001-07.
161 RX 4 Exs. 3, 7.
162 Tr. at 2007, 2265-66.
163 See supra nn. 108 and 109 and accompanying text.
164 RX 4 at 29. I do not consider his argument regarding industry over-capacity, as it is based on a document not in the record on remand, but do not need to do so in order to support the conclusion that it is reasonable to project margins will remain constant.
165 Torkelsen only provided net fixed capital investment and depreciation schedules for Newbury Park. PNX 15 at 177-84. It is clear from his analysis, however, that he forecasts significant negative net capital investment (that is, depreciation exceeds fixed capital investment) every year from 1983-87. Id. at 177, 181. Easton clearly laid out the unreasonableness of this determination, and I agree with his criticism of Torkelsen's approach. RX 5 at 23-27; Tr. at 2293-98.
166 Richard A. Brealey \& Stewart C. Myers, Principles of Corporate Finance 121-22 ( \(6^{\text {th }}\) ed.2000).
167 ld. at 77-78, 123.
168 See supra note 58.
169 RX 4 at 30.
170 Id. \& 8C; Tr. at 2014.
171 RX 4 at 30.

172
At trial, there was very little testimony or evidence offered regarding the investment tax credit applied in Torkelsen's analysis but omitted from Easton's analysis. Torkelsen's analysis of the investment tax credit assumes that every capital expenditure made by Technicolor (with the exception of the videocassette recorders ("VCR") purchased for use in Newbury Park) qualifies for the credit. No evidence has been offered to show that this was true. Similarly with any potential deferred tax liability, petitioners have not shown the effects of this potential liability outside of Torkelsen's already heavily discredited report. PNX 15 at 175, 177-78.
173 RX 4 at 30.
174 PNX 14 at 34.
175 DX 53 at 114931-32.
176 PTO § II, ๆ 12.
177 Tr. at 259.
178 DX 285 at 838.
179 Tr. at 700-04.
180 Universal City Studios, Inc. v. Sony Corp. of America, 659 F.2d 963, 974-76 (9th Cir.1981), rev'd, 464 U.S. 417, 104 S.Ct. 774, 78 L.Ed.2d 574 (1984).

181 This time-shifting feature (i.e., allowing consumers to tape record programs of their choosing to be watched at a more convenient time or multiple times) was one of the only advantages that VCRs had over competing technologies of the day.
182 Tr. at 735-38.
183 Tr. at 736-37.
184 RX 4 at 50.
185 PTO § II, ๆ 12, Tr. at 1775. At the time of the merger, Newbury Park had net operating assets of approximately \(\$ 5.59\) million.
186 Tr. at 1637-38.
187 Tr. at 1181, 1784.
188 Id. at 245-48.
189 Id. 745-46.
190 RX 4 at 49-51, DX 244G at 10107554, Tr. at 278-79. Only \(6 \%\) of TV households owned VCRs in 1982. PNX 14 at 37.
191 Tr. at 670; DX 244G at 1017567.
192 As Jack Valenti, President of the MPAA, told a Congressional subcommittee, "As one VCR owner wrote in his diary, 'why buy prerecorded movies? You can record the same thing from a premium pay channel ... much cheaper.' " DX 220 at 11.
193 DX 272 at 11, Tr. at 407.
194 PNX 14 at 43.
195 Universal City Studios, Inc. v. Sony Corp. of America, 659 F.2d 963, \(969-74\) ( \(9^{\text {th }}\) Cir. 1981), rev'd, 464 U.S. 417, 104 S.Ct. 774, 78 L.Ed.2d 574 (1984). The appeal from the Ninth Circuit's ruling was argued before the United States Supreme Court just days before the merger.
196 DX 285 at 838 (House Subcommittee hearing regarding "Home Recording of Copyrighted Works" on Sept. 22, 1982). Roberts testified that "[a]bout 18 months ago we saw a spot on the horizon, a spot that has grown into a ravaging steamroller which is now crushing the prerecorded video cassette business and is about to flatten the video disc business as well. I am referring to the unauthorized rental of prerecorded video products." Id.
197 Id. at 840.
198 Id.
199 I.e., that sales had exceeded expectations and that Technicolor was doing all of Warner Brothers' videocassette duplication work, half of Disney's and was in negotiations with Universal, Paramount and MGM. DX 10 at 000709.
200 Tr. at 288-89.
201 PX 63 at 000960-61.
202 PX 64 at 001070-71.
203 ld. at 001071.
204 Tr. at 995-96.
205 Tr. at 739.
206 Tr. at 736-37.
207 Tr. at 995, PNX 14 at 43.

Respondent discounts this advantage as a fragile one because Technicolor's customers could simply enter the business themselves. I believe, however, that these relationships would still advantage Technicolor over a new entrant that did not have such pre-existing relationships. Even though Technicolor could not guarantee the business of its film processing customers, it would certainly have more of an "in" than entering strangers to the industry.
209 RX5 at 52 ("Unlike in the film processing business, Technicolor was not the industry leader and was at a comparative disadvantage due to its later entry into the market.").
210 ld.
211 DX 248TT at 057826.
212 PX 7 at 4.
213 Id.
214 For example, Wilson testified that he did not expect rebate income to continue. Tr. at 1650-53, 1792.
215 DX 53 at 9.
216 Id.
217 Id. at 7-8.
218 Petitioner creatively attributes management's failure to project continued rebate income to the fact that the rebates were accounted for on its profit and loss statements as a net negative material cost rather than in its sales numbers. Because of this, petitioner contends that management excluded these profits from their CY 1983 Plan because the profit plans included revenue only from duplication funds. Petitioner states that management deliberately ignored the positive impact of negative material costs, again implying that management was simply incompetent. CPF at 75. It seems hard to believe that management somehow ignored or failed to notice a source of "income" that amounted to one-third of the division's profits in the last half of 1982 and yet still quite accurately created its projections. Further, because management did not expect this source of income to continue, it seems reasonable to expect its exclusion from the CY 1983 Plan.
219 PX 400 at 113846.
220 Though Torkelsen did not separately value Newbury Park, or any Technicolor division for that matter, he provided his inputs for the videocassette business as well as his assumptions for discount rate and terminal value growth rate in perpetuity in his aggregate valuation of Technicolor. Easton then used these inputs to compute a synthetic Torkelsen valuation for Newbury Park.
221 TPF 60. Torkelsen forecasts \(\$ 46.310\) million ( \(\$ 10.14\) per share) and Easton projects \(\$ 11.476\) million ( \(\$ 2.51\) per share) for Newbury Park. RX 33; RX 4 at 61; RX 30.
222 Tr. at 1510, 1835, 1856, 1853, 1910-11.
223 Actual results for the first six months of FY 1983 show that management for this same period made predictions that were within \(4 \%\) for unit forecasts, \(3 \%\) for net sales, and \(28 \%\) for profit net of material rebates. Tr. at 1825-26; DX 248 TT at 057819, 057821.
224 RX 5.
225 Id. at 6 (citations omitted).
226 In his analysis of this issue, Easton also corrects for Torkelsen's terminal value over-discounting error in RX 5 at Ex. 2.
227 ld. at 13.
228 ld.
229 PNX 15 at 119.
230 Id. at 120-21.
231 Tr. at 1297-98.
232 PNX 14 at 43; RX 15 at 35; Tr. at 975-76.
233 Compare PNX 14 at 37 with RX 15 at 35.
234 The Warner contract provided a pricing structure that charged decreased prices for increased volumes. DX 53. At its highest volumes, Technicolor agreed to charge only \(\$ 2.49\) per tape for its duplicating services. Not only was Warner Brothers to account for \(70 \%\) of Newbury Park's half-inch duplicating work in 1983, but it seems that Universal, which would account for the remaining work, was subject to an identical pricing arrangement. DX 150D at GS1161. Further, Torkelsen admitted that Technicolor's revenue per half-inch tape before material rebates was \(\$ 2.47\) just before the merger. Tr. at 2339.

235 PNX 15 at 132; Tr. at 1302-03.
236 As noted above, duplication had significant competition with few barriers to entry. Further, Technicolor's only contractual customer had the unilateral right to terminate the contract if Technicolor's prices did not remain competitive.

241 CPF at 78.
2422003 WL 21753752 (Del.Ch. July 25, 2003).
RX 26-27. PNX 15 at 114-60.
Tr. at 1279.
RX 29 at 8 . In contrast, Easton arrives at a base year revenue projection of \(\$ 5.735\) million for duplicating revenue. Though his projection ends up being slightly higher than Technicolor's final CY 1983 Plan and \(35 \%\) higher than calendar 1982 actual results, it seems much more directly and accurately to approximate expected revenue.
248 RX 4 at Ex. 13R, RX 33.
249 Torkelsen values Newbury Park at \(\$ 10.14\) per share, though the Technicolor stock price before the merger ranged from \(\$ 9\) to \(\$ 11\). Tr. at 1860-61.
250 Tr. at 1304, 1825-26.
251 CPF at 73.
252 Further, management was aware of the data that Torkelsen relies upon at the time they made their projections and drew very different conclusions from this information than Torkelsen does in his hindsight valuation.
253 Taylor v. American Specialty Retailing Group, Inc., 2003 WL 21753752 at *3 (Del.Ch. July 25, 2003).
254 DX 149(16) at GS0045.
255 PX 353 at 078838.
256 CPF at 72.
257 ld.
258 RX5 at 58.
259 Id. at 57.
260 RX 4 at 60.
261 PNX 14 at 37 ; Tr. at 656-57.
262 ld.
263 PNX 14 at 42; Tr. at 259-60, 653, 658.
264 PNX 14 at 37.
265 PNX 35.
266 CPF at 77.
267 RX 4 at 60.
268 ld. at 59.
269 This calculation was derived by Easton by calculating the difference in gross property, plant, and equipment between the CY 1983 Plan balance sheet and his estimated CY 1982 balance sheet. RX 4 at 59.
270 Id. at 60-61.
271 RX 4 at 62.
272 East Coast (N.Y.) projected net negative sales of 7.4\%. Easton projects negative sales growth through 1987. Technicolor, Ltd. (London) projected negative sales growth of \(2 \%\) for 1983 . Easton projects negative growth again for 1984 and below inflation rate growth through 1987. Technicolor, S.p.A. projected zero sales growth for 1983. Easton projects negative sales growth in 1984 and growth below the inflation rate through 1987.
273 Magna Crafts projected 1983 sales growth of \(20.2 \%\), Vidtronics projected \(9.2 \%\), and Government Services projected \(5.0 \%\). Easton uses the 1983 projection for all these businesses and then grows revenues and costs at the rate of inflation for 1984-89.
274 London's Profit Plan is reported in British Pounds Sterling and Rome's in Italian Lira. Each expert uses a slightly different conversion factor. The Court uses a factor of 1.65 to convert Pounds to Dollars and 0.0008 to convert Lira to Dollars.
275 PX 351. quantify the value of this change if it were not, I have not separately valued the impact of substituting management on Technicolor's value. I do not believe such an exercise would be realistically possible in any event.

292 See PX 99; Tr. at 1421-22. The T-Company projections were made under the direction of Perelman by Bob Carlton of MAF, based upon Technicolor's balance sheet. Tr. at 1851-52.
293 PX 99 at 7. The pages are not numbered, but the referenced page is titled "T COMPANY Divisions to be Disposed." The \(\$ 50\) million did not include any proceeds from the Costa Mesa sale, though it was clear that the sale would take place, and indeed, \(\$ 7\) million for that property was handwritten on the document.
294 Tr. at 1851.
295 PX 99 at 7. At that time, MAF had received very little information about the Technicolor divisions. Tr. 1899, 1852; PNX 15 at 223.
296 PX 225. Bear Stearns did not think they would be very helpful in selling Audio Visual, as the sale of Audio Visual was really nothing more than inventory liquidation. Id.

298 Tr. at 1852.
299 The discounted value is approximately \$46 million. See supra text accompanying note 19.
300 PNX 15 at 188.
301 The discounted value is approximately \(\$ 43\) million. See supra text accompanying note 19.
302 RX 4 at 87 . The \(\$ 50\) million in proceeds expected in the T-Company document already represent a discount of roughly \(15 \%\) from the total assets of the combined companies. RX 4, Ex. 17.
303 Id.
304 RX 4 at 84.
305 Id. at 80; PX 225.
306 PNX 15 at 166.
307 RX 4 at 80.
308 Torkelsen, however, goes on to make inexplicable changes to these figures to give these divisions positive cash flow in the first half of 1983, and then cancels them out with transaction costs. While transaction costs are sure to be incurred, there is no evidence that allows me to determine them sufficiently to deduct them from the sale proceeds. Any figure I could put forth would be a complete fiction. Accordingly, I find Torkelsen's alterations arbitrary and without support. See PNX 15 at 167-69.

Valuation of the Sold Businesses (in 000s)
\begin{tabular}{lll} 
& Subtotals & Totals \\
COSTA MESA & \(\$ 6,839\) & \\
Proceeds from Costa Mesa Sale & \(\$ 6,615\) & \\
Discounted@19.89\% from 3/31/83 to \(1 / 24 / 83\) &
\end{tabular}

\section*{Costa Mesa Total}

OTHER SOLD BUSINESSES
\begin{tabular}{lll} 
Estimated Realizable Asset Value & \(\$\) & \\
& \(\$ 0,000\) & \\
Less: Estimated Liabilities & \(\$ 4,000\) & \\
\cline { 2 - 2 } Proceeds upon Sale & \(\$\) & \(\$\) \\
& 46,000 & 46,000 \\
Book Value of Net Assets & \(\$\) & \\
& 54,111 & \\
Loss on Sale (Proceeds-Book & \(\$\) & \\
Value) & \((8,111)\) & \(\$\) \\
Plus: Tax Benefit (46\% of Loss on & & 3,731 \\
Sale) & & \(\$\) \\
Proceeds Net of Tax Benefit & & 49,731 \\
Cash flows from Operations & & \(\$ 135\) \\
Net Proceeds from Sale of Other & & \(\$\) \\
Businesses & & 49,866 \\
Discounted@19.89\% from 6/30/83 & & \(\$\) \\
to 1/24/83 & & 46,146 \\
Other Sold Businesses Total & &
\end{tabular}
\$ 46,146
\$ 52,761.127
Total Net Value of Sold
\$ 11.55

311 PX 244 at B000030-31.
312 PX 403 at M00023.
313 CPF at 99 .
314 PNX 15 at 200.
 security's returns to correlate with swing in the broad market." Shannon P. Pratt et al., Valuing a Business, Appendix A at 912 ( \(4^{\text {th }}\) ed.2000). For example, a beta of 1 indicates that the security's price will rise and fall with the market. A beta greater than 1 indicates that its price will be more volatile than the market. And a beta less than 1 means that it will be less volatile than the market. July 8,2003 ) (slip op.) (noting that the beta for a public company is normally the market beta unless it can be shown that there was an insufficient market in the public company to create an accurate beta).
PNX 15 at 194.
Id.
RX 4 at 92.
ld.

329
PNX 15 at 194.
330 RX 4 at 91.
331 PX 396 at P300217-18.
332 RX 4 at 90 . Easton rounded up to \(14.0 \%\), but the actual value of \(13.96 \%\) was used to obtain the after-tax cost of debt of \(7.54 \%\).
333 Outstanding debt is determined in the discount rate section as long-term debt.
Technicolor under the Perelman Plan Fair Value as of January 24, 1983
\begin{tabular}{|c|c|c|}
\hline & Value & Per Share \\
\hline North Hollywood & \$ 53,991,172 & \$ 11.82 \\
\hline Newbury Park Video & \$ 10,398,185 & \$ 2.28 \\
\hline East Coast & \$ 2,978,096 & \$ 0.65 \\
\hline Technicolor Ltd. & \$ 6,450,561 & \$ 1.41 \\
\hline Technicolor SpA & \$ 1,791,761 & \$ 0.39 \\
\hline Magna Craft & \$ 1,774,267 & \$ 0.39 \\
\hline Vidtronics & \$ 2,866,241 & \$ 0.63 \\
\hline Government Services & \$ 2,503,479 & \$ 0.55 \\
\hline Corporate Headquarters & \$ \((13,802,515)\) & \$ (3.02) \\
\hline Retained Businesses Subtotal & \$ 68,951,247 & \$ 15.10 \\
\hline Plus: Sold Businesses & \$ 52,761,127 & \$ 11.55 \\
\hline Plus: Debt Outstanding \({ }^{334}\) & \$ (21,300,000) & \$ (4.66) \\
\hline
\end{tabular}

Outstanding debt is determined in the discount rate section as long-term debt.
335 PNX 15 at 214-30.
336 Some of his alternative forecast methodologies lack the requisite amount of support for me to rely upon them. In addition, I do not address the comparable company analysis of Vidtronics here because this is a check on the final valuation, rather than a check on a specific division.
337 Technicolor III, 663 A.2d 1156, 1180 (Del.1995).
338 ld. at 1177.
339 Technicolor IV, 684 A.2d at 293.
340 Technicolor III, 663 A.2d at 1177.
341 Cede \& Co. v. Technicolor, Inc., 2002 Del. Ch. LEXIS 39, 1999 WL 65042 (Del. Ch.).
342 ld.
343 The inclusion of the language "if any" suggests that the Legislature contemplated circumstances where the relevant factors counsel a court to award zero interest.
344 Before 1987, the statute only allowed for the award of simple interest.
345 Gonsalves v. Straight Arrow Publishers, Inc., 1999 WL 87280, at ----4 (Del. Feb.25, 1999) (Gonsalves II ). See also M.G. Bancorporation, Inc. v. Le Beau, 737 A.2d 513, 527 (Del.1999) (Court of Chancery "has broad discretion under the appraisal statute to award either simple or compound interest.").
346 Gonsalves II, at ----3.
347 Gonsalves v. Straight Arrow Publishers, Inc., 2002 Del. Ch. LEXIS 105, at *37, 2002 WL 31057465 (Del. Ch.).
348 Id. at *38.
349 ld.
3508 Del. C. § 262(h).
351 Granted, neither of these issues would arise were the statute to be changed to require the parties to place the judgment amount in escrow until all appeals were heard. In fact, the most equitable approach to all interest issues would be to require the surviving corporation to place the amount offered to the dissenting stockholder in escrow at the time appraisal was sought. Should the statute ever be changed to reflect this idea, many of the concerns and arguments involving interest rate and form would either disappear or be significantly reduced.

352 In other circumstances the relative culpability of the parties in delaying final judgment, even absent misconduct, has been a factor in determining interest awards. See, e.g., Grimes v. Vitalink Communications Corp., 1997 WL 538676, at *13 (Del.Ch.) ("The extent to which one party may be relatively more responsible for a delay in the proceedings may be addressed by balancing the two rates to relieve some of the burden imposed by the other party."); Ryan v. Tad's Enterprises, Inc., 709 A.2d 682, 706 (Del. Ch.1996, V.C.Jacobs) (plaintiffs' "excessive delay" warranted awarding only two-thirds the statutory rate of simple interest); Wacht v. Continental Hosts, Ltd., et al., 1994 WL 928836, at *3 (Del. Ch.) (discounting rate of interest because of plaintiff's failure to prosecute claim diligently).
353 Grimes v. Vitalink Communications Corp., 1997 WL 538676, at *10 (Del.Ch.).
354 Rapid-American Corp. v. Harris, 603 A.2d 796, 807 (Del.1992).
355 See, e.g., Gonsalves, 2002 Del. Ch. LEXIS 105 at *41-*43, 2002 WL 31057465; Onti, Inc. v. Integra Bank, 751 A.2d 904, 926-929 (Del.Ch.1999).
356684 A.2d 289, at 302.
357737 A.2d 513, 527 (Del.1999).
358 Id.
359 Gonsalves v. Straight Arrow Publishers, Inc., 1999 WL 87280, ----4 (Del. Jan.5, 1999). Although the Supreme Court has expressed concern over the frequent award of compound interest, several cases since 1987, when the award of compound interest became permissible, have awarded only simple interest. See, e.g., Ryan v. Tad's Enters., Inc., 709 A.2d 682 (Del.Ch.1996), aff'd, 693 A.2d 1082 (Del.1997); TV58 Ltd. Partnership v. Weigel Broad. Co., 1993 WL 285850 (Del.Ch. July 22, 1993); Harris v. RapidAmerican Corp., 1990 WL 146488 (Del.Ch. Oct.2, 1990), aff'd in part and rev'd in part on other grounds, 603 A.2d 796 (Del.1992).
360 See Onti, 751 A.2d, at 926-27; Gonsalves, 2002 WL 31057465, at *10.
361 Id.
362 Although the risk of receiving less than \(\$ 21.60\) per share approaches zero.
3636 Del. C. § 2301(a).

2004 WL 5366732
Only the Westlaw citation is currently available.

\section*{UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.}

\section*{Court of Chancery of Delaware,} New Castle County.

DOFT \& CO., First Trust Corp., as
Trustee Fbo Alan Doft, Elisabeth H.
Doft, Laurence Hoffman, Maria Ivkovic, Shirel Partners, Blanche \& Romie Shapiro Charitable Remainder Unitrust dated 9/1/95, Edna R. Hoffman, Blanche Shapiro 1999 Trust, Mjr Partners, DB Securities Inc as custodian Fbo Morton M. Maneker Ira dated 12/03/01, as beneficial owners, and Cede \& Co., Petitioners, v.

TRAVELOCITY.COM INC., Travelocity Holdings Sub Inc., and Sabre Holdings Corporation, Respondents.

\author{
No. 19734. \\ | \\ Submitted: April 1, 2004. \\ | \\ Decided: May 20, 2004.
}

\section*{Attorneys and Law Firms}

Norman M. Monhait, Esquire, Rosenthal, Monhait, Gross \& Goddess, P.A., Wilmington, Delaware; Thomas M. Skelton, Esquire, Lowey Dannenberg Bemporad \& Selinger, P.C., White Plains, New York, Attorneys for the Petitioners.

Alan J. Stone, Esquire, James G. McMillan, III, Esquire, Morris, Nichols, Arsht \& Tunnell, Wilmington, Delaware, Attorneys for the Respondents.

\section*{MEMORANDUM OPINION}

LAMB, Vice Chancellor.

\section*{I.}
*1 This is an appraisal action, pursuant to 8 Del. C. § 262, filed as a result of a merger that cashed-out the petitioners' shares at a price of \(\$ 28\) per share. Both parties presented expert testimony to determine the fair value of the shares as of the merger date. For the reasons herein, the court concludes that the fair value of the shares as of the merger date is \(\$ 32.76\).

\section*{II.}

\section*{A. Background}
1. The Parties

Travelocity.com Inc. ("Travelocity"), a Delaware corporation, is the surviving entity of a merger between it and Travelocity Holdings Sub Inc. ("Holdings"), a wholly owned subsidiary of Sabre Holdings Corporation ("Sabre"). \({ }^{1}\) Because Sabre, through Holdings, owned more than \(90 \%\) of the outstanding shares of common stock of Travelocity, the merger was authorized by Sabre's board of directors pursuant to 8 Del. C. § 253 and became effective on April 11, 2002 (the "Merger Date"). As a result of the merger, Travelocity is (again) a wholly owned subsidiary of Sabre. \({ }^{2}\)

The petitioners owned 265,540 shares of Travelocity before the merger \({ }^{3}\) and were entitled to demand an appraisal of those shares pursuant to Section 253(d) of the DGCL. \({ }^{4}\) The parties stipulate that the petitioners have complied with the provisions of 8 Del. C. \(\S 262\), in timely filing their petition for appraisal and in perfecting their right to appraisal.

\section*{2. The Online Travel Industry}

Travelocity is in the business of providing online travel services. When Travelocity went public in 2000, the online travel industry was in nascent form and the future of the online travel industry was uncertain. By early 2001, the online travel industry was beginning to show profitability. By that time, Travelocity was the leading online travel agency.

The events of September 11, 2001, however, created great uncertainty in the online travel business. Even though the industry slowed in the period after September 11, analysts predicted that the negative effect would be temporary. \({ }^{5}\) Travelocity, however, also faced strong competition in the
market at this time. Expedia, Travelocity's main competitor, surpassed Travelocity as the industry leader in early 2002 and Orbitz, a then brand new travel services provider, had become the third largest online travel agent in less than a year.

Expedia quickly became more successful than Travelocity because of its early implementation of the "merchant model." The merchant model is a business plan in which travel agencies purchase the airline tickets, hotel rooms or car rentals at a negotiated rate from the suppliers and then resell them directly to consumers at a higher price. In the traditional agency model then used by Travelocity, the travel agent merely serves as a liaison between the supplier and the customer and receives a commission for the sale. The merchant model generates higher profit margins and much higher cash flows than the traditional agency model because the travel agent controls the price and works directly with both the supplier and the consumer.

In the fourth quarter of \(2001,42 \%\) of Expedia's revenues came from merchant model business while only \(3.5 \%\) of Travelocity's revenue was from merchant model business, specifically merchant airline ticket sales. \({ }^{6}\)
*2 Moreover, Travelocity was limited in its ability to develop the merchant model business because it was committed to working in partnerships with other entities to help build its merchant business. This partnership approach negatively affected Travelocity's ability to reap the full benefits of the merchant model business. For example, Travelocity had an exclusive contract running until 2005 with Hotel Reservations Network ("HRN"). HRN controlled Travelocity's relationships with hotels, the booking of hotel rooms and the price markup. Travelocity received only a commission on sales. Therefore, HRN and not Travelocity enjoyed the benefits of the merchant model plan.

Travelocity was also partnered with Contour, a small, startup software company, to provide vacation package deals to its customers. Pursuant to its contract with Travelocity, Contour had control over the technology developed in setting up the vacation packaging business and Travelocity paid Contour a fee for changes in the software. Therefore, Travelocity was also sharing its profits with Contour. \({ }^{7}\) In addition, Travelocity was partnered with other entities to facilitate entry into the international market, and was dependent on third-party relationships with Internet portals, like AOL and Yahoo!, to direct consumers to its website. \({ }^{8}\)

Additionally, airlines began reducing the traditional commissions paid to travel agencies for airline tickets in the mid-1990s. The airlines specifically targeted online travel agents in mid-2000 and began actively cutting commissions for online travel agents. \({ }^{9}\) In June 2001, in a further effort to reduce the commissions paid to online travel agencies, five major airlines created Orbitz to sell discounted airfares directly to online consumers. Orbitz had exclusive access to the discounted web fares offered by its owners and online travel agents were forced to renegotiate their relationships with major airlines in order to have access to web fares. Travelocity was hit harder than Expedia by Orbitz's formation and the resulting competition because it was still heavily dependent on airline ticket commissions while Expedia enjoyed substantial revenue from merchant model sales independent of those commissions. \({ }^{10}\)

Even though Travelocity was facing tough competition from Expedia in the fourth quarter of 2001, analysts expressed the belief that the gap in performance was temporary and that Travelocity would continue to be competitive. \({ }^{11}\) In fact, Travelocity's performance in early 2002 was ahead of the management forecast. \({ }^{12}\) Commenting on Travelocity's forecast for 2002, one analyst noted: "Although the addition of vacation packages comes two quarters after a similar move by Expedia, we believe that the leisure market remains large enough to support at least two dominant players, and we expect Travelocity to narrow the gap between Expedia over 2002." \({ }^{13}\)

In March 2002, Travelocity purchased Site59, a small online company with a limited working merchant model business. Site59 is in the business of providing last minute travel bookings at a substantial discount for customers who are flexible in their travel schedules. Travelocity's goal in acquiring Site59 was to build a merchant model hotel business and continue Site59's last-minute packaging business. \({ }^{14}\) Travelocity purchased Site59 with a loan from Sabre.

\section*{3. The Merger}
*3 In early 2001, Sabre began to consider buying back the public shares of Travelocity. Sabre launched "Project Tango" to examine the online travel business and to make recommendations on Travelocity's business approach. By September 2001, Project Tango was finished and resulted in the conclusion that "it was vital for Sabre to 'own the
customer,' to build strong relationships with suppliers and to grow its online presence." 15

On February 16, 2002, William J. Hannigan, Sabre's Chairman and CEO, contacted Terrell B. Jones, Travelocity's President and CEO, and F. William Conner, a Travelocity director, and advised them that a Sabre board meeting was scheduled for February 18, 2002 to discuss a \(\$ 23\) per share cash tender offer to acquire all shares of Travelocity not already owned by Sabre. Hannigan also informed them that it was Sabre's intention, pending Sabre's board approval, to confirm the proposal in writing on February 18, and then publicly disclose the offer. On February 18, with the Sabre board's approval, Hannigan advised Travelocity's board members of its intention to start the \(\$ 23\) per share cash tender offer. That same evening, the Travelocity board met and established a special committee comprised of its two independent directors, Conner and Kathy Misunas (the "Special Committee"). The Special Committee retained Salomon Smith Barney, Inc. ("Salomon") as its financial advisor and Locke, Liddell \& Sapp LLP as its legal counsel.

On February 19, 2002, Sabre announced that it intended to make a tender offer for all of the outstanding publicly held Travelocity shares. The Special Committee then sent Sabre a letter inquiring if it would be interested in exploring alternatives to the going private proposal, such as the sale of some of Sabre's interest in Travelocity to a third party. Sabre responded the following day that it was not interested in selling any of its equity interest in Travelocity. On March 4, 2002, the Travelocity board met and the Special Committee delivered its initial report regarding Sabre's offer of \(\$ 23\) per share. At the meeting, Salomon representatives advised the board, orally and in writing, that the \(\$ 23\) per share offer was inadequate. The Special Committee then presented its report, concurring that Sabre's initial offer was inadequate.

Nonetheless, on March 5, 2002, Sabre began a \(\$ 23\) per share cash tender offer for all of Travelocity's publicly held common shares. On March 18, 2002, Sabre amended the offer by increasing the offering price to \(\$ 28\) cash per share. On March 18, 2002, the Special Committee and the Travelocity board voted to recommend that the Travelocity stockholders accept Sabre's amended offer and tender their shares. \({ }^{16}\) Sabre succeeded in acquiring approximately \(95 \%\) of the outstanding shares of common stock by the close of the offer. Then, Sabre acted to effect the short-form merger under 8 Del. C. § 253. The merger became effective on April 11, 2002. Pursuant
to the merger, the publicly held shares of Travelocity were converted into the right to receive \(\$ 28\) per share.

In accordance with 8 Del. C. § 262, the petitioners now seek a determination of, and payment for, the fair value of the Travelocity shares they held on the Merger Date.

\section*{B. The Experts}
*4 The petitioners' trial expert was William H. Purcell. Purcell has a B.A. in Economics from Princeton University and an M.B.A. from New York University. He has been an investment banker for more than 35 years, 24 years of which are with Dillon, Read \& Co. Inc. Over the span of his career, Purcell has worked on approximately 100 merger and acquisition related projects. He has performed numerous financial valuations of private and public companies in various industries. He also served as advisor to special committees of boards of directors in connection with corporate transactions. Purcell has testified many times as an expert regarding a wide range of investment banking matters, including a number of valuation issues. He has also testified as an expert before various regulatory agencies, including the Securities and Exchange Commission.

Purcell testified that the going concern value of Travelocity was at least \(\$ 35\) per share as of March 16, 2002. \({ }^{17}\) Purcell testified that he relied primarily on the most recent set of management projections in his valuation analysis. Purcell also looked to analyses performed by third parties to test the validity of his conclusions. \({ }^{18}\)

Travelocity's trial expert was Professor Paul A. Gompers of the Harvard Business School. Gompers has an A.B. in Biology from Harvard College, a M.Sc. in Economics from Oxford, and a Ph.D in Business Economics from Harvard University. He was an assistant professor of Finance and Business Policy at the Graduate School of Business at the University of Chicago for two years before joining the Harvard Business School faculty. He is also the Director of Research at the Harvard Business School and his research focuses on financial issues, valuation financing, and the markets related to young, growing technology companies. Although Gompers had never before testified as a trial expert, he had been retained 15 times as an expert in the area of finance and valuation of emerging technology companies in other legal matters.

Gompers reviewed various documents and materials on the online travel industry in general, as well as internal documents of Sabre and Travelocity. He also conducted interviews with some Sabre and Travelocity personnel. \({ }^{19}\) Gompers reached the conclusion that the going concern value of Travelocity as of the Merger Date was \(\$ 20\) per share. \({ }^{20}\)

\section*{C. The Valuation Methods Used}

Both experts used essentially the same methods to value Travelocity's stock; i.e. a discounted cash flow analysis ("DCF") and a comparable company analysis. In performing their comparable company analyses, both Purcell and Gompers used Expedia as the single comparable company. Despite the similar approaches taken, the results arrived at by Gompers and Purcell vary widely. Gompers opines that, on a DCF basis, Travelocity common stock was worth between \(\$ 11.38\) and \(\$ 21.29\) per share. Using the same methodology, but using different inputs, Purcell opines that a share of Travelocity common stock was worth between \(\$ 33.70\) and \(\$ 59.95\) as of the Merger Date. The two experts' comparable company analyses also yield significantly divergent results because they disagree about the appropriate discount to apply to reflect Travelocity's competitive disadvantages.
III.
*5 Pursuant to 8 Del. C. § 262, the petitioners are entitled to their pro rata share of the fair value of Travelocity's common stock as of the Merger Date. \({ }^{21}\) Fair value, as used in an appraisal setting, is defined as "the value of the Company to the stockholder as a going concern, rather than its value to a third party as an acquisition., 22 Moreover, section 262(h) requires this court to determine fair value "exclusive of any element of value arising from the accomplishment or expectation of the merger., 23 "In a statutory appraisal proceeding, both sides have the burden of proving their respective valuation positions by a preponderance of the evidence., \({ }^{24}\) The court may exercise independent judgment to assess the fair value of the shares if neither party meets its burden. \({ }^{25}\)
IV.

In determining the fair value of Travelocity's shares, the court may consider "proof of value by any techniques or methods which are generally considered acceptable in the financial community and otherwise admissible in court. \({ }^{, 26}\) Both parties used a DCF approach and a comparable company approach to value the shares. DCF involves projecting operating cash flows for a determined period, setting a terminal value at the end of the projected period, and then discounting those values at a set rate to determine the net present value of a company's shares. \({ }^{27}\) It is an exercise in appraising the present value at a set date of the expected future cash flows earned by the company. A DCF analysis is a useful tool for valuing shares and is frequently relied on by this court in appraisal actions. \({ }^{28}\)

Delaware law clearly prefers valuations based on contemporaneously prepared management projections because management ordinarily has the best first-hand knowledge of a company's operations. \({ }^{31}\) Here, management prepared the 5-year projections for the period 2002-2005 and gave them to Sabre for use in its routine planning processes. Often, projections of this sort are shown to be reasonably reliable and are useful in later performing a DCF analysis. In this case, however, the court is persuaded from a review of all the evidence that the Travelocity 5-year plan does not provide a reliable basis for forecasting future cash flows.

The utility of a DCF analysis, however, depends on the validity and reasonableness of the data relied upon. As this court has recognized, "methods of valuation, including a discounted cash flow analysis, are only as good as the inputs to the model., \({ }^{29}\) The problem in this case is that the most fundamental input used by the experts-the projections of future revenues, expenses and cash flows-were not shown to be reasonably reliable. \({ }^{30}\)

To begin with, Travelocity's management held the strong view that these projections should not be relied upon because the industry was so new and volatile that reliable projections were impossible. \({ }^{32}\) At trial, Punwani, Travelocity's CFO, characterized the 5 -year projections as "simulations" and "thought studies" and said that they were never reviewed by any of the operating departments at Travelocity. \({ }^{33}\) Punwani further testified that because of the limited financial history of Travelocity, together with a rapidly evolving marketplace, it was difficult "to forecast the next quarter, let alone five years out., \({ }^{" 34} \mathrm{He}\) also confirmed that the events of September

11 led to more doubt about the future of the industry and Travelocity's positioning in the market. \({ }^{35}\)

Although it was aware of the 5 -year forecasts, Salomon did not conduct a DCF analysis of Travelocity as part of its work in connection with the merger. \({ }^{36}\) The testimony of Anwar Zakkour, Salomon's managing director, is especially relevant on this issue:
*6 Q. Did Salomon Smith Barney prepare a discounted cash flow analysis of Travelocity in connection with this transaction?
A. Absolutely not.
Q. Why was no discounted cash flow analysis prepared in connection with this transaction?
A. Because this was an industry that was in flux. And the management team itself, which should have been the team that was most able to put together a set of projections, would have told you it was virtually impossible to predict the performance of this company into any sort of reasonable future term. And they in fact had very little confidence with even their 2002 forecast numbers because of that.

September 11th didn't help the pace of migration from off-line to online. It didn't help. The airlines being very focused on cutting their distribution costs didn't help. These were all things that were happening real time. Travelocity going from being the number one player to being very unfavorably compared to Expedia and certainly losing its number one position to them in a very short time didn't help. These are all things that support that. And other than maybe God himself, I suspect nobody could really predict what this business is going to do in the next five years.
Q. Is a discounted cash flow methodology a methodology that is commonly used by Salomon Smith Barney in valuing companies?

\section*{A. Valuing mature companies, yes. \({ }^{37}\)}

Purcell's DCF relies more or less uncritically on the Travelocity 5 -year plan. \({ }^{38}\) Purcell justifies his reliance on these projections because they were provided to Sabre for its 5 -year planning and later used by Goldman Sachs in its presentations to Sabre. Punwani, however, explained at
trial that these numbers were given to Sabre as a routine requirement for Sabre's internal planning process and with express caveats as to their reliability, and that he personally told both Sabre's CFO and controller that the numbers were only simulations. \({ }^{39}\) Moreover, Punwani was presented on cross-examination with several Sabre documents showing projects for Travelocity, and testified credibly that he had never seen the documents before nor was he familiar with how Sabre used Travelocity's projections in its business planning. \({ }^{40}\) Despite the normal preference for management projections, the court concludes that the petitioners failed to prove that Purcell's reliance on these projections was justified. Thus, the court must disregard Purcell's DCF analysis.

Gompers takes a different approach, after concluding that the Travelocity 5 -year plan was "merely meant as a rough plan and were considered to be optimistic targets" and not a reliable basis for a DCF analysis. \({ }^{41}\) Instead of eschewing a DCF analysis, however, Gompers sets about to create a new set of projections, covering periods of 10 and 15 years into the future, based on his expert analysis of Travelocity and post-merger discussions with certain members of its management. As a preliminary matter, this court is inherently suspicious of post-merger, litigation-driven forecasts because " \([t]\) he possibility of hindsight bias and other cognitive distortions seems untenably high., \({ }^{42}\) As important, in this case, Gompers's exercise is strikingly at odds with the views of Travelocity management and Salomon that no one could reliably predict Travelocity's future cash flows.

The reliability of Gompers's projections is further undermined by the fact that he selectively picks and chooses variables from management's 5 -year forecast that conveniently fit into his exercise in creating less "optimistic" projections. Although Gompers's valuation is facially more credible than Purcell's, in that he provides both the numerical calculations and the academic theories for his assumptions, his selective reliance on aspects of management's projections is suspect. \({ }^{43}\) Gompers starts reasonably by using Travelocity's 2002 revenue projection, adjusted for Travelocity's actual performance in the first three months of 2002. He then generates 10 -year and 15 -year revenue projections by assuming that the revenue growth rate will (i) decrease in a linear fashion to \(17.2 \%\), the 2005 revenue growth rate found in the 5 -year forecast, and then (ii) will continue to slow in a linear fashion until it reaches the "steady state of growth" in 2011 or \(2016 .{ }^{44}\) Gompers does not explain why only the 2005 growth rate from the Travelocity 5-year
plan is reliable and ignores that the Travelocity 5 -year plan predicted much higher intervening growth rates. \({ }^{45}\) Gompers then uses the operating margins found in the Travelocity 5year plan through 2005 and uses the 2005 operating margin in perpetuity to derive his projections for operating income. \({ }^{46}\)
*7 The respondents argue that this selective use of management projections is acceptable because "they are reasonable or somewhat optimistic" and that since the petitioner's valuation wholly relies on the Travelocity 5-year plan that it is somehow estopped from arguing that Gompers selective use is unacceptable. Neither of these arguments is persuasive. The only reasonable conclusion the court can draw from the record evidence is that no one, including Professor Gompers, is able to produce a reliable set of longrange projections for Travelocity, as of the Merger Date. This conclusion is substantially reinforced by the observation that Gompers's DCF produced values ranging from \(\$ 11.38\) to \(\$ 21.29\) relative to a squeeze-out merger in which Travelocity's \(70 \%\) parent agreed to pay \(\$ 28\) per share to acquire the minority interest.

For these reasons, the court reluctantly concludes that it cannot properly rely on either party's DCF valuation. The goal of the DCF method of valuation is to value future cash flows. Here, the record clearly shows that, in the absence of reasonably reliable contemporaneous projections, the degree of speculation and uncertainty characterizing the future prospects of Travelocity and the industry in which it operates make a DCF analysis of marginal utility as a valuation technique in this case. If no other method of analysis were available, the court would, reluctantly, undertake a DCF analysis and subject the outcome to an appropriately high level of skepticism. The court, however, now turns to the other method of valuation offered by the parties.

\section*{D. The Comparable Company Approach \({ }^{47}\)}

The comparable company approach entails the review of publicly traded competitors in the same industry, then the generation of relevant multiples from public pricing data of the comparable companies and finally the application of those multiples to the subject company to arrive at a value. \({ }^{48}\) The true utility of a comparable company approach is dependent on "the similarity between the company the court is valuing and the companies used for comparison., \({ }^{49}\) Both experts and Salomon use Expedia as the single comparable company in their analyses, but disagree on the appropriate discount to
be applied to the multiples derived from their analyses of Expedia. The court agrees that Expedia is clearly comparable to Travelocity.
*8 Gompers does not challenge Salomon's valuation, but he dismisses Purcell's valuation because "it is applied in an ad hoc manner with little understanding of the proper measure of comparison and the factors that affect comparable multiples. \({ }^{, 50}\) Gompers states that the discount to Expedia should be at least \(40 \%{ }^{51}\) and concludes that Travelocity's valuation as of the merger date is \(\$ 22.08\).

Purcell critiques Gompers's valuation in that it is significantly lower than any valuation done of Travelocity and, more importantly, inexplicably less than the \(\$ 28\) paid by Sabre in the merger. \({ }^{52}\) Purcell also criticizes Gompers's comparable company analysis in that it is "wildly divergent" from his DCF calculation when Gompers states that his comparable company valuation serves as a check on his DCF. \({ }^{53}\) Purcell states that a \(10 \%\) discount to Expedia is appropriate and concludes that the value should be no less than \(\$ 35\) a share.

Salomon applies a \(20 \%-30 \%\) discount range to Expedia and concludes that the appropriate value is between \(\$ 24\) and \(\$ 32\) a share. \({ }^{54}\) The independent valuation performed by Salomon provides the court with a neutral framework from which to analyze Purcell and Gompers's divergent values. \({ }^{55}\)

\section*{1. The Appropriate Discount}

The experts disagree on the appropriate discount that should be applied to Expedia as a comparable company. Purcell adopts Salomon's initial discount to Expedia of \(10 \%\) and Gompers uses a minimum \(40 \%\) discount. Salomon derives its discount range of \(20 \%\) to \(30 \%\) comparing the historical discounts of Travelocity's multiples of firm value to EBITDA and share price to estimated 2002 earnings per share relative to corresponding multiples for Expedia. The court finds Gompers's detailed analysis of Travelocity's risk and expected future growth rates reasonable. Furthermore, when asked why Salomon adjusted its initial discount rate, Zakkour testified at length about discussions with Travelocity's management as to the difficulties it faced in catching up to Expedia and successfully implementing a merchant model business. \({ }^{56}\) Gompers, like Zakkour, discusses the difference in the
business models of the companies and the significance of this difference in the comparable company valuation. \({ }^{57}\)

Purcell relies on the early 2002 positive analyst research reports as proof that Travelocity should only be at a "moderate," if any, discount to Expedia. \({ }^{58}\) Purcell gives great weight to James Hornthal's testimony about Travelocity and its potential. \({ }^{59}\) Hornthal characterized the ExpediaTravelocity competition as a "cat-and-mouse game" where the two companies were "jockeying back and forth" in the market. \({ }^{60}\) Hornthal relies on the Site59 acquisition as a beacon of light for Travelocity in its ability to catch up to Expedia after Expedia had pulled ahead in the fourth quarter of 2001. Peluso's testimony on Site59's ability to "transform" Travelocity's business model is persuasive: the acquisition of Site59 while being a step in the right direction did not equal a fully operational merchant model business. \({ }^{61}\) Hornthal's optimistic view of Travelocity's ease in catching up to Expedia, on which Purcell relies, is too speculative when compared to the clear evidence in the record that Travelocity still faced significant challenges in the development of its merchant model business. Purcell also places great importance on the fact that Travelocity was going to meet or exceed its 2002 expectations, but Punwani testified that it was only going to meet its projections through strategic cost-cutting that could not be sustained long-term. \({ }^{62}\) Moreover, Salomon adjusted its initial \(10 \%\) discount (on which Purcell relies) to a \(20 \%\) to \(30 \%\) range after discussing Travelocity's strengths and weaknesses with management. \({ }^{63}\) Therefore, the record shows that Purcell's assumptions vis-àvis the appropriate discount to be applied in comparing the companies are unduly optimistic.

Gompers concludes that the discount to Expedia should be at least \(40 \%\) because Travelocity had a higher cost of capital, a lower growth rate, and a lesser ability to generate cash. \({ }^{64}\) He states that at the time of the merger, "Travelocity had lost momentum and was facing new competition that made its prospects potentially tenuous." \({ }^{, 65}\) The record is clear that even though Travelocity was actively working to remedy its outdated model, it still faced significant challenges at the time of the merger. The court notes that there was no evidence presented at trial or in the record to quantify the actual cost of building a merchant model or any necessary technological upgrades. \({ }^{66}\) With all of these factors in mind, the court concludes that it should apply a \(35 \%\) discount to the valuation multiples derived from the analysis of Expedia, to
reflect that competitive obstacles Travelocity confronted as of the Merger Date. This decision reflects the court's view that Gompers is substantially correct, albeit unduly pessimistic, in his critical comparison of Travelocity to Expedia. Instead of relying on Gompers's assessment that a discount of at least \(40 \%\) is warranted, the court adopts, instead, the mid-point of Gompers's \(40 \%\) and the high end of Salomon's 20\%-30\% range.

\section*{2. Valuation Multiples}
*9 Gompers and Purcell agree that firm value to EBITDA \({ }^{67}\) is the most important valuation metric. Purcell isolates firm value/ EBITDA as "by far the most relevant and important statistic for comparison purposes., \({ }^{\circ} 68\) Purcell argues that this is the most important statistic because Travelocity has a great deal of noncash expenses, including depreciation, amortization, and the amortization of intangibles such as goodwill. \({ }^{69}\) Gompers agrees with Purcell that the EBITDA multiples are the "preferred multiple to examine" because they "are closest to cash flow and are a better proxy for the firm's on-going concern value.,"70

Zakkour testified in his deposition that even though a range of valuation metrics were used in Salomon's report, \({ }^{71}\) the most important valuation metric for comparing the companies was the price to earnings multiple because Travelocity was less profitable than Expedia. \({ }^{72}\) Zakkour further testified that Travelocity had a lot of work to do to catch up to Expedia, not only because Expedia was growing faster than Travelocity, but also because Travelocity had to basically transform its business model to remain competitive.

Based on the expert reports and Zakkour's testimony, the court isolates the 2002 EBITDA multiple and the price-to-earnings multiple as the most important multiples in calculating Travelocity's firm value. Since Purcell does not present any calculations to back up his comparable company valuation, the court looks to Gompers's analysis in deriving the correct multiples. Gompers provides detailed and reasonable calculations for both Travelocity and Expedia's financial multiples, and the court agrees that these multiples are appropriate in comparing the companies. \({ }^{73}\)

Discounting Expedia's EBITDA multiple ( 34.8 x) by \(35 \%\) produces an EBITDA multiple of 22.62 x. Applying this multiple to Travelocity's expected 2002 EBITDA of \(\$ 47.80\) million yields a value of \(\$ 1,081,236,000\). Discounting

Expedia's EPS multiple ( 50.77 x) by \(35 \%\) produces an EPS multiple of 33.00 x. Applying this multiple to Travelocity's expected 2002 net earnings of \(\$ 39.45\) million yields a value of \(\$ 1,301,850,000\). The court gives \(2 / 3\) weight to the EBITDA calculation and \(1 / 3\) weight to the PE calculation, yielding an enterprise value of \(\$ 1,154,774,000\). To determine the equity value, Gompers adds back the cash of \(\$ 114\) million and subtracts out the debt of \(\$ 4.03\) million. This leads to an equity valuation of \(\$ 1,264,744,000\), or \(\$ 25.20\) per share. \({ }^{74}\)

\section*{E. Application Of A Control Premium}
*10 Delaware law recognizes that there is an inherent minority trading discount in a comparable company analysis because "the [valuation] method depends on comparisons to market multiples derived from trading information for minority blocks of the comparable companies., \({ }^{75}\) The equity valuation produced in a comparable company analysis does not accurately reflect the intrinsic worth of a corporation on a going concern basis. Therefore, the court, in appraising the fair value of the equity, "must correct this minority trading discount by adding back a premium designed to correct it.,"76

The parties are silent on the proper application of a control premium. Purcell states summarily that if the court is to accept the theory that "some minority discount from going concern value" is appropriate in a comparable company analysis, then the correct valuation would be above his stated value. \({ }^{77}\) Salomon conducted a review of precedent minority squeezeout transactions and found that the average premium paid for a control block when compared to the stock price was approximately \(50 \%{ }^{78}\) Travelocity, however, is not directly comparable to the companies in Salomon's data survey. In fact, the online travel industry, as already discussed in great detail, is unique when compared generally to publicly traded companies. Moreover, the recent appraisal cases that correct the valuation for a minority discount by adding back a premium "that spreads the value of control over all shares equally" consistently use a \(30 \%\) adjustment. \({ }^{79}\)

Relying on recent precedents, the court will adjust the \(\$ 25.20\) per share value by adding a \(30 \%\) control premium. \({ }^{80}\) This results in a per share value of \(\$ 32.76\). \({ }^{81}\)

\section*{F. Interest}

The petitioners are entitled to interest on the fair value of their shares pursuant to 8 Del. C. § 262(h). \({ }^{82}\) Moreover, section

262(i) states that " \([t]\) he Court shall direct the payment of fair value of the shares, together with interest, if any, by the surviving or resulting corporation to the stockholders entitled thereto. Interest may be simple or compound as the Court may direct., \({ }^{\circ 3}\) This court has consistently awarded compound interest in appraisal proceedings. \({ }^{84}\)

There is no precise formula the court must use in determining the appropriate rate of interest, and "[e]ach party bears the burden of proving the appropriate rate under the circumstances. \({ }^{, 85}\) The petitioners argue that the appropriate rate of interest to be applied is \(9.53 \%\). Purcell reached this conclusion by averaging the petitioners' lost opportunity costs at a prudent investor rate ( \(10.95 \%\) ), and the respondents' borrowing costs (8.1\%). \({ }^{86}\)
*11 Although it is reasonable to base the appropriate rate of interest on the average of prudent investor rate and a company's cost of borrowing, the court does not accept Purcell's calculation of pre-judgment interest. First, Purcell states that "a prudent investor would likely invest in a combination of long- or medium-term and short-term investment vehicles that would generate the highest return available, such as a mix of treasury and corporate bonds." \({ }^{87}\) He then assumes based on his "experience regarding portfolio mix allocations" that a prudent investor would invest \(50 \%\) in three-year treasury bonds and \(50 \%\) in Baa-rated corporate bonds. \({ }^{88} \mathrm{He}\) offers no explanation, however, why a "prudent" investor, such as any of the plaintiffs, would not invest a portion of available funds in the

Moreover, Purcell inexplicably relies on a 2002 KPMG Consulting valuation of Travelocity's tangible and intangible assets to determine Sabre's cost of borrowing. \({ }^{89}\) Purcell relies on the cost of debt used in the KPMG report without offering any evidence as to why the court should adopt this calculation nor does he address Sabre's actual cost of borrowing.

Since the petitioners have failed to develop a credible record on the issue, the court looks to the legal rate of interest. \({ }^{90}\) The legal rate of interest, as defined by 6 Del . C. § 2301, is 5\% over the Federal Reserve discount rate. Because the court will award the legal rate of interest, the appropriate compounding rate is quarterly. \({ }^{91}\)

The petitioners shall submit a form of final order, on notice, within 10 days.

\section*{All Citations}

Not Reported in A.2d, 2004 WL 5366732

\section*{Footnotes}

1 Both Holdings and Sabre are Delaware corporations.
2 Travelocity's common stock began to trade on the public market in the first quarter of 2000 when Sabre, which owned \(100 \%\) of Travelocity's business as a division, purchased Preview Travel, a publicly traded company. The combined entity was named Travelocity. Resp'ts Pre-Trial Br. at 5.
3 As of April 11, 2002, petitioner Cede \& Co. was the record holder of the 265,540 shares of Travelocity common stock, for the benefit of: Doft \& Co. Inc. (61,500 shares); First Trust Corp., as trustee FBO Alan Doft (3,800 shares); Elisabeth H. Doft ( 43,000 shares); Laurence Hoffman ( 300 shares); Maria Ivkovic (1,000 shares); Shirel Partners ( 8,000 shares); Blanche \& Romie Shapiro Charitable Remainder Unitrust dated 9/1/95 (4,000 shares); Edna R. Hoffman ( 600 shares); Blanche Shapiro 1999 Trust ( 8,000 shares); MJR Partners (124,340 shares); and, DB Securities, Inc. as custodian FBO Morton M. Maneker IRA dated 12/03/01 (11,000 shares).
48 Del. C. § 253(d).
5 See Gompers Expert Report at \(\mathbb{9} 95\).
6 Resp'ts Pre-Trial Br. at 6. Michelle Peluso, Travelocity's COO, described in great detail the benefits of the merchant model approach for both the stand-alone hotel business and for dynamic packaging and how "being a merchant is really critical to Travelocity's growth and profitability." Trial Tr. at 240.
7 Peluso testified that Travelocity should not continue outsourcing its merchant business and packaging business to Contour. She further testified that Travelocity's management had not as of the time of the merger decided whether it would continue to use Contour for the merchant model hotel business. Id. at 243.
8 For example, Michael Gilliland, Travelocity's president and CEO as of May 2002, testified that about 15\% of Travelocity's revenue came from its contract with Yahoo! and that Yahoo! Travel was in fact a private label for Travelocity. Id. at 188.
9 For example, Northwest Airlines announced in early 2001 that it would no longer pay commissions to online travel agents. ld. at 162.
10 Gilliland testified to the extent that the formation of Orbitz and the general commission-cutting by airlines affected Travelocity because Travelocity, unlike Expedia, had not made progress in diversifying its revenue. Id. at 169.
11 See id. at 44.
12 Id. Ramesh Punwani, Travelocity's executive vice president and CFO until April 2002, however, testified that Travelocity had actively reduced operating expenses in the first quarter of 2002 in order to meet the proposed budget plan. Punwani's testimony on whether Travelocity would meet its projections for the year was pessimistic at best. Notably, Punwani and Brett Little, Travelocity's controller, were the top financial officers at Travelocity before the merger and were responsible for preparing Travelocity's projections and providing this forward-looking information to Sabre. Id. at 416.
13 Gompers Expert Report at \(\mathbb{1}\) 103, quoting CIBC World Markets, Travelocity, 4Q EPS As Expected; 2002 Growth Of, Jan. 17, 2002, p. 6.
14 Trial Tr. at 197. Gilliland testified that the acquisition of Site59 did not help Travelocity in its competition with Expedia in the merchant model hotel business. He distinguished the merchant model hotel business from the last-minute packaging business. Id. Peluso, however, testified that Travelocity was working toward a merchant model hotel business. She testified that the process was extensive and that the goal was to acquire contracts with 4,000 hotels in an 18 -month period. This number would put Travelocity at half the size of its competitors after 18 months. Peluso's testimony is indicative that in the purchase of Site59 Travelocity acquired "a team of people who had the ability at any given time with our merchant business to change the margins by hotel, by city, by chain, by region, depending what the market conditions are." Id. at 233. Therefore, even though Travelocity was handicapped by its contract with HRN and other partnership relationships, it was actively working toward regaining its competitive position, as evidenced by its purchase of Site59.
15 Resp'ts Pre-Trial Br. at 9-10.
16 Both Special Committee directors voted in favor, one director voted against, and six directors abstained from the vote.
17 Purcell's valuation was as of March 16, 2002, the date that Salomon presented its fairness opinion to the Travelocity board regarding the merger. Therefore, Purcell's valuation, like Salomon's, does not factor in the Site59 acquisition. Notably,
both experts treated the Site59 acquisition on a stand-alone basis because of its proximity to the merger date. Purcell did not add any incremental value to Travelocity as a result of the acquisition.
18 Specifically, Purcell looked at the Goldman Sachs presentations to Sabre and the Salomon presentations to the Special Committee. He also looked at analyses by various securities and industry analysts studying Travelocity in 2001 and 2002.

Gompers did include the incremental value of the Site59 acquisition in his valuation. Gompers valued the acquisition to Travelocity stockholders at \(\$ 36.2\) million, approximately \(\$ 0.72\) per share in incremental value. Gompers Expert Report at \(\mathbb{T} \mathbb{T} 30,203\). Purcell stated that he would add at least \(\$ 0.72\) per share of incremental value if he accepted Gompers's criticism that the acquisition should be factored into the valuation. Purcell Rebuttal Report at II 14(a).
21 Gray v. Cytokine Pharmasciences, Inc., 2002 WL 853549, at *6 (Del.Ch. Apr.25, 2002).
22 Id. (citation omitted).
238 Del. C. § 262(h).
24 Taylor v. Am. Specialty Retailing Group, Inc., 2003 WL 21753752, at *2 (Del.Ch. July 25, 2003), (quoting M.G. Bancorporation, Inc. v. LeBeau, 737 A.2d 513, 520 (Del.1999)).
25 Taylor, 2003 WL 21753752, at *2.
26 Weinberger v. UOP, Inc., 457 A.2d 701, 713 (Del.1983), aff'd, 497 A.2d 792 (Del.1985).
27 Taylor, 2003 WL 21753752, at *3.
28 See Donald J. Wolfe, Jr, \& Michael A. Pittenger, Corporate and Commercial Practice in the Delaware Court of Chancery, § 8-10[d] (2003 ed.) (discussing how almost all appraisal actions since the Delaware Supreme Court "liberalized the appraisal valuation process" in Weinberger involve a form of DCF analysis). But cf. Onti, Inc. v. Integra Bank, 751 A.2d 904, 916 (Del.Ch.1999) (acknowledging that even though this court frequently uses DCF as one method of valuation, "no method of valuation is preferable per se in Delaware").
31 See Gilbert v. MPM Enters., Inc., 709 A.2d 663, 669 (Del.Ch.1997), aff'd, 731 A. 2 d 790 (Del.1999) (concluding that management was in the best position to forecast the company's future before the merger); Gray, 2002 WL 853549, at *8 (rejecting valuation that inexplicably ignored management projections).
29 Neal v. Ala. By-Products Corp., 1990 WL 109243, at *9 (Del.Ch. Aug.1, 1990) (citing S. Pratt, Valuing a Business: The Analysis and Appraisal of Closely Held Companies, 84 (2d. ed. 1989)), aff'd, 588 A.2d 255 (Del.1991).
"Inputs in a discounted cash flow are predictions which are necessarily speculative in nature. The quality of these predictions is therefore central to the reliability of the underlying methodology." Harris v. Rapid Am. Corp., 1990 WL 146488, at *6 (Del.Ch. Oct.2, 1990), aff'd in relevant part, and rev'd on other grounds, 603 A. 2 d 796 (Del.1992).
32 In Gray, the court relied on management's determination that their projections were reliable even though prepared in an industry with a high degree of speculation due to the facts that the company's product required regulatory approval and that there was an unknown market share for drug delivery products. In Gray, management submitted their projections to Merrill Lynch to use in its independent valuation of the company's shares in connection with a merger. Gray, 2002 WL 853549 , at *8. To reflect the inherent risks involved in achieving those projections, Merrill Lynch applied a discount rate as high as \(50 \%\). Id at * 11 . Those facts are easily distinguishable from the case at hand. Here, Punwani clearly testified that the projections that he prepared were merely speculative and too unreliable to give to Salomon in their independent valuation of Travelocity.
33 Trial Tr. at 381.
34 Id. "We were really not in a position to be able to put any credence on the numbers, both on the revenue and on the cost side. And the only way to get credibility in our numbers would have been to take those models and put them through reasonability checks ... [that] were never done because, when we built these frameworks, l'll call them, in the year 2000, we were in a period of explosive growth. We were growing at 150 percent per year .... No one really knew what the right number was." ld. at 381-82.
35 Id. at 383. "It was bad enough before when we did the data, and we had this new variable that got thrown into our lap, which totally destroyed our ability to have any confidence in projections beyond one quarter out." Id.
36 Purcell notes that "it is very unusual for an investment banking firm not to employ a DCF analysis in a valuation study, appraisal study or in a fairness opinion." Purcell Rebuttal Report at \(\mathbb{\$} 5\).
Goldman Sachs did do a DCF analysis of Travelocity for Sabre. The Goldman Sachs report, however, is not helpful for this court's inquiry into the fair value of Travelocity as of the Merger Date. First, it was prepared nine months before the merger and before September 11. Second, it was prepared for Sabre, not Travelocity. Third, there is nothing in the record that indicates that Goldman Sachs used Travelocity's management projections in its analysis. In fact, the record shows the opposite. Punwani testified that Sabre did not have direct access to Travelocity's financial data and that the
projections he did give to Sabre were highly qualified as to their reliability. Trial Tr. at 372-73. Punwani also testified that he did not have any discussions with Sabre regarding the use of his numbers in Goldman Sach's DCF analysis. Id. at 415-16. Furthermore, Gilliland testified that these management projections "are about as good as the weight of the paper they're written on." Id. at 158.
Zakkour Dep. at 35-37
38 Purcell's DCF is flawed for other reasons that the court will not describe in detail. Generally, Purcell makes certain assumptions and observations that are unsubstantiated in his report or in his testimony. Moreover, his report only provides the court with only the most skeletal mathematical calculations to back up his analysis.
39 Trial Tr. at 383-84, 410.
40 Id. at 412-16.
41 Gompers Expert Report at IT 27.
42 Agranoff v. Miller, 791 A.2d 880, 892 (Del.Ch.2001).
43 Trial Tr. at 342.
44 Gompers Expert Report at \(\mathbb{\pi} 155\). Gompers testified that it is standard practice in both his teaching and his valuation exercises to project out for a longer period of time when valuing start-up companies or venture capital firms with the goal of the young industry reaching a steady state of growth: "most of the time when I ask my students to project out, or if I do it as a board member, or do it as an advisor to people raising capital, I tell them to project out ten years or fifteen years, to get out to the point where the industry is more mature and their prospects look as though they grow in line with the overall economy." Trial Tr. at 277-78.
45 See In re Emerging Communications, Inc. S'holder Litig., 2004 WL 1043794, at * 15 (Del.Ch. May 3, 2004) (dismissing an expert's unsubstantiated adjustments to management projections because the "adjustment amounts to [the expert] substituting his personal judgment of what [the input] should be for the non-litigation business judgment of [the company's] management.").
46 "None of the long-term forecasts were provided to or approved by senior management or the board o[f] directors, much less the public. Projections beyond 2003 were merely meant as a rough plan and were considered to be optimistic targets, i.e., they were not the expected cash flows." Gompers Expert Report at \(\mathbb{\|} 27\).

47 A comparable company analysis is often used in connection with a DCF analysis. The court, however, may use a comparable company valuation on a stand-alone basis in an appraisal action when it is the only reliable method of valuation offered by the parties. In Borruso v. Communications Telesystems Int'l, the court relied on a comparable company analysis because neither expert was comfortable using a DCF analysis to value the company's shares due to the limited financial data of the company available as of the merger date. 753 A.2d 451, 455 n .5 (Del.Ch.1999).
48 See Taylor, 2003 WL 21753752, at *7.
49 Gray, 2002 WL 853549, at *9 (quoting In re Radiology Assoc., Inc. Lit., 611 A.2d 485, 490 (Del.Ch.1991)).
50 Gompers Expert Report at \(\mathbb{I} 172\).
51 Gompers testified that even a 60\% discount could be justified. Trial Tr. at 332.
52 Gompers testified that he did not inquire as to why Sabre was willing to pay \(\$ 28\) per Travelocity share as a check against his significantly lower valuation. Id. at 359.
53 Additionally, the petitioners argue that Gompers's valuation is fatally flawed because he relied on post-merger information in his valuation. The petitioners rely on Cavalier Oil Corp. v. Harnett, 1988 WL 15816, at *14 (Del.Ch. Feb.22, 1988), where the court held that the expert's DCF analysis was flawed because it relied on actual earning and expense data from a period after the merger. Gompers use of Expedia's first quarter 2002 results publicly announced on April 23, 2002, twelve days after the merger, does not implicate the credibility of Gompers's valuation. The court in Cavalier held that the post-merger data was suspect because it was not available until after the merger and it "could not have been known or susceptible of proof" at the time of the merger. Id. (quoting Weinberger, 457 A.2d at 713 ). Here, Expedia's first quarter performance "could have been known or susceptible of proof" before the actual data was released after the merger date. In Kleinwort Benson Ltd. v. Silgan Corp., the court allowed the expert's reliance on a balance sheet released after the merger date and noted that data released on a balance sheet pertains to events that happen before the balance sheet is released. 1995 WL 376911, at *7 (Del.Ch. June 15, 1995). Expedia first quarter 2002 information was clearly knowable or "susceptible of proof" before the actual balance sheet was released only twelve days after the merger. Moreover, trial testimony clearly shows that Travelocity's management had general knowledge of Expedia's first quarter performance. Trial Tr. at 401-02. Therefore, the statutory requirement that the valuation must exclude elements of value "arising from the accomplishment or expectation of the merger" is clearly not implicated by Gompers's valuation. See 8 Del. C. § 262(h).

54 Salomon also uses two other valuation methodologies in connection with its independent valuation of Travelocity. It looks at precedent squeeze-out transactions and a Sabre "ability to pay" analysis. The precedent squeeze-out transaction premiums comparison involves taking a list of 40-plus companies and looking at the premiums paid and then applying them to Travelocity's various stock prices. This valuation supports a price range of approximately \(\$ 30\) to \(\$ 35\) per share. The "ability to pay" analysis based on 2002 and 2003 EPS (assuming no multiple expansion) supports a price well in excess of \(\$ 35\) per share. The "ability to pay" analysis factors merger synergies and is therefore not relevant to the court's analysis. See Zakkour Dep. at 50.
55 Zakkour testified in his deposition about Salomon's approach to the valuation and discusses the metrics of the valuation that were emphasized and why. The court adopts Salomon's valuation as a framework, and isolates the valuation metrics that should be of greater or lesser importance in determining the appropriate value for Travelocity's shares. Notably, Zakkour's extensive and detailed testimony in his deposition about Travelocity's "lost momentum" to Expedia evidences Salomon's awareness of Travelocity's positioning in the market vis-à-vis Expedia. See id. at 51-54.
\(56 \quad \mathrm{ld}\). at 77-81.
57 Gompers testified that he discussed the business models of the companies and the respective cash flows of each model with Punwani who verified that this difference must be incorporated in discounting the cash flow multiples in the comparable company valuation. Trial Tr . at 328-29.
58 "[T]he research analysts discussed Travelocity in January and February of 2002 in such positive terms as a company with a strong business model that can make money with gross margins of \(63 \%\) (i.e., Bear Steams); a company whose sales are back on track, with a healthy outlook for 2002, and expected solid earnings growth with a possible multiple (price earning ratio) expansion (i.e., Weisel); a company on target with revenue growth between \(20 \%\) to \(30 \%\) in 2002, with expectations of narrowing the gap with Expedia (i.e., CIBC); and a company with travel-bookings now running close to pre-September levels (i.e., Untenberg)." Purcell Expert Report at II 41.
59 Hornthal was the founder and chairman of Preview Travel, a travel agency that started with a television platform in the mid-1980s and later moved online, which went public and then merged with Travelocity in 2000. He became vice chairman of the combined companies after the merger. See Hornthal Dep. at 10-16.
60 Id. at 91-93.
61 As already discussed, Peluso testified extensively on how Travelocity needed to develop its merchant model business and the obstacles it faced in doing so. See supra notes 6, 7, 14 and accompanying text.
Trial Tr. at 397-401.
Salomon used a \(10 \%\) discount rate in its initial presentations to the Special Committee and the Travelocity board. JX 15 ("Project Roundtrip" - Salomon's February 27, 2002 Presentation on Travelocity). Zakkour explained that this initial number was more of a preliminary guess by Salomon before it had spent any time with Travelocity's management to "really understand how Travelocity and Expedia compared." Zakkour Dep. at 77.
64 Gompers Expert Report at \(\mathbb{T} T 194,195\).
65 Id. at \(\mathbb{T} 136\).
66 See Trial Tr. at 246.
67 EBITDA is earnings before interest, taxes, depreciation and amortization.
68 Purcell Expert Report at \(\mathbb{T} 47\).
69 Id. at 948.
70 Gompers Expert Report at \(\mathbb{\top} 173\).
71 In calculating its reference range for comparison of the two companies, Salomon sets up a table of four statistical parameters: firm value/estimated 2002 EBITDA; firm value/estimated 2002 EBIT (earnings before interest and taxes); share price/estimated 2002 EPS; and share price/estimated 2003 EPS. Salomon derived a reference range of \(\$ 24\) to \(\$ 32\) per Travelocity share by applying 20\% to 30\% discount on the Expedia multiples. See JX 8 (Letter to shareholders and SEC Schedule 14D-9 for Travelocity.com).
72 "In this case, which is what l'll comment on, because every situation is unique, in this case, there is no doubt that PE multiples is by far the most important metric." Zakkour Dep. at 69. Furthermore, Zakkour testified that Goldman Sachs in its valuation of Travelocity also considered the PE multiples as the most important valuation metric. Id. Salomon defines the price/earnings (PE) multiple as earnings per share before noncash expenses. See JX 14 at 36 (Salomon February 25, 2002 Project Roundtrip Presentation).
73 See Gompers Expert Report at \(\mathbb{1} 197\) and Exhibits C25 and C26 thereto.
74 There were approximately 50.19 million shares outstanding.

75 Agranoff, 791 A.2d at 892.
76 Id. at 893.
77 Purcell Expert Report at \(\mathbb{1} 52\).
78 Salomon looked at both negotiated and unilateral squeeze-out transactions to determine whether Sabre's initial offer was adequate. Salomon determined that Sabre's offer was inadequate when compared to other squeeze-out transactions by acquirers with greater than \(50 \%\) ownership and transaction values greater than \(\$ 50\) million on completed transactions announced from January 1999 to February 2002. See JX 16 (Salomon Presentation to the Travelocity Board of Directors, March 4, 2002); JX 14 ("Project Roundtrip" - Salomon's February 25, 2002 Presentation on Travelocity).
Notably, Salomon's final presentation to the board looked only at the unilateral precedent squeeze-out transactions. The actual numbers presented by Salomon on March 4, 2002 are: a \(52.4 \%\) premium over 1 day prior; a \(54.3 \%\) premium over 30 days average; and a \(51.1 \%\) premium over 60 days average. JX 16 (Salomon Presentation to the Travelocity Board of Directors, March 4, 2002).
79 See Agranoff, 791 A.2d at 887; Borruso, 753 A.2d at 459; Bomarko v. Int'l Telecharge, Inc., 794 A.2d 1161, 1186 n. 11 (Del.Ch.1999), aff'd, 766 A.2d 437 (Del.2000).
80 See Borruso, 753 A.2d at 458-59 \& n. 10.
81 The court will not adjust this figure to reflect any incremental value inherent in the acquisition of Site59. While that acquisition held significant future promise to allow Travelocity to develop a merchant model for its business, there is no reason to believe that it was immediately additive to value. Notably, Salomon did not factor the Site59 acquisition in its valuation for several reasons. First, at the time of the fairness opinion, the deal was still in negotiations. Second, the deal was relatively small so that the effect on Travelocity stock would be at least in the short term, value-neutral. Third, even though it was a step in the direction of a merchant model approach, the acquisition of Site59 was only an initial step in a long process of transforming Travelocity's business model. Fourth, Zakkour stated in his deposition that the decision not to include the acquisition in the valuation of Travelocity was a "consensus view" by Salomon, the Special Committee, and management. See Zakkour Dep. at 22-24.
82 "After determining the stockholders entitled to an appraisal, the Court shall appraise the shares, determining their fair value ... together with a fair rate of interest, if any, to be paid upon the amount determined to be the fair value." 8 Del. C. § 262(h) (emphasis added).

838 Del. C. §262(i) (emphasis added).
84 See Onti, Inc. v. Integra Bank, 751 A.2d 904, 926 (Del.Ch.1999) (holding that a compound interest award in an appraisal proceeding is consistent with "fundamental economic reality").
85 Grimes v. Vitalink Communications Corp., 1997 WL 538676, at *9 (Del.Ch. Aug.28, 1997), aff'd, 708 A.2d 630 (Del.1998).
86 Purcell Expert Report at II 78.
87 Id. at I 79.
88 Id. equity market. Since Purcell does not provide the court with the necessary details to support his opinion, the court rejects his calculation of the prudent investor rate.
89 The KPMG report assumes that Sabre's cost of borrowing is equal to "Moody's Baa Industrial Yield Average Bond Rate." Id. at \(\mathbb{1} 83\).
90 Chang's Holdings, S.A. v. Universal Chems. \& Coatings, Inc., 1994 WL 681091, at *3 (Del.Ch. Nov.22, 1994) (stating that the legal rate of interest is "a useful default rate when the parties have inadequately developed the record on the issue").
91 See Taylor, 2003 WL 21753752, at * 13 (holding that the appropriate compounding rate for the legal rate of interest is quarterly because "the legal rate of interest most nearly resembles a return on a bond, which typically compounds quarterly").

1 KeyCite Yellow Flag - Negative Treatment Distinguished by Owen v. Cannon, Del.Ch., June 17, 2015

2012 WL 1569818
Only the Westlaw citation is currently available.

\section*{UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.}

> Court of Chancery of Delaware.

Tull N. GEARREALD, Jr., Nely
Gearreald, B \& J LLC, Bill Harbert
Construction, a Division of Bill Harbert
International Construction, Inc., Raymond
Schettino, M.D., Wayne D. Thornbrough and Rodger Brunk, Petitioners, v.

JUST CARE, INC., a Delaware corporation, Respondent.
C.A. No. \(5233-\) VCP.
|
Submitted: Jan. 9, 2012.
|
Decided: April 30, 2012.

\section*{Attorneys and Law Firms}

Arthur L. Dent, Esq., Brian C. Ralston, Esq., William E. Green, Jr., Esq., Potter Anderson \& Corroon LLP, Wilmington, Delaware; Attorneys for Petitioners.

Raymond J. DiCamillo, Esq., Rudolf Koch, Esq., Kevin M. Gallagher, Esq., Richards, Layton \& Finger, P.A., Wilmington, Delaware; Attorneys for Respondent Just Care, Inc.

\section*{OPINION}

PARSONS, Vice Chancellor.
*1 This is an appraisal proceeding brought pursuant to 8 Del. C. § 262. Petitioners, former shareholders and managers of a prison healthcare detention company, seek appraisal of their shares following an all cash acquisition of the company for \(\$ 40\) million. Collectively, Petitioners are entitled
to appraisal of 533,792 Series A preferred and 1,479,551 common shares. \({ }^{1}\) For the reasons set forth below, the Court concludes that, as of the merger date, the fair value of the company was \(\$ 34,244,570\).

\section*{I. FACTUAL BACKGROUND}

\section*{A. The Parties}

Respondent Just Care, Inc. ("Just Care" or the "Company") is a privately held prison healthcare services company. Just Care operates a private healthcare detention facility that provides an alternative to public and private hospitals for the care of sick, aging, and mentally ill inmates and detainees. Before the merger, Just Care was controlled by majority shareholder Maxor National Pharmacy Services Corp. ("Maxor").

Petitioner Tull N. Gearreald, Jr. was the principal founder and former CEO of Just Care. He was also a director. As a director, Gearreald voted in favor of the merger, but he later voted against it as a shareholder.

Petitioner Rodger A. Brunk was Just Care's CFO, a position he held since the Company's founding. As a shareholder, Brunk originally voted in favor of the merger before revoking his proxy and ultimately voting against it.

Petitioners B \& J LLC and Bill Habert Construction, a division of Bill Habert International Construction, Inc., are shareholders of Just Care. Both companies are controlled by James Rein, a former director of Just Care who failed to perfect his appraisal rights in his individual capacity and was dismissed from this appraisal proceeding.

Petitioners Nely Gearreald, Raymond Schettino, M.D., and Wayne D. Thornbrough are Just Care shareholders.

Nonparty GEO Care, Inc. ("GEO") "provides governmentoutsourced services specializing in the management of correctional, detention, and mental health and residential treatment facilities" in the United States and abroad. \({ }^{2}\) GEO acquired Just Care through its acquisition subsidiary, nonparty GEO Care Acquisition, Inc.

\section*{B. Facts}

\section*{1. The business}

Just Care was founded in 1996 and became operational on June 9, 1998 with 326 beds. Since its inception, the Company has operated a single facility, the Columbia Regional Care Center in Columbia, South Carolina (the "Columbia Center"). Following an expansion in 2007, the facility currently has a capacity of \(350-360\) beds and receives prisoners and detainees from four primary customers: (1) the South Carolina Department of Mental Health; (2) the Georgia Department of Corrections; (3) the U.S Marshals Service; and (4) U.S. Immigration and Customs Enforcement. \({ }^{3}\)

\section*{2. The transaction}

GEO first contacted Jerry Hodge, a Maxor employee and Just Care director, about a possible acquisition of Just Care in November 2008. GEO and Maxor entered into a confidentiality agreement relating to a potential transaction on November 21, 2008, but discussions between the parties cooled in December 2008 after Maxor expressed uncertainty about wanting to go through with due diligence. At the time, Hodge had not informed the Just Care board (the "Board") of GEO's advance.
*2 On April 20, 2009, GEO sent Hodge a nonbinding letter of interest to purchase the Company for cash consideration between \(\$ 30\) and \(\$ 35\) million. Hodge immediately rejected GEO's offer as inadequate. Four days later, GEO increased its offer to \(\$ 35-40\) million, which Hodge again rejected as inadequate. Finally, on May 6, 2009, GEO offered to acquire Just Care for 5.9 x the Company's facility-level EBITDA, which equated to approximately \(\$ 40\) million. After receiving that offer, Hodge informed the entire Board for the first time of GEO's interest in an acquisition.

At a meeting on May 21, 2009, the Board approved pursuing negotiations with GEO related to a potential sale of the Company. To resolve any potential conflicts that might arise during the course of the negotiations, the Board formed a special committee (the "Special Committee") on June 12, 2009. The Special Committee retained Thompson \& Knight LLP as independent legal counsel and Harris Williams \& Co. LLC ("Harris Williams") as their independent financial advisors.

Although the Special Committee did not authorize Harris Williams to conduct a formal market check, the Company received an unsolicited competing bid from private equity firm Brookstone Partners ("Brookstone") on July 6, 2009. The Brookstone offer valued the Company between \(\$ 38.25\) and \(\$ 40.25\) million. Daniel Carbonara, a Just Care shareholder, led the Brookstone group with assistance from Gearreald and Rein, who were interested in participating in the post-buyout Company if Brookstone succeeded. As a result of the Brookstone offer, the Board expanded the Special Committee's mandate to include considering the relative merits of the Brookstone and GEO proposals. Brookstone was given access to the Company's data room on July 16.

Just Care typically did not prepare management projections beyond the current fiscal year. On July 18, 2009, however, Harris Williams requested that management prepare updated financial projections for the Company through 2013 (the "Management Projections"). Although Harris Williams used the Management Projections in its fairness opinion, the projections were not formally approved by the Board.

Gearreald and Brunk presented the Management Projections to Harris Williams on August 6. As discussed infra, the Management Projections contained three different growth scenarios for Just Care. The base scenario (the "Static Case") assumed that Just Care would continue operating close to full capacity without further expansion of its facilities. The second scenario projected that Just Care would continue operating its current facilities under the Static Case and also would build a new facility at the Columbia Center to house sixty sexually violent predators (the "SVP Case"). Finally, management's most optimistic scenario included the Static Case, the SVP Case, and an additional expansion into a prison center in Milledgeville, Georgia (the "Georgia Case").

Because Brookstone never was able to obtain firm financing for any of its offers, Harris Williams eventually opined that the GEO offer was superior. On August 25, 2009, the Board unanimously approved the Agreement and Plan of Merger (the "Merger Agreement") between Just Care and GEO. The Merger Agreement was executed on August 28 and a proxy statement informing shareholders that the Board considered the transaction to be "advisable, fair to and in the best interests of, the Company and the Company Stockholders" \({ }^{4}\) was disseminated to shareholders on September 8. \({ }^{5}\) Just Care's shareholders approved the merger at a meeting on September 29, 2009, and the deal closed on September 30. Although a majority of the outstanding shares approved the merger, 65 of
the Company's 115 shareholders, representing approximately \(36 \%\) of the Company's shares on an as-converted basis, voted against it. \({ }^{6}\)
*3 Under the terms of the Merger Agreement, GEO acquired Just Care as a wholly owned subsidiary for \(\$ 40\) million in cash. Of that amount, however, \(\$ 6\) million was held in escrow to pay claims against the Company arising during the two-year period following the close of the merger, including appraisal claims and costs.

\section*{C. Procedural History}

Following the merger, Petitioners filed their Verified Petition for Appraisal on January 27, 2010. A trial was held on July 18-20, 2011, followed by extensive post-trial briefing and oral argument.

\section*{D. Parties' Contentions}

Petitioners contend that the fair value of Just Care is \(\$ 55.2\) million. In support of this valuation, Petitioners rely on their expert, Frank Torchio, who is the founder and president of Forensic Economics, Inc. In valuing the Company, Torchio performed a discounted cash flow ("DCF") analysis, trading multiples analysis, and a precedent transactions analysis. Torchio relied, however, only on his DCF analysis in reaching his valuation opinion because his trading multiples analysis yielded a wide range of values. \({ }^{7}\)

Respondent claims that Just Care's fair value is \(\$ 33.6\) million. In support of its valuation contentions, Respondent relies on the expert testimony and report of J.T. Atkins, who is the founder and managing director of Cypress Associates LLC. \({ }^{8}\) Atkins valued the Company using a DCF analysis, comparable public companies analysis, and a precedent transactions analysis. Atkins weighted the values derived from his DCF analysis at \(66.7 \%\) and his comparable companies analysis at \(33.3 \%\) in coming to a final value for the Company.

As discussed infra, much of the difference between the parties' valuations can be accounted for by two disputed aspects of their respective valuation analyses: (1) whether the cash flow projections for the Georgia and SVP Cases should be included in calculating the value of Just Care, and (2) the
appropriate small company size premium to be applied to the Company's cost of equity. Together, these two areas of dispute account for most of the difference between the parties' respective valuations. \({ }^{9}\)

\section*{II. ANALYSIS}

An appraisal action is a "limited legislative remedy which is intended to provide shareholders, who dissent from a merger asserting the inadequacy of the offering price, with an independent judicial determination of the fair value of their shares." \({ }^{10}\) The Delaware General Corporation Law ("DGCL") entitles petitioners to their pro rata share of the "fair value" of the companies in question as of the merger date. \({ }^{11}\) The Court is given broad discretion to determine fair value. \({ }^{12}\) In doing so, it should take into account all relevant factors known or ascertainable as of the merger date that illuminate the future prospects of the company. \({ }^{13}\) The Court, however, must determine the fair value of "the company to the stockholder as a going concern." \({ }^{14}\) Determining the value of a "going concern" requires the Court to exclude any synergistic value, that is, "the amount of any value that the selling company's shareholders would receive because a buyer intends to operate the subject company, not as a standalone going concern, but as a part of a larger enterprise, from which synergistic gains can be extracted." 15
*4 In an appraisal proceeding, both sides have the burden of proving their respective valuations by a preponderance of the evidence. \({ }^{16}\) The Court may consider "proof of value by any techniques or methods which are generally considered acceptable in the financial community and otherwise admissible in court. \({ }^{" 17}\) Acceptable techniques include the DCF approach and the comparable transactions approach. \({ }^{18}\) If neither party satisfies its burden, however, the Court must use its own independent judgment to determine the fair value of the shares. \({ }^{19}\)

\section*{A. Credibility Claims}

Before discussing the competing valuations presented by the parties' experts, I briefly discuss Petitioners' challenges to Respondent's credibility and the sales process employed in selling Just Care to GEO. Petitioners claim that "the merger
was the result of an unfair process not designed to achieve the highest price" and that the sales process was "a blueprint for faithless conduct, designed solely to benefit Maxor to the detriment of the majority." \({ }^{20}\) Specifically, Petitioners aver that the Board conducted an inadequate sales process, that the Special Committee was conflicted, and that Maxor orchestrated the merger at an inadequate price to curry favor with GEO in order to obtain a nationwide pharmacy contract. \({ }^{21}\) As a result, Petitioners argue that "Respondent's valuation contentions simply are not credible in light of the flawed sales process .... [and] the Court should reject Respondent's valuation contentions, including its contention that the Georgia expansion should be accorded no value.,22

In making this argument, Petitioners misunderstand the nature of an appraisal action under § 262. The "only litigable issue in a statutory appraisal under [§] 262" is "the value of the appraisal petitioners' shares on the date of the merger...., 23 Considerations of whether corporate fiduciaries "engage[d] in self-dealing and fix[ed] the merger price by procedures not calculated to yield a fair price" are considered only when assessing the credibility of a party's specific valuation contentions. \({ }^{24}\) Here, however, Petitioners do not attack the credibility of the specific valuation contentions made by Respondent. Instead, Petitioners attack the overall credibility of Respondent and its officers and directors, arguing that the Court should reject all of Respondent's valuation contentions because some of its directors allegedly were conflicted and exhibited bad faith during the sale of the Company. \({ }^{25}\) Having considered these claims, I find that such a broad-based attack on Respondent's credibility is of little consequence to this appraisal action because Respondent does not rely on the merger price as evidence of fair value. \({ }^{26}\) Respondent instead has presented an expert valuation of the Company derived from an analysis of the Company's business, financial statements, and projections.

Indeed, it is Petitioners' heavy reliance on the Management Projections that presents the primary credibility issue in this appraisal. Although the Court generally relies on management projections made in the ordinary course of business, \({ }^{27}\) the Management Projections here were made outside of the ordinary course of business by Petitioners in this action. Before the creation of the Management Projections, Just Care's management had never prepared projections beyond the current fiscal year. Moreover, the projections were made at a time when Petitioners Gearreald and Brunk risked losing
their positions if the GEO bid succeeded and were involved in trying to convince the Board to pursue a different strategic alternative in which Gearreald and Brunk were involved. They were also made when the possibility of litigation, such as an appraisal proceeding, was likely. Therefore, I find that the Management Projections prepared by Gearreald and Brunk are not entitled to the same deference usually afforded to contemporaneously prepared management projections and that, in the circumstances of this case, Petitioners carry the burden of proving the credibility of those projections. \({ }^{28}\)

\section*{B. The DCF Analysis}
*5 Both experts rely primarily on their DCF analyses to value the Company. Therefore, in appraising Petitioners' shares, I focus on the competing contentions underlying the experts' respective DCF analyses. \({ }^{29}\) In particular, the experts relied on various conflicting inputs and assumptions regarding the Company's projected cash flows, capital structure, and cost of capital. I now turn to those disputed inputs and assumptions.

\section*{1. Cash flow projections}

\section*{a. The Management Projections}

A central dispute between the parties is whether the projected cash flows from the SVP and Georgia Cases should be included in Just Care's DCF analysis. \({ }^{30}\) Torchio determined that both scenarios should be included, whereas Atkins rejected the Georgia Case as too speculative and performed analyses both with and without the SVP Case. Having considered the assumptions underlying each scenario, I agree with Atkins that the Georgia Case is too speculative. I further find that the SVP Case can be included with an appropriate probability weighting.

\section*{1. The Georgia Case}

For at least one year before the merger, Just Care had been interested in expanding its operations through one of two potential projects in Milledgeville, Georgia. In 2008, Just Care first considered establishing a facility to house Georgia's "not guilty by reason of insanity" ("NGRI") patients in the Cook and Kidd buildings of the Georgia Central State

Hospital (the "Kidd Project"). When a request for proposal ("RFP") for the Kidd Project was issued in November 2008, however, Just Care found the financial terms of the RFP so "appalling" that the Company decided not to bid on the project. \({ }^{31}\) As a result, GEO was the only bidder for the project, and Georgia eventually rescinded the RFP for lack of competition.

Following the disappointment of the Kidd Project RFP, Just Care refocused its efforts throughout 2009 on another project in Georgia, which involved the renovation of the Bostick State Prison into a medical detention facility. \({ }^{32}\) In the Management Projections for the Georgia Case, Gearreald and Brunk projected that an RFP would be issued within two to six months after August 2009 and that the Bostick facility would be operational in 2010. \({ }^{33}\) The Georgia Case projections anticipated that the Bostick facility would house up to 304 patients, with a guaranteed occupancy of \(200 .{ }^{34}\) The project was expected to generate \$20-25 million in annual revenues and profits of more than \(\$ 5\) million.

Here, I find that the Georgia Case was too speculative to be included in the valuation of the Company as of the merger date. In an appraisal proceeding, "the corporation must be valued as a going concern based upon the 'operative reality' of the company as of the time of the merger., 35 The Court should consider "all factors known or knowable as of the Merger Date that relate to the future prospects of the Companies," but should avoid including speculative costs or revenues. \({ }^{36}\) As an initial matter, I consider it highly relevant that, in the approximately eleven years of its existence before the merger, Just Care had operated only one facility. Although Petitioners assert that Just Care would have had to expand to grow, \({ }^{37}\) its business model was not predicated on maintaining multiple facilities and it had no prior experience with expanding its business outside of the Columbia Center. Moreover, as Petitioners admit, the Bostick facility would be significantly different from the Columbia Center, operating in a different regulatory environment and providing different services. \({ }^{38}\) In the absence of any history of expansion outside South Carolina, projections regarding the viability and profitability of future expansions would be subject to greater uncertainty. \({ }^{39}\) Furthermore, even if the new facility was successful, there was a risk that Georgia would move its prisoners currently housed at the Columbia Center back to Georgia, thereby reducing the value of the Columbia Center. \({ }^{40}\)
*6 I also find it significant that, as of the merger date, Georgia had not decided to go forward with the Bostick project. As Petitioners admit, "Georgia's ultimate course of action (whatever that course of action may have been) was not susceptible of proof as of the date of the merger., \({ }^{41}\) This uncertainty is fatal to the Georgia Case because Just Care could not undertake the expansion unilaterally without a decision by Georgia to move forward. The fact that the Company was focused on expanding into Georgia and had taken actions in furtherance of that goal is insufficient to make the Georgia Case part of Just Care's operative reality. Similarly, Petitioners' evidence that Just Care had (1) commissioned architects to design plans for renovating the facility, (2) sent its construction firm to survey and estimate the costs of the project, and (3) received a verbal commitment for financing from Wells Fargo, may reflect a strong intent on the part of the Company to pursue the project, but "intent does not equate to ability." \({ }^{42}\) Indeed, Just Care had taken the same actions while it was pursuing the Kidd Project, but ended up not even bidding for the RFP. \({ }^{43}\)

Even assuming that Georgia decided to proceed with the project, the process and the economics of any potential RFP were also speculative. Although Petitioners now argue Georgia conceivably might proceed without an RFP process for the facility, the Management Projections assumed that Georgia would issue an RFP. \({ }^{44}\) If it did, Just Care would have had to compete for the project, and the existence of such competition likely would affect both the economics of the project and the probability that Just Care would win the project. Furthermore, because GEO had found the economics of the Kidd Project feasible, Just Care probably would have faced serious competition from GEO for the Bostick facility.

For all these reasons, I find that the Georgia Case was too speculative as of the merger date to be included in the Company's value. \({ }^{45}\)

\section*{2. The SVP Case}

In 2008, Just Care expanded its lease at the Columbia Center to include another twenty acres on which it intended to build a new, sixty-bed building to house sexually violent predators from the South Carolina Department of Corrections ("SCDOC"). According to Petitioners, at the time of the merger, Just Care was operating near capacity and recognized
it would have to expand its facilities. Under the SVP Case, Gearreald and Brunk projected that the Company would expand to a new building at the Columbia Center. The expansion would be financed through Just Care's cash flows, house a homogeneous population of civilly-incarcerated individuals, and maintain a run rate occupancy of \(95 \%\). According to Petitioners, Just Care had experience housing similar patients through its existing contract with the South Carolina Department of Mental Health. Moreover, because an RFP process had not been used for the establishment of Just Care in 1997 and its original expansion in 2007, management was confident that the SVP Case also would be undertaken without an RFP process.
*7 For many of the same reasons stated in the discussion of the Georgia Case, I find that the SVP Case involved a high degree of risk. Similar to the Georgia Case, there was substantial uncertainty about whether the SCDOC would move forward with the project, whether it would use an RFP process, and whether Just Care would win the RFP. The SCDOC had issued and revoked an RFP to house the same patient population eighteen months before the merger, and Smith testified that " \([t]\) here was no assurance that such an RFP would be issued again. \({ }^{46}\) Even if an RFP was issued, "there was no guarantee that ... Just Care would be selected...." \({ }^{\text {47 }}\) Indeed, in its fairness opinion, Harris Williams observed that there was "significant risk associated with the value and timing of the projected financial results" associated with the SVP Case. \({ }^{48}\)

Despite these risks, the evidence presented provides a sufficient basis to include the SVP Case to at least some extent in the determination of the Company's value on the merger date. Unlike the Georgia Case, Just Care could expand unilaterally into a new facility at the Columbia Center. In fact, Just Care already had extended its lease to include the twenty acres on which it planned to build the SVP facility. Moreover, the Company had a history of expansion at the Columbia Center, having added a sixty-bed wing in 2007. Just Care also had experience housing similar patients to those expected under the SVP Case and was housing thirteen such inmates at the time of the merger. As Respondent's own expert report admits, the SCDOC had 100 more inmates that it could transfer to the new facility. \({ }^{49}\)

Because the SVP Case essentially represented an extension of Just Care's existing business at the Columbia Center and Just Care successfully had expanded its Columbia operations
in 2007, the SVP Case is significantly more credible than the Georgia Case. The SVP Case represented a relatively small expansion, at the same location, in the same state, for the purpose of adding additional business for patients similar to those already being treated by Just Care. Therefore, although there still was significant risk as to whether the SCDOC would go forward with the project, the SVP Case is sufficiently reliable to be considered part of Just Care's "operative reality" as of the merger date. Based on the uncertainty related to the SCDOC's decision to go forward with the project and the possibility that it might proceed by way of an RFP process, however, I require that the values for the SVP Case be probability weighted by \(66.7 \%\).

\section*{b. Terminal Value}

In addition to their disagreement as to the credibility of the Management Projections, the experts dispute the appropriate terminal growth rate for the Company. Atkins applied a terminal growth rate of approximately \(5.5 \%\), whereas Torchio applied a more conservative terminal growth rate of \(3.5 \%\). Because I have adopted growth projections more consistent with Respondent's view of Just Care's prospects, I also adopt Respondent's terminal growth rate projections. Therefore, I apply a terminal growth rate of \(5.5 \%\) for the Company. \({ }^{50}\)

\section*{2. Just Care's cost of capital}
*8 In order to discount the cash flow projections for the Company, both experts computed a weighted average cost of capital ("WACC"). Because WACC is estimated based on the relative percentages of debt, preferred stock, and common equity in a company's capital structure, both experts made assumptions about what they believed to be the appropriate capital structure for the Company. The experts then estimated the Company's costs of debt, preferred stock, and equity. I turn next to these contentions.

\section*{a. Just Care's capital structure}

Atkins chose a capital structure under which the Company consisted of \(100 \%\) common equity, which he asserts was the Company's actual capital structure immediately before the merger. Torchio used a capital structure consisting of \(5 \%\) debt, \(35 \%\) nonconvertible preferred stock, and \(60 \%\)
common equity. Torchio asserts that this ratio best represents what the Company's capital structure would have been as a going concern based on Just Care's historical capital structure and the average debt to total capital ratios of comparable companies over the last five years.

In considering the appropriate capital structure to apply in this context, I note that this Court is required to "determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger." \({ }^{51}\) As a going concern, Just Care historically operated with a capital structure comprised of both preferred and common equity, as well as some debt. The Company paid off all of its debt, however, as a condition of the Merger Agreement. \({ }^{52}\) Moreover, in connection with the merger, all of Just Care's preferred stock was converted to common equity.

At trial, Atkins testified that he understood Delaware law to require him to apply the actual capital structure of the Company as of the merger date, which for Just Care was \(100 \%\) common equity. \({ }^{53}\) Such an approach was inappropriate here, however, because the capital structure applied by Atkins arose directly out of the expectation of the merger. This Court previously has rejected the proposition that changes to a company's capital structure in relation to a merger should be included in an appraisal. For example, in Cede \& Co. v. JRC Acquisition Corp., \({ }^{54}\) this Court refused to include debt incurred as part of the merger in the company's capital structure because to do so would "contravene[ ] the valuation statute's command to appraise shares 'exclusive of any element of value arising from the accomplishment or expectation of the merger.' "'55 Instead, the Court found that because the company had no debt before the merger and because "Petitioner ha[d] introduced no evidence of nonspeculative plans to incur significant debt that is not due to the accomplishment of the merger," it was inappropriate to include the actual additional debt for purposes of appraisal. \({ }^{56}\)

Therefore, I find that the correct capital structure for an appraisal of Just Care is the theoretical capital structure it would have maintained as a going concern. Because Torchio's estimation of a capital structure as including \(5 \%\) debt, \(35 \%\) preferred stock, and \(60 \%\) common equity more reasonably reflects the capital structure the Company would have had as a going concern, I adopt Torchio's capital structure for purposes of this appraisal. \({ }^{57}\)
*9 As to the treatment of Just Care's preferred stock, however, I agree with Respondent that, in the circumstances of this case, the preferred stock should be treated as common equity for purposes of calculating Just Care's WACC. Just Care was capitalized initially with a fairly typical venture capital structure consisting almost entirely of convertible preferred stock and a small sliver of common equity allocated to the Company's management. \({ }^{58}\) Just Care has never paid a dividend on its preferred shares and, in the event of a merger, the Company was entitled to convert the preferred shares into common. \({ }^{59}\) In essence, Just Care's preferred stock was treated as a common stock equivalent, not a dividend-paying debt instrument. Therefore, when determining the actual cost of Just Care's preferred equity for appraisal purposes, the preferred stock should be treated as common equity because that was the true economic nature of the Company's preferred stock financing. If Just Care had continued as a going concern, it is unlikely that it would have paid a dividend on its preferred stock and, more likely than not, the value of the preferred stock would have been realized by converting to common equity through some liquidity event, as occurred in this case. \({ }^{60}\) Consequently, treating Just Care's preferred stock as a dividend-paying instrument would distort Just Care's actual financing costs at the time of the merger. Therefore, I find that Just Care's cost of preferred equity is equivalent to its cost of common equity. Accordingly, for purposes of calculating the WACC, I treat the Company's capital structure as if it was composed of \(5 \%\) debt and \(95 \%\) common equity.

\section*{b. Cost of equity}

Both experts employed the capital asset pricing model ("CAPM") to determine the Company's cost of equity. \({ }^{61}\) They also agreed that the appropriate risk-free rate at the time of the merger was \(4.02 \% .{ }^{62}\) The experts disagreed, however, on the appropriate beta, equity risk premium, and size premium to be used in calculating the Company's cost of equity.

\section*{1. Beta}

Atkins, assuming a capital structure of \(100 \%\) common equity, calculated an unlevered beta of 0.69 by analyzing the betas of comparable publicly-traded companies. Torchio calculated a levered beta of 1.3 , assuming a capital structure of \(5 \%\) debt, \(35 \%\) preferred stock, and \(60 \%\) common equity. In arriving at his beta, Torchio utilized a sum beta model. Sum beta is
calculated by "regressing the security return in the current period with both the market return in the current period and the market return in the prior period. \({ }^{, 63}\) Torchio considered it more appropriate to apply a sum beta for Just Care because it accounts for the possibility that price changes for small, thinly-traded stocks may lag the overall market. \({ }^{64}\)

In considering which approach to use, I note that neither side seriously contested the other's beta calculation. Indeed, most of the difference between the two beta values stems from the experts' divergent capital structure assumptions. According to Atkins, unlevering Torchio's beta results in a beta of 0.79 , as compared to Atkins's unlevered beta of 0.69. \({ }^{65}\) Because Respondent has not provided a substantive basis for rejecting the use of sum beta and because Torchio's justification for applying sum beta in this context appears reasonable based on Just Care's size and the illiquidity of its stock, I accept Torchio's methodology. Furthermore, by adjusting Torchio's beta calculation to account for a theoretical capital structure of \(5 \%\) debt and \(95 \%\) common equity, I find that the Company's relevant beta is equal to \(0.82 .{ }^{66}\)

\section*{2. Equity risk premium}
*10 As for the company's equity risk premium, the experts dispute whether a historical or supply side equity risk premium should apply. Torchio supports the use of a supply side equity risk premium of \(5.73 \%\), whereas Atkins applied a historical risk premium of \(6.47 \%\). In support of using a historical equity risk premium, Atkins explained that the historical equity risk premium has been the industry standard and that Torchio has used the historical equity risk premium in past cases. Atkins failed to articulate, however, any substantive financial reason why a supply side equity risk premium would be inappropriate in this specific case.

This Court recently observed in Global GT LP v. Golden Telecom, Inc. \({ }^{67}\) that, although experts and this Court traditionally have applied the historical equity risk premium, the academic community in recent years has gravitated toward greater support for utilizing the supply side equity risk premium. \({ }^{68}\) As Chancellor Strine reasoned in Golden Telecom in support of the application of a supply side equity risk premium:
when the relevant professional community has mined additional data and pondered the reliability of past practice and come, by a healthy weight of reasoned opinion, to believe that a different practice should become the norm, this court's duty is to recognize that practice if, in the court's lay estimate, the practice is the most reliable available for use in an appraisal. \({ }^{69}\)
Therefore, upon considering the opinions of Atkins and Torchio and having been provided with no persuasive substantive financial reason as to why the application of a supply side equity risk premium would be inappropriate in this case, I find that the supply side equity risk premium of \(5.73 \%\) is the appropriate metric to be applied in valuing the Company.

\section*{3. Size premium}

In addition to the equity risk premium, an equity size premium generally is added to the company's cost of equity in the valuation of smaller companies to account for the higher rate of return demanded by investors to compensate for the greater risk associated with small company equity. \({ }^{70}\) Small company premiums are empirically estimated and both experts utilized Ibbotson size premiums in performing their analyses.

Both experts agree that, by size alone, Just Care falls within Ibbotson decile 10b, which includes companies with a market capitalization between \(\$ 1.6\) million and \(\$ 136\) million. \({ }^{71}\) Decile 10 b implies an equity size premium of \(9.53 \%\), and Atkins applied that size premium in calculating Just Care's cost of equity. Torchio, however, applied a lesser size premium of \(4.11 \%\), which is the premium applied to Ibbotson decile 10a companies. \({ }^{72}\) Torchio supports this adjustment primarily on the basis that \(4.11 \%\) represents the Company's size premium after eliminating the "welldocumented liquidity effect" contained within the size premium. \({ }^{73}\) According to Torchio, because "the illiquidity premium reflected in the size premium data for small cap stocks is akin to a liquidity discount" such a discount "must be eliminated in a fair value determination-much like a discount for lack of marketability or minority interest.," 74
*11 As a matter of law, Torchio is correct that a general liquidity discount cannot be applied in an appraisal proceeding. Such a discount generally relates to the marketability of the company's shares and is therefore
prohibited. As Vice Chancellor Lamb stated in Borruso v. Communications Telesystems International: \({ }^{75}\)

To the extent Respondent is arguing for the application of a "corporate level" discount to reflect the fact that all shares of WXL shares were worth less because there was no public market in which to sell them, I read Cavalier Oil as prohibiting such a discount. This is simply a liquidity discount applied at the "corporate level." Even if taken "at the corporate level" (in circumstances in which the effect on the fair value of the shares is the same as a "shareholder level" discount) such a discount is, nevertheless, based on trading characteristics of the shares themselves, not any factor intrinsic to the corporation or its assets. It is therefore prohibited. \({ }^{76}\)
Although a liquidity discount related to the marketability of a company's shares is prohibited, that does not mean that the use of any input that is correlated with a company's illiquidity is per se invalid. As Atkins correctly points out, a company's liquidity is highly correlated with its size, i.e., smaller companies tend to be less liquid. As a result, their equity is riskier and investors will demand higher returns from such investments, increasing the cost of capital. \({ }^{77}\) It is this kind of liquidity effect that is captured in the Ibbotson size premium. As this Court held in JRC Acquisition Corp.:

The Ibbotson size premium number reflects the empirical evidence that smaller firms have higher returns than larger firms. Petitioner's position that JR Cigar is a low-cap company (rather than a micro-cap company) decreases the expected rate of return on JR Cigar's stock by lowering the "size premium" applied. The problem with using liquidity as a basis for justifying a lower expected return, however, is that low liquidity is associated with higher expected returns. Investors seek compensation for the high transaction costs of illiquid securities, e.g., the bid/ask spread. In other words, even if JR Cigar had a higher market capitalization than the market price of its stock suggested because of its illiquidity, investors would still expect higher returns because of its illiquidity. \({ }^{78}\)
The liquidity effect in this case arises in relation to transactions between Just Care and its providers of capital and, as such, is part of the Company's value as a going concern. Where a company's illiquidity affects its ability to obtain financing for its operations, the company's overall risk and return profile will be affected, i.e., the company will be worth less as a going concern because its financing
costs are higher. The liquidity effect that is prohibited under our appraisal law, on the other hand, relates to transactions between a company's shareholders and other market participants. Thus, where the effect of the company's illiquidity relates only to the ability of an investor to exit his investment by selling his shares in the market, such a transaction relates more to the structure of the market than it does to the company's ability to generate profits. As a result, such a discount rightly is excluded in an appraisal because it does not relate to the company's intrinsic value. Here, because the liquidity effect at issue relates to the Company's ability to obtain capital at a certain cost, I find that the effect is related to the Company's intrinsic value as a going concern and should be included when calculating its cost of capital.
*12 Furthermore, although I reject Torchio's adjustment as a matter of law, I note that I also would exclude it as unreliable. Small company size premiums regularly are applied in appraisal proceedings in Delaware without the type of adjustment performed by Torchio. Moreover, in addition to his adjustment being unprecedented, Torchio's methodologies for removing the liquidity effect from the size premium are novel and have not been peer reviewed. \({ }^{79}\) Indeed, he himself could not decide on a single methodology for performing this adjustment. Instead, Torchio applied four different methodologies for adjusting the size premium and arrived at four different values, ranging from \(3.35 \%\) to \(6.35 \%\). These divergent values resulted in an unusually large variation in the range of values he calculated for the Company. As a result, I also reject Torchio's adjustment on the basis that it was not the product of reliable principles and methods. \({ }^{80}\)

Finally, Petitioners attempt to justify the application of a smaller size premium on the alternative basis that Just Care's individual characteristics make it comparable to a decile 10a company. This Court may adjust a company's size premium where sufficient evidence is presented to show that the company's individual characteristics make it less risky than would otherwise be implied under its corresponding Ibbotson decile based on size alone. \({ }^{81}\) Here, however, Torchio did not opine on whether Just Care was less risky than other companies in decile 10 b and Petitioners made only conclusory assertions that Just Care's characteristics made it comparable to decile 10a companies. Indeed, Petitioners devoted only one sentence in their Opening Brief to attempting to justify the treatment of Just Care as a decile 10a company, stating that "its risk characteristics are more akin to those companies that fall within decile 10a; indeed, Respondent's expert testified that Just Care is 'not a young
company,' and that healthcare is a 'very mature industry.' "، 82 Therefore, because Petitioners have not provided a sufficient factual basis for treating Just Care as a decile 10a company, I decline to reduce the Company's size premium to less than what is implied by its actual size. \({ }^{83}\)

\section*{3. Cost of debt}

In calculating Just Care's cost of debt, Torchio assumed that Just Care would be able to borrow long-term at a rate of \(8.3 \% .{ }^{84}\) Torchio based that assumption on: (1) the fact that Just Care had existing medium-term debt on its balance sheet at a rate of \(7.75 \%\); (2) Wells Fargo's estimation that Just Care could borrow for its expansion plans at a rate of 6 to \(7 \%\); and (3) Harris Williams's calculation that the average cost of debt for comparable public companies was \(7.31 \% .{ }^{85}\) In arriving at the \(8.3 \%\) rate, Torchio specifically determined that " \([t]\) he intermediate-term debt rate of \(6 \%-7 \%\) proposed by [Wells Fargo] is consistent with a \(\mathrm{BB}=\) and BB rating" and that the long-term debt for \(\mathrm{BB}=\) to BB rated debt in September 2009 was \(8.3 \%\). \({ }^{86}\)
*13 Atkins argues that Torchio's cost of debt underestimates Just Care's credit risk because it is based largely on Just Care's ability to borrow for the Bostick project. As Atkins points out, the debt for that expansion by Just Care would have been secured by the Bostick facility, making it less risky. Moreover, the Bostick project would have provided Just Care with an additional stream of income, improving the Company's overall creditworthiness. \({ }^{87}\)

I agree with Atkins that Torchio underestimated the cost of debt for Just Care. Torchio did not undertake a credit analysis of the Company and his estimate assumes the success of the Georgia Case, which I reject as too speculative. Instead, I find more reliable the cost of debt estimates made by Harris Williams and Brookstone at the time of the merger. In preparing its fairness opinion, Harris Williams estimated that Just Care's cost of debt was \(12.38 \%{ }^{88}\) Brookstone estimated it to be between 10.5 to \(11 \%\). Therefore, I find that Just Care had a cost of debt of \(11 \%\) as of September 30, 2009. Assuming a tax-rate of \(36 \%\), that would produce an after-tax cost of debt for Just Care of 7.04\%. \({ }^{89}\)

\section*{4. Just Care's fair value}

To summarize, I find that Just Care's WACC should be calculated using: (1) a capital structure consisting of 5\% debt and \(95 \%\) common equity; (2) an after-tax cost of debt of \(7.04 \%\); (3) a risk-free rate of \(4.02 \%\); (4) a levered beta of 0.82 ;
(5) a supply side equity risk premium of \(5.73 \%\); and (6) a size premium of \(9.53 \%\). Using these values, Just Care's WACC is \(17.69 \%\).

Applying that discount rate to Just Care's cash flow projections including the Static Case and the probabilityweighted SVP Case, with a terminal growth rate of \(5.5 \%\), I find that the fair value of Just Care as a going concern, based solely on a DCF analysis, is \(\$ 34,244,570\).

\section*{C. The Escrow Provision}

Under the Merger Agreement, \(\$ 6\) million of the merger consideration was placed in escrow to cover claims brought against the Company in the two years following the merger, including claims for appraisal. Therefore, if an appraisal petitioner prevails in proving a higher valuation of the Company, i.e., a value above the merger consideration of \(\$ 40\) million, the additional amount would be paid to those petitioners from the funds held in escrow. The practical effect of this provision, therefore, is that the risk of appraisal (or other claims) is transferred from the acquirer, GEO, to Just Care's consenting shareholders. \({ }^{90}\) In other words, the consenting shareholders are guaranteed total consideration of \(\$ 34\) million, with the possibility of receiving additional consideration based on whatever value remains in escrow after two years, up to a maximum of \(\$ 6\) million.

Petitioners strenuously criticize the escrow provision, claiming that the Special Committee had no reasonable basis to rely on the Harris Williams fairness opinion because it failed to consider the effect of the escrow provision on the overall fairness of the merger . \({ }^{91}\) Petitioners also assert that "it is not mere 'coincidence' that Mr. Atkins' valuation ... is virtually identical to the \(\$ 40\) million merger price less the \(\$ 6\) million escrow., \({ }^{92}\)
*14 Having considered the details of the escrow provision and its practical effect on the merger transaction, I find that the escrow provision is immaterial to the determination of
fair value in this appraisal action. If nobody sought appraisal and no other claims were asserted against Just Care in the two years following the merger, each consenting shareholder would receive their pro rata share of the full purchase price of \(\$ 40\) million. Therefore, dissenting shareholders still must prove that the value of the Company was greater than \(\$ 40\) million at the time of the merger in order to receive additional consideration from the escrow account. In total, the escrow fund could result in the transfer of up to \(\$ 6\) million from the consenting shareholders to the dissenting shareholders. \({ }^{93}\) At any value less than \(\$ 40\) million, as is the case here, however, Petitioners will receive less than the consideration they would have received had they approved the merger and the consenting shareholders will receive their pro rata share of the excess amount that Petitioners forfeited as a consequence of pursuing appraisal. \({ }^{94}\) Therefore, as a matter of valuation, I find that the existence of the escrow provision is immaterial and, in any case, even if the escrowed amount were excluded entirely from the merger consideration, the transaction would have been at a value close to what the Court has determined to be the fair value. \({ }^{95}\)

\section*{D. Options Issue}

Petitioners Gearreald, Brunk, and an additional dissenter, Alicia E. Dunne, \({ }^{96}\) claim that they also are entitled to appraisal for the shares they acquired through properly exercising their options immediately before the merger. Although Respondent reserved the right to argue that Petitioners failed to exercise their options effectively before the merger, Respondent did not pursue that argument in its post-trial briefing or argument. Therefore, Respondent has waived its challenges to the Gearreald and Brunk options. \({ }^{97}\) Furthermore, and in any case, I find that the factual record shows that Petitioners, in fact, did exercise their options before the merger and that they are entitled to appraisal of those additional shares. \({ }^{98}\)

\section*{E. Compounded Interest}

In appraisal proceedings, "the general rule is that an award of interest is routinely made unless the petitioner brought the action in bad faith." \({ }^{\prime 9}\) Under 8 Del. C. § 262(h):
[u]nless the Court in its discretion determines otherwise for good cause shown, interest from the effective date of the merger through the date of payment of the judgment shall be compounded quarterly and shall accrue at \(5 \%\) over the Federal Reserve discount rate (including any surcharge) as established from time to time during the period between the effective date of the merger and the date of payment of the judgment.
Respondent argues that prejudgment interest should be denied here because Petitioners Gearreald and Rein acted in bad faith by voting for the merger in their capacities as directors before voting against the merger as shareholders. In considering this contention, I note that Rein is no longer an individual Petitioner in these proceedings and that, in any case, Gearreald and Rein are only two of seven Petitioners. Respondent makes no claim that the other Petitioners acted in bad faith. Furthermore, although Gearreald's and Rein's alleged duplicity in approving the merger and later dissenting from it is troubling, the matter was not fully litigated in this action. Gearreald has put forth at least a colorable justification that he voted for the merger as a director to obtain a reduction of the termination fee for the deal and, thereby, increased the possibility of a topping bid. Therefore, because Respondent has not shown good cause to deny prejudgment interest, I award Petitioners prejudgment interest consistent with \(\S 262(\mathrm{~h})\) on the value of their appraised shares.

\section*{III. CONCLUSION}
*15 For the reasons discussed in this Opinion, I find that the fair value of Just Care as of September 30, 2009 was \(\$ 34,244,570 .{ }^{100}\) The parties shall cooperate to determine the amount of the interest award in accordance with the rulings in this Opinion and Petitioners shall present, on notice, an appropriate proposed order of final judgment specifying, among other things, the corresponding fair value per common share and per Series A preferred share within ten days.

\section*{All Citations}

Not Reported in A.3d, 2012 WL 1569818

\section*{Footnotes}

1 Verified Pet. for Appraisal \(\mathbb{T} \mathbb{1} 1\)-7. As discussed infra, this number includes certain shares attained through the exercise of options by two of the Petitioners.
2 JX 126.
3 Just Care's top four customers represented over 90\% of its fiscal year-to-date June 2009 revenues. JX 198 at 9.
4 JX 152 at P000124.
5 Although Gearreald and Rein originally approved the merger and consented to the proxy statement, both later voted against the merger in their capacities as shareholders. A related action for breach of fiduciary duty against Gearreald and Rein currently is proceeding in Texas. JX 300.
6 JX 163.
7 Because a precedent transactions analysis generally captures anticipated synergies from the transaction, both experts excluded it from their final appraisal computations.
8 Cypress Associates LLC is an investment banking firm that provides financial advisory services related to mergers and acquisitions, corporate restructuring and recapitalizations, private placements of debt and equity, and litigation consulting services and expert witness work. Tr. 613 (Atkins).
9 According to Atkins, if Torchio's analysis were changed to disregard the Georgia Case and use the full small company size premium implied by Just Care's actual size, Torchio's own methodology would value the Company at \(\$ 31\) million. ld. at 638.
10 Ala. By-Prods. Corp. v. Neal, 588 A.2d 255, 256 (Del.1991).
118 Del. C. § 262 (h) ("Through such proceeding the Court shall determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation, together with interest, if any, to be paid upon the amount determined to be the fair value.").
12 Cede \& Co. v. Technicolor, Inc., 684 A.2d 289, 299 (Del.1996).
138 Del. C§ 262(h); Weinberger v. UOP, Inc., 457 A.2d 701, 713 (Del.1983) (quoting Tri-Continental Corp. v. Battye, 74 A.2d 71, 72 (Del.1950)).

14 M.P.M. Enters., Inc. v. Gilbert, 731 A.2d 790, 795 (Del.1999); accord Technicolor, 684 A.2d at 298 ("[T]he Court of Chancery's task in an appraisal proceeding is to value what has been taken from the shareholder, i.e., the proportionate interest in the going concern.").
15 Union III. 1995 Inv. Ltd. P'ship v. Union Fin. Gp., Ltd., 847 A.2d 340, 356 (Del. Ch.2004).
16 M.G. Bancorporation, Inc. v. LeBeau, 737 A.2d 513, 520 (Del.1999).
17 Weinberger, 457 A.2d at 713.
18 See Dobler v. Montgomery Cellular HIdg. Co., 2004 WL 2271592, at *8 (Oct. 4, 2004); see, e.g., Cede \& Co. v. JRC Acq. Corp., 2004 WL 286963, at *2 (Del. Ch. Feb. 10, 2004) (utilizing the DCF approach); Gentile v. Singlepoint Fin., Inc., 2003 WL 1240504, at *6 (Del. Ch. Mar. 5, 2003) (utilizing the comparable transactions approach).
19 Gonsalves v. Straight Arrow Publ'rs, Inc., 701 A.2d 357, 362 (Del.1997); Taylor v. Am. Specialty Retailing Gp., Inc., 2003 WL 21753752, at *2 (Del. Ch. July 25, 2003).
20 Pet'rs' Opening Br. ("POB") 26. Petitioners and Respondent simultaneously filed their respective post-trial opening and answering briefs.
21 Id. at 2 (Petitioners allege that "[d]uring the sales process, Maxor was in the delicate position of negotiating for the sale of its Just Care stock, but not at a price so high that it soured the potential for a pharmacy contract between Maxor and GEO. Thus, the 'price Maxor could accept' included a discount equal to the value Maxor implicitly placed on a nationwide pharmacy contract with GEO"). Notably, Petitioners Gearreald and Rein have not brought any action for breach of fiduciary duty. Indeed, as directors, they actually voted to approve the merger and authorized a proxy statement informing shareholders that the transaction was fair and in the best interests of the Company and its shareholders, despite having knowledge of at least some of the facts underlying their allegations against Maxor and the Board. Later, however, Gearreald and Rein voted against the merger and perfected their appraisal rights as shareholders.
22 Id. at 28.
23 Ala. By-Prods. Corp. v. Neal, 588 A.2d 255, 256-57 (Del.1991).
24 Id. at 257.
25 Pet'rs' Ans. Br. ("PAB") 7.

28 See id. at *7 ("Contemporary pre-merger management projections are particularly useful in the appraisal context because management projections, by definition, are not tainted by post-merger hindsight and are usually created by an impartial body. In stark contrast, post hoc, litigation-driven forecasts have an 'untenably high' probability of containing 'hindsight bias and other cognitive distortions.' ").
29 Because Just Care has a unique business model and is a private company, I doubt the reliability of the comparable public companies analysis and do not give it any weight in arriving at a final value for the Company. I do consider that analysis, however, in the sense that it lends support to the final valuation arrived at in this Opinion.
Although Respondent challenges even the Static Case presented by Petitioners as "aggressive" because it assumed occupancy levels based on an allegedly temporary spike in the patient census in August 2009, Respondent nonetheless gave Petitioners the "benefit of the doubt" and accepted the Static Case in its own valuation. Therefore, I consider here only whether to include the SVP and Georgia Cases.
31 JX 50 at P001773.
32 See JX 48 at JCl00005645 (materials from February 5, 2009 board meeting characterizing the Bostick project as the "Highest Probability 2009 New Facility").
JX 126 at 9 .
JX 48 at JCIOO005645.
M.G. Bancorporation, Inc. v. LeBeau, 131 A.2d 513, 525 (Del.1999).

In re U.S. Cellular Operating Co., 2005 WL 43994, at *14 (Del. Ch. Jan. 6, 2005); accord Weinberger v. UOP, Inc., 457 A.2d 701, 713 (Del. 1983) ("EE]lements of future value, including the nature of the enterprise, which are known or susceptible of proof as of the date of the merger and not the product of speculation, may be considered.").
POB 31.
Tr. 78 (Gearreald).
Cf. Del. Open MM Radiology Assocs., P.A. v. Kessler, 898 A .2d 290, 315 (Del. Ch.2006) ("The dangers for the minority [shareholders] arguably are most present when the controller knows that the firm is on the verge of break-through growth, having gotten the hang of running the first few facilities, and now being well-positioned to replicate its success at additional locations." (emphasis added)). In Delaware Open MRI, on which Petitioners rely, then-Vice Chancellor, now Chancellor, Strine found it appropriate to include expansion plans for new facilities in the company's value at the time of the merger because the future facilities were part of an "obvious strategy of creating a statewide network of MRI Centers." Id. at 319. At the time of the merger, the company, Delaware Radiology, had two fully operational facilities and had formed and formalized leases for two more sites, leading the Court to analogize the business to a McDonald's or Starbucks. Chancellor Strine later noted that "[p]ervading this analysis is an obvious point: [radiology centers] I through V are all premised on the same model of operation...." Id.; see also id. at 317 ("EE]ven more importantly ... [radiology center] III represented an extension of a business model that Delaware Radiology already had used successfully twice."). Here,
the nature of Just Care's business model is substantially different from the standardized business model in Delaware Open MRI.
40 JX 59 (projecting the effect on the Columbia Campus if a new Georgia facility were built and Just Care's Georgia patients were moved back to Georgia).
41 Pet'rs' Mot. in Limine \(\boldsymbol{\|} 9\).
42 Lane v. Cancer Treatment Centers of Am., Inc., 2004 WL 1752847, at *23 (Del. Ch. July 30, 2004).

See JX 126 at 9.
In coming to this conclusion, I note that Harris Williams also found that the Georgia Case carried substantial uncertainty and risk. According to Geoffrey Smith, the lead Harris Williams partner for the merger with GEO, Harris Williams "had questions about whether or not Georgia would ever issue an RFP, the timing of such an RFP, if such an RFP were to be issued, if Just Care ... would choose to participate, if they chose to participate, if they would ultimately win, given the fact that there was a very high likelihood that there would be other bidders on that RFP. In particular, GEO had already demonstrated in a previous RFP process for the State of Georgia that they had bid on that. So we expected that at least they would bid again. And so had we put all that together, in addition to ... it being a political process and that having a significant impact on whether it actually happened or not, as well as the potential timing, we felt like that there was significant risk associated with the Georgia opportunity." Tr. 456-57. The speculative nature of both the Georgia and SVP Cases led Harris Williams to apply a company-specific risk premium of \(6 \%\) when valuing Just Care. Smith further testified that Harris Williams "believed that the financial projections, in particular associated with SVP and Georgia ... were so speculative that [they] needed to make an adjustment to reflect the risk associated with those." Tr . 458. Moreover, Gearreald himself stated at the Board meeting approving the merger with GEO that it was his belief that "[i]f someone asserted their dissenting rights to an appraisal ... an expert would look at the static projections assuming no expansion...." JX 144 at 13.
Tr. 455.
47 ld.
48 JX 126 at 10.
49 JX 198 at 16. Indeed, Atkins accepted the SVP Case in one version of his DCF analysis, even though he characterized it as "very aggressive." Tr. 710.
50 Atkins magnanimously offered "to give the benefit of the doubt" to Petitioners on this issue. Tr. 630. Because the higher terminal growth rate will benefit Petitioners and otherwise comports with Atkins's analysis, I consider it more appropriate to treat Atkins's terminal growth rate as uncontested.
518 Del. C. § 262(h).
52 JX 147 § 7.02(j) ("Payoff of Company Indebtedness and Termination of Liens" Condition).
53 Tr. 633 ("Our understanding ... in the context of appraisal, is that the Delaware Courts [require] ... that we look at the actual capital structure at the time of closing to develop our capital structure.").
542004 WL 286963 (Del. Ch. Feb. 10, 2004).
55 ld. at *7 (quoting 8 Del. C § 262(h)).
56 ld. at *8.
57 This finding is supported by the possibility that Just Care might have sought to expand under the SVP Case had it not merged with GEO. See id. (holding that a hypothetical "debt ratio of \(10 \%\) is ... reasonable and accounts for the probability that JR Cigar may seek to incur limited debt to pursue expansion opportunities."). Although management projected that the SVP Case could be financed out of the Company's cash flows, it is not unreasonable to assume that the Company would have continued to maintain a limited amount of debt for the expansion, in line with its historical practice. See JX 201 (Atkins Rebuttal Report) ("It was conceivable that the Company might incur a modest amount of debt in the future.").
58 Tr. 110 (Gearreald); Tr. 686 (Atkins).
59 In his rebuttal report, Torchio acknowledged that "[p]resumably, the preferred holders are sophisticated investors who understand that the rights of the preferred stock would only give them the conversion value in a change of control event. It follows then, that the preferred stock's appraisal value cannot exceed the preferred stock's proportion of the enterprise value that can be obtained upon conversion of the preferred stock." JX 200 at 9-10.
60 Atkins explained that, "[w]hen people put money into a venture capital, it always comes in as a preferred stock and the management usually gets common. But the investors, venture capital stocks look at it as common stock from a valuation
point of view, simply supervoting common. And they're still expecting-venture capitalists are still expecting a 25 percentplus return, which is the same thing as the cost of equity." Tr. 686.
61 JRC Acq. Corp., 2004 WL 286963, at *8 ("Under CAPM the cost of equity is equal to the risk-free rate (the yield on 20 year Treasury bonds) plus a large company equity risk premium multiplied by the specific company adjusted beta ....").
62 In determining the Company's cost of equity capital, both experts used data from the lbbotson Associates 2009 Valuation Yearbook.
63 JX 197 at 19.
64 Id.
65 JX 201 Ex. A at 4.
66 ld.
67993 A.2d 497 (Del. Ch.2010).
68 Id. at 517.
69 Id.; see generally id. (discussing the academic literature related to the application of supply side versus historical equity risk premiums).
70 JRC Acq. Corp., 2004 WL 286963, at *8 ("An equity size premium is added because smaller companies have higher returns on average than larger ones, i.e., small companies have a higher cost of equity." (footnotes omitted)).
71 Tr. 636 (Atkins); JX 201 at 9.
72 For 2009 valuation dates, decile 10a companies were those companies with a market capitalization between \(\$ 136\) million and \(\$ 218\) million. JX 201 at 9.
73 POB 35.
74 ld.
75753 A.2d 451 (Del. Ch.1999).
76 Id. at 460.
77 Tr. 664; see JRC Acq. Corp., 2004 WL 286963, at *8.
78 JRC Acq. Corp., 2004 WL 286963, at *9.
79 See Tr. 418 (Torchio) ("No one has tried to tease out this value like I have. I readily admit that."); id. at 429 ("[T]his is the first time that I'm aware that the specific size premium is being adjusted to account for liquidity inherent in that size premium.").
80 See D.R.E. 702 ("If scientific, technical or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training or education may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case."); Beard Research, Inc. v. Kates, 8 A.3d 573, 592 (Del. Ch.2010).
81 See Taylor v. Am. Specialty Retailing Gp., Inc., 2003 WL 21753752 , *5 n. 18 (Del. Ch. July 25, 2003) ("There is no indication of whether a company with a market capitalization of less than \(\$ 48,345,000\) may nonetheless fall within decile 10a or even decile 9 given certain characteristics."); see, e.g., id. at * (applying a size premium closer to decile 10a even though the company being valued technically was categorized under decile 10b because the company "share[d] more risk characteristics with companies in decile 10a than it [did] with companies in decile 10b .... because companies falling within decile 10b include many start-up ventures that receive public funding and are inherently riskier"); Gesoff \(v\). IIC Indus., Inc., 902 A.2d 1130, 1161 (Del. Ch.2006) (reducing the size premium applied to the company on the basis that the company being valued formed part of the index for the stock exchange that it traded on and was part of an industry that might have been "less subject to the size premium than other industries").
82 POB 37 (quoting Atkins at Tr. 725).
83 Petitioners further argue that \(4.11 \%\) represents an appropriate size premium based on their observation that this Court previously has approved size premium adjustments that are roughly half of the implied decile 10 b size premium in Taylor, Gesoff, and ONTI, Inc. v. Integra Bank, 751 A.2d 904, 921-23 (Del. Ch.1999). In each of the cited cases, however, the Court arrived at a final size premium through analysis of the specific facts of the case, as well as empirical data related to the performance of small company stocks over time. The fact that the adjusted size premiums applied in each case were approximately half of the size premium suggested by each company's corresponding lbbotson decile appears to be coincidental. Petitioners have not shown that any reasoned principle or methodology reflected in the cited decisions supports use of the low size premium that their expert applied in this case.

84 Because Atkins assumed the Company should be valued on the basis of \(100 \%\) common equity, he did not address extensively the Company's cost of debt in his report. Atkins did apply, however, a cost of debt of \(12 \%\) for the Company, based on Harris Williams's estimation.
85 JX 197 at 27.
86 Id.
87 Tr. 690-91 (Atkins).
88 JX 142 at HFS00146.
89 Both experts assumed a tax-rate of \(36 \%\) for Just Care.
90 See 8 Del. C. § 262 (i) ("The Court shall direct the payment of the fair value of the shares, together with interest, if any, by the surviving or resulting corporation to the stockholders entitled thereto.").
91 POB 22.
92 Id. at 41.
93 Because attorneys' fees and costs related to any appraisal action presumably also would come from the escrow account, less than \(\$ 6\) million actually would be available following an appraisal.
94 JX 147 § 2.06 (b) ("TT]o the extent that the fair value as finally determined pursuant to Section 262 is less than the Merger Consideration ... the Exchange Agent shall pay such excess amount to the Company Stockholders in accordance with their Pro Rata Percentage.").
95 In this context, I need not consider Petitioners' additional argument that Harris Williams's fairness opinion was unreliable because it did not consider the escrow provision.
96 Alicia Dunne is not a Petitioner in this action; therefore, her shares are not included in this appraisal.
97 See Emerald P'rs v. Berlin, 726 A.2d 1215, 1224 (Del.1999) ( "Issues not briefed are deemed waived.").
98 Tr. 219-20 (Brunk); JX 211; JX 214.
99 Cooper v. Pabst Brewing Co., 1993 WL 208763, at *11 (Del. Ch. June 8, 1993).
100 This value was calculated by inputting the conclusions in this Opinion into the model provided by Atkins.

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UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.

Court of Chancery of Delaware.
Kerry P. GRAY, Petitioner, V.

CYTOKINE PHARMASCIENCES, INC., a Delaware corporation, Respondent.

\author{
No. Civ.A. 17451. \\ | \\ Submitted Nov. 20, 2001. \\ | \\ Decided April 25, 2002.
}

\section*{Attorneys and Law Firms}

James F. Burnett, Potter Anderson \& Corroon, Wilmington, Delaware, for Petitioner.

Gregory P. Williams, Raymond J. DiCamillo, Kelly C. Ashby, Richards, Layton \& Finger, Wilmington, Delaware, for Respondent.

\section*{MEMORANDUM OPINION}

LAMB, Vice Chancellor.

\section*{I. Preliminary Statement}
*1 In this appraisal action, filed pursuant to Section 262 of the Delaware General Corporation Law ("DGCL"), the court is called upon to determine the fair value of the shares of common stock of PharmaSciences, Inc. ("PSI" or "Company"), a Delaware corporation, as of June 30, 1999, the date on which it merged ("Merger") with and into Cytokine Networks, Inc. ("CNI"). The surviving corporation then changed its name to Cytotokine PharmaSciences, Inc. ("CPSI"). Pursuant to the Merger, each share of PSI common stock was converted into the right to receive approximately 59.4 shares of CPSI common stock. Petitioner made a timely demand for appraisal in accordance with the requirements of Section 262 of the DGCL. Petitioner contends that PSI's
fair equity value at the time of the Merger was \(\$ 192.5\) million, or \(\$ 3,330\) per share. Petitioner also seeks \(8.31 \%\) interest compounded monthly on his appraisal award, plus his costs and expenses including reasonable expert witness and attorney's fees.

The Respondent contends that the fair value of PSI at the time of the Merger was \(\$ 26.5\) million, or \(\$ 458\) per share of common stock. Respondent agrees that interest should be awarded at the rate of \(8.31 \%\) but argues that it should be compounded quarterly not monthly. Respondent also objects to any award of expert witness or attorney's fees.

For reasons discussed below, I find that (i) the going concern value of PSI common stock, as of June 30, 1999, was \(\$ 1,114\) per share, or a total of \(\$ 659,458\) for the 592 shares subject to appraisal; (ii) the Petitioner is entitled to \(8.31 \%\) interest compounded monthly; and (iii) the Petitioner is not entitled to an award of legal fees or expenses.

\section*{II. Background}
A. PSI's Creation

PSI was incorporated in Delaware on February 25, 1992. From its inception to the date of the Merger, PSI was a closely held corporation primarily in the business of developing drug delivery products. Drug delivery is the method of delivering a biological or pharmaceutical compound into the body in an efficient manner in order to optimize the therapeutic effect and/or minimize side effects.

PSI was founded by Petitioner, Kerry Gray, along with Richard P. Storm and Dennis F. Willson. Gray was employed by PSI for eighteen months during 1992-1993. At the time of the Merger, Gray owned 592 of the 57,800 issued and outstanding shares of PSI common stock. Immediately prior to the Merger, Storm was President and CEO of PSI while Willson held the positions of Vice President and Secretary. Both Storm and Willson were involved in making financial projections for the Company.

PSI was not fully funded until May 28, 1993, when Acquisition and Shareholders Agreements were signed. The parties to the shareholders agreement included Montgomery Medical Ventures ("MMV"), a venture capital fund that focused on the health science area, and entities owned or controlled by Jeffrey Picower. Picower, directly or indirectly,
controlled a majority of the outstanding shares of PSI common stock.

\section*{B. PSI's Operations}
*2 To evaluate the different products being developed and sold by PSI at the time of the Merger, some understanding of government regulation of pharmaceutical products is necessary.

\section*{1. Regulatory Approval}

A new drug or drug delivery system must proceed through various stages of testing in order to obtain FDA approval. The initial stage consists of laboratory and animal testing and is often termed "preclinical testing." The next stage is Phase I, which involves testing done on a small group of volunteers. The purpose of Phase I testing is to determine safety and dosage. The product then moves to Phase II, which typically involves testing on 100 to 300 patient volunteers for the purpose of evaluating efficacy and side effects. Finally, 1,000 to 5,000 patient volunteers are used in Phase III testing to monitor adverse reactions to long-term use and to determine the effectiveness of the product.

Drug delivery companies such as PSI apply proprietary techniques to create new pharmaceutical products based on drugs developed by others. These products are generally novel, cost-effective dosage forms that provide any of several benefits, such as improved safety, efficacy and ease of use. The risks and costs inherent to commercializing a pharmaceutical product are considerably minimized when developing an alternative delivery system for a currently approved drug. While on average it takes 10 to 15 years to bring a new chemical entity to market, a new delivery formulation of an existing approved product takes on average 5 years.

\section*{2. PSI's Products}

At the time of the Merger, Cervidil \({ }^{\circledR}\) was the Company's only product on the market. Cervidil \({ }^{\circledR}\) is a vaginal insert used to ripen the cervix when there is a need to induce labor. The insert, which is attached to a string for ease of removal, contains Dinoprostone ("PGE \({ }_{2}\) ") in a controlled-release hydrogel polymer. Cervidil \({ }^{\circledR}\) has a number of advantages over competitive products. In particular, it is control released, which eliminates dosing, and it can be easily removed in case of an adverse reaction. Through the Company's sole
licensee in the United States, Forest Laboratories, Cervidil \({ }^{\circledR}\) has captured over \(85 \%\) of the relevant United States market.

Outside the United States, Cervidil \({ }^{\circledR}\) is marketed under the name Propess \({ }^{\circledR}\). Prior to the Merger, Propess \({ }^{\circledR}\) had been launched in the U.K., Canada and Sweden. It was scheduled to launch in France in 1999; in Germany, Norway and Switzerland in late 1999 or 2000; in Australia and New Zealand in late 1999 or early 2000; and in Japan beginning in 2002.

At the time of the Merger, PSI had three products in its development pipeline: an erectile dysfunction product ("ED Product"), a Parkinson's disease product and a mucositis product. Both the Parkinson's disease product and the mucositis product were in Phase I of development. Both products used the same hydrogel polymer that was used in Cervidil \({ }^{\circledR}\) but these products were designed for oral delivery.
*3 The ED Product was developed by Dr. Gary Neal, founder and CEO of AndroSolutions, Inc. Dr. Neal first approached PSI in late 1996 to obtain a small quantity of \(\mathrm{PGE}_{2}\) for work he was doing in the area of erectile dysfunction. In exchange for the \(\mathrm{PGE}_{2}\), Dr. Neal gave PSI a right of first refusal on any products he developed in the field.

In late 1997, Dr. Neal presented PSI with a product he had developed and was testing under a physician's IND. \({ }^{1}\) This product was a combination of \(\mathrm{PGE}_{2}\) and a dehydrogenase inhibitor (oleic acid) and was designed to be inserted into the meatus (tip) of the penis where it would dissolve at body temperature, be absorbed into the body, migrate to the base of the penis and produce an erection sufficient for vaginal penetration. The theory behind the use of an inhibitor was that, although \(\mathrm{PGE}_{2}\) is a potent vasodilator, it is quickly broken down by enzymes. Thus, if this breakdown could be prevented or delayed, the \(\mathrm{PGE}_{2}\) could be used to induce an erection even when administered in the relatively remote site, such as the tip of the penis. Since this concept did not involve a transdermal injection or the use of any mechanical device for inserting the product deep into the urethra, PSI thought it would be an attractive alternative to other non-systemic therapies then available on the market. \({ }^{2}\)

Although \(\mathrm{PGE}_{2}\) was an approved drug, it had never been approved for the treatment of ED. In addition, the combination of \(\mathrm{PGE}_{2}\) with a dehydrogenase inhibitor had
never been approved for any purpose. Nevertheless, the record shows that PSI initially regarded the inhibitor to be classified as "GRAS," i.e., generally accepted as safe. \({ }^{3}\) Also, "because there was experience using \(\left[\mathrm{PGE}_{2}\right]\) in cervical ripening ... the regulatory pathway would be easier." \({ }^{4}\) While the regulatory barriers confronting the ED Product were not "insignificant," PSI expected that process to be "much easier than starting with a new chemical entity...." \({ }^{5}\)

At its meeting held on December 10, 1997, the PSI board of directors expressed a favorable view of management's proposal to pursue the development of the ED Product and instructed them to develop a clinical plan with cost estimates, for presentation at the next meeting. Thereafter, management developed such a plan and presented it to the PSI board at its April 14, 1998 meeting, at which the directors were told that the ED Product had passed a "preliminary efficacy test." \({ }^{\circ 6}\) The PSI directors approved a licensing agreement with AndroSolutions and agreed to convey an initial payment of \(\$ 200,000\) to AndroSolutions. The board also authorized a budget of approximately \(\$ 750,000\) (including licensing fees) to see the project through the proof-of-principle stage, estimated to continue through the first quarter of 1999. The licensing agreement was signed on July 9, 1998. Under its terms, PSI would have to make a second payment of \$400,000 to AndroSolutions on its first anniversary, unless it decided to terminate the contract, in which case it could avoid the payment.
*4 PSI conducted a double-blind, randomized, placebocontrolled Phase I clinical trial for the ED Product in the first quarter of 1999. The results of this testing were inconclusive. Further work was done in March and April 1999 to understand those results, including a meeting held at CTS's laboratories in Scotland with Dr. Neal. The results of those meetings are summarized in a series of reports prepared by J.A. Halliday, a scientist employed at CTS. In summary, the reports relate that CTS was unable to formulate a product with the same clinical effects as those reported by Dr. Neal.

This report was discouraging to PSI management, but they did not abandon their efforts to find a solution to the problem because the potential financial rewards of a successful ED Product were so great. As of the effective date of the Merger, the board of directors had not decided whether to make the next \(\$ 400,000\) payment to AndroSolutions or to pull the plug on the project.

\section*{C. The Merger}

Beginning in the spring of 1996, the management and major stockholders of PSI began active consideration of an exit strategy. The possibilities considered included (a) an outright sale of the Company, (b) a merger with another company which was either publicly traded or had the prospects of going public; and (c) development of new products, which would lead to an IPO or increase the value of the Company for sale or merger.

Later in 1996, PSI's management had discussions with representatives from Forest Laboratories concerning a possible sale of the Company. Representatives of Forest prepared a financial analysis, which concluded that PSI had a net present value of \(\$ 27\) million. PSI's management, however, found the analysis to be flawed because it did not consider any value for new products. Consequently, PSI's board rejected the offer from Forest.

PSI's management also considered a proposal by the investment firm of Volpe Welty \& Co. to sell the Company. Volpe Welty advised the PSI board that the sale price of the Company should range between \(\$ 35\) and \(\$ 45\) million, although a higher price could be obtained if an active bidding auction occurred. Picower, however, concluded that at \$35 to \(\$ 45\) million, he would rather keep the Company than sell it. At this time, there was general agreement among the PSI board that the Company should be valued in the range of \(\$ 60\) million.

In 1997, Access Pharmaceuticals-a company run by Petitioner Gray-offered \(\$ 45\) million for PSI, subject to due diligence and financing. Access later increased its offer to \(\$ 51\) million. In correspondence between Gray and PSI, Gray maintained that investment bankers for Access considered the \(\$ 51\) million offer to be a premium price based on a discounted cash flow ("DCF") models and payback analysis.

While the Access offer was pending, PSI's management also explored a merger with CNI, which was also controlled by Picower. In connection with those discussions, Lehman Brothers was retained to value PSI in April 1997. Using financial projections prepared by PSI's management that did not quantify new business opportunities, Lehman Brothers valued PSI at \(\$ 64\) million. One of the exercises performed by Lehman Brothers was a DCF analysis of the projected stream of earnings attributable to the cervical ripening product. This DCF analysis produced a valuation range with a midpoint of \(\$ 83\) million.
*5 In mid-1998, PSI's management estimated the value of the Company at \(\$ 49.4\) million without new products and \(\$ 129.6\) million with new products. CPSI now contends that the projections used to support these valuation exercises were inaccurate because they did not take into account the probability that some or all of the new products would fail. In other words, CPSI argues that the projections prepared by PSI management were not meant to reflect management's best estimate of the future performance of the Company.

In 1999, PSI's management met with representatives of CNI and decided to merge on a stock-for-stock basis. MMV, which owned approximately \(39 \%\) of PSI's common stock, was opposed to the Merger because MMV was about to liquidate and could not distribute unregistered securities to its investors. Under the stockholders' agreement, MMV had

\section*{Approach}

\section*{Equity Range Value}
\$66.5-\$126.6 million
\$65.6-\$79.3 million
\$75.6-\$100.5 million

\section*{Discounted Cash Flow}

Public Market
M \& A Transactions

\section*{Midpoint}

In its DCF analysis, Merrill Lynch applied a blended discount rate of \(40 \%\) to \(50 \%\) to management's financial projections, i.e., a lower rate was used for the product already on the market and a higher rate for the pipeline products. At the time of the valuation, PSI's management took issue with the discount rate used by Merrill Lynch and contended that it should be significantly lower. \({ }^{8}\) Merrill Lynch did not agree and stuck to the higher discount rates.

In this appraisal action, CPSI takes the position that the Merrill Lynch valuation is entirely irrelevant because, it claims, Merrill Lynch supposedly did not value either PSI or CNI as a going concern on a stand-alone basis. Rather, Respondent claims that management sought only a relative valuation from Merrill Lynch in order to confirm that the proposed allocation of \(60 \%\) PSI and \(40 \% \mathrm{CNI}\) was justified for purposes of the Merger.
D. The Experts

Gray's trial expert was Jeffrey B. Davis, President of Small Caps Online Group, LLC ("SCO"). SCO is a boutique communications and investment banking firm that provides financial services to small-cap health care and
information technology companies. Davis earned an M.B.A. from the Wharton School of Business of the University of Pennsylvania. His experience includes service as a Senior Vice President and CFO of a publicly traded development stage healthcare technology company, and a position as Vice President, Corporate Finance at Deutsche Bank. Davis had never before served as an expert in any judicial proceeding. Gray retained Davis in this matter because of his expertise in the emerging pharmaceutical marketplace. Gray was familiar with Davis because of services SCO provided to Gray as President and CEO of Access Pharmaceuticals.
*6 Davis relied entirely on a DCF analysis to value PSI, testifying that other approaches normally used to value companies were not useful in valuing PSI. \({ }^{9}\) Davis's DCF analysis was based on the projections prepared by PSI's management and given to Merrill Lynch. Davis claims that these projected revenues, earnings and cash flows were discounted using discount rates commensurate with other drug delivery companies. Davis's DCF analysis ultimately resulted in a valuation with a midpoint of \(\$ 192.5\) million, or \(\$ 3,330\) per share.
the right to block a merger. In return for liquidity, however, MMV was willing to sell its interest in PSI at a discount from fair value. PSI repurchased MMV's interest at a price of \(\$ 266\) a share, \({ }^{7}\) a price that PSI Chief Executive Officer later described as a "steal."

After negotiating a 60:40 ratio (PSI to CNI) for the Merger, both parties deemed it necessary to obtain a fairness opinion. After pricing such an opinion, however, the parties decided to save money by asking Merrill Lynch to value the stock of both companies, without opining as to fairness. Accordingly, Merrill Lynch was engaged to determine the fair market value of PSI and CNI for a proposed merger of the two companies.

The Merrill Lynch valuation derived the following equity range values for PSI:

Respondent's expert witness was J. Mark Penny of Hempstead \& Company. Penny is an accredited senior appraiser in the American Society of Appraisers with a specialty discipline of business valuation. Penny has conducted approximately one thousand business valuations, including ten in the pharmaceutical industry and two in the drug delivery business.

In determining the fair value of PSI common stock, Penny used a DCF analysis and a guideline company analysis. Based on the DCF analysis, Penny determined that the fair equity value of the Company was \(\$ 36.7\) million. Based on the guideline company analysis, Penny concluded that the fair equity value of the Company was approximately \(\$ 35.9\) million. Weighing these nearly identical results equally, Penny found that the fair value of PSI common stock at the time of the Merger was \(\$ 36.4\) million, or \(\$ 383\) per share. Penny subsequently adjusted this valuation to reflect the fact that MMV shares were not outstanding at the time of the Merger, having been purchased for \(\$ 10\) million cash. After making this adjustment, Penny concluded that the fair equity value of the Company was \(\$ 26.5\) million, or \(\$ 458\) per share.

\section*{III. Analysis}

Under Section 262 of the DGCL, Gray is entitled to his pro rata share of the fair value of PSI's common stock at the time of the Merger. Fair value, as used in Section 262(h), has been defined as "the value of the Company to the stockholder as a going concern, rather than its value to a third party as an acquisition. \({ }^{110}\) Furthermore, Section 262(h) directs this court to calculate the going concern value "exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation." \({ }^{11}\)

As is all too often the case, the parties' experts examined PSI's operations and assets at the time of Merger, analyzed the corporation's financial performance, both historical and projected, and came up with enormously disparate conclusions as to its value. Penny, for the Respondent, concluded that PSI's going concern value was only \(\$ 26.5\) million and, thus, Gray was entitled to approximately \(\$ 271,136\) for his shares. Davis, for the Petitioner, arrived at a value of \(\$ 192.5\) million for the Company and approximately \(\$ 1,971,360\) for Gray's shares. Obviously, the underlying assumptions that drive these valuations must be tested to ensure that all relevant facts are properly and
reasonably considered. \({ }^{12}\) Just as obviously, I must examine the circumstances surrounding the preparation of these valuations to determine whether or not they are credible or reliable.
*7 Fortunately, I have the benefit of an independent valuation performed by Merrill Lynch in connection with the Merger. \({ }^{13}\) PSI management used the Merrill Lynch valuation to justify a favorable exchange ratio for its shareholders in the Merger. Moreover, the record fully justifies the conclusion that PSI's management and board of directors accepted the Merrill Lynch analysis and valuation as substantially accurate for purposes of approving that transaction. In this litigation, CPSI chose to retain Penny's firm, rather than Merrill Lynch, to act as its expert witness. Penny arrived at a valuation more than \(50 \%\) lower than Merrill Lynch. To explain this significant variance, CPSI tries to undermine the reliability of Merrill Lynch's work as a measure of going concern value. The arguments it makes are discussed and rejected below. \({ }^{14}\) I find that the Merrill Lynch valuation is both reliable and highly probative of the going concern value of PSI and will rely on it in appraising the shares at issue.

\section*{A. Petitioner's Valuation Expert}

Davis prepared a DCF analysis, a comparable companies analysis and a comparable Mergers \& Acquisitions transactions analysis. The reliability of Davis's entire valuation is undermined for several reasons. First, more than a year before the Merger, Gray retained Davis to serve as a financial consultant and advisor to Access Pharmaceuticals. At that time, Gray was President and CEO of Access and regularly consulted with Davis in connection with financial advisory issues and investor relations needs. In exchange for his services, Davis received substantial monthly cash payments and warrants to purchase Access stock. Furthermore, Davis admitted that he agreed to serve as an expert in this action, a role that he never previously performed, due to his relationship with Gray. These facts substantially undermine Davis's ability to act independently of Gray.

Second, Davis's valuation report contained several errors. In his DCF analysis, Davis included interest income in his projection of free cash flows \({ }^{15}\) and applied an inappropriately low discount rate to PSI's future cash flows. \({ }^{16}\) These errors resulted in a substantial overvaluation of the Company and further undermine the reliability of Davis's DCF analysis.

Finally, Davis's valuation reached conclusions as to value that are so high that they draw into question both his qualifications and his independence. Compared to the valuations conducted by Merrill Lynch and Lehman Brothers, Davis's valuation is off the charts. As stated above, the Merrill Lynch analysis produced a valuation with a midpoint of \(\$ 87.5\) million. On par with the Merrill Lynch analysis, Lehman Brothers' April 1997 DCF analysis valued PSI at approximately \(\$ 84\) million. Davis's valuation, which produced a going concern value of \(\$ 192.5\) million, more than doubles the results reached by Merrill Lynch and Lehman Brothers.

Davis's going concern value is also more than four times higher than any offer PSI's board received when attempting to sell the Company. In 1996, PSI's board rejected a \(\$ 27\) million offer from Forest Laboratories. At about the same time, Volpe Welty \& Co. advised PSI's board that the sale price of the Company should range between \(\$ 35\) and \(\$ 45\) million. In 1997, Access Pharmaceuticals offered to purchase PSI for \(\$ 51\) million. The extraordinary variance from these indications of value is unexplained.
*8 In sum, when compared to other indications of value, Davis's valuation is such an outlier that it casts doubt on its reliability, quite apart from its exact assumptions and methodologies. Given its "outlier" status, Gray and Davis had an obligation to explain the extreme variation from the pack. Because they failed to do so, and because of Davis's lack of independence, I will not rely on Davis's valuation.

\section*{B. Respondent's Valuation}

Respondent's expert, Penny, included a DCF analysis and a comparable companies analysis in his valuation. For reasons discussed below, I also find Penny's entire valuation to be unreliable.

\section*{1. Discounted Cash Flow Approach}

In preparing his DCF analysis, Penny completely disregarded the cash flow projections that were prepared by PSI's management and relied on by Merrill Lynch. Instead, Penny made his own projections. He did so by assuming a constant rate of growth over PSI's 1998 revenues ( \(10 \%\) in one case and \(20 \%\) in the other). Penny also eliminated all projected earnings from new products.

In formulating his own projections for PSI, Penny endorsed CSPI's argument that management's prior forecasts were
merely "what if" scenarios used to assist the board in considering various funding options. I cannot agree. Considering the type of industry PSI is in, management projections will inevitably contain "what if" scenarios. This is primarily due to the inherent difficulty involved in predicting when a pipeline product will gain FDA approval and how much of a market share an approved product will capture. Nevertheless, PSI's management presented these forecasts to Merrill Lynch to determine the fair market value of PSI and CNI for a proposed merger of the two companies. In fact, Willson testified that his projections were based on detailed information and were conservatively prepared. Certainly, CPSI presented no evidence suggesting that Merrill Lynch was told that the financial forecasts it was given were mere "management tools" that did not accurately reflect PSI's future cash flows.

Aside from disregarding management's revenue projections, Penny also ignored management's projections in several other respects. Specifically, Penny increased management's projected General and Administrative expenses from \(5 \%\) to \(10 \%\); increased management's projected Cost of Goods Sold and Royalties from \(37.6 \%\) of sales to \(50 \%\) of sales; and increased the tax rate to \(40 \%\) from management's projected \(35 \%\). Penny did not provide valid reasons to warrant all of these adjustments. In sum, I cannot accept that Penny, with his limited experience with the Company, was better equipped to make future financial projections than PSI's management. Consequently, I find Penny's litigation-driven projections to be unreliable and, thus, disregard his DCF analysis. Any other result would condone allowing a company's management or board of directors to disavow their own data in order to justify a lower valuation in an appraisal proceeding. \({ }^{17}\)
*9 I also find that Penny's DCF is so heavily dependent on the determination of PSI's terminal value that the entire exercise amounts to little more than a special case of the comparable companies approach to value and, thus, has little or no independent validity. \({ }^{18}\) This is easily seen from the fact that Penny's discounted terminal value calculations equal or exceed \(75 \%\) of the total discounted cash flow value of the enterprise in the lowest case and \(85 \%\) or more in the other three cases presented. Thus, it is hardly surprising that there is a tight fit between the results Penny derives from the DCF ( \(\$ 36.7\) million) and that from the comparable companies approach to value ( \(\$ 35.9\) million). In the circumstances, this is an added reason not to rely on Penny's DCF analysis in valuing PSI.

\section*{2. Comparable Companies Approach}

Penny's comparable companies approach is also unreliable for several, different, reasons. First, the comparable companies used by Penny were much larger than PSI both in terms of revenue and market capitalization. \({ }^{19}\) Second, of the ten comparable companies utilized by Penny, only one was in the drug delivery business. This court has found that the "utility of the comparable company approach depends on the similarity between the company the court is valuing and the companies used for comparison." \({ }^{20}\) Where there is a "lack of comparable companies," the analysis is not "particularly meaningful" and should not be used. \({ }^{21}\) Since Penny's comparable companies were not in the drug delivery business and were on average much larger than PSI, I find that they are dissimilar from PSI. As a result, I find Penny's comparable companies analysis to be unreliable.

\section*{C. The Merrill Lynch Valuation}

The valuation done by Merrill Lynch is a reliable depiction of the fair value of PSI at the time of the Merger. Merrill Lynch was a disinterested party at the time it prepared its valuation. Unlike the litigation-driven models prepared by each party's expert witness, the Merrill Lynch valuation was prepared shortly before the Merger at a time when Merrill Lynch had no incentive to artificially inflate or shrink the value of PSI.

CPSI argues that the Merrill Lynch valuation should be set aside because it does not represent the fair value of PSI as a going concern on a stand-alone basis. CPSI contends that the Merrill Lynch valuation was done only to determine the relative values of CNI and PSI-not their absolute valuesin connection with a possible stock-for-stock merger. In support of this contention, CPSI cites deposition testimony elicited from Kit A. Kamholz, lead analyst in the Merrill Lynch valuation. At his deposition, Kamholz testified that the projections used in his DCF valuation do not take into account the risk that the ED Product would never be approved. Kamholz further testified that, had he valued PSI as a going concern on a stand-alone basis, he would have adjusted management's financial projections to reflect the increased risk associated with the "stage of development the client was in." Kamholz repeatedly stated that he took management's financial projections at face value and did not discount the projections to reflect the possibility that the pipeline products would never reach the market.
*10 If this were true, it would, of course, undermine the reliability of the Merrill Lynch DCF analysis. However, Kamholz's deposition testimony on this matter contradicts what is actually stated in the Merrill Lynch valuation report. When discussing the discount rate applied to management's projected cash flows, the valuation report states:

Discount rates for development stage companies in the biopharmaceutical/biotechnology industry typically range from \(35 \%\) to \(70 \%\). The discount rate appropriate for a particular company depends upon factors including:

> - Stage of development for the company's product pipeline (i.e ., Preclinical, Phase I, Phase II, Phase III) and the probability of developing these products successfully.
- Diversification of the product pipeline/portfolio.
- Level of competition within the targeted market(s).
- Existence of collaborations and/or partnerships with large drug companies.
- Outlook for and existence of commercially launched products by the company.
- Management depth and other qualitative factors.

Given these considerations and other factors specific to PSI, Merrill Lynch applied discount rates of \(40 \%\) to \(50 \%\) to PSI'S forecasted cash flows. (Emphasis added.)

The italicized portion of the Merrill Lynch report directly contradicts Kamholz's testimony. It is quite clear that the large discount rate applied by Merrill Lynch to PSI's projected cash flows takes into consideration the possibility that the Company's pipeline products will never reach the market.

Moreover, the thrust of CPSI's argument is undercut by other parts of Kamholz's testimony. At his deposition, Kamholz stated that Merrill Lynch's valuation approach would not have changed if the Merger were a stock-for-cash merger as opposed to a stock-for-stock merger. He clarified this statement by agreeing that if the Merger involved Cytokine shareholders receiving stock and PSI shareholders receiving cash, his valuation method would have been the same. The obvious implication of this testimony is that Kamholz and Merrill Lynch did not merely perform a comparative valuation but, instead, applied normal valuation techniques as they would in any valuation assignment.
1. Discounted Cash Flow Approach

In its DCF analysis, Merrill Lynch applied a range of discount rates to PSI's projected cash flows. As noted above, the discount rates took several factors into consideration, including the stage of development of the products in the Company's pipeline and the probability of developing those products successfully. Ultimately the discount rates applied to PSI projected cash flows ranged from \(40 \%\) to \(50 \%\).

Merrill Lynch also placed a value on PSI beyond the forecast period by applying a range of multiples of revenue to projected revenues in 2008. Based upon market valuations for publicly traded companies similar to PSI, a range of revenue multiples from 4.0x to 6.0 x was selected. The terminal value was then discounted to the present and added to the present value of projected cash flows from 1999 to 2008.
*11 Applying different variations of discount rates and terminal multiples leads to drastically different results. At the low end of the spectrum, applying a \(50 \%\) discount rate and a terminal multiple of 4.0 x would lead to a valuation of approximately \(\$ 66.5\) million. At the high end of the spectrum, applying a \(40 \%\) discount rate together with a terminal multiple of 6.0 x would result in an approximate valuation of \(\$ 126.5\) million.

I find that PSI's projected stream of future cash flows should be discounted at \(50 \%\). As stated above, the Merrill Lynch valuation was completed in May of 1999. Consequently, the discouraging results of meetings conducted at CTS on June 9 and 10, 1999 were not considered in Merrill Lynch's analysis. The results obtained decreased the likelihood that the ED Product would successfully enter the market. The results, however, did not indicate that the ED Product would never reach the market. If this were the case, PSI management would certainly have informed Merrill Lynch that its financial projections were inaccurate, which would render the previously deduced merger ratio invalid. Because PSI's board never informed Merrill Lynch of the "new" information obtained at the CTS meeting, I will account for that discouraging information by applying the high end (50\%) of the range of discount rates applied by Merrill Lynch.

I also find that a revenue multiple of 4.0x should be applied to PSI's projected revenues in 2008 to determine most accurately the Company's terminal value. At the time of the Merger, PSI was in a strong financial position and it had no longterm debt on its balance sheet. Furthermore, it had a very successful product that had captured over \(85 \%\) of the United

States market and was scheduled to launch in markets all over the globe. Nevertheless, a substantial part of PSI's future revenues hinged on the success of the ED Product. Taking into consideration the discouraging results of the CTS meeting, I find that applying a low revenue multiple of 4.0 x will best reflect PSI's terminal value.

Applying a \(50 \%\) discount rate to PSI's projected cash flows together with a terminal multiple of 4.0 x results in an enterprise value of approximately \(\$ 66.5\) million. The enterprise value must be adjusted because Merrill Lynch's DCF valuation did not include interest income on any cash or cash equivalents or interest expense on any debt. As a result, the Company's cash or cash equivalents should be added to the Company's enterprise value. Conversely, any interest-bearing debt should be deducted from the Company's enterprise value. As of June 30, 1999, the Company had cash and investments of \(\$ 8.7\) million and no interest-bearing debt. Adding \(\$ 8.7\) million to the Company's enterprise value results in a derived value of \(\$ 75.2\) million. Consequently, I find that based on a DCF analysis, PSI's going concern value at the time of the Merger was \(\$ 75.2\) million.
2. Comparable Companies Approach

Merrill Lynch's comparable companies analysis also reliably depicts the fair value of PSI at the time of the Merger. \({ }^{22}\) Using this approach, Merrill Lynch analyzed market capitalization and market value multiples for publicly traded biotechnology and biopharmaceutical companies that focused on drug delivery technology. Aside from focusing on drug delivery companies, Merrill Lynch took other precautions to ensure that the comparable companies were sufficiently similar to PSI. It excluded companies with revenues greater than \(\$ 150\) million and also left out companies with no commercially launched products on the market. In the end, Merrill Lynch found five companies that focused on drug delivery, were of similar size, and had products in similar stages to that of PSI. Based on multiples derived from the comparable companies, Merrill Lynch determined that PSI's enterprise value ranged from \(\$ 57,843,000\) to \(\$ 71,482,000 .{ }^{23}\) I will use the midpoint of this range, which is \(\$ 64,662,500\). Similar to the DCF analysis, the enterprise value deduced from the comparable companies analysis must be adjusted to reflect PSI's cash or cash equivalents and interest-bearing debt as of June 30, 1999. Adding \(\$ 8.7\) million results in a derived value of \(\$ 73,362,500\). \({ }^{24}\)
*12 Merrill Lynch's DCF and comparable companies analyses were both reliable measures of going concern value. As such, I will average their results, which leads to a going concern value of \(\$ 74,281,250\). This value must be adjusted to reflect the repurchase of MMV's substantial holdings of PSI's common stock. MMV's 37,200 shares of common stock were repurchased by the Company immediately prior to the merger for \(\$ 9,899,204\). The purchase price of \(\$ 9,899,204\) is subtracted from the going concern value of \(\$ 74,281,250\), which yields an adjusted fair equity value of \(\$ 64,382,046\). Reducing the shares issued and outstanding to 57,800 and dividing that number into \(\$ 64,382,046\) yields a per share value of \(\$ 1,114\).

\section*{D. Post-Merger Interest}

Section 262(i) of the DGCL provides in pertinent part that after appraising the shares:

The Court shall direct the payment of the fair value of the shares, together with interest, if any, by the surviving or resulting corporation to the stockholders entitled thereto. Interest may be simple or compound, as the Court may direct.
Both parties agree that interest should be awarded at the compound rate of \(8.31 \%\). They disagree, however, on the proper compounding interval. Relying on several recent decisions of this court, Gray contends that interest should be compounded on a monthly basis. \({ }^{25}\) Gray also bases this conclusion on the fact that PSI loaned funds to CNI a few months prior to the Merger at a rate of \(10 \%\) compounded monthly. I agree with Gray and find that in the present context it is appropriate to compound interest on a monthly basis.

\section*{E. Fees and Expenses}

Section 262 of the DGCL provides that " \([t]\) he costs of the [appraisal] proceeding may be determined by the Court [of Chancery] and taxed upon the parties as the Court deems equitable in the circumstances., \({ }^{26}\) This statute was interpreted in Cede \& Co. v. Technicolor, where the Delaware Supreme

Court stated, "[i]n the absence of an equitable exception, the plaintiff in an appraisal proceeding should bear the burden of paying its own expert witnesses and attorneys.,"27

Gray relies on the argument that CPSI proceeded in bad faith, for two reasons. First, Gray argues that Penny's valuation is equivalent to the MMV repurchase price, which Storm described as a "steal." Second, Gray argues that he demanded appraisal in reliance on the Merrill Lynch analysis that was provided to him by PSI management in connection with the Merger. As such, Gray contends that Respondent's disavowal of the Merrill Lynch valuation is "unprincipled" and "inequitable." Gray's first point is simply incorrect. The MMV repurchase price and the per share value deduced by Penny were not "equivalent." Penny's valuation of \(\$ 458\) per share was significantly higher than the \(\$ 266\) repurchase price offered to MMV. Gray's second point is closer to the mark but, ultimately, unpersuasive because Gray did not rely on the Merrill Lynch analysis in this litigation. Instead, he obtained and tried to persuade the court to adopt the work of his own ill-qualified and unreliable expert. In sum, I find that Gray has failed to prove an equitable exception and, thus, he should bear the burden of paying his own expert witness and attorney's fees.

\section*{IV. Conclusion}
*13 For all the foregoing reasons, I determine that the fair value of each share of PSI's common stock, as of the date of the Merger, was \(\$ 1,114\) and, thus, will enter an order awarding Petitioner a total of \(\$ 659,488\) plus interest at the rate of \(8.31 \%\), compounded monthly. The parties are directed to present an order of final judgment in conformity with this opinion within 10 days of this date.

\section*{All Citations}

Not Reported in A.2d, 2002 WL 853549, 28 Del. J. Corp. L. 291

\section*{Footnotes}

1 A physician's IND (investigational new drug) allows a physician to treat patients under a specific protocol. In the present case, Dr. Neal's protocol was to treat patients using the drug Dinoprostone without the use of any inhibitors.
2 Systemic drugs such as Viagra affect the entire systemic circulation of the body. Unlike systemic drugs, locally acting drugs such as the ED Product are designed to affect a specific part of the body without causing systemic reactions or side effects.

3 Willson testified that, based on Dr. Neal's representations, he initially classified the inhibitor as GRAS. Willson further stated that his initial classification changed when Affiliated Research Centers, a clinical trials organization, informed him that combining the inhibitor with Dinoprostone presented a substantial risk and would be required by the FDA to undergo extensive preclinical testing.
4 Trial transcript ("Tr.") at 400.
5 Tr. at 400.
6 This may refer to the fact that several officers of PSI and others at Controlled Therapeutics (Scotland) Ltd. ("CTS"), a subsidiary product development and manufacturing facility, were given samples to the product to try on themselves.
7 At a price of \(\$ 266\) per share, PSI had an implied value of approximately \(\$ 25\) million at the time it repurchased MMV's shares.
8 This is not surprising because at the time the Company's financial projections were submitted to Merrill Lynch, PSI management possessed a significant percentage of PSI common stock and it was in their best interest to obtain a high valuation of PSI. This would provide management a greater ownership interest in the newly formed CPSI.
9 Davis also conducted a comparable companies analysis and a comparable M \& A transactions analysis. For reasons discussed hereafter, he concluded that neither approach was appropriate in valuing PSI and that fair value is best characterized by the DCF analysis.
10 M.P.M. Enterprises, Inc. v. Gilbert, 731 A.2d 790, 795 (Del.1999); see also Cede \& Co. v. Technicolor, Inc., 684 A.2d 289, 299 (Del.1996) (failure to value the company as a going concern may result in an understatement of fair value).
118 Del. C. § 262(h).
12 Gilbert v. MPM Enterprises, Inc., 709 A.2d 663, 667 (Del. Ch.1997).
13 The benefit of having an independent expert was recognized in Gilbert, where then Vice Chancellor (now Justice) Steele noted in footnote 8: "This clear tendency of experts to provide an extreme value most favorable for their client encourages disagreement in every area of the proceeding. Weighing of these numerous minor areas of conflict, and not necessarily the interpretation of financial models, is perhaps the best reason for this Court to consider appointing an independent expert to sort through the clutter submitted." Id. at 667 n .8.
14 Petitioner also relies on the Merrill Lynch valuation in his post-trial reply brief, more or less to the exclusion of his own trial expert whose report and opinion were both easily attacked.
15 Davis incorrectly assumed that interest income would be retained by the Company and not distributed to shareholders. Unlike Penny and Merrill Lynch, Davis failed to make any adjustments to the interest income projections, thus resulting in a substantial overvaluation.
16 Davis's comparable companies analysis also contained several errors. I will not delve into the specifics of those errors because Gray conceded that the methodology used in the comparable companies approach was not useful in the present context.
17 Cavalier Oil Corp. v. Harnett, Del. Ch., C.A. No. 7959, slip op. at 49, Jacobs, V.C. (Feb. 22, 1988), aff'd, 564 A.2d 1137 (Del. 1989).
18 Terminal value is calculated by multiplying terminal year revenues or EBIT by figures derived from Penny's examination of comparable companies.
19 The comparable companies taken together had a market capitalization with a median 24 times higher than PSI. The median revenue of the comparable companies was 12 times larger than PSI.
20 In re Radiology Assoc., Inc. Lit., 611 A.2d 485, 490 (Del. Ch.1991).
21 Kahn v. Household Acquisition Corp., 591 A.2d 166, 175 (Del.1991).
22 This comparable companies analysis was prepared when Merrill Lynch worked for both PSI and CNI. Consequently, there was no bias in the assignment and Merrill Lynch had no incentive to artificially inflate or shrink the value of PSI. Moreover, Respondent's criticism of the Merrill Lynch valuation appears to be directed solely at the DCF analysis.
23 The enterprise value of \(\$ 57,843,000\) was determined by applying a multiple of \(6.63 x\) to PSI's revenues in the twelve months ending April 27, 1999. Ideally, the revenue multiple of \(6.63 x\) should be multiplied by PSI's LTM revenues ending June 30, 1999, however, neither party has presented that figure to the court. The enterprise value of \(\$ 71,482,000\) was determined by applying a multiple of \(14.1 x\) to PSI's projected 2000 Net Income.
24 Merrill Lynch did not adjust this result by applying either a control premium or an illiquidity discount. Neither party challenges this approach.
25 See Onti, Inc. v. Integra Bank, Del. Ch., Consol. C.A. No. 14514, Chandler, C., slip op. at 51 (May 26, 1999) (awarding interest compounded monthly); Grimes v. Vitalink Communications Corp., Del. Ch., C.A. No. 12334, Chandler, C., slip op. at 39 (Aug. 26, 1997) ("the dual purposes of compensation and restitution may only be served by a compounding

Gray v. Cytokine Pharmasciences, Inc., Not Reported in A.2d (2002)
28 Del. J. Corp. L. 291
interval at least as frequent as one month"), aff'd, 708 A.2d 630 (Del.1998); Hintmann v. Fred Weber, Inc., Del. Ch., C.A. No. 12839, Steele, V.C., slip op. at 33 (Feb. 17, 1998) (awarding interest "adjusted and compounded monthly").

\section*{26} 8 Del. C. § 262(j).
27684 A.2d 289, 301 (Del.1996).
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\section*{NOTE: THIS OPINION WILL NOT APPEAR}

IN A PRINTED VOLUME. THE DISPOSITION
WILL APPEAR IN THE REPORTER.
Supreme Court of Delaware.
HUFF FUND INVESTMENT PARTNERSHIP d/b/a Musashi II
Ltd., and Bryan E. Bloom, Petitioners
Below, Appellants/Cross-Appellees,
V.

CKx, INC., Respondent Below, Appellee/Cross-Appellant.

\section*{No. 348, 2014.}
|
Submitted: Feb. 11, 2015.
|
Decided: Feb. 12, 2015.
Court Below: Court of Chancery of the State of Delaware, C.A. No. \(6844-\mathrm{VCG}\).

Before STRINE, Chief Justice, HOLLAND, VALIHURA and VAUGHN, Justices, REIGLE, Judge* constituting the Court en Banc.

\section*{ORDER}

KAREN L. VALIHURA, Justice.
*1 This 12th day of February 2015, the Court, having considered this matter on the briefs and the oral arguments of the parties, and having concluded that the same should be affirmed on the basis of and for the reasons assigned by the Court of Chancery in its Memorandum Opinion of November 1, 2013 and its Letter Opinions and Orders of February 12, 2014 and May 19, 2014, and its Final Order and Judgment dated June 17, 2014;

NOW, THEREFORE, IT IS HEREBY ORDERED that the judgments of the Court of Chancery be, and the same hereby are, AFFIRMED.

\section*{All Citations}

Slip Copy, 2015 WL 631586 (Table)

\section*{Footnotes}
* Sitting by designation pursuant to Del. Const. Art. IV § 12.

11 KeyCite Yellow Flag - Negative Treatment
Distinguished by In re Appraisal of Dell Inc., Del.Ch., May 31, 2016
2013 WL 5878807
Only the Westlaw citation is currently available.

\section*{UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.}

Court of Chancery of Delaware.

> HUFF FUND INVESTMENT
> PARTNERSHIP d/b/a Musashi II
> Ltd, and Bryan E. Bloom, Petitioners, V.

CKX, INC., Respondent.
Civil Action No. 6844-VCG
Date Submitted: August 26, 2013
Date Decided: November 1, 2013

\section*{Attorneys and Law Firms}

Samuel T. Hirzel, II and Dawn Kurtz Crompton, of PROCTOR HEYMAN LLP, Wilmington, Delaware; OF COUNSEL: Lawrence M. Rolnick, Steven M. Hecht, Thomas E. Redburn, Jr., Marc B. Kramer, Michael J. Hampson, of LOWENSTEIN SANDLER LLP, Roseland, NJ, Attorneys for Petitioners.

Stephen P. Lamb and Justin A. Shuler, of PAUL, WEISS, RIFKIND, WHARTON \& GARRISON LLP, Wilmington, Delaware; OF COUNSEL: Lewis R. Clayton, Gary R. Carney, and Geoffrey R. Chepiga, PAUL, WEISS, RIFKIND, WHARTON \& GARRISON LLP, New York, New York, Attorneys for Respondent.

\section*{MEMORANDUM OPINION}

\section*{GLASSCOCK, Vice Chancellor}
*1 This matter requires me to perform a statutory appraisal to determine the "fair value" of the stock of CKx, Inc. What is the fair value of an asset? For a simple asset-a piece of real property, for instance-it is the market value. If a trustee were to sell property held in trust, such a sale could
be challenged by the beneficiary on a number of grounds. It would be odd, however, if the sale were an arms-length, disinterested transaction after an adequate market canvas and auction, yet the challenge was that the price received did not represent "fair" value. It would be odder still if the beneficiary presented as evidence of this proposition a post-sale appraisal, relying on speculative future income from the property not currently being realized, and stating that, notwithstanding the sales price, the true value was more than twice that received; and if the trustee's rebuttal involved a second postfacto appraisal indicating that the sales price was higher than the fair value of the parcel. In such a case, the appraisals would be viewed by this Court, not as some Platonic ideal of "true value," but as estimates-educated guesses-as to what price could be achieved by exposing the property to the market. A law-trained judge would have scant grounds to substitute his own appraisal for those of the real-estate valuation experts, and would have no reason to second-guess the market price absent demonstration of self-dealing or a flawed sales process.

I am faced with a similar situation in this much more complex venue of the sale of a corporate enterprise. The Petitioners are stockholders in a corporation, CKx, who have opted for appraisal rather than the cash-out price received in the sale of CKx to an acquirer. The sales process here has been challenged, reviewed and found free of fiduciary and process irregularities. \({ }^{1}\) The company was sold after a full market canvas and auction. Under our appraisal statute, I am to determine the fair value of the shares as a going concern. The parties have submitted expert valuations of the company, ranging from an amount below the sales price (submitted by the Respondents) to more than twice the sales price (submitted by the Petitioners). Our statute and the interpreting case law direct that I not rely presumptively on the price achieved by exposing the company to the market. I must evaluate "all relevant factors," and arrive at a going-concern value inclusive of any assets not properly accounted for in the sale, but exclusive of synergy value that may have been captured by the seller. \({ }^{2}\) In part, this directive represents the greater complexity in valuing, marketing and selling an ongoing corporate enterprise, in contrast to the simple sale of an asset, such as a parcel of real estate. Typically, therefore, this Court has relied on expert valuation, such as those employing discounted cash flow and comparable company analyses, to determine statutory fair value. Even so, market value-where reliably derived-remains among the "relevant factors" for arriving at fair value. In this particular case, CKx presents significant and atypical valuation challenges, for
the reasons I describe below. In particular, the unpredictable nature of the income stream from the company's primary asset renders the apparent precision of the expert witnesses' cash flow valuation illusory. Because neither party has presented a reasonable alternative valuation method, and because I find the sales price here a reliable indicator of value, I find that a use of the merger price to determine fair value is appropriate in this matter.

\section*{*2 I. BACKGROUND}

\section*{A. History of the Enterprise}

Prior to the CKx-Apollo merger, CKx was publically traded on NASDAQ. \({ }^{3}\) CKx was formed by Robert F.X. Sillerman, a businessman with experience in managing and investing in media and entertainment companies, including radio, concert promotion, sports management, and television. \({ }^{4}\) When CKx and Apollo merged, Sillerman was the company's largest stockholder, owning \(20.6 \%\) of the company. \({ }^{5}\) Sillerman created CKx to own and manage iconic entertainment properties. CKx's business strategy arose from the premise that the ever-increasing number of entertainment distribution channels-including computer, smartphone, tablet, and television-would lead to an ever-increasing demand for original content. Sillerman and CKx management believed that technology would result in consumers focusing less on the distribution channel and more on the content they were interested in, thereby allowing content owners to reap increasing returns. \({ }^{6}\)

In pursuit of this strategy, CKx focused on acquiring the rights to iconic entertainment properties. As of 2010, CKx's most significant assets were: (1) 19 Entertainment, which owned rights to the number-one-rated television show, the singing competition American Idol, \({ }^{7}\) as well as the successful competitive dance show So You Think You Can Dance ("Dance"); (2) Elvis Presley Enterprises, which owned the rights to the name, image, and likeness of entertainer Elvis Presley, as well as some rights to Presley's recorded music catalog; and (3) Muhammad Ali Enterprises, which owned the name, likeness, and image of the boxing champion. \({ }^{8}\) Though CKx also owned other assets, these three, and particularly American Idol, were by far the most valuable. In fact, American Idol and its related assets were responsible for approximately \(60-75 \%\) of CKx's cash flow. \({ }^{9}\)

\section*{B. CKx's Business as of the Merger Date}

CKx's principle challenge was how to deal with the maturation of the American Idol franchise. From its peak in 2006 until the time of the merger in 2011, American Idol had suffered five seasons of declining ratings. \({ }^{10}\) During that period, American Idol's Nielsen ratings fell by almost 50\% among the lucrative 18-49 demographic. \({ }^{11}\) American Idol also faced increasing competition from other reality shows featuring musical competition. Particularly problematic in the summer of 2011 was the looming threat of the talentcompetition show X-Factor. \({ }^{12} X\)-Factor was the brainchild of former American Idol "judge" and prominent personality, Simon Cowell. Cowell's success with a show similar to \(X-\) Factor in the United Kingdom suggested that his show could pose a serious threat to American Idol. \({ }^{13}\)
*3 Compounding the economic uncertainty was the pending expiration of the contract between American Idol 's network distributor, Fox, and 19 Entertainment. At the time of the merger, the agreement between 19 Entertainment and Fox was set to expire, and the parties had not yet agreed to a new contract. \({ }^{14}\) The key area of disagreement was the amount of fixed licensing fees that Fox would pay for the right to broadcast the show. \({ }^{15}\) Although American Idol was one of Fox's most popular, and most profitable, shows, CKx's negotiation leverage was limited. \({ }^{16}\) Because Fox held a perpetual license to renew its exclusive contract to broadcast American Idol, CKx could not threaten to shop the show to an alternative network. \({ }^{17}\) The Respondent contends that CKx's only practical leverage was that if Fox exercised its option to renew the American Idol contract, CKx could refuse to produce programming in excess of 37 hours for a given season. \({ }^{18}\) American Idol had been producing over 50 hours of programming in the most recent seasons. \({ }^{19}\) In other words, CKx could extract meaningful concessions from Fox only if it could convince Fox that CKx was willing to cut off its nose to spite its face. In addition to the uncertainties surrounding American Idol's prospects for future growth, Dance -which had always been a much less popular show than American Idol -also faced declining ratings. \({ }^{20}\)

However, notwithstanding the declining ratings for CKx's two most popular television programs, other developments in the television marketplace suggested that both programs, especially American Idol, could continue to generate significant revenue for CKx. The network television industry
has been experiencing declining ratings but increasing advertising revenue for many years. \({ }^{21}\) Accordingly, for any particular program, an absolute ratings decline could be offset by an increase in a show's relative market share. At the time of the merger, American Idol remained the number one show on television. The Petitioners argue that as fewer and fewer shows attract the type of mass audience enjoyed by American Idol, the program's value could actually increase, notwithstanding its declining ratings. At least one member of CKx management held that view at the time of the merger. \({ }^{22}\)

\section*{C. Sales Process}

In 2007, CKx's prospects were bright enough that Sillerman himself sought to buy out the public shareholders at a price of \(\$ 13.75\) per share. \({ }^{23}\) However, his bid failed as "the recent deterioration of credit conditions in the overall market had made it uneconomic to execute the financing." \({ }^{24}\) Perhaps because the collapse of the Sillerman buyout was caused by factors outside the parties' control, CKx management and the market at large believed that a sale of the company was imminent. As a result, CKx executed eight confidentiality agreements with both strategic and private equity bidders asserting some interest in the company.

The Petitioners contend that between 2008 and 2011, the possible sale of CKx disrupted the company's acquisition strategy. \({ }^{25}\) Despite the confidentiality agreements, no proposals had arisen out of Sillerman's bid, which in itself had unproductively lengthened the sales process by sixteen months. \({ }^{26}\) As a result, the Board "concluded that ongoing sale discussions were likely to be unproductive and disruptive...."27 CKx CFO Tom Benson's testimony confirmed that management viewed the process as "unproductive" and "disruptive" as well, testifying that he had discussed with director Bryan Bloom the fact that prospective acquisition targets had been reluctant to sell to CKx because of "the questions regarding the future ownership of the company., \({ }^{28}\) After concluding that a possible sale was harming its business, CKx made a public announcement in October 2010 that "it was no longer discussing a potential sale of the Company or of a controlling stake in the Company., 29 By taking down the figurative "for sale" sign and refocusing on its strategy of acquiring and developing valuable entertainment content, CKx hoped to overcome its recent inability to make valuable acquisitions.
*4 In May of 2011, just one month before consummating the merger with Apollo, CKx began exploring a purchase of Sharp Entertainment, a television production company that focused on reality and event-based programming and was expected to generate about \(\$ 11\) million in operating income in 2011, roughly double its 2010 earnings. \({ }^{30}\) Sharp had produced several popular reality shows, including the Travel Channel's Man v. Food, the highest rated program in channel history. \({ }^{31}\) Sharp employed 160 people, most of whom were responsible for producing and editing the more than thirty television shows in the company's portfolio. Benson testified that CKx was involved in "advanced discussions over price and terms" before the Apollo transaction closed. \({ }^{32}\)

The Sharp acquisition was not the only business opportunity that CKx developed after announcing its intentions to forgo a sale of the company. CKx's announcement that it was no longer for sale had the ironic-but perhaps not unintended -consequence of eliciting renewed interest from private equity funds looking to purchase CKx. Among the newly interested bidders were Apollo, the Gores Group ("Gores"), and Prometheus/Guggenheim ("Guggenheim"). \({ }^{33}\) On March 18, 2011, Gores and financial sponsor "Party B" offered to purchase CKx for \(\$ 4.75\) per share. \({ }^{34}\) On March 21, 2011, Guggenheim and financial sponsor "Party C" proposed an offer price of \(\$ 4.50\) per share. \({ }^{35}\) Then, on March 23, 2011, Apollo offered \(\$ 5.00\) per share. \({ }^{36}\) After receiving these offers, the Board considered its options and decided to again pursue a sale of the company, but to do so expeditiously in an attempt to avoid sending negative signals to the market or to distract CKx management. \({ }^{37}\) The Board retained Gleacher as its financial advisor, since Gleacher had assisted the company during Sillerman's attempted buyout in 2007. \({ }^{38}\) Gleacher would receive a success fee of \(\$ 4\) million on the successful completion of a transaction. \({ }^{39}\)

The Board directed Gleacher to run an auction among the interested buyers as well as solicit interest from third parties. \({ }^{40}\) Interested bidders would be given three weeks to conduct due diligence and negotiate a transaction. \({ }^{41}\) The three parties who had already submitted bids were told that they were required to submit their final, fully-funded and committed offers by May 6, 2013. \({ }^{42}\) On April 18, 2013, Gleacher reached out to other potential bidders, \({ }^{43}\) including three prospective financial buyers and nine strategic acquirers. \({ }^{44}\) As a result, two financial buyers (and no
strategic buyers) expressed interest by signing confidentiality agreements. \({ }^{45}\)

On April 27, 2013, the Board met to discuss the status of the negotiations with the various bidders. \({ }^{46}\) Gleacher informed the Board that Apollo and Party B were the only bidders that had conducted any due diligence, and that the two prospective financial bidders who had signed confidentiality agreements were no longer interested in conducting due diligence or pursuing an acquisition of \(\mathrm{CKx} .{ }^{47}\) Gleacher also informed the Board that neither of the two remaining interested bidders had raised their offer price above the initial non-binding bids. \({ }^{48} \mathrm{To}\) incentivize Gleacher to solicit bids exceeding \(\$ 5.50\) per share, the CKx Board modified the terms of Gleacher's engagement letter so as to provide for additional compensation if the merger price were to exceed \(\$ 5.50\) per share. \({ }^{49}\) In addition, Sillerman spoke with both Apollo and Party B to express his support of each party's proposed transaction. \({ }^{50}\)
*5 Ultimately, Apollo submitted a bid to purchase CKx for \(\$ 5.50\) per share, and Party B submitted a bid for \(\$ 5.60\) per share. \({ }^{51}\) Despite the marginally lower price, the Board ultimately selected the Apollo bid because Party B's financing was uncertain, \({ }^{52}\) and because the Apollo bid granted CKx the right to seek specific performance in certain instances, while the Party B bid lacked any such right. \({ }^{53}\) Gleacher opined that the Apollo transaction represented a fair price to CKx stockholders, and the CKx Board accepted Apollo's bid. \({ }^{54}\) Bryan Bloom was the only director who dissented. \({ }^{55}\) Although class action litigation was brought challenging the Apollo transaction, it was ultimately settled in exchange for some additional disclosures and a slight modification to the termination fee. \({ }^{56}\)

\section*{D. Management Projections}

It was in connection with expressions of interest from potential acquirers that CKx management created its fiveyear projections (the "Management Projections"). \({ }^{57}\) Tom Benson, the CFO and one of the original founders of CKx, instructed Scott Frosch, CKx's Vice President for Finance, to make certain assumptions in preparing the Management Projections, including an assumption that revenues under the to-be-negotiated American Idol contract would increase by approximately \(\$ 20\) million each year. \({ }^{58}\) The parties now contest whether this estimate of future revenues from Fox was
a genuine prediction or a marketing ploy designed to produce a high bid from potential acquirers.

Benson himself described his thought process when he asked Frosch to include the additional \(\$ 20\) million in payments from Fox:
Q. Why did you ask Mr. Frosch to build in another \$20 million?
A. Again, at that time we were in conversations with Fox. We had no actual agreement. We were making an assumption about what might happen when that deal ultimately was consummated. And I thought, for purposes of evaluating the company's value in a sale scenario or providing projections to a prospective buyer, that we ought to take a more optimistic view.
*6 Obviously there were a number of potential outcomes from that conversation. But if we were going to evaluate the value of the company versus a potential sale of the company, we ought to look at a better case scenariobest case scenario for the performance of the company on its own and match that up with what buyers might be interested in paying for the assets. \({ }^{59}\)
Benson further testified that he was not making a prediction as to the most likely outcome of the Fox negotiations, but instead was projecting the "more optimistic or most optimistic" possible outcome, to give CKx the best possible negotiating position with potential buyers. \({ }^{60}\) In deposition, Frosh indicated that he had a similar mindset, stating that "[i]t would be fair to say that this document was prepared for an outside seller with probably an optimistic view of what we thought the company was going to do for the next couple years. \({ }^{, 61}\) Michael Ferrel, CKx's CEO, also testified in deposition that a \(\$ 20\) million increase in payments from Fox constituted "the very outside best scenario" that could result from the negotiations. \({ }^{62}\) Notwithstanding the fact that this estimate was considered the best possible outcome of the Fox negotiations, management believed such a result was "potentially achievable." \({ }^{63}\)

The Petitioners do not, for the most part, dispute the characterization of the Management Projections as "optimistic." Rather, they simply argue that the fact that these projections were optimistic is entirely consistent with the fact that they were also management's best estimate of CKx's future financial performance.

They point to Ferrel's testimony that the Management Projections were the "best estimate at the time of what a forward five-year projection would look like, \({ }^{, 64}\) and that management relied on that forecast in the ordinary course of business. \({ }^{65}\) Furthermore, Benson did not deny Ferrel's characterization of the Management Projections as the company's "best estimate," testifying that management "had a great deal of discussion around those projections and thought that that was a reasonable estimate of what the incremental revenue might be. \({ }^{.66}\) Also, in addition to being provided to potential buyers, the Management Projections were used in presentations to the company's lenders for the purposes of assessing the credit risk of \(\mathrm{CKx} .{ }^{67}\)

The Petitioners also contend that the Respondent inaccurately characterized the nature of the Fox negotiations, and that the negotiation dynamics between Fox and CKx in fact supported a prediction that CKx could obtain increased economic benefits from Fox. In August of 2010, well before CKx began the auction that ultimately resulted in the sale of the company to Apollo, Benson sent an email to Frosch outlining the many factors "support[ing] the fact that it is in Fox's self-interest to pay substantially more for the show in the upcoming re-negotiation in order to get [CKx] to agree to not reduce the number of hours we produce each year." \({ }^{68}\) Most importantly, Benson noted that industry estimates put Fox's total American Idol revenues at \(\$ 800-\$ 900\) million dollars per season, commanding 2.6 times as much per halfhour of advertizing sales as the next highest rated prime time broadcast show, Two and a Half Men. \({ }^{69}\) Benson also pointed to additional benefits that American Idol generated for Fox:
*7 1) The huge lead in audience for the time slots following Idol which Fox has used to launch key new shows including House and Glee and to generate additional viewers for the 10 pm news telecasts....
2) Increased value of promotional slots within the Idol telecast which Fox uses to generate more viewers across their entire network schedule.
3) Ability to package [American Idol] with other inventory to maximize ad rates across their entire schedule.
4) Incremental payments for product placement within the show from the likes of Coke, Ford and AT \& T which aren't otherwise captured in the above numbers.
5) Halo effect of being the \# 1 network in overall viewers in the 18-49 category over the past few years which has been driven almost entirely from the performance of Idol. \({ }^{70}\)
Benson concluded that "Fox is making unprecedented profits [from] the show., \({ }^{, 71}\) Months later, in March 2011, Benson sent another email to Ferrel and Sillerman stating that "[i]nvestors also seem to be waking up to the importance of American Idol to Fox and the potential leverage we have provided we play hardball with them., \({ }^{72}\)

Other members of CKx management also made bullish statements as to the potential outcome of the Fox negotiations. COO Kraig Fox testified at deposition that CKx's right to produce only 37 hours of American Idol programming when the Fox network had previously broadcast more than 50 hours in a single season gave CKx substantial bargaining power, despite Fox's exclusive broadcast rights. \({ }^{73}\) Fox also testified that management was convinced that the increasing value of content would lead to increased licensing revenues, notwithstanding some declines in absolute ratings numbers. \({ }^{74}\) Furthermore, there were a variety of different ways in which a new Fox contract could result in increasing payments to CKx besides a simple increase in the fixed license fee, including additional reimbursements from Fox for payments made by CKx to key American Idol talent-namely, host Ryan Seacrest and executive producer Nigel Lythgoe-as well as additional rights to profits from internet sales of American Idol content. \({ }^{75}\) And then, as it turned out, the 2010 season of American Idol was incredibly successful, boasting increased ratings notwithstanding the departure of iconic judge Simon Cowell. \({ }^{76}\) The fact that American Idol's ratings had declined substantially under the previous Fox contract remained, however, as did Fox's strong negotiation position as holder of exclusive broadcast rights, and its stated intention to negotiate reduced licensing payments. \({ }^{77}\)

\section*{E. Expert Valuations}
*8 The Petitioners' expert witness, Robert Reilly, utilized a variety of valuation methods-the discounted cash flow ("DCF") method, a "guideline" publicly traded company method, and a "guideline" merged and acquired company method \({ }^{78}\)-in valuing CKx stock as of the merger date, and concluded that the fair value was \(\$ 11.02\) per share. \({ }^{79}\) The Respondent's expert witness, Jeffrey Cohen, conducted a
discounted cash flow ("DCF") analysis in which he concluded that the value of CKx was \(\$ 4.41\) per share. \({ }^{80}\)

Though the gulf between the two estimates is wide, the disparate prices are the result of just a few different assumptions. First, and most significantly, Cohen and Reilly use different figures in their five-year cash flow projections. Cohen disregarded the forecasted \(\$ 20\) million increase in fixed licensing fees under the to-be-negotiated American Idol contract that was initially included in the Management Projections, instead assuming that the fees from Fox would grow at four percent per year for five years. \({ }^{81}\) Reilly did not adjust the cash flows he used in his DCF analysis, and relied wholly on the revenues forecast in the Management Projections. \({ }^{82}\) Second, Cohen and Reilly used different growth rates to calculate the terminal value in their DCF analyses. Reilly used a long-term nominal growth rate of \(4 \%,{ }^{83}\) while Cohen used a long-term nominal growth rate of \(0 \%{ }^{84}\) Finally, Reilly and Cohen used different estimates for CKx's weighted-average cost of capital ("WACC"), principally as a result of using different betas and size premia. \({ }^{85}\)

\section*{F. Nature and Stage of the Proceedings}

I presided over a three-day trial in this matter from March 11, 2013 through March 13, 2013. The parties provided post-trial briefing, and I heard post-trial oral argument on August 14, 2013. This is my Post-Trial Opinion.

\section*{II. ANALYSIS}

\section*{A. The Appraisal Statute}

The appraisal statute, 8 Del. C. § 262, provides stockholders who choose not to participate in certain merger transactions an opportunity to seek appraisal in this Court. \({ }^{86}\) When a stockholder has so chosen, Section 262 provides that:
[T]he Court shall determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation, together with interest, if any, to be paid upon the amount determined to be the fair value. In determining such fair value, the Court shall take into account all relevant factors. \({ }^{87}\)

The principal constraint on my analysis is that I must limit my valuation to the firm's value as a going concern \({ }^{88}\) by excluding "the speculative elements of value that may arise from the accomplishment or expectation of the merger." 89
*9 Our Supreme Court has interpreted the language of Section 262(h)-which provides for consideration of all relevant factors-to preclude the use of "inflexible rules" or presumptions favoring any particular valuation method or analysis. \({ }^{90}\) Rather, Section 262 "vests the Chancellor and Vice Chancellors with significant discretion" to consider the data and use the valuation methodologies they deem appropriate. \({ }^{91}\) For example, this Court has the latitude to "select one of the parties' valuation models as its general framework, or fashion its own, to determine fair value in an appraisal proceeding., \({ }^{92}\)

Both parties bear the burden of establishing fair value by a preponderance of the evidence. \({ }^{93}\) In assessing the evidence presented at trial, I may consider "proof of value by any techniques or methods which are generally considered acceptable in the financial community and otherwise admissible in court." 94 "Among the techniques that Delaware courts have relied on to determine the fair value of shares are the DCF approach, the comparable transactions approach, and comparable companies analyses. \({ }^{י 15}\) This Court has also relied on the merger price itself as evidence of fair value, "so long as the process leading to the transaction is a reliable indicator of value and merger-specific value is excluded."96

\section*{B. "Guideline" Companies and Transactions}

First, I will not rely on either of Reilly's "guideline" analyses: the guideline publicly traded company ("GPTC") analysis, or the guideline merged and acquired company ("GMAC") analysis. "The true utility of a comparable company approach is dependent on the similarity between the company the court is valuing and the companies used for comparison." \({ }^{\text {, }} 7\) Here, the evidence is abundantly clear that the "guideline" companies used by Reilly are not truly comparable to CKx. In fact, Reilly admitted at trial that he found no companies he could describe as "comparable" to CKx, which was why he labeled his analyses as consisting of "guideline" public companies and acquisitions. \({ }^{98}\) Reilly's trial testimony confirmed important differences between the "guideline" companies and CKx : none of the guideline companies were of
comparable size; none owned assets resembling the assets of CKx; and none competed with CKx or utilized a comparable business model. \({ }^{99}\) Notwithstanding these weaknesses in Reilly's "guideline" valuation methodology, the GPTC and GMAC analyses constituted \(40 \%\) of his estimate of CKx's value. Accordingly, I cannot rely on the conclusion reached in Reilly's report in determining the fair value of CKx.

\section*{C. Discounted Cash Flow Analysis}

Second, the deficiencies of both DCF analyses lead me to conclude that they are unreliable measures of CKx's value. DCF, in theory, is not a difficult calculation to make-five-year cash flow projections combined with a terminal value are discounted to their present value to produce an overall enterprise value. However, without reliable five-year projections, any values generated by a DCF analysis are meaningless. The reliability of a DCF analysis therefore depends, critically, "on the reliability of the inputs to the model." \({ }^{100}\) Under Delaware appraisal law, "[w]hen management projections are made in the ordinary course of business, they are generally deemed reliable." \({ }^{101}\) But this Court has disregarded management projections where the company's use of such projections was unprecedented, where the projections were created in anticipation of litigation, or where the projections were created for the purpose of obtaining benefits outside the company's ordinary course of business. \({ }^{102}\)
*10 Here, the evidence is overwhelming that the disputed portion of management projections-the \(\$ 20\) million increase in licensing fees from Fox-was not prepared in the ordinary course of business, and was otherwise unreliable. Management provided inconsistent testimony as to what, exactly, its basis was for making such a prediction in the first place. Though the record includes substantial evidence that management was bullish regarding the likely outcome of the Fox negotiations, Benson's own trial testimony indicates that he had low expectations that CKx could realize any additional value from the new Fox contract. \({ }^{103}\) Indeed, Benson testified that Fox had indicated that it wanted its licensing costs to go down, not up. \({ }^{104}\) The weight of the evidence adduced at trial supports a conclusion that the "optimistic" management projections were made not because they constituted management's estimate of the most likely outcome of contract negotiations, but because a high estimate of future licensing payments from Fox could generate value for CKx in the short-term in the form of lower interest rates
and a potentially higher merger price. Accordingly, the use by Reilly of projections based on a \(\$ 20\) million increase in Idol revenue leads to a speculative DCF valuation.

On the other hand, as the Petitioners accurately point out, there were numerous ways in which the economic benefit to CKx under the contract could have improved. Benson testified that different options were on the table in the Fox negotiations, including variable fees that would be tied to the show's financial performance, or reimbursements to CKx for the costs of its contracts with Ryan Seacrest and Nigel Lythgoe. \({ }^{105}\) Simply ignoring that fundamental uncertainty does not make it disappear. Accordingly, I cannot conclude that Cohen's prediction that CKx would receive marginal additional value from a new contract with Fox is any more reliable than management's prediction that the increased benefit would be \(\$ 20\) million per year.

For the same reasons that management was unable to confidently predict the outcome of negotiations for, and therefore the likely revenue generated by, the American Idol contract, I do not have any basis to determine whether cash flows under that contract would have increased by \(\$ 20\) million per year, \(\$ 0\) per year, or some figure in between. The result of the Fox contract negotiations would be a one-time, unpredictable, irreversible, and immitigable increase or decrease in the fixed licensing fee. Unlike normal projections, which also involve some level of uncertainty, here, management attempted to account for a single superseding event beyond the company's control involving idiosyncratic actors making decisions that would have a large effect on the company's future value. The evidence before me indicates that management believed that predicting the outcome of those negotiations would be little more than guesswork. The offhand, almost casual manner in which the fees were generated-Benson simply told Frosh to assume their existence-indicates that this was not a serious estimate.

I therefore find that I cannot employ a DCF analysis in this case for the same reason that the Court in Doft \& Co. v. Travelocity.com Inc. declined to rely on a DCF analysis. \({ }^{106}\) There, as here, management had prepared a set of uncertain and therefore unreliable financial projections. \({ }^{107}\) In Travelocity.com, the uncertainty of management projections arose from the inherent unpredictability of the financial performance of a travel and booking company in the aftermath of the terrorist attacks on September 11, 2001. \({ }^{108}\)

The Court disregarded the DCF analyses in that case, one based on management projections, and the other on the projections of a valuation expert, because "the degree of speculation and uncertainty characterizing the future prospects of Travelocity and the industry in which it operates ma[de] a DCF analysis of marginal utility as a valuation technique." \({ }^{109}\) Here, I come to the same conclusion. The future revenue streams generated by American Idol when the merger took place were in a state of flux. Initial internal estimates of those revenues were markedly lower than projections provided to potential buyers and lenders. \({ }^{110}\) It is apparent that a \(\$ 20\) million change in estimated future licensing fees would have a significant impact on per-share value. \({ }^{111}\)
*11 The unreliability of the revenue estimates, both including and excluding the \(\$ 20\) million estimate, is a serious impediment to creating a reliable DCF analysis. As noted above, "methods of valuation, including a discounted cash flow analysis, are only as good as the inputs to the model." 112 Because I have little confidence in the reliability of using or excluding the estimated \(\$ 20\) million increase in revenues under the to-be-negotiated American Idol contract, I conclude that a DCF analysis is not the appropriate method of valuation in this case. Without projections of cash flows to discount, I cannot calculate the enterprise's fair value with a DCF analysis. \({ }^{113}\)

\section*{D. Merger Price}

In the absence of comparable companies or transactions to guide a comparable companies analysis or a comparable transactions analysis, and without reliable projections to discount in a DCF analysis, I rely on the merger price as the best and most reliable indication of CKx's value. This Court has previously recognized that "an arms-length merger price resulting from an effective market check is entitled to great weight in an appraisal." \({ }^{114}\) Indeed, when this Court has evaluated claims that transactions between a corporation and its fiduciaries were not entirely fair, we have identified the paradigm of an arms-length negotiation or public auction as the standard against which an interested transaction should be compared. \({ }^{115}\) In at least one case involving judicial appraisal under Section 262, the Court decided to place \(100 \%\) weight on the merger price. \({ }^{116}\)

The Petitioners argue that the Supreme Court's decision in Golden Telecom \({ }^{117}\) and this Court's analysis of Golden Telecom in Merlon Capital v. \(3 M\) Cogent \({ }^{118}\) stand for the proposition that merger price is now irrelevant in an appraisal context and that I am required to accord it no weight when determining fair value. \({ }^{119}\) However, I read those cases differently.
*12 The appellants in Golden Telecom asked the Supreme Court to reform Delaware appraisal law by imposing a new presumption in favor of merger price as evidence of fair value. \({ }^{120}\) The Supreme Court declined to take up that invitation, stating:

Requiring the Court of Chancery to defer-conclusively or presumptively-to the merger price, even in the face of a pristine, unchallenged transactional process, would contravene the unambiguous language of the statute and the reasoned holdings of our precedent.... [W]hile it is difficult for the Chancellor and Vice Chancellors to assess wildly divergent expert opinions regarding value, inflexible rules governing appraisal provide little additional benefit in determining "fair value" because of the already high costs of appraisal actions. Appraisal is, by design, a flexible process. Therefore, we reject Golden's contention that the Vice Chancellor erred by insufficiently deferring to the merger price, and we reject its call to establish a rule requiring the Court of Chancery to defer to the merger price in any appraisal proceeding. \({ }^{121}\)
The Supreme Court's holding is clear. The Court of Chancery has a statutory mandate to consider "all relevant factors" in conducting an appraisal proceeding, and, accordingly, the Supreme Court declined to impose a presumption systematically favoring one of those factors-merger priceover the others. The Petitioner's position here, that I should ignore the merger price in appraising CKx , is in my view directly at odds with the holding and rationale of Golden Telecom, which is that the Court of Chancery has an obligation to consider all relevant factors, and that no per se rule should presumptively or conclusively exclude any of those factors from consideration. In fact, the ruling in Golden Telecom - like the appraisal statute itself-is inclusive, rather than exclusive. It recognizes that differing circumstances may support reliance on one or another valuation method under the particular circumstances there presented, and provides a trial court with latitude to consider "all relevant factors" to determine fair value.

Further, Merion Capital, L.P. v. \(3 M\) Cogent is entirely consistent with the expansive holding of Golden Telecom. In \(3 M\) Cogent, the Court declined to rely on merger price where a DCF analysis was available to reliably measure the company's value. \({ }^{122}\) Furthermore, the deficiencies that made the merger price irrelevant in \(3 M\) Cogent are not at issue here. \({ }^{123}\) Here, the Respondent has consistently pointed to the merger price as supporting its valuation, even when it sought to prove an even lower value through Cohen's DCF analysis. Furthermore, as I will discuss shortly, I am allowing the parties additional time to develop further evidence of what portion, if any, of the merger price consists of excludable synergies, as opposed to going-concern value.
*13 Having concluded that our law recognizes merger price as an acceptable factor that I may consider in conducting my appraisal of CKx , I also find that the evidence demonstrates in this case, where no comparable companies, comparable transactions, or reliable cash flow projections exist, that the merger price is the most reliable indicator of value. \({ }^{124}\) The record and the trial testimony support a conclusion that the process by which CKx was marketed to potential buyers was thorough, effective, and free from any spectre of selfinterest or disloyalty. This is not a case where a controlling stockholder froze out a minority stockholder. \({ }^{125}\) Nor is this a case where the only evidence that a merger price was the result of "market" forces was a post-signing go-shop period (which failed to produce competing bids) relied on to demonstrate that the transaction represented market price, and thus fair value. \({ }^{126}\)

Here, multiple entities made unsolicited, credible bids for CKx in March 2011. The Board immediately engaged in a conscientious process with the assistance of a reputable financial advisor, Gleacher, to maximize the price. The Board and its advisors successfully instigated a bidding war for CKx , and also canvassed the market for other potentially interested bidders. One aspect of the process that has been criticized by the Petitioner here is the haste with which the sales process advanced. However, there is no evidence in the record to suggest that any bidder was deterred by the expedited pace of the sale, and it was the Petitioner's representative on the CKx Board, Bryan Bloom, who was most insistent that the merger process be resolved quickly. As Bloom himself explained at trial, there was a sound business justification for that decision: the uncertainty that CKx faced from being publicly shopped impaired CKx's ability to acquire content. Of course, the issue in this case is fair value, not fiduciary duty. The relevant point
is that market exposure comes with a downside, and there is no evidence to suggest that the timeline compromised the effectiveness of the process. None of the bidders contacted by Gleacher asked for more time, or otherwise indicated that they were deterred by the CKx Board's deadlines. \({ }^{127}\) Accordingly, I find that the process that generated the merger price supports a conclusion that the merger price is a relevant factor in determining CKx's fair value. I come to the same conclusion that the Court did in Union Illinois : "[f]or me (as a lawtrained judge) to second-guess the price that resulted from that process involves an exercise in hubris and, at best, reasoned guess-work." \({ }^{128}\) My conclusion that merger price must be the primary factor in determining fair value is justified in light of the absence of any other reliable valuation analysis.
*14 The Petitioners did engage an expert witness, Dr. Laura Robinson, an economist, who testified to the inadequacy of the merger process in obtaining a fair price for CKx. Although the Respondents filed motions to exclude her testimony, I need not address those motions, because I found the substance of her opinion unpersuasive, and I decline to rely on it.

Robinson opined that the CKx auction process was ineffective because it failed to conform to what is known in auction theory as a second-price, sealed bid auction, or a Vickrey auction, in honor of William Vickrey, an economist who won the Nobel prize in economics for his work in auction theory. \({ }^{129}\) A Vickrey auction works by having each bidder submit one secret bid, with the highest bidder winning the right to acquire the asset at the price of the second-highest bidder. \({ }^{130}\) The Vickrey auction is designed to deal with the problem that exists in conventional sealed-bid auctions, where bidders are reluctant to bid at their reserve prices, because if they win they will gain no surplus. \({ }^{131}\) By giving winning bidders a slight discount, bidders will bid their reserve price and still know that they will reap some surplus. A Vickrey auction theoretically produces the same result, or nearly the same result, as a traditional English auction. \({ }^{132}\)

Robinson argued that the process undertaken by the CKx Board here was not designed to elicit the highest possible bid, and therefore likely failed to deliver the best possible price for shareholders. She pointed to evidence that Ferrel communicated with the bidders during the auction process; that Sillerman communicated with bidders about price and the behavior of other bidders; and that Gleacher informed Apollo that Party B's final bid was not fully financed. Robinson summed up her criticism by saying, "[s]o there are a lot
of parties telling a lot of other people what's going on and conveying information, which is not appropriate in a wellrun auction process which is geared toward maximizing shareholder value." \({ }^{133}\)

I disagree with the conclusions reached by Dr. Robinson. Nothing in our jurisprudence suggests that an auction process need conform to any theoretical standard, whether a pure English auction, a second-price sealed bid, or Vickrey auction, or any other auction format. Furthermore, all the evidence that Robinson points to as departures from the Vickrey auction can be explained if one views the CKx auction process as a traditional English auction, in which bidders raise their prices until only one bidder remains, obtaining the same theoretical result as the Vickrey auction. \({ }^{134}\) Here, the evidence indicates that the bidders were in fact engaged in a process resembling the English ascending-bid auction, as the bidding started low, and progressed until Apollo submitted the winning bid. \({ }^{135}\) In an English auction, bidders are naturally aware of each other's bids, yet it still produces a price equal to the second-highest bidder's reserve price (plus one bid increment, to guarantee victory). \({ }^{136}\) Furthermore, Robinson did not fully acknowledge the reality that, despite its theoretical usefulness, the Vickrey auction remains rare in practice, perhaps because it depends, crucially, on the integrity of the auctioneer to not cheat the high bidder. \({ }^{137}\) In short, even if I were to accept Robinson's premise-which I do not-that I must look to auction theory to determine whether the sales process here produced the best possible bid, I find that the evidence suggests that it did.

\section*{E. Going-Concern Value}
*15 As nearly every Delaware appraisal case makes clear, the objective of an appraisal is to determine the goingconcern value of the target company's equity. The evidence that has been admitted so far suggests that there are few, if any, synergies for Apollo in this transaction. Because there is limited evidence in the record concerning the existence and amount of synergies that Apollo sought to realize in its acquisition of CKx, I will allow the parties, if they so desire, the opportunity to provide additional evidence on this limited issue.

\section*{III. CONCLUSION}

In this appraisal action, I am charged with considering all relevant factors bearing on fair value. An arms-length sales price-exclusive of synergies-generated at auction is one such factor. Other relevant factors typically include DCF analyses, comparable companies analyses and comparable transaction analyses. For the reasons explained above, the latter are either unreliable or unavailable here. Accordingly, I find the sales price to be the most relevant exemplar of valuation available. The parties should confer and advise on how they intend to supplement the record to account for portions of the sales price representing the synergy value of the transaction, if any.

\section*{All Citations}

Not Reported in Atl. Rptr., 2013 WL 5878807

\section*{Footnotes}

1 See infra note 53.
2 I note that the statutory exclusion of synergy value from an appraisal valuation distinguishes "fair" value from the market value received in the real estate auction example above, where any synergies captured belong to the beneficiary.
3 Resp't's Op. Pre-Trial Br. at 5.
4 Trial Tr. 11:17-12:19 (Bloom).
5 JX 153 at 198.
6 Trial Tr. 11:22-12:11 (Bloom). According to Bloom, the CKx name was shorthand for the company's viewpoint that "content is king." Trial Tr. 12:16 (Bloom).
719 Entertainment shared \(50 \%\) of the television revenues from American Idol with another production company, FremantleMedia. Trial Tr. 206:3-7 (Reilly).
8 See JX 116 at 4 (identifying 19 Entertainment, Elvis Presley Enterprises and Muhammad Ali Enterprises as primary sources of revenue in 5 -year forecast).
\(9 \quad\) Trial Tr. 730:7-17 (Cooling); see also id. at 442:5-11 (Benson).
10 See Trial Tr. 463:22-24 (Benson); JX 002 at 67 (Cohen Report Ex. 4); JX 003 at \(\mathbb{1} 97\).

11 JX 003 at 18.
12 Trial Tr. 461:2-462:12 (Benson); JX 003 at \(\mathbb{I} 28\).
13 Trial Tr. 452:1-18, 461:18-462:12 (Benson).
14 Trial Tr. 44:10-13 (Bloom); id. at 467:20-23 (Benson).
15 RX 037.
16 Trial Tr. 545:5-21 (Benson).
17 Trial Tr. 68:7-18 (Bloom); id. at 454:22-455:3 (Benson).
18 JX 162 at 78:4
19 Fox Dep. 128:13-15.
20 Trial Tr. 519:15-16 (Benson).
21 Apollo, the eventual acquirer of CKx, in its investment thesis analyzing the value of CKx, described the secular trends in television viewing habits as favorable to CKx. "Both traditional and emerging distributors are racing to differentiate themselves by acquiring or licensing more content ... making distribution more ubiquitous and content more valuable." PX 137 at 11.
22 Fox Dep. 64:18-22 ("[D]espite the fact that ratings for top-rated television shows were going down, the value of that content was still going up and [we believed] that we would still extract a higher license fee going forward, despite their decline in ratings.").
23 JX 153 at 25.
24 Id.
25 Trial Tr. 35:9-36:4 (Bloom).
26 JX 153 at 31.
27 Id.
28 Trial Tr. 623:4-6 (Benson).
29 JX 053 at 1.
30 JX 123.
31 Id. at 8. Man v. Food features a large, bushy-haired man traveling diner-to-diner, attempting to eat enormous amounts of fried foods.
32 Trial Tr. 486:11-12 (Benson).
33 Trial Tr. 492:2-15 (Benson); JX 153 at 31-43.
34 JX 153 at 31-33.
35 Id. at 33.
36 Id.
37 Trial Tr. 47:11-21 (Bloom).
38 Trial Tr. 48:4-8 (Bloom).
39 Trial Tr. 734:19-735:4 (Cooling).
40 JX 153 at 33.
41 Id. at 35.
42 ld.
43 ld.
44 ld.
45 JX 153 at 35.
46 ld.
47 Id.
48 ld.
49 Id.
50 JX 153 at 37.
51 Id.
52 Id. In addition to not having binding funding commitments, Party B also refused to provide documentation which would have allowed CKx to verify its representations. Id. at 41 . Other conversations between CKx's counsel and Party B
suggested that there were legal obstacles to a potential deal with Party B, because "the equity commitment required to fund the transaction [with CKx] exceeded the allowable investment basket provided for in the fund's documentation." Id. JX 153 at 41 .
54 ld. at 43.
55 ld.
56 In re CKx, Inc. S'holders' Litig., C.A. No. 5545-CS, at II 1 (Dec. 22, 2011) (Stip. of Settlement \& Release). The Court approved the settlement on April 11, 2012, determining that the settlement was "fair, reasonable and adequate to the Settlement Class, and in the best interest of the Settlement Class, under Rule 23 of the Delaware Court of Chancery Rules." In re CKx, Inc. S'holders' Litig., C.A. No. 5545-CS, at ๆ 6 (April 11, 2012) (ORDER). At the settlement hearing, plaintiffs' counsel agreed that CKx had been "shopped more than adequately," and further stated that " \([t] h e r e ~ w a s ~ a ~\) competitive process, and that's why we are satisfied in releasing the Revlon claim." Id. at 7-8; 9; see also id at 12-13 ("[W]ith the discovery that we developed, we saw that there was no ability for the Plaintiffs to prevail in a Revlon claim, and that's why we felt-we took comfort in being able to release those claims."). As a result, the benefit of the settlement arose primarily from disclosures, including corrections to disclosed EBITDA projections, and rescinded deal protection measures, including lowering the termination fee from \(4 \%\) to \(3.5 \%\). Id. at 7-8.
57 Trial Tr. 502:16-21 (Benson) ("But being on and off in a sales process, being approached by potential bidders, we created a five-year long-term model that we used and ultimately provided to prospective bidders to help them understand what might happen with the company over the coming years.").
58 Trial Tr. 270:20-22.
59 Trial Tr. 505:13-506:6 (Benson).
60 Trial Tr. 506:17-23 (Benson).
61 Frosch Dep. Tr. 131:10-13.
62 Ferrel Dep. Tr. 102:25-103:15.
63 Trial Tr. 517:13-21 (Benson) ("Q. And how would you characterize both of those assumptions? Were they optimistic, level or pessimistic?
A. Based on the feedback we received from Fox at that time in the negotiation, they were on the optimistic side. We thought they potentially were achievable. We thought they were certainly optimistic, in light of what Fox was signaling was their intentions in the renegotiation.").
64 Ferrel Dep. 98:16-20.
65 Ferrel Dep. 100:19-101:18.
66 Trial Tr. 589:16-19 (Benson).
67 Ferrel Dep. 95:1-96:9.
68 JX 41 at 1.
69 ld.
70 ld
71 ld
72 JX 71 at 1.
73 Fox Dep. 86:9-21.
74 Fox Dep. 64:18-22.
75 Trial Tr. 603:2-604:18 (Benson).
76 Trial Tr. 39:22-40:12 (Bloom) ("Q. How did American Idol perform in the 2011 season?
A. It performed exceedingly well. As-as it turned out over the course of January through the finale in May, the new judges were very-were accepted extremely well. It was a great new lift for the show. There was a return of Nigel Lythgoe, who had helped the show in years gone by, had actually been away from the show for awhile and then came back, and helped drive the talent. There was clearly an uptick in the quality of the talent on the show, that from the time of January through the finale in May, all that uncertainty as to whether Idol could survive those risks, all those risks had been taken out of the show.)
77 Trial Tr. 517:13-21 (Benson).
78 JX 1 at \(\mathbb{1} 53\).
79 JX 1 at \(\mathbb{T I T} 5-7\). This figure includes an additional \(\$ 1.99\) added to a \(\$ 9.03\) figure generated by the DCF analysis and the guideline analyses, in order to account for unexploited opportunities. Pet'r's Op. Post-Trial Br. at 40.

80 JX 2 at \(\mathbb{1} 18\).
81 Trial Tr. 647:2-650:1 (Cohen).
82 Trial Tr. 136:10-20 (Reilly).
83 JX 1 at q 117.
84 JX 2 at \(\mathbb{1}\) 91; Trial Tr. 694:12-15 (Cohen).
85 Trial Tr. 668:19-669:2 (Cohen).
868 Del C. § 262. The Respondent has not argued that the Petitioners have failed to meet the procedural requirements of Section 262.
878 Del C. § 262(h).
88 See Golden Telecom, Inc. v. Global GT LP, 11 A.3d 214, 217 (Del.2010) ("Importantly, this Court has defined 'fair value' as the value to a stockholder of the firm as a going concern, as opposed to the firm's value in the context of an acquisition or other transaction.").
89 Weinberger v. UOP, Inc., 457 A.2d 701, 713 (Del.1983) (quotations omitted).
90 Golden Telecom, Inc, 11 A.3d at 218.
91 Id. at 217-18.
92 Cede \& Co. v. Technicolor, Inc., 684 A.2d 289, 299 (Del.1996).
93 M.G Bancorp., Inc. v. Le Beau, 737 A.2d 513, 520 (Del.1999).
94 Weinberger, 457 A.2d at 713.
95 Merion Capital, L.P. v. 3M Cogent Inc., 2013 WL 3793896, at *4 (Del. Ch. July 8, 2013).
96 Union III. 1995 Inv. Ltd. P'ship v. Union Fin. Grp., Ltd., 847 A.2d 340, 357 (Del. Ch.2004).
97 Doft \& Co. v. Travelocity.com Inc., 2004 WL 1152338, at *8 (Del. Ch. May 21, 2004) (internal quotations omitted).
98 Trial Tr. 222:19-21.
99 Trial Tr. 225:10-12; 227:13-15; 228-229 (Reilly).
100 In re U.S. Cellular Operating Co., 2005 WL 43994, at *10 (Del. Ch. Jan. 6, 2005).
101 Cede \& Co. v. Technicolor, Inc., 2003 WL 23700218, at *7 (Del. Ch. Dec. 31, 2003).
102 Gearreald v. Just Care, Inc., 2012 WL 1569818, at *4 (Del. Ch. April 30, 2012).
103 See, e.g., Trial Tr. 545:10-21 (Benson).
104 Trial Tr. 517:13-21 (Benson).
105 Trial Tr. 603:2-604:18 (Benson).
106 Doft \& Co. v. Travelocity.com Inc., 2004 WL 1152338, at *6-7 (Del. Ch. May 21, 2004).
107 ld
108 ld. at *1.
109 ld. at *7.
110 See Frosch Dep. at 87:18-88:9 (explaining that internal projections were modified for buyers to include the \(\$ 20\) million estimate); Ferrel Dep. 95:1-96:9 (stating that the projections provided to lenders were not substantially different from the projections provided to potential buyers).
111 The potential \(\$ 20\) million increase in licensing fees is substantial in light of the fact that, as set out in Mr. Reilly's export report, historical revenues between 2006 and 2010 ranged from roughly \(\$ 328\) million to \(\$ 210\) million, and historical net income throughout that period ranged from \(\$ 26.4\) million to negative \(\$ 12.5\) million. JX 1 at 52.
112 Neal v. Ala. By-Products Corp., 1990 WL 109243, at *9 (Del. Ch. Aug. 1, 1990), aff'd, 588 A.2d 255 (Del.1991).
113 If I were to apply a DCF analysis in this matter, by choosing between speculative revenue estimates-a choice that would result in a valuation fundamentally different compared with the other option-I would simply lend a faux-mathematic precision to a patently speculative enterprise: I would become, to use Twain's memorable locution, no better than a hairball oracle. Mark Twain, The Adventures of Huckleberry Finn 21-25 (1909).
114 Global GT LP v. Golden Telecom, Inc., 993 A.2d 497, 507 (Del. Ch.2010), aff'd, 11 A.3d 214 (Del.2010).
115 See Reis v. Hazelett Strip-Casting Corp., 28 A.3d 442, 467 (Del. Ch.2011) ("The range of fairness concept has most salience when the controller has established a process that simulates arm's-length bargaining, supported by appropriate procedural protections."); Van de Walle v. Unimation, Inc., 1991 WL 29303, at *17 (Del. Ch. Mar. 7, 1991) ("The fact that a transaction price was forged in the crucible of objective market reality (as distinguished from the unavoidably subjective thought process of a valuation expert) is viewed as strong evidence that the price is fair.").
116 Union Illinois 1995 Inv. Ltd. P'ship v. Union Fin. Grp., Ltd., 847 A.2d 340, 357 (Del. Ch.2004).

117 Golden Telecom, Inc. v. Global GT LP, 11 A.3d 214 (Del.2010).
118 Merion Capital, L.P. v. 3M Cogent, Inc., 2013 WL 3833763 (Del. Ch. July 8, 2013).
119 Post-Trial Oral Arg. Tr. 144:17-145:3 ("Everyone ... in this room [besides Respondent's counsel] interprets Golden Telecom, as now preventing the Court of Chancery from deferring, even presumptively, to the merger consideration in an appraisal proceeding.... So as a legal matter, the merger consideration is really off the table.").
120 Golden Telecom, Inc. v. Global GT LP, 11 A.3d 214, 216 (Del.2010) ("Golden requests that this Court adopt a standard requiring conclusive or, in the alternative, presumptive deference to the merger price in an appraisal proceeding.").
121 Golden Telecom, Inc., A.3d at 218 (emphasis added).
122 Merion Capital, L.P., 2013 WL 3833763, at *5.
123 Id. at *12 ("Respondent did not seek to use the merger price of \(\$ 10.50\) per share, but instead relies on the Gordian Experts' analyses to arrive at a lower price of \(\$ 10.12\). Respondent and its experts also did not attempt to adjust the merger price to remove the speculative elements of value that may arise from the accomplishment or expectation of a merger.") (internal quotations omitted).
124 The Respondents also suggest that in addition to merger price, CKx's stock trading price suggests that the fair value of the company is significantly lower than that advocated by the Petitioners. However, because there is some evidence that stock price may have undervalued the company due to the company's inability to make acquisitions while it was up for sale, and because it is not unlikely that the stock price failed to reflect material non-public information available to bidders who signed confidentiality agreements, I find that the merger price is a better indicator of fair value here.
125 See, e.g., Golden Telecom, Inc. v. Global GT LP, 11 A.3d 214 (Del.2010) (rejecting merger price as a good indication of fair value where the target was purchased by an acquirer controlled by the target's two largest stockholders, who threatened to block any alternative transactions).
126 See, e.g., In re Orchard Enterprises, Inc., 2012 WL 2923305, at *5 (Del. Ch. July 18, 2012) (declining to give weight to the merger price in an appraisal action where "the trial record did not focus extensively on the quality of marketing Orchard by Dimensional or the utility of the 'go shop' provision contained in the merger agreement, which could obviously have been affected by Dimensional's voting power and expressed interest to acquire all of Orchard for itself.").
127 Trial Tr. 724:10-11 (Cooling).
128 Union Illinois 1995 Inv. Ltd. P'ship v. Union Fin. Grp., Ltd., 847 A.2d 340, 359 (Del. Ch.2004).
129 Trial Tr. 303:18-304:2 (Robinson).
130 Trial Tr. 304:20-305:6 (Robinson).
131 Id.
132 David Lucking-Reiley, Vickrey Auctions in Practice: From Nineteenth-Century Philately to Twenty-First-Century ECommerce, 14 J. Econ. Perspectives 183, 183 (2000).
133 Trial Tr. 306:22-307:2 (Robinson).
134 Lucking-Reiley, supra note 125, at 183.
135 Although Apollo's bid was technically \(\$ 0.10\) per share less than the bid from Party \(B\), that does not change the analysis of the auction process. The certainty of financing and favorable deal terms were legitimate factors for the Board to consider when choosing the winning bidder: the various bidders were competing along more dimensions than just price.
136 Lucking-Reiley, supra note 125, at 183.
137 Id. at 188.

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\section*{UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.}

\section*{Court of Chancery of Delaware.}

\section*{IN RE Appraisal of AOL INC.}

\section*{C.A. No. 11204-VCG}
|
Date Submitted: January 17, 2018
|
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\section*{Attorneys and Law Firms}

Stuart M. Grant, Mary S. Thomas, and Laina M. Herbert, of GRANT \& EISENHOFER P.A., Wilmington, Delaware, Attorneys for Petitioners.

Kevin R. Shannon, Berton W. Ashman, Jr., and Christopher N. Kelly, of POTTER ANDERSON \& CORROON LLP, Wilmington, Delaware; OF COUNSEL: William Savitt, Ryan A. McLeod, Andrew J.H. Cheung, Nicholas Walter, and Courtney L. Shike, of WACHTELL, LIPTON, ROSEN \& KATZ, New York, New York, Attorneys for Respondent.

\section*{MEMORANDUM OPINION}

\section*{*1 GLASSCOCK, Vice Chancellor}

Each block of marble, Michelangelo believed (or purported to believe) contained a sculpture; the sculptor's job was merely to pitch the overburden to reveal the beauty within. Early jurists believed (or purported to believe) something similar about common law; that it existed in perfect form, awaiting "finding" by the judge. \({ }^{1}\) By contrast, even Blackstone would expect that statutory law would be an explicit, if blunt, tool of justice; manufactured, rather than revealed. Our appraisal statute, Section 262 of the DGCL, \({ }^{2}\) is an exception. Broth of many cooks and opaque of intent, it provides every opportunity for judicial sculpting. \({ }^{3}\)

The latest pitching of stone from the underlying statutory body occurred in our Supreme Court's recent decisions in DFC and Dell. \({ }^{4}\) Those cases, in distilled form, provide that
the statute requires that, where a petitioner is entitled to a determination of the fair value of her stock, the trial judge must consider "all relevant factors," 5 and that no presumption in favor of transaction price obtains. Where, however, transaction price represents an unhindered, informed, and competitive market valuation, the trial judge must give particular and serious consideration to transaction price as evidence of fair value. Where information necessary for participants in the market to make a bid is widely disseminated, and where the terms of the transaction are not structurally prohibitive or unduly limiting to such market participation, the trial court in its determination of fair value must take into consideration the transaction price as set by the market. I will refer to transactions compliant with such conditions by the shorthand "Dell Compliant." In sum, while no presumption in favor of transaction price obtains, a transaction that demonstrates an unhindered, informed, and competitive market value is at least first among equals of valuation methodologies in deciding fair value. Where a transaction price is used to determine fair value, synergies transferred to the sellers must be deducted, to the extent they represent "element \([\mathrm{s}]\) of value arising from the ... merger" itself. \({ }^{6}\)

This matter is before me seeking a post-trial finding of the fair value of AOL Inc. ("Respondent," the "Company," or "AOL") under the appraisal statute. Because the seminal cases referenced above issued during the pendency of this matter, I asked the parties to supplement the briefing to reference the instruction that DFC and Dell supply. I note that, throughout that helpful briefing, both the Respondent and Petitioners continue to advocate for my reliance on financial metrics rather than transaction price. \({ }^{7}\) Applying the Dell criteria of information distribution and barriers to entry with respect to market participation in evaluating whether the transaction here is Dell Compliant, I find the matter a close question. AOL was widely known to be in play, the Company talked to numerous potential purchasers in relation to the sale of part (or all) of AOL, the no-shop period running post-agreement was not protected by a prohibitive breakup fee, and the actions of the AOL unaffiliated directors appear compliant with their fiduciary duties. No topping offer emerged. Nonetheless, the merger agreement was protected by a no-shop and matching right provisions. Moreover, the statements made by AOL's CEO, who negotiated the deal, in my view signaled to potential market participants that the deal was "done," and that they need not bother making an offer.
*2 Market participants at this level are not shrinking violets, nor are they barnacles that are happy players during a favorable tide, but shut tight at its ebb. Nonetheless, I find the unusually preclusive statements by the CEO, in light of the other attributes of this transaction, such that I cannot be assured that a less restrictive environment was unlikely to have resulted in a higher price for AOL. Accordingly, I am unable to ascribe fair value solely to market price.

Having rejected transaction price as the sole determinant of value, I find myself further unable, in a principled way, to assign it any weight as a portion of my fair value determination. It is difficult, in other words, to ascribe to a non-Dell-Compliant sales price (on non-arbitrary grounds) \(25 \%\), or \(75 \%\), or any particular weight in a fair value determination. Therefore, I take the parties' suggestion to ascribe full weight to a discounted cash flow analysis. I relegate transaction price to a role as a check on that DCF valuation: any such valuation significantly departing from even the problematic deal price here should cause me to closely revisit my assumptions.

After consideration of the experts' reports provided by the parties, and after addressing the differences between the parties in the proper construction of a DCF valuation, in light of the evidence at trial, I find that the fair value of AOL stock at the time of the merger was \(\$ 48.70\) per share. This is my post-trial decision on fair value; my reasoning follows.

\section*{I. BACKGROUND}

\section*{A. The Company}

AOL was a well-known \({ }^{8}\) global media technology company with a range of digital brands, services, and products that it provided to advertisers, consumers, subscribers, and publishers. \({ }^{9}\) AOL underwent significant changes in both perception and fortune after its apex in 2002, when it had more than twenty-six million subscribers in the United States and \(\$ 9\) billion in revenues. \({ }^{10}\) AOL spun off as a public company from parent Time Warner in 2009, with Tim Armstrong named as Chairman and CEO. \({ }^{11}\) After the spin-off, AOL shrank, ultimately to five million subscribers. \({ }^{12}\) AOL faced substantial competition by 2014 and found itself in need of extensive consumer data to shift its desired focus to the online advertising industry. \({ }^{13}\) In order to compete, AOL purchased a number of "content" and "ad-tech" companies, such as the Huffington Post, TechCrunch, Thing Labs, Inc., Adapt.tv,
and Vidible. \({ }^{14}\) These and other purchases allowed AOL to reposition itself as an ad tech company. \({ }^{15}\)
*3 AOL organized itself into three segments: Membership, Brands, and Platforms. \({ }^{16}\) The Membership Group included the legacy dial-up internet and search services. \({ }^{17}\) The Brands Group included the Huffington Post, TechCrunch, MapQuest, and other content providers. \({ }^{18}\) The Platforms Group provided automated online advertising services for advertisers and publishers across multiple device and media formats. \({ }^{19}\) As with other companies of similar size, AOL was closely followed by numerous analysts. \({ }^{20}\)

\section*{B. Initial Discussions and Negotiation}

Similar to other boards of directors, the AOL board of directions (the "AOL Board" or the "Board") "regularly review[ed] and assess[ed] the Company's business strategies and objectives," in order to "enhanc[e] stockholder value." 21 The AOL Board frequently considered many types of transactions and partnerships with other companies. 22 "In addition, the Company and its representatives [were] routinely approached by other companies and their representatives regarding possible transactions., \({ }^{23}\) Several of those included inquiries from Silver Lake, \({ }^{24}\) Tomorrow Focus, \({ }^{25}\) Axel Springer, \({ }^{26}\) Providence Equity, \({ }^{27}\) and Hellman \& Friedman. \({ }^{28}\)

In June 2014, at the request of Verizon Communications Inc. ("Verizon"), AOL CEO Armstrong and Verizon CEO Lowell McAdam "discussed ongoing and emerging trends in their respective industries" at a media finance conference. \({ }^{29}\) In October 2014, Verizon management contacted AOL to propose an initial meeting regarding "potential partnership opportunities" and the two CEOs met again that November. \({ }^{30}\) A Verizon subsidiary and AOL entered into a confidentiality agreement in late November. \({ }^{31}\)

In early December, representatives of AOL and Verizon met over three days to discuss "several potential collaborative opportunities," although McAdam informed Armstrong that "Verizon had no interest in the acquisition of the entire Company or of a majority interest in the Company." \({ }^{32}\) In addition, AOL held a preliminary discussion with Comcast, a global telecommunications conglomerate,
"regarding a potential transaction involving all or part of AOL's businesses" on December 9, 2014. \({ }^{33}\) McAdam and Armstrong spoke again by phone in mid-December 2014 and met in mid-January 2015 to "explore a joint venture." 34

AOL management discussed a potential Verizon transaction with the AOL Board during their January 2015 meeting. \({ }^{35}\) In January 2015, rumors about a potential transaction involving AOL leaked and caused AOL's stock price to rise. \({ }^{36}\)

In February 2015, Verizon presented AOL with a high-level term sheet for a potential joint venture and the parties met several times to discuss it that February and March and continue with due diligence. \({ }^{37}\) Verizon was not the only suitor for a deal with AOL. An AOL executive emailed Armstrong on February 20, 2015 that:

Given the [Verizon] news in the press, the [AT\&T] President of Advertising has express [sic] a very strong interest in having broader strategic conversation with us. They want a bite at the apple and don't want to be boxed out by [Verizon]. If we are going to move forward here we should engage at the CEO level is my view. \({ }^{38}\)
*4 Armstrong responded:
I know ... the [AT\&T] CEO well-but we should discuss this .... We need to be ethical (not suggesting you were suggesting that-and know this is natural with press and BD-but me calling CEO of AT\&T feels like a bridge too far). \({ }^{39}\)
Armstrong described his rationale for this answer during trial:
Q. And why did you say that calling the CEO of AT\&T in these circumstances was a bridge too far?
A. Well, I think that from where we were at the time period and knowing what we knew about AT\&T and knowing what we knew about Verizon, the risk of having Verizon walk away at this point was much higher than the upside of trying to get AT\&T involved when they were clearly outsourcing their core business in our core area to us, overall. So it just did not seem like a smart move.
Q. Why were you concerned that a contact with AT\&T might cause Verizon to walk away?
A. I think one is Verizon was upset about the leak. And I think in the situation in a deal negotiation where, you know, we're in negotiations with Verizon, AT\&T is not a real
candidate, and we go to them, [Verizon CEO and Chairman McAdam], I think, is a very ethical person and somebody that, you know, he would take this the wrong way and we would risk losing the deal. \({ }^{40}\)
Armstrong explained during his deposition that the AT\&T overture was not "somebody senior at AT\&T speaking for AT\&T. This [was] somebody at the division that [AT\&T was] looking to outsource to us, talking to one of our lower-level [business development] people., \({ }^{41}\) In a later explanation to Verizon executive Marni Walden about these discussions with AT\&T, Armstrong described these as "advanced discussions to launch a new strategic partnership. At the core of the discussions was AT\&T's content and service portal, which has been powered for Yahoo for many years., 42

Fox, a multinational mass media corporation, also contacted AOL to express interest in AOL's platforms and brands businesses on February 26, 2015. \({ }^{43}\) Private equity firm General Atlantic contacted AOL in March 2015 "to discuss an acquisition of certain of the Company's assets" and entered into a confidentiality agreement on March 7, 2015. \({ }^{44}\) General Atlantic conducted limited preliminary diligence on these assets. \({ }^{45}\) Fox entered into a confidentiality agreement with AOL and listened to a presentation by AOL on March 9, 2015. \({ }^{46}\)

\section*{C. Sales Process}

On March 25, 2015, Verizon proposed obtaining majority ownership of AOL for the first time. \({ }^{47}\) The AOL Board began to meet weekly to "review the deal landscape, including the potential transaction with Verizon." \({ }^{48}\)

AOL declined to conduct an auction. Fredric Reynolds, AOL's lead director, explained why AOL did not pursue an auction during his deposition:

Q: Could you please explain why, in your view or in the view of the board as a whole, you thought it was not desirable for AOL to run an auction?
*5 A: Again, I think, if I wasn't clear, I think in a business that has to do with technology and content, that it's a very fragile business, and letting the world know that you're for sale impacts your relationship with your-with your competitors for sure, but also with your partners, be they publishers, being the search companies, being the talent that you want to attract.

Those are all very difficult relationships that I think are almost impossible to be managed if a media company or a technology company is for sale.

I-I don't recall any large technology or large media company ever putting itself up for sale. I think, as evidenced last week, AT\&T buys Time Warner. There was not an auction of that. It's just a very, very-it's unusual, but technology and media companies don't have hard assets, they don't have long-term contracts that make airplanes or iPhones or anything like that. It's all ephemeral. \({ }^{49}\)
Reynolds stated that "the company was not for sale and it was purposeful that it not be for sale" \({ }^{50}\) and that the Board did "not auction[ ] the company. We had had no intention of auctioning the company." \({ }^{51}\)

Discussions between AOL and Verizon continued in early April, and McAdam "raised the possibility of a \(100 \%\) acquisition of the Company with Mr. Armstrong" on April 8, 2015. \({ }^{52}\) Comcast entered into a confidentiality agreement with AOL that day, but declined to proceed any further with a transaction. \({ }^{53}\)

On April 12, 2015, AOL management discussed the Verizon transaction with the Board, including "the emphasis that [Verizon] ... put on their ability to retain the Company's management." \({ }^{54}\) The Board "requested that Mr. Armstrong keep the Board apprised of these discussions as they progressed" but authorized further discussions with Verizon regarding both the transaction and management retention. \({ }^{55}\) AOL opened a data room to Verizon on April 13, \(2015 .{ }^{56}\)

Verizon's counsel engaged AOL's counsel in a discussion on April 14, 2015 about "the importance to Verizon of retaining the Company's CEO and others on its management team and Verizon's desire to engage in a discussion with Mr. Armstrong regarding such future employment arrangements., \({ }^{57}\) AOL's counsel informed Verizon that "Verizon's views had been discussed with the Board and that the Board had authorized Mr. Armstrong to engage in such discussions." \({ }^{58}\) McAdam and Armstrong met again on April 17, 2015 to "discuss the potential integration of AOL and its personnel into Verizon's business. \({ }^{59}\) During this period, Fox made several diligence calls to AOL, but did not contact AOL for further information. \({ }^{60}\)

Verizon sent a draft merger agreement to AOL on April 22, 2015. \({ }^{61}\) The AOL Board met on April 26, 2015 to discuss the draft agreement, the deal landscape, "the possibility of seeking alternative offers," Verizon's "emphasi[s] ... [on] the retention of the Company's management team," and AOL's continued retention of Allen \& Company ("Allen \& Co.") as its financial advisor. \({ }^{62}\) AOL returned a revised draft merger agreement to Verizon on April 27, 2015 that proposed changes to a number of terms, including termination rights, the non-solicitation provision, antitrust approval, and others. \({ }^{63}\) Verizon management spoke with Armstrong on April 30, 2015 about "the importance to Verizon that AOL's talent continue at the Company following the Merger and indicated that employment arrangements would be structured by Verizon to include compensation opportunities tied to the performance of the Company and in aggregate amounts at least comparable to current compensation opportunities.,"64 However, "[n]o specific details of such compensation arrangements were discussed." \({ }^{\text {" }}\)
*6 AOL and Verizon exchanged draft agreements on May 1 and May 3, 2015. \({ }^{66}\) The AOL Board discussed these drafts and "the importance that Verizon was placing on the retention of the Company's management team and Verizon's desire for employment and retention arrangements" on May 3, 2015. \({ }^{67}\)

On May 4, 2015, a consortium including, among others, General Atlantic, Axel Spring SE, and Huffington Post CEO and founder Arianna Huffington, submitted a letter to AOL indicating its willingness to purchase a \(51 \%\) stake in AOL's Huffington Post asset for approximately \(\$ 500\) million. \({ }^{68}\)

On a May 7, 2015 phone call, Verizon informed AOL that Verizon "was planning to submit a formal offer to acquire the entire Company." \({ }^{69}\) The AOL representative indicated that AOL expected a price per share "in the 50 s " but the Verizon representative indicated that it would be "in the high 40s." 70 Verizon also indicated that it would present Armstrong with a specific employment proposal. \({ }^{71}\) AOL reported financial results that beat analysts' expectations on May 8, 2015. \({ }^{72}\)

On May 8, 2015, a Verizon representative made an oral offer of \(\$ 47.00\) per share for AOL. \({ }^{73}\) An AOL representative countered and Verizon agreed to pay \(\$ 50.00\) per share in cash. \({ }^{74}\) Verizon stated that "there was no further room for negotiation with respect to the offer price and that if this price
was not of interest, Verizon was prepared to withdraw its offer." \({ }^{, 75}\) Verizon submitted a written offer at \(\$ 50\) later that day. The AOL Board discussed the offer, and counsel from the two companies negotiated certain terms. \({ }^{76}\)

Armstrong phoned a Verizon representative on May 9, 2015 to request a higher price but was told "that there was no further room for negotiation with respect to the offer price," although Verizon agreed to lower the termination fee from \(4.5 \%\) to \(3.5 \% .{ }^{77}\) The AOL Board discussed the developments that same day. \({ }^{78}\)

The parties exchanged additional draft agreements and Verizon delivered a draft employment letter offer to Armstrong on May 10, 2015. \({ }^{79}\) "Mr. Armstrong had no conversations with Verizon regarding the draft letter prior to the conclusion of the Company's next Board meeting." 80

On May 11, 2015, the AOL Board discussed the Verizon merger agreement with management and its legal and financial advisors. \({ }^{81}\) The Board then "unanimously voted to approve the Merger Agreement." 82 Later that day, "Verizon informed Mr. Armstrong that they were unwilling to proceed with a transaction without his agreement to terms" of employment and Armstrong and Verizon came to an agreement. \({ }^{83}\)

The Verizon board of directors also approved the merger agreement, which was executed on May 11, 2015 (the "Merger Agreement" or "Agreement"). \({ }^{84}\) The deal was announced on May 12, 2015. \({ }^{85}\) According to Armstrong, "a couple of days after [the] Verizon acquisition was announced, AT\&T terminated contract negotiations and asked us to stop all development on product and content based on general sensitivities to competitor concerns, data separation, etc.,"86
*7 In a CNBC television interview on the day the merger was announced, Armstrong gave this account of how the Verizon deal came together:

Interviewer: Hey, Tim, couple of quick things. Help us with this first. Was there an auction? Give us back story here. Meaning, who went to whom? How did this happen?

Armstrong: You know, basically, this happened in a very natural way and no auction. Basically over the course of time I sat down last summer at the Sun Valley conference
and we talked about where the world was going and we have been big partners and we were kind of reviewing what the companies were doing together. That sort of kicked off sort of a natural progression to where we are today and I think facilitated by Nancy of Allen and Company and David Shapiro we were able to basically bring this deal together in a way that I think was incredibly natural. If you look at the two visions on the companies and the platforms and both companies were doing the same thing.

Interviewer: It's trading slightly above the premium right now. you didn't shop this to anybody else?

Armstrong: No, I'm committed to doing the deal with Verizon and I think that as we chose each other because that's the path we're on. I gave the team at Verizon my word that, you know, [w]e're in a place where this deal is going to happen and we're excited about it.

Interviewer: Not to push you on it, but why not pursue an auction?

Armstrong: You know, Andrew, I think the process of where we are as a company right now and the process we went through and knew you guys covered, lots of rumors about AOL in general. So, if somebody, we have always been a public company and been available. If somebody wanted to come do a deal with us, they would have done it. The Verizon deal was built around the strategy of where we're going. \({ }^{87}\)

\section*{D. Merger and Subsequent Events}

The Merger Agreement contained a no-shop provision, a \(3.5 \%\) termination fee of \(\$ 150\) million, and unlimited threeday matching rights. \({ }^{88}\) Stockholders were informed that the Merger Agreement allowed for the "ability to accept a superior proposal." \({ }^{89}\) Verizon was "[p]repared for market action but expect[ed] limited interest from media/technology strategics and financial sponsors" due to its assessment of a "limited interloper risk given [the] current sale status with [a] lack of full company buyers. \(9{ }^{90}\) No topping bidder emerged. \({ }^{91}\) More than \(60 \%\) of AOL's outstanding common shares were tendered and the merger closed on June 23, 2015 (the "Valuation Date"). \({ }^{92}\)

The Petitioners filed for appraisal rights under Section 262 of the DGCL. \({ }^{93}\) Six appraisal petitions were filed, which are consolidated in this action. \({ }^{94}\) The parties and experts agree that a DCF analysis is the most appropriate valuation method in this matter. \({ }^{95} \mathrm{My}\) analysis follows.

\section*{II. WAS THE SALES PROCESS DELL COMPLIANT?}
*8 The appraisal remedy was created by statute to allow dissenting stockholders an "independent judicial determination of the fair value of their shares." \({ }^{, 96}\) Because neither party bears the burden of proof, "in reality, the 'burden' falls on the judge to determine fair value, using 'all relevant factors.' "97 The fair value of those shares is "exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation," 98 and calculated based on the "operative reality of the company""99 as of "the date of the merger." \({ }^{100}\) The court should view the company as a standalone "going concern" \({ }^{101}\) or an "on-going enterprise, occupying a particular market position in the light of future prospects." \({ }^{102}\) Because the court values the "corporation itself," a minority discount \({ }^{103}\) and "any synergies or other value expected from the merger giving rise to the appraisal proceeding itself must be disregarded." \({ }^{104}\) Accordingly, petitioning stockholders are given their "proportionate interest" of the value of the corporation on the date of the merger, plus interest. \({ }^{105}\)

Because each transaction is unique, "[a]ppraisal is, by design, a flexible process." \({ }^{106}\) However, "the clash of contrary, and often antagonistic, expert opinions" with "widely divergent views" is a common feature of the genre. \({ }^{107}\) As further described below, there is "no perfect methodology for arriving at fair value for a given set of facts." \({ }^{108}\)

The Supreme Court has "reject[ed] requests for the adoption of a presumption that the deal price reflects fair value if certain preconditions are met, such as when the merger is the product of arm's-length negotiation and a robust, non-conflicted market check, and where bidders had full information and few, if any, barriers to bid for the deal."109 Indeed, the Supreme Court doubts its ability "to craft, on a general basis, the precise pre-conditions that would be
necessary to invoke a presumption of that kind. \({ }^{110}\) That said, the Supreme Court in \(D F C\) stated:

Although there is no presumption in favor of the deal price, under the conditions found [in \(D F C\) ] by the Court of Chancery, economic principles suggest that the best evidence of fair value was the deal price, as it resulted from an open process, informed by robust public information, and easy access to deeper, non-public information, in which many parties with an incentive to make a profit had a chance to bid. \({ }^{111}\)

\section*{A. The Sales Process Was Not "Dell Compliant"}

The question before me is whether the sales process here is Dell Compliant. A transaction is Dell Compliant where (i) information was sufficiently disseminated to potential bidders, so that (ii) an informed sale could take place, (iii) without undue impediments imposed by the deal structure itself. In other words, before I may consider the deal price as persuasive evidence of statutory fair value, I must find that the deal process developed fair market value. I conclude that, under the unique circumstances of this case, the sales process was insufficient to this task, and the deal price is not the best evidence of fair value.
*9 The AOL Board made a deliberate decision that stockholder value would not be maximized through an auction, and instead decided to pursue potential bidders individually by direct contact through bankers and other sources. Given the dynamics of AOL's particular industry, this decision appears reasonable. However, if front-end information sharing is truncated or limited, the postagreement period should be correspondingly robust, so to ensure that information is sufficiently disseminated that an informed sale can take place and bids can be received without disabling impediments.

Despite statements by AOL's leadership that AOL was not for sale, the persistent market rumors seem to indicate that the market understood that the Company was likely in play. AOL was well-covered by analysts, traded frequently, and generally known in the market. AOL approached, and was approached by, a number of potential buyers of some (or all) of the Company, several of whom entered into confidentiality agreements and conducted due diligence.

AOL appears to have engaged with anyone that indicated a serious interest in doing a deal. \({ }^{112}\) On the front end,
the market canvas appears sufficient so long as interested parties could submit bids on the back end without disabling impediments.

However, here my concern arises. Immediately after announcement of the transaction, Armstrong gave a public interview and stated:

I'm committed to doing the deal with Verizon and I think that as we chose each other because that's the path we're on. I gave the team at Verizon my word that, you know, [w]e're in a place where this deal is going to happen and we're excited about it. \({ }^{113}\)

Armstrong's post-Agreement statements to the press about giving his "word" to Verizon could reasonably cause potential bidders to pause when combined with the deal protections here. In Dell, by comparison, the merger agreement included one-time matching rights until the stockholder vote; a forty-five day go-shop period; and termination fees of approximately \(1 \%\) of the equity value during the go-shop or approximately \(2 \%\) afterward. \({ }^{114}\) Here, a termination fee of \(3.5 \%\) and a forty-two day window between agreement and closing would probably not deter bids by themselves. But that period was constrained by a no-shop provision, combined with: (i) the declared intent of the acting CEO to consummate a deal with Verizon, (ii) the CEO's prospect of post-merger employment with Verizon, (iii) unlimited threeday matching rights, and (iv) the fact that Verizon already had ninety days between expressing interest in acquiring the entire company and signing the Merger Agreement, including seventy-one days of data room access. Cumulatively, these factors make for a considerable risk of informational and structural disadvantages dissuading any prospective bidder.

In Dell, after the "bankers canvassed the interest of sixtyseven parties, including twenty possible strategic acquirers during the go-shop," the "more likely explanation for the lack of a higher bid [was] that the deal market was already robust and that a topping bid involved a serious risk of overpayment," which "suggest[ed] the price [was] already at a level that [was] fair." \({ }^{115}\) Here, given Armstrong's statements and situation, together with significantly less canvassing and stronger post-agreement protections than in Dell, I am less confident that is true. I cannot say that, under these conditions, deal price is the "best evidence of fair value ... as it resulted from an open process, informed by robust public information, and easy access to deeper, non-public information, in which
many parties with an incentive to make a profit had a chance to bid." 116

\section*{B. Deal Price as a Check}
*10 "The dependability of a transaction price is only as strong as the process by which it was negotiated. \({ }^{117}\) I find the deal price is not sufficient evidence of fair value to warrant deference, but it is still useful to an extent. I will use it as a "check" in my determination of fair value, although I decline to give the deal price explicit weight in that determination. Given the process here, a determination of fair value via financial metrics that results in a valuation grossly deviant from deal price, under these circumstances, should give me reason to revisit my assumptions. In this way, the deal price operates as a check in my determination of fair value. \({ }^{118}\)

The parties have not suggested a principled way to use deal price under the circumstances here, in a blended valuation of deal price and other valuation metrics, and none occurs to me. Instead, the parties agree, and I concur, that a discounted cash flow analysis is the best way to value the Company. \({ }^{119}\) I turn to that now.

\section*{III. FAIR VALUE AND DISCOUNTED CASH FLOW ANALYSIS}

\section*{A. Use of Discounted Cash Flow Analysis}

Under 8 Del. C. § 262, to determine "fair value," a court must value a corporation as a "going concern" according to the corporation's "operative reality" as of the date of the merger. \({ }^{120}\) Further, a court "must take into consideration all factors and elements which reasonably might enter into the fixing of value," and consider "facts which were known or which could be ascertained as of the date of merger." \({ }^{121}\) The court retains discretion to use "different valuation methodologies" so long as the court justifies that exercise of discretion "in a manner supported by the record before it." \({ }^{122}\) The court must derive the fair value of the shares "exclusive of any element arising from the accomplishment or expectation of the merger." \({ }^{123}\) When using a DCF analysis, "this Court has recognized that management is, as a general proposition, in the best position to know the business and, therefore, prepare projections" in the "ordinary course of business." 124 With these general principles in mind, I turn to my valuation of AOL.

I rely primarily upon a DCF analysis, as " \([\mathrm{b}]\) oth experts agree that the DCF is the best and most reliable way to value AOL as a going concern as of the merger date., 125 A DCF analysis, "although complex in practice, is rooted around a simple principle: the value of the company at the time of the merger is simply the sum of its future cash flows discounted back to present value., \({ }^{126}\) Further, a DCF analysis "is only as reliable as the inputs relied upon and the assumptions underlying those inputs." \({ }^{127}\) However, "the use of math should not obscure the necessarily more subjective exercise in judgment that a valuation exercise requires." \({ }^{128}\) I also acknowledge the Dell court's recent delineation of the weaknesses of the method:
*11 Although widely considered the best tool for valuing companies when there is no credible market information and no market check, DCF valuations involve many inputs -all subject to disagreement by well-compensated and highly credentialed experts-and even slight differences in these inputs can produce large valuation gaps. \({ }^{129}\)

The Petitioners hired a well-qualified academic, Dr. Bradford Cornell, a visiting professor at the California Institute of Technology, as their expert witness. Cornell performed a financial analysis, and concluded that the fair value of AOL stock was \(\$ 68.98\) per share. \({ }^{130}\) For reasons not necessary to detail, however, the Respondent questioned Dr. Cornell's impartiality in this matter, and the Petitioners seem content to use the DCF model presented by the Respondent's expert as a starting point for my analysis. Accordingly, I start with the DCF valuation provided by that expert, Professor Daniel Fischel, and consider the Petitioners' limited arguments that certain assumption or inputs in that valuation must be changed.

Fischel opined that the fair value of AOL stock was \(\$ 44.85\) per share. \({ }^{131}\) The Petitioners' disagreements with the Fischel analysis are limited, although the effects of that disagreement on the calculation of fair value are vast. The parties dispute only four items: (1) the proper cash flow projections for the DCF; (2) the operative reality assumed in the DCF with regard to two deals with Microsoft and one deal with Millennial Media Inc.; (3) the proper projection period and terminal growth rate; and (4) how much of AOL's cash balance must be added back after the DCF. I discuss each in turn.

\section*{B. Disputed Addition and Inputs}

\section*{1. Cash Flow Projections}
"The most important input necessary for performing a proper DCF is a projection of the subject company's cash flows. Without a reliable estimate of cash flows, a DCF analysis is simply a guess." \({ }^{" 132}\) The parties point to three potential sets of cash flow projections. The projections relied on by Fischel in his analysis, which I use as a starting point, are management's long-term plan for 2015 (the "Management Projections" or the "LTP"). \({ }^{133}\) Fischel selected these projections because they were "described as the 'best currently available estimates and judgements of [AOL]'s management as to the future operating and financial performance of [AOL],' and were used by AOL's financial advisor Allen in its May 11, 2015 fairness opinion." \({ }^{134}\) The Petitioners encourage me to use either of two other projections relied on by Cornell. The first is based on ten-year projections that AOL submitted to Deloitte for a tax impairment analysis (the "Deloitte Projections"). \({ }^{135}\) The second, (the "Disputed Projections"), contained substantial differences, compared to the Management Projections, in working capital requirements and was sent by AOL to Verizon's advisors in April 2015. I find that the best estimate of cash flow projections is the Management Projections, made in the regular course of business, for the reasons that follow.
*12 The Management Projections were completed in midFebruary 2015 and presented to the AOL Board. \({ }^{136}\) The AOL Board created four-year long-term plans as a part of its annual internal budgeting process. \({ }^{137}\) AOL executives testified that the LTP did not include costs or risks from specific acquisitions or transactions; \({ }^{138}\) however, the LTP assumed that AOL would fill strategic gaps in areas such as mobile supply, shifting demographics, and consumer data. \({ }^{139}\) AOL financial advisor Allen \& Co. sent the Management Projections to Verizon, albeit without AOL management's sign off. \({ }^{140}\)

The Deloitte Projections were created after AOL hired Deloitte to perform a goodwill impairment valuation of the Company using a set of ten-year projections developed by AOL for this purpose. \({ }^{141}\) AOL CFO Dykstra testified that she did not create the Deloitte Projections for non-tax purposes. \({ }^{142}\) These projections were created through inputs provided by AOL Senior Vice President of Financial Planning
and Analysis Michael Nolan, \({ }^{143}\) after which "[Deloitte] ... \(\mathrm{r}[\mathrm{a}] \mathrm{n}\) it through their standard model." \({ }^{144}\) According to Cornell, a DCF analysis based on the Deloitte Projectionsinstead of the Management Projections-values AOL stock at \(\$ 55.36\) per share. \({ }^{145}\)

The Disputed Projections were created when Allen \& Co. expressed concern, in April 2015, that AOL's projected working capital "appear[ed] to be materially different from research estimates" \({ }^{146}\) AOL prepared and sent another version of the working capital projectionsthe Disputed Projections-with different assumptions to Verizon's advisors. \({ }^{147}\) AOL CFO of Platforms Nick Bellomo stated that he "reviewed the numbers that were shared [with Verizon] to "mak[e] them more optimistic" in order to "decrease[ ] the change in working capital, which would have had an increase in cash flow for the business, which would ultimately increase the valuation of the business under certain valuation methodologies." \({ }^{148}\) Bellomo stated that it was his "understanding that the valuation that was initially floated to AOL for the purchase of AOL may [have] be[en] taken down unless these numbers were improved. \({ }^{" 149}\) Allen \& Co. director Isani explained to AOL Senior Vice President Mark Roszkowski on February 8, 2015 that:

I think we should be presenting a robust opportunity case to [Verizon] -and as is typical for these processes, it will vary from budget. For internal purposes and record keeping, we should have the bridge btw that case and the board budget as well as document the rationale for the gap.
*13 However, for the dialogue with [Verizon], we present only the robust case and completely own it as "the" plan. Typically we would not show board minutes as this is not a corporate deal (this case is tricky as the asset represents a large portion of total value). They will ask is this budget and we will have to rehearse the answer. But for a process like this it is not typical for the financials to be revised upward from the conservative board/budget ones
(Should probably also connect w/ legal to get their input into the caveats for documenting the gap). \({ }^{150}\)
AOL management sometimes referred to the Disputed Projections as "aspirational" in their internal correspondence. \({ }^{151}\) There is also contemporaneous correspondence and trial testimony that the Disputed Projections were created with the assumption that AOL would become part of Verizon. \({ }^{152}\)
*14 I note that other evidence challenges this narrative. The Disputed Projections were created after a rigorous internal process that involved input from a variety of departments within AOL. \({ }^{153}\) Certain of AOL's employees signed off on the projections while they were unaware of a potential or likely sale to Verizon. \({ }^{154}\) The Disputed Projections were submitted to Verizon and explained to AOL's Board, apparently as though they were current projections. \({ }^{155}\) There are emails between AOL employees that refer to the LRP as being "incorrect" and outdated. \({ }^{156}\) The Petitioners contend that AOL's goal for more leverage to decrease day sales outstanding (thus decreasing the required working capital and thereby improving cash flow) could have occurred outside of an anticipated deal with Verizon, although an exact method is left unspecified. \({ }^{157}\)

I find that the Management Projections are in fact management's best estimate as of the Valuation Date. While a close call, the record indicates that the Disputed Projections were most likely created as a marketing tool in AOL's attempted sale of itself to Verizon. My purpose here is to determine the fair value of AOL, and not AOL's value asadvertised. I am not persuaded that the Disputed Projections represent the most recent and valid projections used by AOL management prior to the Valuation Date.

Finally, I find that the goodwill impairment projections are not pertinent to my DCF analysis here. The purpose behind any set of projections matters because it determines the appropriateness of various assumptions that must be made. The Deloitte Projections were made for the goodwill impairment analysis-a tax-driven assessment with a host of required assumptions that should not, in these circumstances, be used for a DCF analysis. While certain assumptions may be appropriate for a tax analysis, those same assumptions may be nonsensical for valuation purposes. Consequently, I use the Management Projections in my DCF analysis.

\section*{2. Pending Transactions as of the Merger}
*15 I start with the following assumptions. "The determination of fair value must be based on all relevant factors, including ... elements of future value, where appropriate." 158 "[A]ny ... facts which were known or which could be ascertained as of the date of the merger and which throw any light on [the] future prospects of the merged
corporation" must be considered in fixing fair value. \({ }^{159} \mathrm{~A}\) corporation "must be valued as a going concern based upon the 'operative reality' of the company as of the time of the merger." \({ }^{160}\) I must exclude speculative costs or revenues, however. \({ }^{161}\) Mere "actions in furtherance" of a potential transaction, without a manifest ability to proceed, should not be valued as part of a company's operative reality. \({ }^{162}\)

The Petitioners argue that three potential deals were part of AOL's operative reality, and that any fair value analysis of AOL must include these transactions. \({ }^{163}\) These include: (i) AOL's acquisition of Millennial, a programmatic mobile advertising platform; \({ }^{164}\) (ii) a deal for Microsoft's Bing search engine to replace Google in powering search results on AOL properties (the "Search Deal"), \({ }^{165}\) and (iii) a ten-year commercial partnership for AOL to run the sales of display, mobile, and video ads on Microsoft properties in the United States and eight international markets (the "Display Deal") (the Display Deal and Search Deal are together referred to as the "Microsoft Deals"). \({ }^{166}\) Fischel did not ascribe value to these transactions in his DCF analysis. \({ }^{167}\) For each of these transactions I ask: (i) if the transaction was part of the "operative reality" of the Company as of the Valuation Date, and (ii) if so, was the transaction appropriately valued in the LTP. I will adjust my Fischel-based DCF analysis to include the financial impact of those transactions that were part of the Company's operative reality on the Valuation Date but which were not included in the LTP.

\section*{a. Operative Reality}

\section*{i. Description of the Deals}

As mentioned, the Display Deal allowed AOL to run the sale of display, mobile, and video ads on Microsoft properties such as Xbox, Skype, Outlook, MSN, and others in the United States and eight other markets. \({ }^{168}\) After months of negotiation, \({ }^{169}\) Microsoft and AOL traded draft term sheets at least through May 2015. \({ }^{170}\) Armstrong testified that the Display Deal "could have blown up at any time" because of, among other things, uncertainty surrounding the customers and the Microsoft employees AOL would need to onboard. \({ }^{171}\) Armstrong confirmed in a May 14, 2015 email that AOL expected to close the Display Deal on May 27, 2015. \({ }^{172}\)

Nevertheless, AOL pushed back the Microsoft announcement until after the Verizon announcement. \({ }^{173}\) AOL signed an agreement for the Display Deal with Microsoft on June 28, 2015 and announced the transaction on June 30, 2015. \({ }^{174}\) The Petitioners imply that the Display Deal contributes \(\$ 2.57\) per share if included under Fischel's DCF Model. \({ }^{175}\)
*16 The Search Deal replaced a soon-to-expire contract with Google to allow Microsoft's Bing search engine to power advertising and results on AOL's properties. \({ }^{176}\) Similar to the Display Deal, AOL planned to close the Search Deal on May 27, 2015 but delayed until after the Verizon announcement. \({ }^{177}\) An AOL presentation from June 10, 2015 included the key terms, financial projections, and other business implications of the Search Deal. \({ }^{178}\) The Search Deal closed on June 26, 2015. \({ }^{179}\) Microsoft and AOL announced the Microsoft Deals on June 30, 2015. \({ }^{180}\) The Petitioners do not quantify the impact of the Search Deal but instead urge me to "select a DCF value slightly above the median to account for the value added by the Microsoft Search Deal, which was accretive to free cash flow beginning in 2016."181

The path of Millennial Media, Inc. ("Millennial") to an acquisition by AOL (the "Millennial Deal") was more circuitous than the Microsoft Deals. After conducting initial diligence, AOL passed on buying Millennial in late 2014 but resumed preliminary diligence in February 2015. \({ }^{182}\) AOL paused its diligence in April 2015 until Millennial announced its quarterly earnings. \({ }^{183}\) In May 2015, Armstrong told the AOL Board that Millennial might "secure another offer in the near term, but we are willing to take that risk. \({ }^{" 184}\) Armstrong made a non-binding offer to Millennial for \(\$ 2.10\) per share on June 5, 2015, "conditioned on exclusivity," and stated that "AOL was prepared to move expeditiously to negotiate and sign a definitive agreement to effect the transaction." 185 AOL sent a "written, non-binding proposal ... reflecting the terms of the June 5 Proposal, and which also included an exclusivity period to negotiate a transaction between the parties until July 17, 2015." \({ }^{186}\) On June 10, 2015, Millennial opened a data room to AOL and its advisors. \({ }^{187}\) On June 15, 2015, Millennial and AOL signed an agreement to negotiate exclusively until July 17, 2015, and "which contained a standstill provision that would terminate if the Company entered into a definitive agreement with a third party to effect a business combination." \({ }^{188}\) Representatives of AOL and

Millennial met on June 17-19, 2015 to discuss Millennial's "financials, business operations, product and technology, real estate and security infrastructure." \({ }^{189}\) On June 23, 2015, Verizon closed the merger with AOL. \({ }^{190}\)

On June 30, 2015, AOL's counsel "circulated a first draft of the Merger Agreement," followed by two weeks of meetings, discussions, and negotiations. \({ }^{191}\) The parties discussed:
[T]he scope of the representations and warranties, the benefits to be offered to the Company's employees following the transaction, the conduct of the Company's business between signing and closing of the transaction, the parties' respective conditions to closing, AOL's obligation to indemnify and maintain insurance for the Company's directors and officers, the rights of the parties to terminate the transaction, and the amount and conditions of payment by the Company of the termination fee and expense reimbursement described above. \({ }^{192}\)
*17 The SEC sent Millennial a letter "notifying [Millennial] that the SEC was conducting an information investigation" for fraud starting in July 2015. \({ }^{193}\) After the expiration of the exclusivity agreement, Millennial attempted to auction itself to six other buyers, but AOL was the only party to submit a proposal. \({ }^{194}\) AOL, by then under Verizon, agreed to pay \(\$ 1.75\) per share to acquire Millennial on September 2, 2015. \({ }^{195}\) AOL signed the Millennial Deal on September 3, 2015. \({ }^{196}\) The Millennial Deal closed on October 23, 2015. \({ }^{197}\) The Petitioners argue that the Millennial Deal contributes \(\$ 4.14\) per share if included under Fischel's DCF model. \({ }^{198}\)

\section*{ii. Conclusions}

I find that the Display Deal was part of the operative reality of AOL as of the Valuation Date. I am persuaded by the level of certainty in that transaction, given AOL's internal correspondence and the concrete plans for an announcement date. I also find that the Search Deal was part of the operative reality of AOL as of the Valuation Date. I am persuaded by the apparent certainty of the transaction, based on internal correspondence and presentations, that this transaction was one that both sides fully expected to occur. However, I find that the Millennial Deal was not part of AOL's operative reality as of the Valuation Date. AOL had taken a number of steps toward a transaction, such as sending a non-binding offer subject to an exclusivity period, beginning the due
diligence process, and meeting with executives. However, no merger agreement drafts had been exchanged and weeks of negotiations, a robust due diligence process, and an entire auction yet remained. The actions taken by AOL before the Valuation Date showed substantial interest in a transaction but are not, to my mind, sufficiently certain as to be part of the operative reality of AOL on the Valuation Date.

\section*{b. LTP Assumptions}

The second question is whether the operative reality of AOL as of the Valuation Date, including the relevant transactions mentioned above, was properly included in the LTP. Because I find that the Millennial Deal was not part of the operative reality of AOL on the Valuation Date, I need not answer the second question for that particular transaction. In essence, the question before me is this: what is the scope of the assumptions made in the LTP? The Petitioners urge me to view them narrowly-these specific deals were not assumed -making the Microsoft Deals additive to the Management Projections. The Respondent, by contrast, urges me to view them broadly-the LTP assumes that strategic gaps will be filled and these transactions merely fill that role-so that the LTP remains as management's best prediction of future cash flows and the Microsoft Deals should not be additive. My attempt to differentiate the new ingredients from those already baked in is below.

\section*{i. The Display Deal}

The Display Deal and its relation to the LTP were specifically discussed internally after the AOL-Verizon merger. AOL executive Roszkowski explained to Verizon executive Walden in a September 3, 2015 email that the Microsoft and Millennial Deals were "accretive to [the LTP], but should not be a straight addition to revenue and margin" and that "the [ ] LTP assumed deals like MSFT and that [AOL] would close [its] mobile technology/talent gap."199 Roszkowski later testified that AOL's LTP was "optimistic ... and ... included assumptions that [AOL] [would] solve[ ] for key strategic capability gaps" so that the Microsoft Deals "actually made the long-term plan more certain" and could not be a "straight ... addition" to the LTP. \({ }^{200}\) The Display Deal included a number of risks, including adding approximately 1,270 Microsoft employees in nine countries. \({ }^{201}\) The parties also dispute smaller, non-dispositive issues. \({ }^{202}\)
*18 The parties give me two choices with regard to the Display Deal: add the full value of the Display Deal as urged by the Petitioners, implicitly worth \(\$ 2.57\), or decline to add it to the LTP, as the Respondent recommends. I find that the Display Deal was, at least, partially accretive. I am convinced that AOL internally viewed it as at least partially additive to its LTP as evidenced by its internal presentations and communications, but I also suspect that it should not be entirely additive. Because I lack the information necessary to cut a finer slice in this instance, I add the full \(\$ 2.57\) per share to my DCF analysis. In other words, the record gives me no basis that another value for the display deal is less arbitrary than \(\$ 2.57\) per share.

\section*{ii. The Search Deal}

Neither Fischel nor Cornell included the Search Deal in their DCF analyses, \({ }^{203}\) purportedly because "AOL did not produce detailed forecasts for the Search Deal., \({ }^{204}\) The LTP initially assumed that a new search deal with Google would be less favorable to AOL than the previous deal. \({ }^{205}\) Armstrong testified that the Search Deal, together with the Display Deal, was "meant as a mitigation to the search money that we would lose when we switched from Google at the end of that year to Microsoft. But it was unlikely that the Microsoft deal would make up for the search loss that we were going to experience overall." \({ }^{206}\) However, a June 10, 2015 AOL presentation included financial projections that explicitly portrayed the Search Deal as additive to AOL's OIBDA in comparison with the LTP. \({ }^{207}\)

I find that the preponderance of the evidence shows that the Search Deal is, at least minimally, additive to the LTP. The record is lacking in a principled way to account for the Search Deal, however. The Petitioners do no more than urge me to "select a number slightly higher than the mid-point share price to account for the Search Deal's benefits." \({ }^{208}\) I find fair value, therefore, is best expressed by omitting any speculation as to the value to AOL of the pending Search Deal. In other words, the record gives me no basis to find that another value for the Search Deal is less arbitrary than \(\$ 0\). I also note that I have included the full value of the Display Deal as accretive to value, potentially overstating fair value, and I find it prudent not to exaggerate that effect by adding speculative value here.

\section*{3. Projection Period}

Any DCF analysis must include a post-projection period of valuation into perpetuity at a steady state. This case is a nowclassic appraisal story of "the tale of two companies." AOL was divided into three segments: two parts small and rapidly growing; one senescent. The question before me is, in the context of four-year projections, ending with two segments enjoying high growth rates and a quiescent third segment, what is the best way to view the terminal period?

Fischel selected \(3.25 \%\) as the perpetuity growth rate for AOL. \({ }^{209}\) Fischel noted that the "perpetuity growth rates reported by analysts and advisors ranged from \(1.0 \%\) to \(6.6 \%\), with a median of \(2.5 \%\) and an average of \(2.9 \% .{ }^{, 210}\) Fischel then averaged the \(2.9 \%\) perpetuity growth rate given by analysts and advisors with the \(4.6 \%\) long-term GDP growth estimate and \(2.3 \%\) long-term inflation rate, resulting in an average rate of \(3.28 \% .{ }^{211}\) Fischel reduced the perpetuity growth rate to \(3.25 \%\) due to his concern that "AOL's Membership segment was the largest contributor to AOIBDA and was declining, so this may overstate the expected growth rate for the firm." \({ }^{212}\) However, Fischel noted that because "AOL Projections do not provide estimates beyond 2018 ... there is some possibility that AOL could experience growth in the short term at a rate higher than inflation due to higher growth in the Platforms and Brands segments or even potential acquisitions." \({ }^{213}\) Lastly, Fischel tested the "sensitivity of the implied value of AOL's common shares to the perpetuity growth rate by using a range of \(3.0 \%\) to \(3.5 \%\).,214
*19 Unsurprisingly, the Petitioners characterize Fischel's perpetuity growth rate of \(3.25 \%\) as "flawed" because, they say, combined with his use of a two-stage model, Fischel insufficiently accounts for AOL's high growth rate prior to reaching steady state. \({ }^{215}\) The Petitioners argue that a three-stage DCF is more appropriate here because "academic literature [such as that by Professor Damodaran] counsels that if the growth in the final forecast year is well above the terminal growth rate, then a three-stage model is preferred., \({ }^{216}\) The Petitioners point to Fischel's agreement, that two of the AOL businesses were experiencing "hypergrowth" \({ }^{217}\) at the end of the two-stage projection period used by Fischel, as evidence that a two-stage model is
inappropriate here. \({ }^{218}\) The Petitioners illustrate this lost value using a chart: \({ }^{219}\)


As an alternative, the Petitioners advocate using the ten-year Deloitte projections used for the tax impairment analysis to account for the post-Management Projections growth gap described above. \({ }^{220}\) I have already rejected this approach, for reasons set out above; I also note that AOL management did not believe it could reliably forecast beyond four years. \({ }^{221}\)

In a fast-paced industry with significant fluctuations, where management is hesitant to project beyond four years, using a three-stage DCF model or a ten-year projection period seems particularly brazen. I find that a two-stage model is appropriate under these circumstances. However, I agree with the Petitioners that Fischel's two-stage model and perpetuity growth rate of \(3.25 \%\) do not accurately capture the trajectories of the two divisions of AOL that were in hypergrowth at the end of the Management Projection period, despite the presence of the aforementioned senescent "You've Got Mail" laggard. I find a perpetuity growth rate of \(3.5 \%\) more accurately captures AOL's prospects after the Management Projection period ends. When a \(3.5 \%\) perpetuity growth rate is applied to Fischel's DCF model, the fair value of AOL stock increases by \(\$ 1.28\) per share. \({ }^{222}\)

\section*{4. Cash Balance}
*20 The value of working capital that is required "to fund [a company's] ongoing operations ... is already reflected in one sense in the discounted present value of those operations."; any balance of cash not so required is " 'excess' and may be added to the discounted cash flow." 223 Fischel and Cornell agree that any such balance should be added back to the valuation for AOL after the DCF analysis. Fischel cites to Professor Aswath Damodaran for the financial valuation rule
that "only cash in excess of the minimum cash balance needed for operations should be included in a DCF.,224

The cash on hand of the Company on the Valuation Date was \(\$ 554\) million. \({ }^{225}\) Fischel adds \(\$ 404\) million at the end of the DCF but reserves \(\$ 150\) million as working capital, an asset necessary to develop the return on investment that is represented in the DCF. \({ }^{226}\) Cornell adds back AOL's entire cash balance of \(\$ 554\) million. \({ }^{227}\) The Petitioners contend that the \(\$ 150\) million "minimum balance" is "litigation driven" 228 by pointing to (i) Verizon's and AOL's advisors purportedly opposite position in their valuations \({ }^{229}\) and (ii) AOL's historic dips below \(\$ 150\) million cash on hand in 2014. \({ }^{230}\) They contend that none of this cash should be excluded and that no working cash exclusion is appropriate.

I am not persuaded that, in evaluating the fair value of AOL under these circumstances, I should add back all of the cash of AOL, implicitly assuming that zero working capital would be required to achieve the returns that the DCF analysis projects. While I recognize that AOL dropped below \(\$ 150\) million in cash in the recent past, which the Petitioners point to as evidence that the minimum cash balance is a litigation façade, I also acknowledge that historical dips in cash reserves pertain to a different time period with different capital requirements. The preponderance of the evidence indicates that this not a litigation-driven argument. \({ }^{231}\) I instead find that the withholding of \(\$ 150\) million as working capital is reasonable and decline to add it back into the DCF.

\section*{IV. CONCLUSION}
*21 In arriving at fair value, for the reasons discussed above, I give full weight to my DCF valuation. I begin with Fischel's DCF valuation of \(\$ 44.85\) and add \(\$ 1.28\) per share \({ }^{232}\) for the adjustment to a \(3.5 \%\) perpetuity growth rate and \(\$ 2.57\) per share to include the Display Deal as part of AOL's operative reality. My DCF analysis therefore results in a fair value of \(\$ 48.70\) per share. While the deal process was not Dell Compliant and thus not entitled to deference as a reliable indicator of fair value, it was sufficiently robust that I use the deal price as a "check" on my analysis, while granting it zero explicit weight. I note that value derived from my DCF does not deviate grossly from the deal price of \(\$ 50\).

I am cognizant, however, that I am saying two seemingly incongruent things; namely, that AOL's deal process was insufficient to warrant deal price deference at \(\$ 50\) per share -because, due to deal deficiencies, the sales price may not capture the full fair value of the Company-while also holding, based on my DCF analysis, that the value of AOL stock is even lower, at \(\$ 48.70\) per share. One explanation for this incongruity is that a deal price may contain synergies that have been shared with the seller in the deal but that are not properly included in fair value.

For the reasons described above, I hold that the fair value of AOL stock was \(\$ 48.70\) per share on the Valuation Date. The Petitioners are entitled to the fair value of their shares together with interest at the statutory rate. The parties should confer and provide a form of order consistent with this Memorandum Opinion.

\section*{All Citations}

Not Reported in Atl. Rptr., 2018 WL 1037450

\section*{Footnotes}

1 E.g., 1 William Blackstone, Commentaries, *38-62.
28 Del. C. § 262.
3 See Dell, Inc. v. Magnetar Global Event Driven Master Fund Ltd., 2017 WL 6375829, at *13 (Del. Dec. 14, 2017) (noting that although the appraisal remedy is "entirely a creature of statute," statutory fair value has become a "jurisprudential, rather than purely economic, construct.").
4 DFC Global Corp. v. Muirfield Value Partners, L.P., 172 A.3d 346 (Del. 2017); Dell, 2017 WL 6375829.
58 Del. C. §262(h).
68 Del. C. §262(h).
7 The Respondent, however, argues strenuously that the transaction was Dell Compliant, and that I should accept their expert's DCF valuation as consistent with the "ceiling" of deal price, from which the DCF excludes synergy value. Resp't's Br. Addressing the Supreme Court's Decision in Dell. 1, 6.
8 Famous among users of a certain age as a provider of email access, as announced by the grammatically questionable "You've Got Mail."
9 Stipulated Joint Pre-Trial Order \(\mathbb{1} 96\).
10 JX26 (AOL 10-K ending December 31, 2002) at F-13, F-16.
11 JX66 (AOL 10-K ending December 31, 2010) at 2, 15.
12 Id. at 46.
13 JX750 at 4 (quoting Armstrong message in January 29, 2015 board agenda that "[w]hile I believe our overall strategic value as a company will continue to increase, the Wall Street view of the company will be neutral to negative unless one of our products becomes a catalyst for increased growth in 2015."); JX 1817 (quoting Armstrong in a March 26, 2015 email expressing concern about AOL's ability to obtain the required data and content to compete); JX 1079 (referring to a March 15, 2015 Armstrong email to the AOL Board about the lack of data and potential ways to address it, including a possible auction of the company); but see JX972 (quoting Armstrong email of February 28, 2015 to the AOL Board where Armstrong states that "[o]ur strategy and direction is dead on with the market and we have built a company that is strong and capable").
14 JX2901 (describing AOL's acquisition of the Huffington Post on AOL's Form 8-K filed February 6, 2011); JX0066 at 8586 (containing AOL's Form 10-K filed on December 31, 2010); JX0199 at 80-82 (containing AOL's Form 10-K filed on December 31, 2013); JX0968 at 2, 85-87, 90 (containing AOL's Form 10-K filed on December 31, 2014).
15 JX2196 (Verizon CEO McAdam) at 105:22-24 ("Q. Was AOL discussed as one of the few players that had scale and advertising technology? A. Yes."), 106:11-15 ("One of those markets was mobile advertising. And to deliver-to participate in that market and to build capability, AOL was one of the opportunities we saw to enter the market quickly and to have a reasonable starting point."); Trial Tr. 333:13-19 (Marni Walden, head of Verizon's Product Innovation and New Businesses division, spoke with Armstrong about Verizon's interest in AOL's "ad tech capabilities").
16 JX1180 at 3.
17 JX0968 (AOL 10K filed on December 31, 2014) at 8.
18 Id . at 8.
19 JX1180 at 4.
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20 See, e.g., JX1803 (examining JMP Securities, Our Thoughts on Verizon's \$50 per share Offer for AOL: Maintain Market
Perform Rating, May 12, 2015).
21 JX1851 (the "Solicitation" or "AOL Schedule 14D-9") at 16.
22 ld.
23 ld.
24 JX1180 at 4.
25 JX140
26 JX0155.
27 JX293.
28 JX0155.
29 ld.
30 ld.
31 ld.
32 ld. at 16-17.
33 AOL Schedule 14D-9 at 17.
34 ld. at 17.
35 ld.
36 Stipulated Joint Pre-Trial Order, Ex. A; JX1974 (quoting AOL CEO Armstrong about rumors surrounding AOL).
37 Id. at }18
38 JX0902 at 1.
39 ld.
40 Trial Tr. 490:1-20 (Armstrong).
41 Id. at 543:16-19.
42 JX1958 at 1 (June 22, 2015 email from Armstrong to Walden).
43 AOL Schedule 14D-9 at 18.
4 4 ~ l d .
45 ld.
46 ld.
47 ld.
48 Id. at 19.
49 JX2210 (Reynolds Dep.) at 119:8-120:4.
50 Id. at 84:17-18.
51 Id. at 85:5-8.
52 ld.
53 AOL Schedule 14D-9 at 19.
5 4 ~ J X 1 2 9 3 ~ a t ~ 3 . ~
55 ld.
56 AOL Schedule 14D-9 at 19.
57 ld.
58 ld.
59 ld.
60 ld.
61 Id. at 20.
62 ld.
63 ld.
64 ld
65 ld.
66 Id. at 20-21.
67 Id. at 21.

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68 JX1582 at 6.
69 Id.
70 Id.
71 Id.
72 Id.
73 Id.
74 Id.
75 Id.
76 Id. at 21-22.
77 Id. at 22; JX1755 at 3 (May 11, 2015 Verizon internal slideshow about the sales process stated that "Verizon did not communicate any flexibility on price, but signaled flexibility on break fee." Verizon submitted an offer of \(\$ 47\) per share but later submitted an offer for \(\$ 50\) per share "after significant verbal negotiations.").
78 ld.
79 Id.
80 Id.
81 ld.
82 ld .
83 Id.
84 ld . at 23 .
85 ld .
86 JX1958 at 1 (June 22, 2015 email from Armstrong to Walden).
87 JX1794 at 6.
88 AOL Schedule 14D-9 at 222, 24-25; Trial Tr. 796:13-20 (Reynolds) ("We were encouraged that there-the deal was drafted in a way that would allow an unfettered bid from a third party and it would enhance our shareholders' value.").
AOL Schedule 14D-9 at 21.
90 JX1755 at 14 (including a Verizon internal presentation from May 11, 2015).
91 Trial Tr. 796:21-22 (Reynolds).
92 Stipulated Joint Pre-Trial Order ๆף 8-9.
938 Del. C. § 262.
94 Stipulated Joint Pre-Trial Order \(\mathbb{1}\) 2-3.
95 Sept. 19, 2017 Oral Arg. Tr. 25:4-8.
96 Dell, Inc., 2017 WL 6375829, at *12 (citing Ala. By-Products Corp. v. Cede \& Co. ex rel. Shearson Lehman Bros., Inc., 657 A.2d 254, 258 (Del. 1995) ).
97 In re Appraisal of Ancestry.com, Inc., 2015 WL 399726, at \({ }^{* 1}\) (Del. Ch. Jan. 30, 2015) (citations omitted).
988 Del. C. § 262.
99 M.G. Bancorporation, Inc. v. Le Beau, 737 A.2d 513, 525 (Del. 1999).
100 Cavalier Oil Corp. v. Harnett, 564 A.2d 1137, 1142 (Del. 1989).
101 Id. at 1145.
102 In re Appraisal of Shell Oil Co., 607 A.2d 1213, 1218 (Del. 1992).
103 Cavalier Oil Corp., 564 A.2d at 1144.
104 Global GT LP v. Golden Telecom, Inc., 993 A. \(2 d\) 497, 507 (Del. Ch. 2010), aff'd, 11 A.3d 214 (Del. 2010).
105 Cavalier Oil Corp., 564 A.2d at 1144.
106 Golden Telecom, Inc., 11 A.3d at 218.
107 In re Appraisal of Shell Oil Co., 607 A.2d at 1222.
108 Dell, Inc., 2017 WL 6375829, at *15 (iting DFC Global Corp., 172 A.3d at 348-49, 351).
109 Dell, Inc., 2017 WL 6375829, at *14 (citing DFC Global Corp., 172 A.3d at 348).
110 DFC Global Corp., 172 A.3d at 366.
111 ld. at 349.

112 The Petitioners point to the fact that AT\&T's potential approach was rebuffed. However, given the circumstances here, including the record evidence that there was a fear that engaging with AT\&T would discourage or endanger the developing deal with Verizon, lack of engagement with AT\&T, pre-Agreement, appears reasonable.
113 JX1794 at 6.
114 Dell, Inc., 2017 WL 6375829, at *6-7.
115 Dell, Inc., 2017 WL 6375829, at *21, 24.
116 DFC Global Corp., 172 A.3d at 349.
117 Merlin Partners LP v. Autolnfo, Inc., 2015 WL 2069417, at *11 (Del. Ch. Apr. 30, 2015).
118 AOL stock publicly traded on the New York Stock Exchange. The unaffected stock price was \(\$ 42.59\), and the merger price was thus at a premium to the unaffected trading price. As with deal price, an efficiently derived stock trading price can serve as a check on a fair value analysis. Recently, this Court in Verition Partners Master Fund Ltd. v. Aruba Networks, Inc., 2018 WL 922139 (Del. Ch. Feb. 15, 2018), found an efficiently derived trading price to be fair value. I note that no party has advocated such here, and that no evidence concerning the efficiency of the market for AOL stock is before me. Moreover, the use of trading price to determine fair value requires a number of assumptions that, to my mind, are best made or rejected after being subject to a forensic and adversarial presentation by interested parties. Thus, I do not consider stock trading price further.
119 See supra note 7 . Because I do not explicitly give weight to the deal price, I need not address certain related issues, such as the calculation of synergies.
120 M.G. Bancorporation, Inc., 737 A.2d at 525.
121 Weinberger v. UOP, Inc., 457 A.2d 701, 713 (Del. 1983) (quoting Tri-Continental Corp. v. Battye, 74 A.2d 71, 72 (Del. 1950) ).

122 DFC Global Corp., 172 A.3d at 351.
1238 Del. C. § 262(h).
124 In re Appraisal of Ancestry.com, Inc., 2015 WL 399726, at *18.
125 Sept. 19, 2017 Oral Arg. Tr. 25:5-8.
126 In re of SWS Grp., Inc., 2017 WL 2334852, at *11 (Del. Ch. May 30, 2017).
127 Id.
128 Agranoff v. Miller, 791 A.2d 880, 896 (Del. Ch. 2001).
129 Dell, Inc., 2017 WL 6375829, at *28.
130 Trial Tr. 108:17-21 (Cornell).
131 Trial Tr. 1065:6-9 (Fischel).
132 Del. Open MRI Radiology Assocs., P.A. v. Kessler, 898 A.2d 290, 332 (Del. Ch. 2006).
133 JX0917; JX0921 at 46.
134 JX2255 (Fischel Report) ๆ 41; AOL Schedule 14D-9 at 24.
135 Trial Tr. 649:19-650:3 (Dykstra).
136 JX0917; JX0921 at 46.
137 Trial Tr. 355:17-22 (AOL CFO of Platforms Bellomo), 641:17-642:10 (AOL CFO Dykstra).
138 Id. at 363:10-13 (quoting AOL CFO of Platforms Bellomo's response that the LTP did not "account for the cost of acquiring Millennial Media or integrating it"); JX1248 (quoting an email from AOL CFO of Platforms Bellomo to another AOL employee: "[l]s our LTP a tough case to achieve on an organic basis?" "[T]he current LTP does not assume any acquisitions ....").
139 Trial Tr. 361:19-364:16 (Bellomo); JX1712 at 3 ("Major Product/Solution Improvement Assumptions").
140 Trial Tr. 889:13-22 (Roszkowski); JX1332; JX1457; JX2991; JX1286.
141 Trial Tr. 649:19-650:3 (Dykstra).
142 Id. at 653:22-654:10 (Dykstra) ("I wouldn't use them for formal valuation purposes for a different purpose. I mean, this goodwill impairment testing is a different purpose, to just judge whether you have a non-cash impairment charge for that period ... It was a different process, different people involved.").
143 Trial Tr. 650:12-13 (Dykstra).
144 Id. at 650:21-23 (Dykstra).
145 Pet'rs' Opening Br. Ex. A.

146 JX1266 (quoting email from Allen \& Co. that "[w]e have included [net working capital] from the LRP as well, which appears to be materially different from research estimates, are we sure the numbers we have for NWC are correct?"); see also JX2473 (quoting an internal AOL email from May 8, 2015 that the "increase in working capital seems crazy high").
147 Trial Tr. 371:5-15 (Bellomo); Id. at 832:16-833:7, 835:22-836:2 (Allen \& Co. director Isani) ("Q. And what do you understand the purpose of these [Disputed] cash flow projections to be? A. To make a case to Verizon on how the cash flow could be improved over time, should the company successfully deploy certain efforts."); but see id. at 827:7-828:2 (Isani) (agreeing that "it was typical in these processes to present a robust opportunity case to a potential buyer").
148 Id. at 370:14-18 (Bellomo).
149 ld. at 371:1-4.
150 JX0819 at 1-2 (citing emails between AOL and Allen \& Co. executives); accord Trial Tr. 311:7-312:3 (Doherty).
151 Trial Tr. 656:19-21 (Dykstra) ("So we did that exercise and came up with a more aspirational set of working capital projections."); JX1691 (quoting a May 10, 2015 email from Dykstra to Roszkowski that "[w]e are going to note to the board at the meeting tomorrow that we provided a more aspirational cash flow to the [Verizon] team as part of the process and we'll need to note the differences at a very high level to the cash flow we provide to the board"); JX1748 (quoting an email from AOL Senior Vice President of Financial Planning \& Analysis Michael Nolan to Dykstra on May 10, 2015 that "[b]elow [financial projections] compare[ ] base case vs aspiration as well as revised tax comment" and refer[ ] to an assumption that "improved work capital driven by DSO [days sales outstanding] and DPO [days payable outstanding] improvement initiatives planned in LRP," which allegedly could only be achieved by a Verizon acquisition of AOL).
152 Trial Tr. 656:5-21, 658:23-659:8 (Dykstra) ("I believe they were talking about the exercise of taking a ... stretch or aspirational approach to looking to see what numbers we could tweak in the model, and things that would be impacted by Verizon if they were there with us ....)", 662:4-663:12 ("[W]e went back and said what if we could stretch and Verizon could help us improve some of the dynamics in our cash flow, and collections in particular."); Id. at 896:20-897:20 (Roszkowski); JX1690 (quoting same email as JX1691); Trial Tr. 371:16-373:15 (Bellomo); Id. at 656:5-657:20, 662:4-663:16 ("Q. And when you wrote about the "more aspirational cash flow given to Verizon," to what are you referring? A. I'm referring to that exercise that we talked about, where we went back and said what if we could stretch and Verizon could help us improve some of the dynamics in our cash flow, and collections in particular."), 695:3-9 (Dykstra) ("Again, l've said that the additional assumptions were assuming we would get better leverage with Verizon."); Trial Tr. 835:4-836:2 (Isani); Id. at 892:2-10, 893:11-23 (Roszkowski); JX1286 (working capital would improve if AOL had "more leverage on both payment terms and ability to collect ...."); JX1452 at 1 (quoting internal LionTree emails in April 2015 that "AOL is assuming ... more scale" would lead to "a faster collection time"); JX1306 (April 14, 2015 email from Allen \& Co. to AOL executives that an assumed change in working capital would be due to "[m]ore leverage over advertisers and publishers"); JX1419 (April 18, 2015 email from Allen \& Co. to Verizon financial advisors including a "Net Working Capital Overview" with a "[c]hange in net working capital projections by segment").
153 JX1280 (noting the Disputed Projections were prepared after "an internal review of the LRP"); JX1423 (quoting an internal AOL email chain discussing the change in projection assumptions in advance of a call); JX1414 (detailing the extensive internal input into the Disputed Projections from Corporate Development, Financial Planning \& Analysis, and Allen \& Co.); JX1398 at 1 (quoting an AOL finance team email of April 17, 2015 that the updated working capital projections resulted in "no change in AOIBDA [free cash flow] or end cash").
154 JX1437 (quoting Allen \& Co. director Isani in an April 20, 2015 email that: "FYI-[AOL] will also have their controller Lara sweet [sic] join the call at noon. PLEASE NOTE: Lara is not aware of the change in the structure to a \(100 \%\) deal. As such, please continue to provide the context that the discussion is re: a deal with the last \(80 / 20\) public minority structure"); JX1434 at 1 (citing email to show that Lara Sweet, AOL's Controller was unaware of the potential Verizon transaction when she endorsed the Updated Projection); JX1411 at 1 (Armstrong e-mail to the Board, outside counsel, Allen \& Co., and Dykstra, and Roszkowski, stating "[i]t is really important you know that the main people represented on this email are the limited set of people that have information on our deals").
155 Trial Tr. 715:20-716:24 (Dykstra) (agreeing that Dykstra "t[old] the board the difference in cash flows at a very high level" after the Disputed Projections had been sent to Verizon).
156 JX2451 at 2 (quoting an internal AOL email that "AJ can send you the LRP-caveat being that it is incorrect and does not reflect the updated numbers per all discussions since that time"); JX1406 (quoting internal email from Allen \& Co. on April 18, 2015 that "[w]e have already told [Verizon] all old numbers should be disregarded as they are not correct, however they would still like to have a call").

157 Pet'rs Answering Post-Trial Br. 17 ("The documents cited by Respondent generally assert that working capital would improve if AOL had more scale or leverage (which AOL could obtain in ways other than an acquisition by Verizon) among several other strategies AOL had employed to improve working capital.").
158 Glassman v. Unocal Exploration Corp., 777 A.2d 242, 248 (Del. 2001).
159 Montgomery Cellular Holding Co., 880 A. 2 d 206 at 222 (Del. 2005).
160 Ala. By-Prods. Corp. v. Neal, 588 A.2d 255, 256-67 (Del. 1991); M.G. Bancorporation, Inc, 737 A.2d at 525; LongPath Capital, LLC v. Ramtron Int'I Corp., 2015 WL 4540443, at *9 (Del. Ch. June 30, 2015).
161 Ramtron, 2015 WL 4540443, at *13 \& n.113; see also M.G. Bancorporation, Inc., 737 A.2d at 525; Ala. By-Prods. Corp., 588 A.2d at 256-67.
162 Gearreald v. Just Care, Inc., 2012 WL 1569818, at *6 (Del. Ch. Apr. 30, 2012).
163 Pet'rs' Answering Br. 47.
164 JX2076 at 2-3 (citing August 25, 2015 internal Verizon proposal for merger agreement with Millennial); Trial Tr. 48:6-7 ("Millennial Media ... is basically a programmatic mobile platform ....").
165 JX2008 (including an "Advertising Sales and Services Agreement" executed on June 30, 2015).
166 JX2441 (including a "Sales Partnership Agreement for AOL's Operation of [Microsoft's] Display and Video Advertising Monetization" executed on June 23, 2015).
167 See JX2346 (LTP) at Tab I. A. 2 Key assumptions (displaying unawareness of Search Deal in statement that "[n]ew search deal terms set in for 2016. This will negatively impact revenue and bottom line for Core").
168 JX2441.
169 JX2009 at 1 (quoting AOL executive that the MSFT deal "was 9 months of long drawn out internal and external negotiation")
170 JX2412 (citing May 7, 2015 email from Bain to AOL: "Deal terms are still in flux; we anticipate having final terms on Friday \(5 / 8\), with some work still to be done on PMP terms."); JX2413 (quoting May 8, 2015 internal AOL email with "the latest term sheet" with updates about "[AOL's] latest reconciliation on terms with [Microsoft]").
171 Trial Tr. 510:4-8, 12-13 (Armstrong).
172 JX1816 at 1 (email from Armstrong to AOL executives on May 14, 2015).
173 JX2425 (quoting email from AOL executive Roszkowski to another AOL employee on June 2, 2015 to hold off on announcing the Display Deal until after the Verizon announcement).
174 JX2008 at 38-39 (Display); JX1997.
175 Pet'rs' Answering Br. 46-47 (stating that the Millennial and Display Deals contribute \(\$ 6.71\) per share and that the Millennial Deal accounts for \(\$ 4.14\) per share of that contribution). I note that Cornell examines the Millennial and Display Deals as combined. Pet'rs' Post-Trial Answering Br., Ex. A.
176 JX2008; Trial Tr. 512:12-20 (Armstrong); JX2146.
177 JX1816 at 1 (email from Armstrong to AOL executives on May 14, 2015); JX2425 (quoting email from AOL executive Roszkowski to another AOL employee on June 2, 2015 to hold off on announcing the Display Deal until after the Verizon announcement).
178 JX2433.
179 JX2146 at 1-2 (including a copy of the Search Deal agreement); JX1997 (including an internal AOL email circulating the signature pages). The parties dispute whether the Search Deal closed on June 26 or 28, 2015; the distinction is not material to my decision here.
180 JX2008; JX2146.
181 Pet'rs' Answering Br. 47.
182 JX0663 at 1; JX2112 at 14.
183 JX1476 at 1.
184 JX1595 at 2.
185 JX2112 (Millennial Schedule 14D-9) at 17.
186 ld. at 18.
187 ld.
188 ld. at 19.
189 ld.
190 Stipulated Joint Pre-Trial Order I 9.

191 ld
192 Id. \(\mathbb{T} 20\).
193 JX2112 (Millennial Schedule 14D-9) at 19-20.
194 Id. at 20-24, 26 ("AOL was the only party to submit a proposal to acquire Millennial");
195 Id. at 23; JX2988.
196 JX2112 at 25.
197 JX2130 at 2.
198 Pet'rs' Answering Br. 47.
199 JX2100 at 1 (emphases added); see also Trial Tr. 578:15-579:17, 582:7-18 (Doherty) ("Q. And in your view, Mr. Doherty, could you simply add the projections relating to the new Microsoft deal on top of the prior management projections? A. No. Not at all. I mean, two reasons. Number one, I felt it was already pretty much baked into their plan; and, number two, we didn't have a set of projections.").
200 Id. at 901:3-14 (AOL head of corporate development Roszkowski); see also id. at 343:1-7 (Verizon EVP Walden); Id. at 314:1-19 (Verizon SVP Doherty).
201 Tr. 374:15-375:12 (Bellomo); Tr. 512:2-513:8 (Armstrong); JX1993 at 6, 13-15 (quoting a June 25, 2015 internal Verizon slide deck explaining the deal and its risks and benefits to AOL and Verizon, including employee integration schedules); JX2008 at 9-16, 22-23 ("Advertising Sales and Services Agreement" between AOL and Microsoft dated June 30, 2015).
202 The parties dispute the meaning of "delivered value" in an exhibit (JX2436) as either "revenue that is delivered to AOL and Microsoft on account of the deal" (Resp't's Answering Br. 57) or "by definition ... additive" (Pet'rs' Opening Br. 59). The parties also dispute a slide (JX2441 at 8) that was either "apparently put together by a Bain consultant and never shared outside a small group of AOL's management, showing how AOL might be able to perform as part of Verizon, with illustrative numbers added on to AOL's long-term plan" (Resp't's Answering Br. 57) or as evidence that AOL viewed the Display and Millennial Deals as directly additive to the LTP (Pet'rs' Opening Br. 59-60).
203 Trial Tr. 232:18-19 (Cornell); JX2255 ๆ 41 n. 90 (Fischel Report).
204 Pet'rs' Opening Br. 56.
205 JX2346 at Tab I. A. 2 Key assumptions [for AOL's LTP] ("New search deal terms set in for 2016. This will negatively impact revenue and bottom line for Core.").
206 Trial Tr. 512:12-20 (Armstrong).
207 JX1906_VZ-0056420 at 5-6 (comparing difference in Search Deal projections to "AOL May 2015 Outlook + 2016-18 Long Term Plan").
208 Pet'rs' Opening Br. 56.

218 Pet'rs' Post-Trial Answering Br. 50.
219 Pet'rs' Post-Trial Opening Br. 66.
220 Id. at 66-67; JX2277 (Cornell Report) IIf 89-92.
221 Resp't's Opening Post-Trial Br. 74; Trial Tr. 642:11-23 (Dykstra) ("Q. Why did you only project out four years as part of the long-term planning process? A. It was very difficilt to go beyond four years. You know, we were in businesses and markets where the world was changing pretty quickly. I mean, digital marketing really was just coming into play, so it was moving fast. We-it's difficult to predict advertising trends to begin with."); JX2233 at 112:22-113:5 (Eoin Ryan Dep., former AOL head of investor relations and now AOL head of financial planning); Trial Tr. 642:11-23 (Dykstra); JX2233 at 112:22-113:5 (Ryan Dep.).

222 I use the Fischel model the parties provided to calculate my DCF. I note that Fischel's model includes a broken reference (\#REF!) in Ex. N on the "AOL Dilutive Results (lexicon)" tab at cell BJ4. The reference impacts calculations made in the "DCF" tab regarding the shares outstanding at cell B16. I input " 85.1 " into cell B16 in accordance with Fischel's Report at JX2255 I 57, which states that "AOL had approximately 85.1 million fully diluted shares outstanding as of the Valuation Date." The result was a \(\$ 1.28\) per share difference when applying a \(3.5 \%\) perpetuity growth rate, or \(\$ 46.13\) per share. The parties may address any concerns with this approach before the Final Order.
223 Neal v. Ala. By-Products Corp., 1990 WL 109243, at *16 (Del. Ch. Aug. 1, 1990), aff'd, 588 A. 2 d 255 (Del. 1991).
224 JX2255 at 36 (citing Aswath Damodaran, Dealing with Cash, Cross Holdings and Other Non-Operating Assets: Approaches and Implications, working paper, Sept. 2005, at 12) ("Damodaran").
225 JX2255 (Fischel Report) If 55 (including "cash and equivalents of \(\$ 530\) million plus assets held for sale of \(\$ 24\) million").
226 ld.
227 JX2277 (Cornell Report) at 134.
228 Pet'rs Post-Trial Opening Br. 69.
229 See JX1546 at 12 (Guggenheim) (showing \(\$ 477\) million cash in an enterprise value analysis); JX2319 (Allen) at Tabs "WholeCo Multiple Val," "SOTP-Mult" (showing each as incorporating \(\$ 493\) million cash under a multiple-based valuation analysis), "WholeCo DCF (Old CF)," (including \(\$ 493\) million cash in calculating the weighted average cost of capital). I note that the Petitioners do not clearly point to an example of where Allen \& Co. added back all of AOL's cash balance after a DCF analysis.
230 See, e.g., JX2267 (excerpt of AOL June 30, 2014 10-Q showing cash and equivalents of \(\$ 136.2\) million); JX2268 (excerpt of AOL March 31, 2014 10-Q showing cash and equivalents of \(\$ 123.5\) million); Trial Tr. (Dykstra) 764:1-2 ("I don't remember when we first came up with the [ \(\$ 150\) million] minimum cash [goal].").
231 Trial Tr. 765:4-7 (AOL CFO Karen Dykstra) ("I said we had a goal of maintaining \(\$ 150\) million. We felt that that should be our minimum cash balance. We felt that that was prudent."); JX00921 at 31 (Feb. 27, 2015 AOL Board Agenda: "To balance our growth strategy with cash management objectives, our goals are to maintain ... at least \(\$ 150 \mathrm{~m}\) of cash on hand, using the credit facility for strategic transactions (share repurchases and M\&A transactions).").
232 See supra note 222.

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\section*{UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.}

Court of Chancery of Delaware.

\section*{IN RE APPRAISAL OF ANCESTRY.COM, INC.}

\author{
Consolidated Civil Action No. 8173-VCG \\ I \\ Submitted: October 14, 2014 \\ | \\ Decided: January 30, 2015
}

\section*{Attorneys and Law Firms}

Kevin G. Abrams, J. Peter Shindel, Jr., and Matthew L. Miller, of Abrams \& Bayliss LLP, Wilmington, Delaware, Attorneys for Petitioner Merion Capital, L.P.

Ronald A. Brown, Jr., Marcus E. Montejo, and Eric J. Juray, of Prickett, Jones \& Elliott, P.A., Wilmington, Delaware, Attorneys for Petitioners Merlin Partners LP and The Ancora Merger Arbitrage Fund, LP.

Stephen C. Norman, Kevin R. Shannon, and James G. Stanco, of Potter Anderson \& Corroon LLP, Wilmington, Delaware; Of Counsel: Stephen R. DiPrima, William Savitt, Adam M. Gogolak, and Steven Winter, of Wachtell, Lipton, Rosen \& Katz, New York, New York, Attorneys for Respondent Ancestry.com, Inc.

\section*{MEMORANDUM OPINION}

\section*{GLASSCOCK, Vice Chancellor}
*1 I am tasked with determining the "fair value" of shares of a publicly-traded company, in this case shares formerly held by the Petitioners, who were cashed out in the purchase of Ancestry, Inc. ("Ancestry" or the "Company") by a private equity investor, Permira Advisors, LLC ("Permira"). The sale was at a \(40 \%\) premium to the market price untainted by the auction process, which process itself involved a
market canvas and uncovered a motivated buyer. The price paid stockholders who tendered in the sale was \(\$ 32\). The Petitioners' valuation expert proved something of a moving target; he argued that the fair value of a share of Ancestry stock at the time of the merger was as high as \(\$ 47\), but at least \(\$ 42.81\). The Respondent's expert opined that fair value was \(\$ 30.63\), despite the fact that the buyer, a non-strategic investor with actual money at risk, was willing to pay more.

I have commented elsewhere on the difficulties, if not outright incongruities, of a law-trained judge determining fair value of a company in light of an auction sale, aided by experts offering wildly different opinions on value. I will not repeat those comments here. \({ }^{1}\) It is worth noting, however, that this task is made particularly difficult for the bench judge, not simply because his training may not provide a background well-suited to the process, but also because of the way the statute is constructed. A judge in Chancery is the finder of fact, and is frequently charged to make difficult factual determinations that may be without his area of expertise. The saving judicial crutch in such situations is the burden of proof. The party with the burden must explain why its version of the facts is the more plausible in a way comprehensible and convincing to the trier of fact; if not, it has failed to carry its burden, and the judge's duty is accordingly clear. A judge in a bench trial relies, therefore, on the burden of proof; he holds on to it like a shipwreck victim grasps a floating deckchair or an ex-smoker hoards his last piece of nicotine gum. Section 262 is unusual in that it purports explicitly to allocate the burden of proof to the petitioner and the respondent, an allocation not meaningful in light of the fact that no default exists if the burden is not met; in reality, the "burden" falls on the judge to determine fair value, using "all relevant factors." \({ }^{2}\) Here, therefore, I must independently review those factors to determine "fair value," the price per share to which the Petitioners are entitled. The results of my analysis are set out below.

\section*{I. BACKGROUND FACTS}

\section*{A. The Business of Ancestry}

Ancestry is described as "a pioneer and the leader in the online family research market," having "digitized, indexed, and added" to its websites "more than 12 billion historical records ... over the past 18 years." \({ }^{3}\) It "is the world's largest online family history resource,,\({ }^{4}\) and has over two million subscribers. \({ }^{5}\) The Company also recently launched

AncestryDNA, selling \(\$ 99\) DNA test kits, though the subscription services are still its most significant source of revenue. \({ }^{6}\)
*2 In November 2009, Ancestry became a publicly-traded company, trading at \(\$ 13.50\) per share. \({ }^{7}\) Several months later, in March 2010, the show Who Do You Think You Are?, for which Ancestry was the financial and research sponsor, began airing on Friday nights on NBC. \({ }^{8}\) This show featured celebrities learning more about their own family histories; Ancestry provided all of the research for these episodes. \({ }^{9}\) Additionally, "Ancestry purchased product integration and advertising on the show, which generated substantial new interest in its services." \({ }^{10}\)

This show, which aired on NBC for three seasons, was a "massive catalyst for growth." \({ }^{11}\) Between 2009 and 2011 in particular, Ancestry experienced an unprecedented acceleration of new subscribers-the "North Star metric" for this subscription business-leading to strong growth in revenue and EBITDA. \({ }^{12}\) By early 2011, Ancestry stock was trading at over \(\$ 40\) per share. \({ }^{13}\) The show was ultimately cancelled in May 2012, the same day that it was nominated for an Emmy award. \({ }^{14}\)

\section*{1. Key Metrics}

As an internet-based, subscription-driven company, Ancestry's key business metrics include gross subscriber additions ("GSAs"), churn, and subscriber acquisition cost ("SAC"). GSAs "measure the total number of new customers who purchase a subscription during any given period." \({ }^{15}\) Churn measures the number of cancelled subscriptions in a given period, represented as a percentage of the total subscriber base. \({ }^{16}\) Finally, SAC measures the "efficiency of [Ancestry's] marketing and advertising programs in acquiring new subscribers" by calculating the average cost of each new subscriber. \({ }^{17}\)

Howard Hochhauser, Ancestry's CFO and COO, testified at trial that SAC is an important driver of EBITDA because marketing costs are Ancestry's largest variable costs. \({ }^{18}\) Churn is a proxy for the "health of [the] existing business." \({ }^{19}\) Churn, together with GSAs, gives a picture of the subscriber base in a given period; as a subscription business, these two metrics
make up the all-important "hamster wheel of new people coming in and people existing at the same time., 20

\section*{2. Competitive Forces}

Ancestry faces several competitive forces, including a number of start-up companies \({ }^{21}\) and an increasing amount of free archived information more readily accessible by internet search engines. \({ }^{22}\) Additionally, the Church of Jesus Christ of Latter Day Saints operates a website that has resulted in a "competitive dynamic" for Ancestry. \({ }^{23}\) The website, FamilySearch.org, provides free online access to some of the Church's extensive resources-the Church has aggregated "what's recognized as the world's largest collection of data and content that would be valuable for people researching their family history." 24 This collection previously enticed interested individuals to travel to Salt Lake City, but the FamilySearch.org website has begun digitizing the collection and "includes a lot of the same features and functionality" as Ancestry.com. \({ }^{25}\)

\section*{B. The Sales Process}
*3 By early 2012, Ancestry stock was trading in the low- \(\$ 20 \mathrm{~s}\). Around that time, "[i]nterest rates were at a record low," and the Company was approached by a few private equity firms. \({ }^{26}\) After receiving these unsolicited overtures, Ancestry's board began exploring strategic options for the Company. Ancestry's nine-member board included six independent directors, the Company's CEO, Timothy Sullivan, and two directors who were principals at Spectrum Equity ("Spectrum"), which at that time owned approximately \(30 \%\) of the Company. \({ }^{27}\)

At an April 19, 2012 board meeting, Qatalyst Partners ("Qatalyst"), a financial advisor, made a presentation to Ancestry's directors. \({ }^{28}\) In this "state of the union",29 presentation, Qatalyst raised as among its concerns that Ancestry "was getting people that were less engaged in the hobby" and who would not maintain their subscriptions, though the Company's subscription base had been growing as a result of Who Do You Think You Are?.\(^{30}\) Qatalyst noted that Ancestry's subscription-based service raised questions regarding "the size of Ancestry's available market, [and] the degree to which Ancestry had already saturated that
market., \({ }^{31}\) As Jonathan Turner, a Qatalyst Partner, testified at deposition:

There are only so many people who are interested and have the time to be able to devote a significant amount of their free time to genealogy and using the company's product and be willing to pay for it. And that was a-that was a concern because once the company hit ... single-digit millions of subscribers, at this point the business was largely U.S. with a little bit of-a little bit of U.K. How many people left are there? \({ }^{32}\)
The future of Who Do You Think You Are? was also uncertain, largely due to declining ratings, \({ }^{33}\) as noted, the show was cancelled the month following this meeting, just as the auction process began.

\section*{1. The Auction Process}

Given the board's go-ahead, the auction process commenced in May 2012. Qatalyst reached out to a group of potential strategic buyers and financial sponsors including preeminent private equity firms and strategic partners that "the company had had some contact with at various times in the past or that Qatalyst thought might be particularly interested in the business." \({ }^{34}\) In early June, news of the auction process was leaked, and on June 6, Bloomberg published an article detailing the previously confidential process. \({ }^{35}\) After the news of a potential sale of Ancestry became public, additional parties contacted the Company to express interest; Qatalyst ultimately held discussions with fourteen potential bidders, six potential strategic buyers and eight financial sponsors. \({ }^{36}\)
*4 By June, nine potential bidders had signed non-disclosure agreements, thereafter receiving confidential information about the Company and meeting with management, including Ancestry's CEO and CFO. \({ }^{37}\) Ultimately, seven potential bidders submitted non-binding preliminary indications of interest, with bids falling in a range from \$30-\$31 to \$35\(\$ 38 .{ }^{38}\)

Following these preliminary expressions, the Company invited the three highest bidders, including Permira, to engage in full diligence. \({ }^{39}\) According to Ancestry's CEO Timothy Sullivan, during this extensive diligence process, these bidders "developed to varying degrees some real negativity about the company's prospects," which "significantly
changed all of their views about value and ... go-forward strategies. \({ }^{40}\) Some of these bidders worked with their consultants to develop, based on data provided in diligence, detailed analyses of important metrics such as "renewal data and the engagement among different segments." \({ }^{41}\) These cohort analyses "broke down the different cohorts of people that joined a year ago or six months ago or three months ago, and sought to track the retention rates of similar groups of cohorts at different times., \({ }^{42}\) The Company had not previously conducted similar studies. \({ }^{43}\) The conclusions drawn from these studies were not favorable, showing declining trends across every cohort of monthly subscribers, at a time when these subscribers accounted for \(60 \%\) of Ancestry's business. \({ }^{44}\) Hochhauser characterized this data as "the two-by-four over the head[;] 'Hey, guys, not sure you're aware of this, but this is pretty important.' " 45

Qatalyst had set a deadline of early August for submission of final bids. When no party submitted a bid by that deadline, \({ }^{46}\) and despite the existence of a don't-ask-don'twaive provision, a fourth bidder, Hellman \& Friedman ("H \& F"), was re-invited into the process. \({ }^{47}\) Although initially enthusiastic to engage in the due diligence process, \(\mathrm{H} \& \mathrm{~F}\) became concerned after familiarizing itself with Ancestry's data and did not submit a bid. \({ }^{48}\)
*5 At this point, the Company hired Goldman Sachs to "make some recommendations for what the company could do as an ongoing stand-alone public company." \({ }^{49}\) As Sullivan noted at trial, "[I]t was really the sort of Plan B option, as we referred to it internally., 50

Meanwhile, the Company pursued the sales process. With two parties maintaining their interest in the Company, a partnership between these bidders was explored, but ultimately unsuccessful. \({ }^{51}\) On October 3, 2012, Permira submitted a bid of \(\$ 31 .{ }^{52}\) Permira raised its bid to \(\$ 31.25\), and ultimately to \(\$ 32\), after further negotiation. \({ }^{53}\) During these final price negotiations, Turner sent an email to Sullivan expressing, "I told [Brian Ruder of Permira] that \(\$ 32\) was our line in the sand and we would not take anything less than that to the board. \({ }^{, 54}\) Sullivan responded, in part:

I would strongly urge that we communicate even more clearly to Brian tomorrow morning the following:
1. If we hit Monday morning with him at \(\$ 31.99\) or lower, we are done. There will be no additional counter offer. We are done and moving on [ ] with [the] press release[,] Q3 numbers[,] stock buy-back plans, etc[.] At least this is my personal view and one that I will share actively with the [board]. I will shave, put on a nice shirt, and throw myself energetically back into the job of being a public company CEO[,] with the extra vendetta of making the entire private equity industry look like idiots over the next couple of years.
2. If we hit Monday morning with him at \(\$ 32.25\), I will be an active advocate for this deal. I feel strongly that this is a price that is fair to shareholders.
3. If we hit Monday morning and we are between \(\$ 32\) and \(\$ 32.24\), I will largely defer to the independent members of the [board]. I might support the deal at this level, but I will not lead the charge to have it approved. This is a modest toughening of my previous position, but I am flabbergasted by his incrementalism, and I do not want this to drift into next week.... \({ }^{55}\)
At trial, he explained that this language was meant to provide Turner with "some words, a real stick ... that he could use to advance his negotiations with Mr. Ruder., \({ }^{, 56}\) Sullivan further clarified that "this was a calculated ... effort" as the Company had "determined that there was a reasonable chance [it] could get Permira to up their bid to [\$]32," so he was using this as "a tactic to ... draw a line in the sand and ... lead Permira to believe that below [\$]32, it wasn't going to happen." \({ }^{57}\) It was, in short, intended as "a little bit of dramatic flourish." 58 As noted, after active negotiation, Permira eventually offered \$32.

On October 18, the board reviewed Permira's proposal, as well as a Qatalyst presentation on its fairness opinion. \({ }^{59}\) At this meeting, the board approved the merger with Permira. The \(\$ 32\) price represented a \(41 \%\) premium on the unaffected trading price of Company stock. \({ }^{60}\) On October 21, Ancestry entered into a merger agreement with Permira affiliates Global Generations International, Inc. ("Global") and its wholly owned subsidiary, Global Generations Merger Sub Inc. ("Merger Sub"). \({ }^{61}\)
*6 The merger was announced on October 22. During the two-month period between the announcement of the merger and the closing, no topping bid emerged, despite a fiduciary
out clause in the merger agreement. \({ }^{62}\) On December 27, 2012, a majority of Company stockholders approved the merger; in fact, \(99 \%\) of voting shares voted in favor of this transaction. \({ }^{63}\) On December 28 (the "Merger Date"), Ancestry merged with Merger Sub, with Ancestry as the surviving corporation. Ancestry is now a wholly owned subsidiary of Global.

\section*{2. Management Projections}

Ancestry did not prepare management projections in the ordinary course of business; the projections prepared in connection with the sales process were "the first time that [Ancestry had] ever done long-term projections." \({ }^{, 64}\) In fact, "[u]p until that point [May 2012,] [Ancestry] had frankly never done anything out past [ ] one year." \({ }^{\prime} 65\)

Hochhauser worked with Curtis Tripoli, head of Ancestry's financial planning and analysis ("FP \& A") group, and his team, as well as Sullivan, in preparing the Company's projections. \({ }^{66}\) The goal was to "come up with a set of optimistic projections that we could stand in front of a room and walk through and present, but that we know are going to be very optimistic. \({ }^{,{ }^{67}}\) The motivation to be optimistic derived in part from the belief that potential bidders were "going to cut back or discount what we say, so we want to give ourselves some room or some cushion." \({ }^{68}\)

\section*{a. The May Projections}

In early May, a set of projections was developed that addressed the key metrics of Ancestry's business-GSAs, churn, and SAC (the "Initial May Projections"). According to Sullivan "the view was that these were forecasts that were going to be used by people that were going to ... potentially bid to buy the company. And so we determined that we wanted those to certainly be optimistic, even aggressive.," 69

Hochhauser presented these projections to the Company's directors at a May 15 board meeting. \({ }^{70}\) Hochhauser noted in a May 14 email to the board enclosing materials for the meeting that he had adjusted the projections to account for NBC's recent cancellation of Who Do You Think You Are?.. \({ }^{71}\) After reviewing these projections, "the board's push-back was
that you guys really need to turn-you know, be a touch more aggressive here and accelerate your growth.,"72

Hochhauser took the board's "feedback [to] try to make [the projections] more aggressive" and in fact "made them slightly more aggressive., \({ }^{73}\) In these new projections (the "May Sales Projections," and collectively with the Initial May Projections, the "May Projections"), management "turned the dials-GSA, SAC, churn-as much as [they] could while maintaining ... credibility." 74 Specifically, "to go much beyond what [management] did, you would have to assume some new business, creation of new business." \({ }^{75}\) These updated projections were presented to and approved by the board, and provided to interested parties during the sales process.

\section*{b. The October Projections}
*7 After receiving the May Sales Projections, some bidders commented that the assumptions were optimistic and aggressive. \({ }^{76}\) That fall, partly in response to bidder feedback, management developed a new set of projections (the "October Projections"). Qatalyst had also been "pretty clear ... that they likely couldn't render a fairness opinion based upon those May numbers." \({ }^{77}\) As Hochhauser put it, "[i]f we're selling the company, the board would need to have the best set of numbers they could possibly have to make an important decision., \({ }^{78}\)

To develop the October Projections, Hochhauser, working with Curtis, and others in Ancestry's FP \& A group, along with Sullivan, underwent the "[s]ame process mechanically" as they had for the May Projections. \({ }^{79}\) In August, however, the budget process had begun, \({ }^{80}\) and the Company "had actualized or closed the months leading up through September.," \({ }^{\circ 1}\) Accordingly, "2012 was sort of a tighter set of numbers." 82

The updated numbers, in addition to the incorporation of bidder feedback, led to projections that were more conservative than the May Sales Projections previously approved by the board and provided to bidders. \({ }^{83}\) As Hochhauser noted, in this set of projections, management -"shooting for the bull's eye of numbers"-was "not trying to be optimistic or pessimistic. We're trying to be right down
the middle." \({ }^{\circ 4}\) Sullivan relayed that the "philosophy" behind these projections was "accuracy." 85

On October 11, the October Projections were finalized. These Projections included two scenarios-Scenario A and Scenario B (the "Scenarios")-which were not weighted; instead, they were meant to act as outer "goalposts" of a range, with the goal being "to just look between the two of them., 86 At trial, management opined that these were the best estimates of the Company's future performance. \({ }^{87}\) Notably, however, at the time the Scenarios were being created, management was also contemplating equity rollovers into the new company.

\section*{3. Equity Rollover}

Because Ancestry was engaging with a private equity bidder, Sullivan understood that there could be an expectation that he would rollover around \(50 \%\) of his equity into the new company. \({ }^{88}\) In anticipation of this rollover, Sullivan conducted several calculations, which he also sent to Hochhauser and Turner in an email that ended: "ANCESTRY.COM IS GOING TO BE HUGE!!!!!" \({ }^{89}\) At trial, Sullivan described this exclamation as "a bit of an ironic flourish," noting that:

> After months of really being beat down from prices that we thought we would be able to get at the beginning of the process to a low price, I was offering to use the fact that I was now prepared to roll over a big chunk of my equity to actually, you know, use that as an argument or a point of leverage to take to these buyers and show that, you know, look, the CEO is serious. The CEO thinks it's going to be huge. So I guess its tongue-in-cheek or ironic or something. 90
> *8 Additionally, Sullivan ran his own calculations involving Company stock and its potential reaction to a transaction with a private equity buyer, he shared these calculations with Hochhauser in emails entitled "incredible hack" and "hack version \(2 ., 91\) At trial, Sullivan explained that he "meant to convey something simple. It's a doodle. It's not ... a formal analysis or projection of any kind. Just sort of a ... really, really simple little hack of a model." 92

A third iteration of Sullivan's analyses contained two columns, one for "Take Private" and one for "Stay Public." 93 Though this third model has EBITDA for 2016 under the
"Take Private" column, Sullivan disavowed that this was a projection of EBITDA for 2016, reiterating:
[I]t's not a formal projection or, you know, forecast of any kind. It's just a simple exercise. I did this on my own, just to try to get a sense of, as I said earlier, the difference between how the P \& L would work as a leveraged company versus as a, you know, continued stay-public company where, rather than pay debt service, we would continue to buy back shares. What I was really trying to do is understand the mechanics of staying public versus the mechanics of staying private, not in any way, you know, doing a genuine forecast. \({ }^{94}\)
Notably, in light of Sullivan's attempt to minimize the importance of them, the "hacks" were much more optimistic than the October Projections. \({ }^{95}\)

Throughout negotiations, as Permira raised its offer, it required increased equity rollover from management and Spectrum, Ancestry's then-largest stockholder. Ultimately, at \$32 per share, management agreed to rollover a total of \$82 million in equity, \({ }^{96}\) which included \(80 \%\) of Sullivan's stock; \({ }^{97}\) Spectrum rolled over \(\$ 100\) million, which represented approximately \(25 \%\) of its Ancestry stock. \({ }^{98}\)

\section*{C. The Appraisal Remedy}

Ancestry received written demands for appraisal dated December 6, 2012 from Cede \& Co., nominee for The Depository Trust Company ("DTC") and record holder of the 160,000 shares over which Petitioners Merlin Partners LP ("Merlin") and The Ancora Merger Arbitrage Fund, LP ("Ancora" and, together with Merlin, the "Merlin Petitioners") assert beneficial ownership. Ancestry received a written appraisal demand dated December 18, 2012 from Cede \& Co. as record owner of the \(1,255,000\) shares for which Merion Capital, L.P. ("Merion") asserts beneficial ownership. \({ }^{99}\)

\section*{D. Experts' Valuations}

The experts of both the Petitioners and Respondent relied exclusively on a discounted cash flow ("DCF") analysis to value Ancestry as of the Merger Date, as opposed to comparable companies and comparable transactions analyses, recognizing that the latter would be irrelevant or unhelpful here, given Ancestry's unique business and the concomitant difficulty of finding comparable companies or transactions. \({ }^{100}\)
*9 The Petitioners' expert, William S. Wisialowski, initially opined that Ancestry was valued at \(\$ 42.97\); after making certain corrections to his analysis, he adjusted this valuation to \(\$ 43.65,{ }^{101}\) then to \(\$ 43.05 .{ }^{102}\) At his deposition, however, Wisialowski testified that, " \([\mathrm{b}]\) ased on the information that was given to [him]," he would not provide a fairness opinion at a price below \(\$ 47\) per share. \({ }^{103}\) Finally, at trial, Wisialowski opined that the value of Ancestry was "at least" \(\$ 42.81\) per share; \({ }^{104} \$ 42.81\) is more than \(30 \%\) higher than the merger price, resulting in a discrepancy of approximately \(\$ 500\) million between the two values. \({ }^{105}\)

The Respondent's expert, Gregg A. Jarrell, arrived at a value of \(\$ 30.63\) per share. \({ }^{106}\) In arriving at \(\$ 30.63\), Jarrell testified that "the \(\$ 32\) is within that range from a discounted cash flow analysis. And that provides a great deal of comfort to me that the discounted cash flow analysis has validity, is economically meaningful." \({ }^{\text {¹07 }}\) Wisialowski's analysis, by comparison, resulted in a "big discrepancy" between the value of the Company and the merger price. \({ }^{108}\) As Jarrell testified:
[I]f that were me that was faced up with that big discrepancy, I would have to try to find out a way to reconcile those two numbers, or why would these smart, professional, profit-oriented professional private equity investors leave that much money on the table? Why wouldn't someone pay \(\$ 33\) for this company if, in fact, it were validly worth [ \(\$] 42\) to \([\$] 47\) as a stand-alone company? You know, that's a huge valuation gap and that's a lot of implied profit that's been left on the table. And that, to my mind, would create a lot of discomfort regarding my DCF valuation. \({ }^{109}\)

\section*{1. Valuation Background}

By way of brief background, and to provide context before recounting the experts' respective calculations and assumptions,
[t]he basic premise underlying the DCF methodology is that the value of a company is equal to the value of its projected future cash flows, discounted at the opportunity cost of capital. Put simply, the DCF method involves three basic components: (i) cash flow projections; (ii) a terminal value; and (iii) a discount rate. \({ }^{110}\)

The method "involves several discrete steps""
First, one estimates the values of future cash flows for a discrete period, based, where possible, on contemporaneous management projections. Then, the value of the entity attributable to cash flows expected after the end of the discrete period must be estimated to produce a so-called terminal value, preferably using a perpetual growth model. Finally, the value of the cash flows for the discrete period and the terminal value must be discounted back using the capital asset pricing model or "CAPM."112
*10 In this case, the experts disagreed on each of these components-the projections to use for future cash flows, the terminal value, and the discount rate-and the components that make up each of those, in addition to the role of stockbased compensation. I describe the discrepancies in the inputs of Wisialowski and Jarrell, and their respective rationales, below. \({ }^{113}\)

\section*{2. Projections}

Wisialowski developed a set of "blended" management projections, which weighted the Initial May Projections and October Scenario B equally. Wisialowski testified that his arrival at this weighting did not involve much precision. \({ }^{114}\) He did not attempt to determine the probability of either projection occurring; instead, he testified at trial that he "was tempering-[he] was mixing the projections to say maybe they were half right on this growth rate and half right on this growth rate and put those together." \({ }^{115} \mathrm{He}\) explained: "What I try to do is come up with what I felt was a minimum defensible conservative valuation of the company." 116
*11 Jarrell, on the other hand, relied exclusively on the October Projections, weighting both October Scenarios equally. \({ }^{117} \mathrm{He}\) opined that the October Projections were more reliable because they incorporated bidder feedback, the realities of the auction process, and other information that management had learned since May; they were also closer to Wall Street estimates. \({ }^{118}\)

\section*{3. Terminal Value}

Calculating terminal value involves four key components: perpetuity growth rate, the EBIT margin, the "plowback" ratio, and the projected tax rate. \({ }^{119}\)

As for perpetuity growth rate, Wisialowski adopted \(3.0 \%\), which he characterized as the most conservative assumption in his entire model. \({ }^{120}\) Jarrell agreed that this was "on the low side," and adopted a \(4.5 \%\) growth rate. \({ }^{121}\) This difference did not garner much discussion at trial, comparatively speaking, as both choices could be seen as conservative for their respective sides. That is, had Wisialowski adopted a higher growth rate, his valuation could have been more favorable to the Petitioners; had Jarrell adopted a lower growth rate, his valuation could have been more favorable to the Respondent.

The remaining three components generated a more vigorous dispute.

First, Jarrell and Wisialowski disagreed as to whether it was necessary to normalize EBIT margins during the perpetuity period—Jarrell believed it necessary; Wisialowski did not. Normalization of EBIT margins is based on the idea that the EBIT projection for the last year of the projections period may not be appropriate to apply in perpetuity; as Jarrell explained at trial:

The perpetuity period, in theory, is a period where you're in long-run competitive equilibrium. In long-run competitive equilibrium, there's a tendency for margins to be lower than they are in the forecast period because competition in the long run is more fierce than it is in the short run. Any barriers to entry that Ancestry has in the short run, owing to whatever advantages that they've generated, tend to erode in the long run rather than get better, and that reflects itself as competition for price, and the margin goes down. \({ }^{122}\)
Thus, rather than apply the projected margin for the final year of the projections period in perpetuity, Jarrell averaged the projected margins and used that figure, which had been "normalized to a sustainable level," in calculating terminal value. \({ }^{123}\) He averaged the projected EBIT margins for 2013 through 2016 (as projected in Scenarios A and B), resulting in a normalized EBIT margin of \(26.1 \%\) for Scenario A and \(27.3 \%\) for Scenario B, as compared to the historical actual EBIT margin of \(18.2 \%\) for the years 2004-2012, and the actual EBIT margin of \(26.3 \%\) for the year 2012. \({ }^{124}\)

The Petitioners criticized Jarrell's approach on two grounds, first asserting that normalization "was unnecessary given the
pessimistic outlook already adopted by the Scenarios."125 Second, they contend, even if one were to normalize, "normalized profit margins should reflect the midpoint of the company's business cycle," because "[a]s the company reaches a steady state, the cost structure evolves and becomes stable." \({ }^{126}\) Because Ancestry had been growing, "the average margins used by Jarrell would not reflect a mid-point of its business cycle," and "Jarrell conducted no analysis to determine whether his EBIT margin assumption during the perpetuity period was the midpoint of Ancestry's business cycle." \({ }^{127}\)
*12 While criticizing Jarrell's approach, the Petitioners offered little in the way of substantive support of Wisialowski's approach, other than to characterize it as "appropriate[ ]," "given Ancestry's consistent trend of increasing margins." \({ }^{128}\) Wisialowski used \(38.8 \%\) in his terminal period calculation, which is his EBITDA margin projection for 2016, and is higher than any margin Ancestry ever achieved. \({ }^{129}\) Wisialowski arrived at \(38.8 \%\) by blending the projected EBITDA margins from the last projected year of each of the Initial May Projections and October's Scenario B. \({ }^{130}\) Jarrell noted that, had Wisialowski normalized his EBITDA margins, his figure would have been \(37.3 \% .{ }^{131}\) The effect of this discrepancy is to drive the terminal value, and thus the DCF, of the respective experts further apart; i.e., the Petitioners' expert's valuation comes out higher, and the Respondent's expert's valuation comes out lower. \({ }^{132}\)

Second, the experts arrived at different plowback ratios, which is the percentage of net operating profit after tax that is reinvested in capital expenditures. The idea is that " \([\mathrm{i}] \mathrm{n}\) order to adequately support a perpetual growth rate in excess of expected inflation (i.e., positive real growth), a firm will need to reinvest in capital expenditures at a sustainable rate that is above that of projected depreciation., 133 Jarrell's plowback ratio was \(12 \%\) of his terminal period cash flows, which he arrived at by considering plowback for Scenarios A and B ( \(12.1 \%\) and \(11.5 \%\), respectively), and the historical plowback, which was \(11.9 \%\). \({ }^{134}\) In light of his \(4.5 \%\) perpetuity growth rate, with \(2 \%\) expected inflation, this \(12 \%\) plowback ratio implied a return on investment of \(22.8 \%\) going forward-"a very pro increases-value assumption." \({ }^{135}\) By comparison, Wisialowski used a \(4.8 \%\) plowback ratio and criticized Jarrell's higher figure. \({ }^{136}\) Jarrell noted, however, that because of Wisialowski's \(3 \%\) perpetuity growth rate, again assuming
\(2 \%\) expected inflation, Wisialowski's projected return on investment comes out to \(22.6 \% ;{ }^{137}\) in other words, the assumptions used by each expert result, essentially, in a wash.

Finally, as to projected tax rate, Jarrell used \(38 \%\), while Wisialowski used \(35 \%\). "This difference has a material effect on the valuation-if Jarrell had used a \(35 \%\) tax rate, it would raise his valuation by \(\$ 0.97\); if Wisialowski used a \(38 \%\) tax rate, [ ] it would lower his valuation by \(\$ 1.17 .{ }^{, 138}\) Jarrell's marginal tax rate figure is based on historical actual effective tax rates, which the Petitioners criticized as improper and not representative of the Company's future. \({ }^{139}\) Jarrell defended his figure by suggesting that, although an average tax rate may be lower than a marginal rate, one cannot rely, in perpetuity, on whatever variables resulted in a lower tax rate in a given year. \({ }^{140} \mathrm{He}\) found it more reasonable to remain consistent with the Company's long-term historical average tax rate. \({ }^{141}\) Wisialowski arrived at \(35 \%\) by using \(34 \%\)-a figure presented by PricewaterhouseCoopers in a presentation to Permira as to the likely tax rate "for the foreseeable future," but not explicitly a tax rate in perpetuity-and adding \(1 \%\), to "[be] conservative." \({ }^{142}\)

\section*{4. Discount Rate}

Wisialowski calculated a discount rate of \(10.96 \%\), \({ }^{143}\) while Jarrell calculated \(11.71 \%\). \({ }^{144}\) This resulted in a \(\$ 4.27\) per share difference in their valuations. \({ }^{145}\) The discrepancy turns largely on the experts' respective "beta"-that is, discount for risk based on the stock's movement as compared to the market -calculations; Wisialowski calculated beta of \(1.107,{ }^{146}\) later updated to \(1.095,{ }^{147}\) while Jarrell calculated 1.30. \({ }^{148}\)
*13 Key inputs in beta calculations include the market proxy, the observation period, and the sample period. \({ }^{149}\) The experts used different inputs on all accounts, at least in their initial reports; they ultimately agreed on the most appropriate sample period, while remaining in disagreement over the market proxy and observation period. \({ }^{150}\)

First, the experts used different market proxies in their regression analyses. Wisialowski "selected the beta resulting from the regression of ACOM [Ancestry stock] against the NASDAQ Composite for all data since its IPO on a weekly basis." \({ }^{151}\) Wisialowski opted to use NASDAQ as the
market proxy because he believed it to contain a number of companies similar to Ancestry. He then applied this beta to an \(S \& P 500\)-based equity risk premium, though his report identified that a NASDAQ-derived beta should be multiplied by a NASDAQ equity risk premium. \({ }^{152}\) Jarrell used the S \& P 500 as his market proxy for the regression analysis. \({ }^{153}\) In post-trial briefing, the Petitioners asserted that they "[do] not take issue with regressing Ancestry's weekly beta against the S \& P 500 if a weekly observation period is used, which results in a beta of 1.137." 154

Second, Wisialowski and Jarrell used different observation periods, which can be daily, weekly, or monthly. Wisialowski used a weekly observation period, while Jarrell used a monthly period. Wisialowski characterized this as the "biggest difference" in their respective calculations. \({ }^{155}\) Wisialowski testified that many valuations use monthly data, but that, for Ancestry, this resulted in only 30 data points, whereas using 36 to 60 is recommended; thus, he used weekly data to generate more points. \({ }^{156}\) Jarrell testified that daily or weekly trading prices can include statistical "noise" that affects the accuracy of the beta calculation, but noted that, "all else equal, the more observations, the better in terms of statistical precision." \({ }^{157}\) He used a monthly period, which he described as "sort of the standard of the services," \({ }^{158}\) having found "noise" when he conducted further calculations. \({ }^{159}\)

Third, while Wisialowski observed the period from the IPO through the date of the merger in his initial report, Jarrell excluded the period in which the auction process had become public. In his rebuttal report and at trial, Wisialowski conceded that Jarrell's approach was sound. \({ }^{160}\) However, Wisialowski testified that when he adjusted the time period to use Jarrell's approach, his beta decreased, thus driving a further gap between the experts' calculations. \({ }^{161}\)

\section*{5. Stock-Based Compensation}
*14 Wisialowski, in his initial DCF analysis, did not take into account Ancestry's practice of providing stockbased compensation ("SBC") to its employees. \({ }^{162}\) Jarrell, by contrast, contends that a failure to account for SBC expenses within a DCF model may result in overvaluation. \({ }^{163}\) Scenarios A and B of the October Projections did not include
projections for SBC, however; he instead used a figure\(3.2 \%\) of revenues-taken from the May Projections. \({ }^{164}\)

In his rebuttal report, Wisialowski "built a model to estimate the number of options granted each year and the future stock price of Ancestry in order to measure the cash flow required to eliminate any dilution from future option grants and their exercise." \({ }^{165}\) For his model, he maintained his 50/50 weighting of the May Projections with Scenario B, but, as noted, because the October Projections did not include SBC projections, Wisialowski chose \(1 \%\), which he said was based on "total personnel expense and SBC of \(23.5 \%\) for Scenario B, which is slightly higher than the combined figure for the [May Projections]." \({ }^{166}\) Ultimately, he calculated a difference in share value of approximately \(\$ 0.50 .{ }^{167}\) Wisialowski explained that he decided
not to include any impact for SBC in my DCF analysis because adding the future stock trading price adds yet another level of assumptions which are difficult to prove. That being said, I strongly believe that my estimates are conservative and Jarrell's are just plain wrong. I continue to believe that non-inclusion of SBC expense in FCF for purposes of a DCF-based valuation is the proper treatment and the treatment recognized by this Court. \({ }^{168}\)

\section*{II. PROCEDURAL HISTORY}

Following the announcement of the merger, several plaintiffs filed actions in this Court, alleging, among other things, that the merger price was inadequate and the sales process was flawed. In November, these actions were consolidated, and on December 17, 2012, then-Chancellor Strine heard oral argument on the plaintiffs' motion for a preliminary injunction. He denied this motion from the bench. \({ }^{169}\) In March 2013, these plaintiffs then filed an amended complaint, which the defendants moved to dismiss. Oral argument was held on September 27, 2013, with then-Chancellor Strine granting the defendants' motion following argument. \({ }^{170}\)
*15 On January 3, 2013, Merion filed a Verified Petition for Appraisal pursuant to 8 Del. C. § 262. Also on January 3, the Merlin Petitioners filed a Petition for Appraisal of Stock. On June 24, these actions were consolidated. Collectively, the Petitioners owned \(1,415,000\) shares of common stock as of the Merger Date.

On May 9, 2014, shortly before trial, Ancestry filed a Motion for Summary Judgment, arguing that Merion lacked standing because it could not demonstrate that its shares were not voted in favor of the merger. I postponed consideration of that Motion until after full briefing and oral argument, which was completed in October. I denied the Motion in a Memorandum Opinion dated January 5, 2015. \({ }^{171}\)

\section*{III. APPRAISAL ANALYSIS}

\section*{A. The Appraisal Standard}

Characterized as, at one time, a liquidity option and, more recently, as a check on opportunism, the appraisal statute allows dissenting stockholders to receive judiciallydetermined fair value of their stock. \({ }^{172}\) After determining that appraisal petitioners have standing, as I have done here, \({ }^{173}\)
the Court shall determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation, together with interest, if any, to be paid upon the amount determined to be the fair value. In determining such fair value, the Court shall take into account all relevant factors. \({ }^{174}\)
"Appraisal is, by design, a flexible process." \({ }^{175}\) Section 262 "vests the Chancellor and Vice Chancellors with significant discretion to consider 'all relevant factors' and determine the going concern value of the underlying company." \({ }^{176}\) Our Supreme Court has declined to "graft common law gloss on the statute," in light of the General Assembly's determination that this Court's consideration of "all relevant factors" is fair, albeit imperfect. \({ }^{177}\) Thus, and in the absence of "inflexible rules governing appraisal," \({ }^{178}\) "it is within the Court of Chancery's discretion to select one of the parties' valuation models as its general framework, or fashion its own, to determine fair value in the appraisal proceeding."179

Although the Supreme Court "has defined 'fair value' as the value to a stockholder of the firm as a going concern, as opposed to the firm's value in the context of an acquisition or other transaction, \({ }^{180}\) this Court has relied on the merger price as an indicia of fair value, "so long as the process leading to the transaction is a reliable indicator of value and mergerspecific value is excluded." \({ }^{181}\) In fact, this Court has held, where
the transaction giving rise to the appraisal resulted from an arm's-length process between two independent parties, and [ ] no structural impediments existed that might materially distort "the crucible of objective market reality," a reviewing court should give substantial evidentiary weight to the merger price as an indicator of fair value. \({ }^{182}\)

\section*{B. Ancestry's Fair Value}
*16 In an appraisal action, as pointed out above, "[b]oth parties bear the burden of establishing fair value by a preponderance of the evidence," which effectively means that neither party has the burden, and the burden instead falls on this Court. \({ }^{183}\) Upon consideration of the sales process, the experts' opinions, and my own DCF analysis, conducted in light of certain concerns with both experts' analyses, I find that Ancestry's value as of the Merger Date is \(\$ 32\). To explain that conclusion, I turn first to the evidence of valuation reflected in the market price.

\section*{1. The Sales Process}

The sales process was reasonable, wide-ranging and produced a motivated buyer. It has been approved of, as free from the taint of breaches of fiduciary duty, by this Court. In a bench ruling denying motion for a preliminary injunction, thenChancellor Strine noted that: "The process looked like they segmented the market carefully, logical people were [brought] in, a competent banker who appears at every turn to have done sensible things, ran it." \({ }^{" 184}\) The Court characterized that process as one "that had a lot of vibrancy and integrity":

I think they tried to kick the tires. I think that even when I look at the communications by Mr. Sullivan, I think they were trying to get these buyers to pay as full a price as possible. They were trying to create a competitive dynamic. Given that and given the ability of stockholders to vote for themselves, I'm disinclined to take it out of their hands.... I think given the market test that was done here, I'm poorly positioned to take that risk for [the stockholders], and I'm not prepared to do so. \({ }^{185}\)

In dismissing the amended complaint pursuant to Court of Chancery Rule 12(b)(6), the Court concluded that "the plaintiffs have not pled facts that raise an inference that any of the director defendants, much less a majority of them, suffered from disabling conflicts that would give rise to a breach of
the duty of loyalty." \({ }^{186}\) In considering the process as a whole, which the Court characterized as "logical" and as "an open door to a range of people, \({ }^{187}\) and, specifically addressing Spectrum's and management's equity rollovers, the Court concluded, " \([\mathrm{P}]\) ut simply, there's no non-conclusory factual allegations in the complaint from which I can conceivably infer that Spectrum, Sullivan, or Hochhauser, or any of the Ancestry directors, had any conflict of interest." 188

Of course, a conclusion that a sale was conducted by directors who complied with their duties of loyalty is not dispositive of the question of whether that sale generated fair value. \({ }^{189}\) But the process here, described in full earlier in this Memorandum Opinion, appears to me to represent an auction of the Company that is unlikely to have left significant stockholder value unaccounted for. \({ }^{190}\) On the other hand, as is typical in a non-strategic acquisition, I find no synergies that are likely to have pushed the purchase price above fair value. The Defendant's expert, although arguing that fair value is somewhat below the sales price, concedes as much. \({ }^{191}\)
*17 It is within that context of the auction process, which generated a sale price of \(\$ 32\) per share, that I turn first to a significant issue in Ancestry's valuation-its projectionsbefore turning to the evidence of value by way of the experts' opinions.

\section*{2. Company Projections}

Both sets of projections that formed the basis of discounted cash flow analyses and provided the underpinnings of the experts' respective valuations are imperfect. Ancestry's management made no business projections in the regular course of business; its first set of long-term projections, the Initial May Projections, were made aggressive to bolster a potential sale of the company and revised after encouragement by the board to be even more aggressive, resulting in the May Sales Projections. \({ }^{192}\) Notably, one particular assumption underlying these projections-that churn would decrease over time-was directly called into question by potential bidders during their due diligence processes. \({ }^{193}\)

The October Scenarios are also questionable. They were made in light of an understanding that the May Projections could not support a fairness opinion for the proposed transaction and at
a time when management was contemplating large rollovers of their own positions in Ancestry stock. I note that at the same time management was creating the October Scenarios, the CEO was doing private projection "hacks," anticipating joyfully a possible growth rate for his rollover interest substantially greater than those management projections. Nonetheless, I find the Scenarios more reliable than the May Projections. Testimony indicated that the October Scenarios were management's best estimates as of the time of the merger. They included hard numbers, rather than projections, for several additional months of data compared to the May Projections. The Scenarios also took into account feedback from the Company's financial advisor, relayed from bidders, that the May Projections were too optimistic.

It is within this context that I turn to the experts' analyses. The Petitioners' expert, Wisialowski, contended that the May Sales Projections were so unsupportably rosy that potential investors lost confidence in management; thus, he focused instead on the Initial May Projections. The Initial May Projections were not approved by the board and were not presented to bidders. Notably, the Initial May Projections that the Wisialowski champions were only marginally more conservative than the May Sales Projections he rejects. \({ }^{194}\) Notwithstanding his support for the Initial May Projections, I conclude that Wisialowski believed that a DCF based on the Initial May Projections alone (which, again, he contended to be the more conservative of the May Projections) would itself be unsupportably high. \({ }^{195}\) Ultimately, he used a blended projection from the Initial May Projections and the better case October Scenario, which Scenario he contended was tainted and unsupportably low, \({ }^{196}\) yet still incorporated into his valuation. It is unclear how "blending" two unsupportable sets of projections gives a number on which this Court can rely. \({ }^{197}\)
*18 The Respondent's expert, Jarrell, relied solely on the October Projections, because management represented them as the best prediction as of the date of the merger. Again, I note that those projections were (1) not developed in the ordinary course of business, (2) done in light of the information that the banker would be unable to provide a fairness opinion based on management's May Projections, and (3) done at a time when management knew that it would be rolling over its own equity in the company rather than being cashed out. Therefore, a DCF based on these projections leaves room for doubt. That said, this Court has recognized that management is, as a general proposition, in the best position to know the
business and, therefore, prepare projections; "in a number of cases Delaware Courts have relied on projections that were prepared by management outside of the ordinary course of business and with the possibility of litigation." \({ }^{198}\) As described below, therefore, and despite the factors that make the October Projections problematic, I find that an equal weighting of the Scenarios is a better platform on which to base a DCF analysis than a blend of the Initial May Projections and the best case October Scenario, as employed by Wisialowski.

\section*{3. DCF Analysis}

While I will not burden this Memorandum Opinion by reciting the qualifications of the competing experts here, I note that both are respected in their field, and well qualified to offer valuation opinions. That said, I find each respective approach less than fully persuasive. It is clear to me that the Petitioners' expert tailored his DCF analysis by blending together what he described as the "unbelievable" best case October Scenario \({ }^{199}\) with the Initial May Projections simply in order to come up with a number that was "defensible", 200 that is, higher than the merger price, but not astronomically so as would have been the case if he used the more "reliable" projection alone. The Respondent's expert candidly suggested that, if he had reached a valuation that departed from the merger price by as much as the Petitioners' expert, he "would have to tried to find out a way to reconcile those two numbers," in other words, he would have tailored his analysis to fit the merger price. \({ }^{201}\) Neither of these approaches gives great confidence in the DCF analysis of either expert, since both appear to be result-oriented riffs on the market price. \({ }^{202}\) Ultimately, I am faced with an appraisal action where an open auction process has set a market price, where both parties' experts agree that there are no comparable companies to use for purposes of valuation, and where management did not create projections in the normal course of business, thus giving reason to question management projections, which were done in light of the transaction and in the context of obtaining a fairness opinion. As Wisialowski repeatedly testified, he saw it as his job to "torture the numbers until they confess[ed].,"203 I note that (beyond any moral concerns) it is well-known that the problem with relying on torture is the possibility of false confession. \({ }^{204}\) Accordingly, my own analysis of the value of Ancestry follows.
*19 While the concept of a DCF valuation-that value is derived from the sum of future revenue discounted to present value-is quite simple, the calculation itself is complex. The following discussion is laden with formulas through which the discount rate and terminal value are arrived at. I freely admit that the formulas did not spring form the mind of this judge, softened as it has been by a liberal arts education. Footnotes indicate the derivation of each, principally taken from the reports of the experts. I also found Vice Chancellor Parsons' lucid explanation of calculations of value via discounted cash flow in Merion Capital, L.P. v. \(3 M\) Cogent, Inc. \({ }^{205}\) helpful. Although I will address, with specificity, the experts' contentions and my findings with respect thereto, I find that, as a general matter, Jarrell was more credible and his analysis is more likely to result in a fair value of Ancestry. I diverge with him on two significant points: first, his beta calculation, and specifically, his use of a monthly observation period; and second, his use of a \(4.5 \%\) growth rate coupled with a \(12 \%\) plowback ratio. I will discuss my findings as they specifically relate to the evidence offered by the two experts, but I am largely adopting the methodology advanced by Jarrell. Employing that methodology, my valuation of Ancestry as of the Merger Date, based solely on a DCF analysis, is \(\$ 31.79\).

As an initial matter, the parties dispute whether a two-stage or three-stage discounted cash flow method is most appropriate. This issue turns largely on the projections upon which I rely, and, as discussed below, I rely on the October Projections in my analysis. Accordingly, I agree here with Jarrell that a three-stage model is unnecessary. \({ }^{206}\)

\section*{a. Projections}

Driving the bulk of the substantial valuation differential between the analyses performed by Jarrell and Wisialowski is the key input: management projections. Jarrell relies on the October Scenarios, despite evidence suggesting that they were produced in light of the need to justify the sales price. Wisialowski, on the other hand, created his own projections, by blending the Initial May Forecast with the best case October Scenario, presumably because relying solely on the Initial May Forecast-which Wisialowski touts as the most reliable-would produce a valuation so high as to be likely rejected out-of-hand. The evidence suggests that the May projections were created to drive a high sales price; like the October Scenarios, they were not created in the ordinary course of business.

This Court has expressed skepticism in past cases as to management-prepared projections when those projections are not made in the ordinary course, and are instead made in contemplation of the sale of the company. \({ }^{207}\) But management is uniquely situated in its knowledge of the Company, and while management projections are imperfect, hindsight-driven post hoc "projections" are more so; notably, both experts here rely on (different) management projections. Thus, and for the reasons set out above, I find it most appropriate here to rely upon the October Scenarios, as Jarrell did. These projections represented management's best view of the Company, \({ }^{208}\) and as discussed above, I do not find the May Projections to be reliable. Therefore, I will rely exclusively on the October Projections, weighing Scenarios A and B at \(50 \%\) each because management declined to present either Scenario as more likely.

\section*{b. Terminal Value}

The experts disagreed as to the appropriate perpetuity growth rate, but Jarrell pointed out that, in light of their respective plowback ratios, the differences were not particularly significant. That is, with Jarrell's perpetuity growth rate and plowback ratio, the rate of return on investment would be \(22.8 \%\), while Wisialowski's figures would generate a \(22.6 \%\) return on investment. Ultimately, in light of this Court's prior methodology, where it has assumed zero plowback, and Jarrell's forthright statement that Wisialowski's lower plowback rate was reasonable in relation to his lower growth
rate, I am adopting Wisialowski's figures, a 3\% growth rate and \(4.8 \%\) plowback, here. \({ }^{209}\)
*20 The more significant of their disputes concerns the normalization of EBIT margins. Jarrell found it important to normalize, while Wisialowski did not; the Petitioners argue that normalization was not necessary given the pessimistic view of the Scenarios Jarrell used. Because I find the October Projections to be management's best view of the Company going forward, not necessarily a pessimistic one, normalization is appropriate. \({ }^{210}\) I find Jarrell's averaging of the 2013 through 2016 EBIT margin projections, which figure was then used as his future projection, appropriate. This results in a normalized EBIT margin of \(26.1 \%\) for Scenario A and \(27.3 \%\) for Scenario B.

Finally, the experts disagreed over the appropriate tax rate. Although I sympathize with the Petitioners' contention that few (if any) companies pay their marginal tax rates in perpetuity, it strikes me as overly speculative to apply the current tax rate in perpetuity. I agree with this Court's approach in Henke v. Trilithic Inc. to use the marginal tax rate " \([b]\) ecause of the transitory nature of tax deductions and credits.,"211

Because I find weighted average cost of capital ("WACC") to be \(10.71 \%\), as discussed below, and I am otherwise adopting Jarrell's methodology here, including his calculation of NOPAT that includes a working capital adjustment, also discussed below, \({ }^{212}\) the terminal value is calculated using the perpetuity growth model as follows \({ }^{213}\) :

\section*{(NOPAT 2017 ) (1—Plowback Rate)}

\section*{Terminal Value}
\(=\)

\section*{(WACC-Growth Rate)}

Thus, the Terminal Value for Scenario A is \(\$ 1,538.51\) million; for Scenario B it is \(\$ 1,692.86\) million. As discounted to the present value as of the Merger Date, the Terminal Value is \(\$ 1,077.57\) million for Scenario A and \(\$ 1,185.68\) million for Scenario B. \({ }^{214}\)
c. Discount Rate

I cannot adopt either expert's discount rate in full. In calculating beta, Wisialowski used NASDAQ as the market proxy; I find that the \(\mathrm{S} \& \mathrm{P} 500\) is a more suitable market proxy in light of its broader sampling of the market. Wisialowski also initially used an inappropriate measurement period, running through the Merger Date, which failed to account for increases in stock price once the auction process became public. I find that Jarrell, on the other hand, should have used weekly data, rather than monthly, to generate a larger sample size, notwithstanding his assertion that daily inputs involved statistical "noise."

Jarrell's monthly data generated 30 data points, to which he attributes a \(99 \%\) confidence level. \({ }^{215}\) However, the valuation literature suggests using at least 36 data points, with some sources suggesting at least \(60,{ }^{216}\) and Jarrell did not adequately explain why, specifically, a weekly input would be inappropriate here. \({ }^{217}\)
*21 Using a weekly observation period, S \& P 500 as the market proxy, and an observation period from the Company's IPO through June 5, 2012, just before news of the auction broke, I find beta to be 1.137. \({ }^{218}\)

The parties agreed that the appropriate risk-free rate is \(2.47 \%\), but disagreed as to the equity risk premium. While both agreed that a supply-side equity risk premium from the Ibbotson Yearbook is appropriate, they disagree as to which years of data to use. Wisialowski relied upon the 2013 Yearbook, which included data from 1926 through 2012, to derive an ERP of \(6.11 \%\). Jarrell used the 2012 Yearbook, containing data from 1926 through 2011, to derive an ERP of 6.14\%.

This same disagreement as to the proper edition of Ibbotson's underlies the experts' disagreement as to the appropriate equity-size premium. Wisialowski, relying on the 2013 Yearbook, reached a premium of \(1.73 \%\), while Jarrell, relying on the 2012 Yearbook, reached a \(1.75 \%\) premium. At trial, Jarrell testified that he used the 2012 edition because the Merger Date was December 28, 2012, and it is his practice to use the data that would have been available to investors as of the merger date; the 2013 Yearbook itself would not be available until after the merger closed. He candidly stated, however, that this was "not a big deal" and that he understood why Wisialowski would use the newer book. \({ }^{219}\) The Petitioners argued in post-trial briefing that the 2013 Yearbook was more appropriate because it included "data from 2012 that-with the exception of a single trading day—was known or knowable on December 28, 2012.,220 Ultimately, I agree with Wisialowski's approach to use actual data available in the 2013 edition, especially since the Merger Date was so close to the end of the year and the 2013 edition would not have contained any information not available as of the Merger Date, aside from one day of trading information.

Jarrell assumed 5\% debt in Ancestry's capital structure; Wisialowski did not include any. The Petitioners contend that had Wisialowski included \(5 \%\) debt, his valuation would have increased by \(\$ 0.38\), and thus, they do not object to
my use of Jarrell's capital structure assumption. \({ }^{221}\) Under Jarrell's assumptions, the cost of debt is \(3.81 \%{ }^{222} \mathrm{He}\) also applied a \(38 \%\) tax rate, which, as discussed above, I find to be appropriate.

Both experts calculated the discount rate using the WACC methodology, which I therefore adopt. WACC is calculated as follows \({ }^{223}\) :
\[
W A C C=\left[K_{D} \times W_{D} \times(1-\mathrm{t})\right]+\left(K_{E} \times W_{E}\right)
\]

Where:
\[
\begin{aligned}
& K_{D}=\text { Cost of debt capital }=3.81 \% \\
& W_{D}=\text { Average weight of debt in capital structure }=5 \% \\
& t=\text { Effective tax rate for the company }=38 \% \\
& K_{E}=\text { Cost of equity capital }=11.15 \%, \text { as calculated } \\
& \text { below } \\
& W_{E}=\text { Average weight of equity capital in capital } \\
& \text { structure }=95 \%
\end{aligned}
\]

To calculate the cost of equity capital, both experts used the Capital Asset Pricing Model ("CAPM"), which is calculated as follows:
\[
\text { *22 } K_{E}=R_{F}+\left(\beta \times R_{E R P}\right)+R_{E S P}
\]

Where:
\[
\begin{aligned}
& R_{F}=\text { Risk-free rate }=2.47 \% \\
& \beta=\text { Beta }=1.137 \\
& R_{E R P}=\text { Equity risk premium }=6.11 \% \\
& R_{E S P}=\text { Equity size premium }=1.73 \% \\
& K_{E}=11.15 \%
\end{aligned}
\]
\[
\text { Thus, } W A C C=[.0381 \times .05 \times(1-.38)]+(.1115 \times .95)
\]
\[
=.1071, \text { or } 10.71 \%
\]

\section*{d. Stock-Based Compensation}

As an internet-based company, Ancestry is not alone in its practice of compensating employees heavily with stock. The effect of that practice is significant in a valuation of such a
company. Jarrell included SBC in his valuation by deducting the non-cash stock expense from EBIT, treating it as tax deductible to approximate the anticipated deductions when options are exercised, and not adding this expense back. \({ }^{224}\) Jarrell used the projected SBC as a percentage of revenue item from the May Sales Projections and the 2012 full-year forecasted results from mid-December 2012, both of which amounted to \(3.2 \%\), and applied this to Scenarios A and B, and into perpetuity. \({ }^{225}\)

The Petitioners point out that this approach has not yet been endorsed by this Court. In fact, in Merion Capital, L.P. v. \(3 M\) Cogent, Inc., Vice Chancellor Parsons rejected that respondent's contention that SBC should be treated as a cash expense, having found it to have failed to show that SBC would "have any effect on the actual cash flows of the Company." \({ }^{226}\) Nevertheless, the Court agreed that "it makes sense to adjust earnings to take into account the dilutive effect of SBC., \({ }^{227}\) To that end, Wisialowski's rebuttal report attempted to consider the dilutive effect of SBC using a selfcreated model, but ultimately declined to "include any impact for SBC in [his] DCF analyses.,"228

What is clear to me is that, once it reaches a material level, SBC must in some manner be accounted for in order to reach a reasonable calculation of fair value. The real dispute is how to do so, whether by measuring its dilutive effect or by accounting for it in expenses. Here, the Petitioners dispute Jarrell's approach, but do not offer a reliable alternative for my consideration. I find Jarrell's approach to be reasonable, and I am adopting it here.

\section*{e. Other Issues Bearing on Enterprise Value}

On several other points, the experts diverged, to varying degrees, some of which are alluded to in my analysis above. First, Wisialowski excluded deferred revenues as part of free cash flows, which would have otherwise increased his value by \(\$ 2.89\) per share. Jarrell advocated for including them in free cash flows as a necessary working capital item needed "to adjust accounting data to cash flow data., \({ }^{229}\) The Petitioners contend Wisialowski "took the objective and correct route of excluding deferred revenues, which had the impact of lowering his per-share valuation., \({ }^{230}\) I presume, from this statement, that the Petitioners do not object to my adherence to Jarrell's approach on this matter.
*23 Second, as to excess cash added to the DCF value, Jarrell's figure was \(\$ 32.9\) million, using the Company's cash position minus its debt on December 31, 2012. Wisialowski's used \(\$ 14\) million, calculated based on a 2013 Permira report, indicating \(\$ 44\) million cash at closing, from which he subtracted his estimated four weeks' operating expenses of \(\$ 30\) million. In post-trial briefing, the Petitioners submitted that they "[have] no objection to the Court's use of Jarrell's excess cash assumption.,231

Finally, while Wisialowski did not initially estimate the value of the Company's net operating losses, the experts ultimately agreed that the present value of NOL tax shields is \(\$ 4.4\) million. \({ }^{232}\) "Merion does not object to including the value of Ancestry's NOLs in the Court's determination of the fair value of Ancestry's stock as of the Valuation Date.,"233

These three topics, while not generating as much dispute as other components of the valuation analysis, are nevertheless important to the valuation because of their bearing on enterprise value. I ultimately find, based on my review of the experts' reports and trial testimony, Jarrell's approach on these topics to be the most reasonable, and I adopt his methodologies.

\section*{f. My Valuation Results}

Ancestry's calculated equity value is the sum of its enterprise value plus net cash. Its enterprise value is the sum of the present value of free cash flows during the projection period, the present value of the NOL tax benefit, and the present value of the terminal value based on constant growth. \({ }^{234}\)

Using a DCF analysis, for Scenario A, I calculated \$30.33 as the price per share. For Scenario B, I calculated \$33.24 as the price per share. Weighted equally, the value derived from discounted cash flow is \(\$ 31.79 .{ }^{235}\) The actual market price as determined by the sale is \(\$ 32\). These are the two competing valuations that the statutory "all relevant factors" directive charges me to take into account. The question becomes, should I rely on the DCF to reach fair value, using what appears to be a relatively untainted market-derived valuation as a check, or should my analysis be the reverse? Because the inputs here, the October Scenarios (as well as the alternative May Projections) are problematic for the reasons addressed at length above, and because the sales process here
was robust, \({ }^{236}\) I find fair value in these circumstances best represented by the market price. The DCF valuation I have described is close to the market, and gives me comfort that no undetected factor skewed the sales process. I note that my DCF value-while higher than Jarrell's-is still below that paid by the actual acquirer without apparent synergies; it would be hubristic indeed to advance my estimate of value over that of an entity for which investment represents a real -not merely an academic-risk, by insisting that such entity paid too much.

\section*{V. CONCLUSION}
*24 For the foregoing reasons, I find that the merger price of \(\$ 32\) is the best indicator of Ancestry's fair value as of the Merger Date. The Petitioners are entitled to interest at the legal rate. The parties should confer and submit an appropriate form of order consistent with this Opinion.

\section*{All Citations}

Not Reported in Atl. Rptr., 2015 WL 399726

\section*{Footnotes}

1 See Huff Fund Inv. P'ship v. CKx, Inc., 2013 WL 5878807, at *1 (Del. Ch. Nov. 1, 2013), adhered to, 2014 WL 2042797 (Del. Ch. May 19, 2014), judgment entered sub nom., Huff Fund Inv. P'ship v. CKX, Inc. (Del. Ch. June 17, 2014).
28 Del. C. § 262(h).
3 JX 279 at 4.
4 Trial Tr. 7:19-20 (Sullivan).
5 JX 279 at 4.
6 Trial Tr. 8:15-18 (Sullivan).
7 JX 260 at F-16.
8 See, e.g., Trial Tr. 113:5-6 (Hochhauser).
9 See, e.g., id. at 111:24-112:8 (Hochhauser).
10 Resp't's Opening Post-Tr. Br. at 21-22.
11 Trial Tr. 112:10, 113:12 (Hochhauser); but see id. at 112:21-113:2 (Hochhauser) (noting that Ancestry did not do any studies relating to the show and its specific effects on the business).
12 See, e.g., id. at 111:18-112:20 (Hochhauser).
13 See, e.g., JX 211 I 34 ; JX 260 at 36 (noting that Ancestry repurchased some of Sullivan's shares for an average price of \(\$ 41.67\) per share).
14 See Trial Tr. 113:10-13 (Hochhauser).
15 Resp't's Opening Post-Tr. Br. at 26; see also Trial Tr. 109:6-10 (Hochhauser).
16 See Resp't's Opening Post-Tr. Br. at 27; JX 260 at 36; Trial Tr. 110:5-14 (Hochhauser).
17 JX 260 at 36; see also Resp't's Opening Post-Tr. Br. at 28; Trial Tr. 110:17-21 (Hochhauser).
18 See Trial Tr. 110:22-111:8 (Hochhauser).
19 Id. at 108:22-23 (Hochhauser).
20 Id. at 109:13-14 (Hochhauser).
21 See, e.g., id. at 8:24-9:5 (Sullivan); id. 118:5-11 (Hochhauser).
22 See, e.g., id. at 10:12-11:4 (Sullivan); id. 107:21-108:1 (Hochhauser).
23 Id. 10:4-11 (Sullivan). But see id. 53:12-54:5 (Sullivan) (noting that Ancestry has actually worked with the Church in some capacities, including digitizing certain of the Church's records).
24 See id. at 9:15-23 (Sullivan).
25 Id. at 9:20-10:3 (Sullivan).
26 Id. at 113:23-114:4 (Hochhauser); see also id. at 12:18-24 (Sullivan) ("This was a time where interest rates were historically low, and so the kind of company that Ancestry was, which is a subscription business, sort of more predictable than other kinds of businesses, really made, you know, Ancestry a potentially very attractive business for a private equity group to acquire.... ").
27 Id. at 12:2-7 (Sullivan).
28 See JX 22; JX 23. The board retained Qatalyst in May. See JX 33; JX 35.

29 Trial Tr. 114:24 (Hochhauser).
30 Id. at 116:23-117:3; see also JX 22; JX 23.
31 Resp't's Opening Post-Tr. Br. at 22 (citing JX 23 ACOM00000064-65; Turner Dep. (2014) 27:10-30:1); see also Trial Tr. 115:23-116:2 (Hochhauser).
32 Turner Dep. (2014) 27:16-24.
33 Trial Tr. 117:7-15 (Hochhauser); see also JX 22; JX 23.
34 Trial Tr. 15:23-16:8 (Sullivan).
35 See, e.g., id. at 16:10-17:4; JX 79 at ACOM00000376.
36 JX 79 at ACOM00000376.
37 See id.; Trial Tr. 17:5-18:20 (Sullivan).
38 See JX 100 at ACOM00000395-97; Trial Tr. 18:21-20:4 (Sullivan) (describing an earlier stage in the process, by which time five bidders submitted preliminary indications of interest).
39 See, e.g., Trial Tr. Sullivan 20:15-21:20 (explaining that the Company decided to focus on the three highest bidders, after being advised by Qatalyst, for both logistical reasons and "to create a competitive dynamic").
40 Id. at 23:17-22 (Sullivan); see also id. at 24:18-21 (Sullivan) ("[T]here was some sense that ... Ancestry was a niche and it would have difficulty growing beyond this segment of serious genealogists.").
41 Id. at 24:22-24 (Sullivan); see also id. at 25:2-7 (Sullivan) ("[G]enerally, there was some quite negative conclusions reached from some of that research with respect to, you know, degrading retention rates amongst certain cohorts and, you know, frankly, less engagement with the site among some segments of subscribers than they would have expected."). Id. at 25:15-20 (Sullivan); see also id. at 139:12-140:6 (Hochhauser); JX 82.
43 See, e.g., Trial Tr. at 25:20-22 (Sullivan) ("TT]hat was actually a level and depth of retention analysis that the company had not done prior to that point."); id. at 140:8-14 (Hochhauser) (same, but noting also that this is now a standard analysis for the Company).
44 See id. at 142:6-8 (Hochhauser).
45 Id. at 142:2-4 (Hochhauser). Importantly, projections prepared in May for the sales process, which forecasted a decline in churn, were called into question by these new studies. See id. at 143:8-20 (Hochhauser) (using more colorful language than I have here).
46 Id. at 25:23-26:8 (Sullivan).
47 See, e.g., id. at 28:9-18 (Sullivan); JX 112.
48 See, e.g., Trial Tr. at 31:3-16 (Sullivan) ("[T]hey found a lot of people who were subscribing to the product but that weren't even visiting and weren't engaging. And that really, really troubled them.... [T]here were some things about, again, the size of the addressable market, some of the competitive dynamics.").
49 Id. at 32:5-7 (Sullivan).
50 Id. at 32:12-13 (Sullivan).
51 Id. at 32:23-33:20 (Sullivan) (explaining that one of these parties, upon engaging in further diligence, "ended that process probably even a little more negative than the first time that they walked away").
52 JX 156.
53 Trial Tr. 34:14-19 (Sullivan).
54 See JX 162.
55 ld.
56 Trial Tr. 36:11-15 (Sullivan).
57 Id. at 36:16-24 (Sullivan).
58 Id. at 37:23-24 (Sullivan); see also id. at 37:1-38:24 (Sullivan) (describing Sullivan's strategy and explaining another part of the email that is not quoted here).
59 See JX 182; JX 183.
60 Resp't's Opening Post-Tr. Br. at 1, 6.
61 See JX 187 at 1, 60; JX 268.
62 See JX 197 at 77-78; id. Annex A at 35-36 (Merger Agreement § 5.3(d)).
63 JX 274.
64 Trial Tr. 119:13-14 (Hochhauser).
65 Id. at 119:18-19 (Hochhauser); see also id. at 47:17-19 (Sullivan).

90 Trial Tr. 40:21-41:7 (Sullivan).
91 Id. at 41:9-13, 41:19-42:2 (Sullivan); see also JX 126; JX 283.
92 Trial Tr. 42:5-10.
93 JX 239.
94 Trial Tr. 43:6-23 (Sullivan).
95 See, e.g., id. at 369:14-21 (Wisialowski) ("Sullivan's projections] were much more closely aligned with the original May projections, and they were drastically different from the Scenario A, in particular, and Scenario B as well, that were used for the basis of the opinion and what became Scenarios A and B.").
96 JX 197 at 2.
97 Trial Tr. 96:15-17 (Sullivan).
98 JX 197 at 2; see also Resp't's Pre-Trial Br. at 23.
99 In a Memorandum Opinion dated January 5, 2015, I denied Ancestry's Motion for Summary Judgment as to Merion's Petition. See In re Appraisal of Ancestry.com, Inc., 2015 WL 66825 (Del. Ch. Jan. 5, 2015).
100 See Trial Tr. 254:4-10 (Wisialowski); ;d. at 368:10-16 (Wisialowski); id. at 551:20-552:3 (Jarrell); JX 212 आף 146-47; JX 209 9f 216-17, 223-225. Jarrell also noted that the merger price "provides a strong indication of fair value." JX 209 If 105. The Petitioners object to the portions of his report opining on the sales process, which formed the basis for his opinion regarding the role of the merger price in the valuation. Ultimately, Jarrell stood upon his value of \(\$ 30.61\), derived from a DCF analysis, though still emphasizing that the \(\$ 32\) merger price was within his calculated range. See Trial Tr. 551:8-19 (Jarrell).
101 Id. at 381:8-22 (Wisialowski).

Id. at 383:23-384:2 (Wisialowski).
103 Wisialowski Dep. 75:20-23; see also id. at 74:11-22 ("My view is that the company would have been better off for its shareholders maintaining its public status. So 1-you know, whether it was-whether it was [\$]47, or-part of it is, is the intrinsic value, the DCF value, the cash flow value, it may not have been realizable at this point in time as a sell side transaction. And therefore, I would have shown [Ancestry] what their business was worth, and I would have counseled them that if they want to maximize and optimize value for their shareholders, selling the company now is not the way to do it.").
104 Trial Tr. \(391: 2\) (Wisialowski); id. at 391:22-23 ("I'm comfortable that my value is at least [\$\$42.81."). Compare id. at 392:45 ("I believe [an increase] would be justifiable, but I'm comfortable saying it's worth at least [\$]42.81."), with Wisialowski Dep. 270:18-20 ("My understanding of fairness is that what we're trying to do is we're trying to find the bull's-eye and we only get one shot.")
105 Resp't's Answering Post-Trial Br. at 2-3.
106 See, e.g., Trial Tr. 551:8-10 (Jarrell).
107 ld. at 559:12-17 (Jarrell).
108 ld. at 559:17-23 (Jarrell).
109 Id. at 559:24-560:11 (Jarrell).
110 In re Orchard Enterprises, Inc., 2012 WL 2923305, at *12 (Del. Ch. July 18, 2012), judgment entered sub nom. In re Appraisal of the Orchard Enterprises, Inc. (Del. Ch. July 26, 2012), judgment aff'd sub nom. Orchard Enterprises, Inc. v. Merlin Partners LP, 2013 WL 1282001 (Del. Mar. 28, 2013); see also Merion Capital, L.P. v. 3M Cogent, Inc., 2013 WL 3793896, at *10 (Del. Ch. July 8, 2013), judgment entered sub nom. Merion Capital, L.P v. 3M Cogent, Inc. (Del. Ch. July 23 , 2013).
111 Andaloro v. PFPC Worldwide, Inc., 2005 WL 2045640, at *9 (Del. Ch. Aug. 19, 2005).
112 ld .
113 I include a detailed factual recitation here, because the inputs are necessary to any principled attempt to reconcile the experts' widely divergent DCF analyses. The casual reader may wish to skip ahead to the discussion section of this Memorandum Opinion; she may find reading the remainder of the facts section reminiscent of eating chicken gizzards: plenty of chewing but mighty little swallowing.
114 Trial Tr. 470:16-19; Wisialowski Dep. 271:24-272:2; see also Wisialowski Dep. 273:20-274:4 ("Q. But I think actually if you were trying to determine what is the best estimate of the likely outcome in the future, you would have come up with something different? A. I think where I stand-where I stand today, having learned more about the business, I might revisit the mix, especially now that I see what the drivers are in terms of-in terms of what the underlying assumptions were in getting them.").
115 Trial Tr. 470:12-15 (Wisialowski); see also id. 470:1-5, 20-23 (Wisialowski); ;id. at 471:9-17 (Wisialowski) ("There were other ways to get to a similar judgment, which was trying to temper this-if people believe that these are aggressive, there are three ways that you can reduce them. You can actually just pick a number. You can blend them with something that's in existence, which is what I ultimately did, or I can just scale the set of numbers and run it at a 90 percent or 80 percent or 70 percent realization. There's many ways to skin the cat."); id. at 472:15-20 ("I think Scenario B, when blended with the management projections, gives a conservative growth rate in revenues and a highly defensible, if not excessively conservative, margin, certainly at the EBITDA level, which would be a good estimation of the business rospects of the company.").
116 Id. at 472:24-473:2 (Wisialowski).
117 Id. at 573:12-17 (Jarrell); JX 209 ๆ 139.
118 See id. at 571:8-573:5 (Jarrell).
119 See, e.g., Resp't's Opening Post-Trial Br. at 58; Trial Tr. 734:3-10 (Jarrell).
120 See Trial Tr. 271:7-14 (Wisialowski).
121 See id. at 733:15-22 (Jarrell).
122 ld. at 652:14-24 (Jarrell).
123 JX 209 ๆ 193 \& n. 239-41.
124 Id. \(\boldsymbol{\|} 194\) \& Table 12.
125 Merion Capital L.P.'s Post-Trial Br. at 72.
126 ld. (emphasis added).
127 ld. (emphasis added).

\footnotetext{
128
Id. at 71.
129 Resp't's Opening Post-Trial Br. at 91.
130 Trial Tr. 476:13-477:17 (Wisialowski); see also id. at 654:19-655:15 (Jarrell).
131 Id. at 655:10-15 (Jarrell).
132 See, e.g., id. at 656:3-14 (Jarrell).
133 JX 209 I 203.
134 Trial Tr. at 658:2-9 (Jarrell).
135 ld. at 661:20-21 (Jarrell).
136 See JX 221 ITI 149-51.
137 See Trial Tr. at 662:15-24 (Jarrell)
138 Merion Capital L.P.'s Post-Trial Br. at 69.
139 ld.
140 See Trial Tr. 664:3-665:8 (Jarrell).
141 ld. at 666:3-6 (Jarrell).
142 Id. at 524:4-525:6 (Wisialowski).
143 JX 212 ๆ 136.
144 JX 209 ๆ 172.
145 See, e.g., Trial Tr. 351:20-22 (Wisialowski).
146 JX 212 I 113.
147 JX 221 ๆ 178.
148 See, e.g., Trial Tr. 351:17-19 (Wisialowski).
149 See, e.g., id. at 352:7-12 (Wisialowski).
150 See id. at 352:7-354:4 (Wisialowski).
151 JX 212 I 128 (emphasis omitted).
152 See JX 212 § 136. At trial, he stated that this was a typo and that he intended to, and did, use a market equity risk premium. But he used a figure from Ibbotson's Yearbook, which was based on the S \& P 500. See Trial Tr. 486:2-5 (Wisialowski); JX 219 ๆी 46-50.
153 See JX 209 介I 179 \& n. 217.
154 Merion Capital L.P.'s Post-Trial Br. at 66; see also Joinder of Pet'rs Merlin Partners LP and AAMAF, LP in Post-Trial Br.
155 Trial Tr. 351:6-10 (Wisialowski).
156 Id. at 353:2-23 (Wisialowski).
157 Id. at 636:4-637:3 (Jarrell).
158 See id. at 637:4-12 (Jarrell).
159 Id. at 638:6-16 (Jarrell).
160 JX 221 ब 175; Trial Tr. 481:3-13 (Wisialowski).
161 Trial Tr. 352:19-23 (Wisialowski).
162 See JX 221 ๆ 138.
163 JX 209 II 163. He cites multiple authorities for this point, but also notes that this Court previously held that a respondent
 v. 3M Cogent, Inc., 2013 WL 3793896 (Del. Ch. July 8, 2013), judgment entered sub nom. Merion Capital, L.P v. 3M Cogent, Inc. (Del. Ch. July 23, 2013)). Merion contends that Jarrell's SBC calculation is too speculative and that it is not otherwise an appropriate adjustment to a DCF model because it is "not an established approach in the valuation community or under Delaware law." See Merion Capital L.P.'s Post-Trial Br. at 50-51.
164 Trial Tr. 723:1-8. Compare JX 29 (Initial May Projections), and JX 43 (May Sales Projections), with JX 170 (October Projections). But see Trial Tr. 723:20-724:3 (Jarrell) (noting also that "[n]othing below the EBITDA line was in the October projections"; they were missing other figures that had been included in the May Projections, including depreciation, capital expenditures, and tax rates).
165 JX 221 I 130.
166 Id. IT 131; see also Wisialowski Dep. Tr. 449:1-7.
167 JX 221 ๆ 134.
}
, Ancestry argued that Merion lacked standing, and moved for Summary Judgment as to Merion's Petition. I denied that Motion, finding that Merion has met the statutory prerequisites of Section 262. See id. Ancestry does not challenge the Merlin Petitioners' standing.
8 Del. C. § 262(h). ld. at 217-18 (quoting 8 Del. C. § 262(h)). ld. at 217.
ld.
179 Cede \& Co. v. Technicolor, Inc., 684 A.2d 289, 299 (Del.1996).
Golden Telecom, 11 A.3d at 217.
181 Huff Fund Inv. P'ship v. CKx, Inc., 2013 WL 5878807, at *9 (Del. Ch. Nov. 1, 2013) (internal quotation marks omitted); see also Highfields Capital, Ltd. v. AXA Fin., Inc., 939 A.2d 34, 42 (Del. Ch.2007).
182 Highfields Capital, 939 A.2d at 42.
183 Huff Fund, 2013 WL 5878807, at *9; see also Highfields Capital, 939 A.2d at 42-43 ("[I]f neither party adduces evidence sufficient to satisfy this burden, the court must then use its own independent judgment to determine fair value."); In re Orchard Enterprises, Inc., 2012 WL 2923305, at *5 (Del. Ch. July 18, 2012) ("TT]he court may not adopt an 'either-or’ approach to valuation and must use its own independent judgment to determine the fair value of the shares.") judgment entered sub nom. In re Appraisal of the Orchard Enterprises, Inc. (Del. Ch. July 26, 2012) and aff'd sub nom. Orchard Enterprises, Inc. v. Merlin Partners LP, No. 470, 2012, 2013 WL 1282001 (Del. Mar. 28, 2013).
184 In re Ancestry.com Inc. S'holder Litig., C.A. 7988-CS, at 210:22-211:1 (Del. Ch. Dec. 17, 2012) (TRANSCRIPT).
185 ld. at 232:5-233:4.
186 In re Ancestry.com Inc. S'holder Litig., C.A. 7988-CS, at 73:14-18 (Del. Ch. Sept. 27, 2013) (TRANSCRIPT).
187 ld. at 80:7-9.
188 Id. at 95:4-8.
189 I note that Ancestry had a charter provision exculpating directors for breaches of the duty of care; the actions of the board, therefore, were not even reviewed in the fiduciary duty action for gross negligence in the conduct of the sale. Nothing in the record before me , however, leads me to the conclusion that the sales process was fundamentally flawed.
190 The Petitioners and Wisialowski argue that the merger price was ultimately the product of a financing issue, rather than a valuation issue. See, e.g., JX 212 IT 54-55; Merion Capital L.P.'s Post-Trial Br. at 82 . In support, they point to an email between Sullivan and Turner during the negotiation process, in which Sullivan colorfully describes his stance on the ongoing negotiations, and also stated, "[W]e have taken [Permira] at [its] word for several months that [its] inability to do a deal at \(\$ 33\) was primarily a source of funds question ... rather than a valuation question." JX 162. As Sullivan explained at trial, that email also shows that, in order to "call [Permira's] bluff" that it would not pay more than it had previously offered, supposedly because it could not obtain financing, management and Spectrum would roll over a larger portion of their equity, thus driving up the price Permira was willing to pay. See Trial Tr. 38:9-24 (Sullivan). I found Sullivan's testimony on the context of this email credible, and I do not think his statement about financing should be afforded the weight the Petitioners suggest, particularly when taken in light of the broader context of the auction that produced no buyer willing to pay more.
191 Jarrell opined, "Since Permira is a financial acquirer and not a strategic partner, the \(\$ 32\) merger price presumably does not contain any significant synergies that might result from combining the operations of Ancestry with any complementary operating business." JX 209 § 107. He went on further to discuss certain "public-to-private cost savings," which he estimated to be \(\$ 0.11\) per share, but did not deduct them from the merger price since he was unable to determine whether the savings were included in it.
192 See, e.g., Trial Tr. 133:2-6 (Hochhauser).
193 See id. at 143:8-144:18 (Hochhauser).
194 Wisialowski found the May Sales Projections sufficiently divorced from reality that he opined that, in his view, they may have so alienated potential bidders that they resulted in decreased competition and an artificially low sales price, a
proposition I find dubious, but interesting in light of his acceptance of the similar Initial May Projections. See Trial Tr. 260:13-24 (Wisialowski); JX 221 I 197 ("[T]he lack of credibility caused by the fact that the [May Sales] Projections could not be described as a 50/50 case, but instead were described by Qatalyst as 'stretchy' further reduced the likelihood of realizing a full price."). It seems to me implausible that private equity investors' sensibilities are so tender that, upon diligence revealing that management was engaged in puffing in its forecasts, the investors would walk away, leaving tens or hundreds of million dollars on the table in a fit of pique.
195 See Trial Tr. 428:18-429:24 (Wisialowski).
196 See, e.g., id. at 439:9-440:12 (Wisialowski).
197 See, e.g., id. at 470:1-19 (Wisialowski).
198 See, e.g., Merion Capital, L.P. v. 3M Cogent, Inc., 2013 WL 3793896, at *11 (Del. Ch. July 8, 2013), judgment entered sub nom. Merion Capital, L.P v. 3M Cogent, Inc. (Del. Ch. July 23, 2013). But see id. (noting that it has also declined to afford that deference where "management had never prepared projections beyond the current fiscal year, the possibility of litigation, such as an appraisal proceeding, was likely, and the projections were made outside of the ordinary course of business").
199 See Trial Tr. 442:8-10 (Wisialowski) ("Q. Okay. So it was your view that the entire scenarios were a sham? A. I don't believe them.").
200 See, e.g., id. at 446:3-11 (Wisialowski).
201 See id. at 459:24-560:11 (Jarrell). My comments should not be read as a criticism of Jarrell, who I found to be a candid and sincere witness; they are instead in recognition of the limitations of a post-hoc DCF analysis, in general. If an analysis, relied upon to assess whether a sales price represents fair value, in turn uses that very sales price as a check on its own plausibility, and if it must be revised if it fails that check, then the process itself approaches tautology.
202 See Joseph v. Shell Oil Co., 482 A.2d 335, 341 (Del. Ch.1984) ("Reasonable [minds] can differ as to opinions as to value. Indeed, the Court is well aware that expert appraisers usually express different opinions as to value even when they use the same data for arriving at their opinion. And it is not unusual that an expert appraiser will express a higher value if he has been hired by the plaintiff than if he has been hired by the defendant.").
203 Trial Tr. 226:5-6 (Wisialowski); id. at 229:1-2 (Wisialowski); id. at 445:5-6 (Wisialowski).
204 See, e.g., John McCain, Bin Laden's Death and the Debate over Torture, Wash. Post, May 11, 2011, http:// www.washingtonpost.com/opinions/bin-ladens-death-and-the-debate-over-torture/2011/05/11/AFd1mdsG_story.html.
2052013 WL 3793896 (Del. Ch. July 8, 2013), judgment entered sub nom. Merion Capital, L.P v. 3 M Cogent, Inc. (Del. Ch. July 23, 2013).
206 See, e.g., JX 212 IT 89-91 \& n. 45. In using the October Projections there is not the same substantial "step down" in growth rate from the projection period to the perpetuity growth rate about which Wisialowski was concerned in using his blended projections. See JX 219 ITI 78-84.
207 See supra note 198 and accompanying text.
208 I rely on the Scenarios for my DCF analysis for the reasons I have described, despite their preparation in light of the fact that the May Projections might not have supported a fairness opinion, and not withstanding their deviation from the CES's own "hacks;" in other words, the October Scenarios are the best of the imperfect projections here.
209 See Trial Tr. 663:21-664:2 (Jarrell).
210 And although the Petitioners criticize Jarrell's calculation for failing to determine whether his projected normalized margins represent the midpoint of the Company's business, I find that criticism unhelpful here, in light of the lack of a proposed alternative methodology.
2112005 WL 2899677, at *9 (Del. Ch. Oct. 28, 2005).
212 See infra text accompanying notes 229, 230.
213 See JX 209 ITI 192-211.
214 To discount to present value, I divided the terminal value calculated above by 1.1071 (1+WACC), raised to the 3.5 power representing the time between the calculated terminal value and the Merger Date.
215 JX 209 I 179 \& n. 220.
216 See, e.g., Trial Tr. 353:12-23 (Wisialowski).
217 I note that Jarrell took the extra step of calculating a daily sum beta to compare his monthly beta to a daily beta, and found, after that analysis, "noise" in the daily beta calculation. But it is not clear why he did not consider (or, if he did, why he did not include in his report) the effect of weekly data. See JX 209 I 179. In his rebuttal, Jarrell identified "three significant flaws" from which Wisialowski's beta suffered; none of them involved Wisialowski's use of weekly data. See JX 219 § 36.

218 The Petitioners have helpfully conceded that they are not opposed to my use of 1.137 as beta. See Merion Capital L.P.'s Post-Trial Br. at 66; Joinder of Pet'rs Merlin Partners LP and AAMAF, LP in Post-Trial Br.
219 Trial Tr. 629:5-19 (Jarrell).
220 Merion Capital L.P.'s Post-Trial Br. at 67.
221 ld. at 60.
222 JX 209 Ex. 17.
223 These formulas were helpfully laid out in Merion Capital LP v. 3M Cogent, Inc., 2013 WL 3793896, at *14 (Del. Ch. July 8, 2013), judgment entered sub nom. Merion Capital, L.P v. 3M Cogent, Inc. (Del. Ch. July 23, 2013).
224 Id. at \(\mathbb{I} 164\) \& n. 195.
225 ld. at \(\mathbb{I} 159\).
2262013 WL 3793896, at *13.
227 ld.
228 JX 221 I 138.
229 Jarrell Dep. at 345:4-23; see also Trial Tr. 272:5-9 (Wisialowski); JX 216 I 154.
230 Merion Capital L.P.'s Post-Trial Br. at 58-59.
231 Id. at 59; see also Joinder of Pet'rs Merlin Partners LP and AAMAF, LP in Post-Trial Br.
232 See JX 209 ๆ 153; JX 216 ๆ 157.
233 Merion Capital L.P.'s Post-Trial Br. at 57; see also Joinder of Pet'rs Merlin Partners LP and AAMAF, LP in Post-Trial Br.
234 See, e.g., JX 209 ๆ 214.
235 In the interest of transparency, my calculations are as follows:
Enterprise Value = DCF + PV of NOL tax benefit + PV of Terminal Value. See, e.g., JX 209 『 214 . The DCF is based on the October Projections, discounted to the mid-year. The parties agree upon my use of \(\$ 4.4\) million for the PV of NOL tax benefit. See supra note 233. Thus, with numbers expressed in millions of dollars:

Enterprise Value \(_{A}=355.31+4.4+1077.57=1437.28\)
Enterprise Value \({ }_{B}=393.51+4.4+1185.68=1583.59\)
Equity Value = Enterprise Value + Net Cash. See, e.g., JX 209 I 214. The parties agree on my use of \(\$ 32.9\) million for net cash. See supra note 231. Thus, with numbers expressed in millions of dollars:

Equity Value \(_{A}=1437.28+32.9=1470.18\)
Equity Value \({ }_{B}=1583.59+32.9=1616.49\)
The per-share price is determined by adding the Equity Values, above, to the cumulative exercise proceeds of options outstanding, then dividing that sum by the number of fully diluted shares. See JX 209 Ex. 19. Thus:
\begin{tabular}{lll} 
Price per share \([\) Scenario \(A]=\) & \(\frac{1470.18 \text { million } 56.1 \text { million }}{50,317,969}\) & \(=\$ 30.33\) \\
Price per share \([\) Scenario B] \(=\) & \(\frac{1616.49 \text { million } 56.1 \text { million }}{50,317,969}\) & \(=\$ 33.24\).
\end{tabular}

236 See In re Ancestry.com Inc. S'holder Litig., C.A. 7988-CS (Del. Ch. Dec. 17, 2012) (TRANSCRIPT).

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\section*{UNPUBLISHED OPINION. CHECK} COURT RULES BEFORE CITING.

Court of Chancery of Delaware.

\section*{IN RE APPRAISAL OF COLUMBIA PIPELINE GROUP, INC.}

Cons. C.A. No. 12736-VCL |
Date Submitted: May 16, 2019
|
Date Decided: August 12, 2019

\section*{Attorneys and Law Firms}

Stephen E. Jenkins, Andrew D. Cordo, Marie M. Degnan, ASHBY \& GEDDES, P.A., Wilmington, Delaware; Marcus E. Montejo, Kevin H. Davenport, John G. Day, PRICKETT, JONES \& ELLIOTT, P.A., Wilmington, Delaware; Mark Lebovitch, Jeroen van Kwawegen, Christopher J. Orrico, Alla Zayenchik, BERNSTEIN LITOWITZ BERGER \& GROSSMANN LLP, New York, New York; Attorneys for Petitioners.

Martin S. Lessner, James M. Yoch, Jr., Paul J. Loughman, YOUNG CONAWAY STARGATT \& TAYLOR, LLP, Wilmington, Delaware; Brian J. Massengill, Michael A. Olsen, Linda X. Shi, MAYER BROWN LLP, Chicago, Illinois; Attorneys for Respondent.

\section*{MEMORANDUM OPINION}

\section*{LASTER, V.C.}
*1 The petitioners brought this statutory appraisal proceeding to determine the fair value of the common stock of Columbia Pipeline Group, Inc. The valuation's effective date is July 1, 2016, when TransCanada Corporation completed its acquisition of Columbia (the "Merger"). Pursuant to an agreement and plan of merger dated March 17, 2016 (the "Merger Agreement"), each share of Columbia common stock was converted into the right to receive \(\$ 25.50\) in cash, subject to each stockholder's right to eschew the consideration and seek appraisal. This post-trial decision finds that the fair
value of Columbia's common stock on the effective date was \(\$ 25.50\) per share.

\section*{I. FACTUAL BACKGROUND}

The evidentiary record is vast. \({ }^{1}\) After an initial spat during the pre-trial process, the parties agreed to 716 stipulations of fact, which were a welcome contribution. During a five-day trial, the parties submitted 1,472 exhibits, including twenty-one deposition transcripts. \({ }^{2}\) Nine fact witnesses and five experts testified live. The following factual findings represent the court's effort to distill this record.

\section*{A. Columbia}

At the time of the Merger, Columbia was a Delaware corporation whose common stock traded actively on the New York Stock Exchange under the ticker symbol "CPGX." Columbia developed, owned, and operated natural gas pipeline, storage, and other midstream assets. As a midstream company, Columbia did not own or sell the commodities that it transported or stored. Columbia's success depended on its contracts with shippers and producers.

Columbia's primary operating asset consisted of 15,000 miles of interstate gas pipelines running from New York to the Gulf of Mexico. The pipelines served the strategically important Marcellus and Utica natural gas basins in Pennsylvania, Ohio, and West Virginia. Columbia's growth-oriented business plan sought to exploit a production boom in the Marcellus and Utica basins by expanding its pipeline network and selling the additional capacity. See \(\mathrm{PTO} \mathbb{1} 248\). The plan required billions of dollars in capital expenditures, which in turn required large amounts of low-cost financing.
*2 Columbia itself was a holding company. Its principal asset was an \(84.3 \%\) interest in Columbia OpCo LP ("OpCo"), which owned Columbia's operating assets. Columbia's largest business divisions operated interstate pipelines. Smaller divisions operated gas-gathering and processing systems.

Columbia also owned a 100\% general partner interest and a 46.5\% limited partner interest in Columbia Pipeline Partners, L.P. ("CPPL"), a master limited partnership ("MLP") whose common units traded on the New York Stock Exchange. CPPL owned the other \(15.7 \%\) interest in OpCo.

Columbia's business plan depended upon using CPPL to raise equity financing for Columbia's growth projects. To raise capital using an MLP, a sponsor like Columbia sells assets to the MLP, receiving cash in return. Because the MLP is a pass-through entity, it can raise capital at a lower cost than the sponsor. \({ }^{3}\) Columbia planned to use a variant of the typical method. Rather than having CPPL buy assets from Columbia, CPPL would buy newly issued interests in OpCo, which would use the proceeds to fund Columbia's growth plan. \({ }^{4}\) Given the magnitude of Columbia's capital needs, analysts expected that CPPL could own over \(60 \%\) of OpCo by 2020. See, e.g., JX 258 at 13.

\section*{B. NiSource}

When the process leading to the Merger began, Columbia was not yet a public company. It was a subsidiary of NiSource Inc., a publicly traded utility company that today serves approximately four million customers in seven states.

In 2005, Robert Skaggs, Jr. became the CEO of NiSource. He also served as chairman of its board of directors. In 2013, Skaggs told the NiSource directors that he wanted to retire in a few years. See Taylor Dep. 93. For planning purposes, Skaggs's financial advisor used a target retirement date of March 31, 2016, and cautioned that "the single greatest risk" to Skaggs's retirement plan was his "single company stock position in NiSource." JX 163.

Stephen Smith was NiSource's CFO. Smith, who was fiftytwo years old in 2013, considered fifty-five to be the "magical age" to retire. Smith Dep. 97-98; see JX 199. He too targeted a retirement date in 2016.

Since 2008, Lazard Frères \& Co. had been evaluating a spinoff of Columbia as part of its regular work for NiSource. See JX 98 at 7-9. Lazard believed that a spinoff could unlock major value for NiSource. \({ }^{5}\) In January 2014, Lazard made a presentation to the NiSource board. Consistent with Lazard's advice, Skaggs and Smith pitched forming CPPL as part of the spinoff to provide a financing vehicle for Columbia. See JX 91. For much of 2014, the NiSource board weighed its options.
*3 In summer 2014, The Deal reported that Dominion Resources Inc. was trying to buy NiSource. The article described Skaggs as "a willing seller" but only in an all-cash deal at a \(20 \%\) premium. JX 142.

\section*{C. The Spinoff}

On September 28, 2014, NiSource announced that it would spin off Columbia as a separate public company. NiSource also announced the formation of CPPL as the "primary funding source" for Columbia's growth capital. JX 182 at 15. CPPL would go public in early 2015. Columbia would follow later that year.

Columbia's post-spinoff business plan contemplated "a potential capital investment opportunity of \$12-15 billion over the next 10 years, positioning the company to provide enhanced earnings and dividend growth driven by its projected net investment growth." JX 174. The largest components were pipeline expansion and modernization. JX 182 at 14. If all went according to plan, then Columbia would triple in size. See PTO 『 291 . The plan envisioned funding the growth by having CPPL issue equity over a sustained period. \({ }^{6}\)

In December 2014, the NiSource board signed off on Skaggs and Smith leaving NiSource and joining Columbia. Skaggs would become CEO and chairman of the board for Columbia and CPPL; Smith would become CFO of both entities. Skaggs and Smith made the move partly because they did not "want to work forever." JX 208. By this time, two investment banks had told Smith that Columbia would "trade too rich to sell," and Smith sought a third view from Goldman Sachs \& Co. See id. Goldman believed Skaggs and Smith were eyeing "a sale in near term." Id.
*4 On February 11, 2015, CPPL closed its initial public offering, generating net proceeds of approximately \(\$ 1.17\) billion. Under Columbia's business plan, CPPL did not plan to raise additional equity until 2016. JX 304 at 28. In the meantime, Columbia planned to draw over \(\$ 500\) million from a revolving credit facility. Id.

As part of the spinoff, Columbia borrowed \(\$ 2.75\) billion through a private placement of debt securities. Columbia used the proceeds to make a \(\$ 1.45\) billion cash distribution to NiSource and to refinance its existing debt. See id. Moody's Investors Service rated Columbia's debt at Baa2, one notch above non-investment grade. PTO 『 262. Columbia's debt level meant that it could not borrow additional capital to fund its business plan and would have to rely on CPPL. See JX 466; JX 1339.

Columbia anticipated that it would become an acquisition target after the spinoff. As part of its pre-transaction planning,

Columbia engaged Lazard as its financial advisor. \({ }^{7}\) As of May 2015, Lazard categorized the potential acquirers into four tiers, ranked by their ability to pay and likelihood of interest. The first tier consisted of Kinder Morgan, Inc. and Energy Transfer Equity, L.P. The second tier included TransCanada, Berkshire Hathaway Energy, Dominion, Spectra Energy Corp., NextEra Energy, Enbridge Inc., and The Williams Companies. See JX 300 at 35; Mir Dep. 136-48.

On May 28, 2015, Lazard contacted TransCanada and mentioned that Columbia might be for sale after the spinoff. JX 311. A contemporaneous memorandum from Skaggs's financial advisor made the point directly: "[Skaggs] noted that [Columbia] could be purchased as early as Q3/Q4 of 2015. I think they are already working on getting themselves sold before they even split. This was the intention all along. [Skaggs] sees himself only staying on through July of 2016." JX 324.

In June 2015, Lazard advised TransCanada against "opening a dialogue" until after the spinoff. JX 335. Doing so could jeopardize the spinoff's tax-free status, which required that NiSource not spin off Columbia in anticipation of a sale. See JX 311. Internally, TransCanada discussed that "absent a knock out offer, [Columbia] will likely go for a market check (to maximize proceeds), which we should be prepared for." JX 335.

On July 1, 2015, NiSource completed the spinoff. On its first day of trading, Columbia's stock closed at \(\$ 30.34\) per share.

From the spinoff until the Merger, Columbia's board of directors (the "Board") consisted of Skaggs and six outside directors. The lead independent director was Sigmund Cornelius, an oil and gas veteran who had worked in the pipeline industry and as the CFO of ConocoPhillips. The other directors were Marty Kittrell, Lee Nutter, Deborah Parker, Lester Silverman, and Teresa Taylor. Most had served as directors of NiSource before the spinoff.

\section*{D. Early Interest From Possible Buyers}

On July 2, 2015, Columbia engaged Goldman to advise on any unsolicited acquisition proposals. JX 347. Over the next two weeks, Dominion and Spectra contacted Skaggs to discuss potential strategic transactions. See PTO \(\mathbb{1 T 1 3} 31-\) 93. Skaggs viewed the Spectra outreach as trivial, but thought Dominion was worth exploring. See JX 359 (Skaggs
classifying Spectra outreach as "casual pass" and Dominion as "notable/substantive").
*5 On July 20, 2015, Dominion expressed interest in buying Columbia for \(\$ 32.50\) to \(\$ 35.50\) per share, half stock and half cash. Lazard's contemporaneous discounted cash flow ("DCF") analysis valued Columbia at \(\$ 30.75\) per share, \(5 \%\) higher than the trading price. See PTO 『| 395. After discussing the expression of interest with the Board and receiving advice from Lazard and Goldman, Skaggs asked Dominion to raise its price to the "upper-\$30s." See id. \(\mathbb{1 9}\) 397-98.

On August 12, 2015, Columbia and Dominion entered into a non-disclosure agreement (an "NDA"). PTO ब 400; see JX 416. The parties began due diligence, but on August 31, Dominion disengaged. Citing a decline in Columbia's stock price amid general stock market volatility, Dominion indicated that even its floor of \(\$ 32.50\) per share had become too high. See PTO 『l 406.

By the end of August 2015, Columbia's stock price had fallen to around \(\$ 25\) per share. By late September, it had fallen to around \(\$ 18\) per share.

Meanwhile, TransCanada continued to examine Columbia as an acquisition target. See JX 458. TransCanada's Senior Vice President for Strategy and Corporate Development, François Poirier, was friends with Smith and asked him to dinner on October 26. See JX 487. It seems likely that other companies were studying Columbia as well, but it is unclear to what extent other firms were included in the scope of discovery. The petitioners issued subpoenas to Spectra, Berkshire, Dominion, and NextEra. See Dkts. 132, 170, 176, 217. They also obtained discovery from Goldman and Lazard.

\section*{E. The Equity Overhang}

During fall 2015, the energy markets deteriorated, and the market for issuances of equity by MLPs was "effectively closed." JX 466; see, e.g., Kittrell Tr. 1053-54 (citing "sea change" in MLP market that "has continued to this day"). The new market dynamics meant that Columbia could no longer use CPPL to raise equity. See JX 466. With \(\$ 1\) billion in shortterm funding needs and no capacity to take on more debt, Columbia had to consider issuing equity itself, even though its cost of equity had spiked too. \({ }^{8}\)

The confluence of problems created an "equity overhang." JX 466. If investors feared that Columbia could not obtain the
capital to achieve anticipated growth rates, then they would bid down the stock. The lower price would force Columbia to issue more equity to raise the same amount of capital, and Columbia could become "mired in a vicious cycle of issuing more and more equity at lower and lower prices." 9
*6 In a memorandum to the Board dated October 16, 2015, Skaggs summarized Columbia's situation, identifying both problems and potential solutions:
- "[T]he latest intrinsic value studies (which assume that we're able to fully manage CPG's financing, project execution, and counter-party risks) would suggest that CPG's value has dropped roughly \(30 \%\)."
- "Required Equity Financing: We've raised almost \$4 billion of capital (CPPL equity and CPGX debt) - at a very attractive cost of capital - during the first half of '15 to launch CPG as a standalone company. Recall: because of our investment grade credit rating commitments, CPG cannot issue long-term debt until 2018. Consequently, to support CPG's committed growth program AND maintain our investment grade credit ratings, CPG or CPPL still must issue between \(\$ 3\) billion and \(\$ 4\) billion of equity (i.e., \(+/-65 \%\) of CPG's current equity market capitalization) over the next three years (i.e., \(\$ 1+\) billion of equity per year)."
- "Track 1 - 'Stay the Course'. Prepare to issue ~\$1.0+ billion ( \(\sim 15 \%\) of CPG) of CPGX equity at \(+/-\$ 18 /\) share by mid-January.... The current thinking is that we would need to execute the transaction prior to our YE earnings disclosure (2/15) - when we are set to announce yet another increase ( \(\sim 500\) million) in our annual Cap-Ex plan (i.e., a near-term expansion of the equity overhang). Downside: if this approach doesn't alleviate the equity overhang (and rather than a positive reaction, CPGX/ CPPL languishes), we face the real threat of ongoing value erosion."
- "Track 2 - 'Seek a Balance Sheet'. Explore whether Dominion or a select group of blue chip strategic players (e.g., MidAmerican ( [Berkshire Hathaway Energy] ), Sempra, Enbridge, TransCanada, and perhaps Spectra) would have a legitimate interest in CPG - at a price that's within CPG's intrinsic value range.... This approach would be an attempt to capture/optimize CPG's intrinsic value (i.e., avoid selling \(15 \%\) of CPGX at a deep discount); position shareholders to participate in the potential growth of the combined enterprise; fully fund
our growth plan, and exert a measure of control over the fate of our employees and other key stakeholders. Downside: We believe there is no downside in 'soft' overtures to any or all of these potential counterparties. This approach shouldn't 'put us in play.' "
JX 466.

At a Board meeting held on October 19 and 20, 2015, Skaggs recommended a dual-track strategy in which Columbia would prepare for an equity offering while engaging in exploratory talks with potential strategic or financing partners. PTO \| 422. The Board agreed.

\section*{F. Renewed Talks With Possible Buyers}

On October 26, 2015, Skaggs renewed talks with Dominion. Skaggs offered exclusivity in return for a prompt offer of approximately \(\$ 28\) per share, but he expected Dominion to respond "in the \(20-25 \%\) premium zip code (\$24-\$25)." 10 That night Smith met with Poirier, who said that TransCanada wanted to buy Columbia. PTO ब 426; JX 487.

On October 29, 2015, the Board decided to wait to hear from Dominion before responding to TransCanada. JX 1399 at 2. The Board determined that Columbia would have to sell substantial public equity unless it received a merger proposal for "around \$28 per share." PTO ब 428.
*7 On November 2, 2015, Dominion indicated that it could not offer \(\$ 28\) per share. Dominion proposed either (i) an all-stock merger with Dominion and its partner NextEra at an undefined "modest premium" or (ii) a Dominion equity investment in certain Columbia subsidiaries or joint ventures. See id. ๆ 430. That day, Columbia's stock closed at \$21.12. Goldman believed that at this point, Columbia was trading "very close to 'dcf' value, against a backdrop of having traded at a discount to dcf value." JX 505.

On November 7, 2015, Skaggs followed up with Dominion about the Dominion/NextEra structure. PTO © 436. On November 9, Columbia and TransCanada entered into an NDA. Id. \(\mathbb{1}\) 437. Over the next week, Columbia entered into additional NDAs with Dominion, NextEra, and Berkshire Hathaway Energy, and the NDA counterparties began conducting due diligence. \({ }^{11}\)

Each NDA contained a standstill provision that prohibited the counterparty from making any offer to buy Columbia securities without the Board's prior written invitation. Most
of the standstills lasted eighteen months. Each contained a feature colloquially known as a "don't-ask-don't-waive" provision (a "DADW"), which prohibited the counterparty from "making a request to amend or waive" the standstill or the NDA's confidentiality restrictions. E.g., JX 526 § 3.

Although due diligence was getting off the ground, Columbia management did not think they could delay an equity offering beyond early December 2015. And waiting until the last possible minute to raise equity exposed Columbia to risk. On November 17, 2015, the Board authorized management to proceed with the equity offering as early as the week of November 30. PTO ब 456.

On November 24, 2015, TransCanada expressed interest in an all-cash acquisition at \(\$ 25\) to \(\$ 26\) per share. Berkshire expressed interest in an all-cash acquisition at \(\$ 23.50\) per share. Both expressions of interest were conditioned on further diligence. Berkshire warned that an equity offering would "kill [its] conversation" with Columbia. Id. 9477.

On November 25, 2015, the Board decided to terminate merger talks and proceed with the equity offering. Columbia sent letters to Dominion, NextEra, Berkshire, and TransCanada instructing them to destroy the confidential information they had received under their NDAs. NextEra was disappointed to lose the opportunity, but Dominion was happy to go elsewhere. Dominion had already reached out to Questar Corporation, and in February 2016, Dominion announced that it was buying Questar for \(\$ 4.4\) billion, effectively ending any prospect for a Columbia-Dominion merger. See, e.g., PTO ब 478; JX 890.

Skaggs called TransCanada and Berkshire personally to reject their offers. TransCanada's CEO, Russell Girling, asked if Columbia would forego the equity offering if TransCanada "close[d] the gap between \(\$ 26\) and \(\$ 28\) and we get it done before Christmas." JX 588; see also JX 575 at 4. Skaggs said no. He explained that Columbia could not risk a failed deal followed by a more expensive equity offering in 2016. See PTO 『 476; Skaggs Tr. 875-77; see also JX 594.
*8 The same day, Smith told Poirier that Columbia "probably" would want to pick up merger talks "in a few months." JX 588; accord Poirier Tr. 384. Poirier believed that Columbia could have delayed its equity raise until January, but that Columbia went ahead to improve its bargaining position. Poirier also doubted whether Columbia's directors shared management's enthusiasm for a deal. JX 594.

\section*{G. The Equity Offering}

After the market closed on December 1, 2015, Columbia announced an equity offering at \(\$ 17.50\) per share. PTO ब 480. Columbia's stock had closed that day at \(\$ 19.05\). Id. ब 481. The below-market offering was oversubscribed and raised net proceeds of \(\$ 1.4\) billion. At trial, Skaggs described the offering as "an unmitigated disaster" because Columbia had "sold 25 percent of the company at 17.50 ." Skaggs Tr. 890. Columbia had solved its short-term funding needs, but the overhang would persist without a long-term solution. See JX 1060 at 6; Poirier Tr. 450; Skaggs Dep. 139.

After the equity offering, Skaggs met with Columbia's directors individually to pitch them on selling the company. He emphasized that the business plan involved a "significant amount of execution risk (both financial and operational)." JX 646.

In mid-December 2015, Poirier called Smith to reiterate TransCanada's interest in a deal. They scheduled a meeting for January. Smith Tr. 236-37. Smith involved Skaggs and Goldman, but no one told the Board that Smith was continuing talks with TransCanada. \({ }^{12}\) Internally, TransCanada believed that the equity offering had made a deal "more challenging from a valuation standpoint," but regarded Columbia as a "very strategic" target. Poirier Tr. 445; accord Marchand Tr. 482.

\section*{H. The Poirier Meeting}

On January 5, 2016, Smith emailed Columbia's draft 2016 management projections to Poirier. JX 680. Goldman prepared talking points for Smith to use with Poirier, and Skaggs approved them. See JX 679 (talking points advising that TransCanada could "avoid an auction process" with a "preemptive" price because "every dollar matters a lot to our Board"); Smith Tr. 248. The talking points were tailored to respond to positions TransCanada had taken during negotiations in November 2015, including TransCanada's stance that it was "not inclined to participate in an auction process" because it would take "resources to get[ ] fully comfortable with the growth projects." JX 575 at 4; see JX 589; JX 590. TransCanada had signaled that it would pay extra for exclusivity, and internally it was describing its price strategy as "preemptive." See JX 575 at 4.

On January 7, 2016, Smith met with Poirier. Smith literally handed him the list of talking points. Smith Tr.

247-48. Smith stressed that TransCanada was unlikely to face competition from major strategic players, telling TransCanada in substance that Columbia had " 'eliminated' the competition." \({ }^{13}\) By doing so, Smith contravened Goldman's advice from 2015 to the effect that "[c]ompetition (real or perceived) is the best way to drive bidders to their point of indifference." JX 505.
*9 Poirier and Smith portrayed these unusual tactics as a good-faith effort to entice TransCanada to bid by assuring TransCanada that it would be worthwhile to engage in due diligence. \({ }^{14}\) But TransCanada was going to bid anyway, as it had before. It seems intuitive that Smith's assurance about TransCanada not facing competition would have undermined Columbia's bargaining leverage. At the same time, it is not clear how much of an effect the disclosure had, because TransCanada already knew about the companyspecific problems that its competitors faced. See Poirier Tr. 435-36 (referring to "other potential suitors being distracted" as "public knowledge").

Regardless, on January 25, 2016, Girling called Skaggs to express interest in an all-cash acquisition in the range of \(\$ 25\) to \(\$ 28\) per share, similar to what TransCanada had proposed in November 2018. PTO § 516. That day, Columbia's stock closed at \$17.25.

\section*{I. TransCanada Obtains Exclusivity.}

In the weeks leading up to Girling's indication of interest, Skaggs had held a second round of one-on-one meetings with the Columbia directors, "priming them for a TC bid." JX 1466; see id. (Goldman indicating that Skaggs was "getting questions from the Board 'would you take \(\$ 26\) per share' - he said every day it gets harder to say no"). Lazard had advised Columbia's management that "[w]hile your valuation has swung widely, the \(\$ 25-28\) range is a sensible one given what we have concluded is your DCF value right now." JX 742.

On January 28 and 29, 2016, the Board met with senior management, Goldman, and Columbia's legal counsel from Sullivan \& Cromwell LLP. TransCanada had indicated that it would not proceed unless granted exclusivity. The Columbia team considered whether to solicit alternative suitors like Dominion or Spectra. The Board determined that TransCanada's indicative range offered a significant premium that outweighed the costs of exclusivity. See PTO - 1 519; Kittrell Tr. 1061-62 (citing Goldman and Lazard's
recommendation); Taylor Tr. 1273-74 (citing high odds of closing and "great" premium).

On February 1, 2016, Columbia granted TransCanada exclusivity through March 2, 2016, which they later extended by six days (the "Exclusivity Agreement"). PTO \(\mathbb{4} \mathbb{T} 523,551\). In simplified terms, Columbia could not accept or facilitate an acquisition proposal from anyone but TransCanada, except that in response to a "bona fide written unsolicited Transaction Proposal that did not result from a breach of" the Exclusivity Agreement, Columbia could engage with another party upon notice to TransCanada. In long form, the Exclusivity Agreement provided that Columbia could not
(a) solicit, initiate, encourage or accept any proposals or offers from any third person, other than [TransCanada], (i) relating to any acquisition or purchase of all or any material portion of the assets of [Columbia] or any of its subsidiaries, (ii) to enter into any merger, consolidation, reorganization, recapitalization, share exchange or other business combination transaction with [Columbia] or any subsidiary of [Columbia], (iii) to enter into any other extraordinary business transaction involving or otherwise relating to [Columbia] or any subsidiary of [Columbia], or (iv) relating to any acquisition or purchase of all or any material portion of the capital stock of [Columbia] or any subsidiary of [Columbia] (any proposal or offer described in any of clauses (i) through (iv) being a "Transaction Proposal"), or
*10 (b) participate in any discussions, conversations, negotiations or other communications regarding, furnish to any other person any information with respect to, or otherwise knowingly facilitate or encourage any effort or attempt by any other person to effect a Transaction Proposal;
provided that in response to a bona fide written unsolicited Transaction Proposal that did not result from a breach of this letter agreement (an "Unsolicited Proposal") [Columbia] may, after providing notice to [TransCanada] as required by this letter agreement,
(1) enter into or participate in any discussions, conversations, negotiations or other communications with the person making the Unsolicited Proposal regarding such Unsolicited Proposal,
(2) furnish to the person making the Unsolicited Proposal any information in furtherance of such Unsolicited Proposal (provided that to the extent such information
has not been previously provided to [TransCanada], [Columbia] shall promptly provide such information to [TransCanada] ) or
(3) approve, recommend, declare advisable or accept, or propose to approve, recommend, declare advisable or accept, or enter into an agreement with respect to, an Unsolicited Proposal or any subsequent Transaction Proposal made by such person as a result of the discussions, conversations and negotiations or other communications described in clause (1), if the Board of Directors of [Columbia] determines in good faith, after consultation with its outside legal counsel, that the failure to do so would reasonably be expected to be a breach of its fiduciary duties under applicable law.
JX 832 (formatting altered). The Exclusivity Agreement further provided that
[Columbia] immediately shall cease and cause to be terminated all existing discussions, conversations, negotiations and other communications with all third persons conducted heretofore with respect to any of the foregoing. [Columbia] shall
(x) notify [TransCanada] promptly (and in any event within 24 hours) if any Unsolicited Proposal, or any substantive inquiry or contact with any person with respect thereto, is made and
(y) in any such notice to [TransCanada], indicate the material terms and conditions of such Unsolicited Proposal, inquiry or contact, in the case of clause (y), except to the extent the Board of Directors of [Columbia] determines in good faith, after consultation with its outside legal counsel, that providing such information would not be in the best interests of [Columbia] and its stockholders.
\(I d\). (formatting altered).

\section*{J. TransCanada Conducts Due Diligence.}

On February 4, 2016, Columbia sent TransCanada a draft of the Merger Agreement. By February 5, TransCanada had sixty-nine personnel accessing Columbia's data room. JX 784. A subset of the personnel comprised a clean team that received access to Columbia's customer contracts, enabling TransCanada to assess Columbia's counterparty risk by examining its customers' creditworthiness. See Poirier Tr. \(401-03\). The parties have referred to these important contracts as "precedent agreements." 15
*11 TransCanada had indicated that it would submit a bid by February 24,2016 , with the caveat that it needed backing from credit rating agencies. On February 19, the credit rating agencies warned TransCanada that acquiring Columbia could result in a downgrade. One said that TransCanada was "buying a BBB-mid asset and adding leverage." JX 827. The other "observed that the resulting leverage from the transaction would be high in a difficult market with heightened counterparty concerns." PTO 『 535. On February 24, Girling told Skaggs that TransCanada needed more time to develop a financing plan that allowed it to pay \(\$ 25\) to \(\$ 28\) per share without hurting its credit rating. \(I d\). \(\mathbb{1} 544\). Meanwhile, Columbia and TransCanada continued to exchange drafts of the Merger Agreement.

\section*{K. Columbia Demands A Price.}

On March 4, 2016, the Board directed management to demand a merger proposal from TransCanada. On March 5, TransCanada offered \(\$ 24\) per share, below the low end of the range it had cited to secure exclusivity. Smith told Poirier that he could not recommend \(\$ 24\) per share to the Board, but could recommend \(\$ 26.50\). See PTO ๆ 563. TransCanada came back at \(\$ 25.25\), which it characterized as its best and final offer. Id. When Skaggs called Girling to reject the offer, Girling said: "I guess that's it." JX 901. Skaggs told the Board that TransCanada was unlikely to reengage and that " \([i] n\) ne meantime, we have stopped all deal-work." Id. Poirier told Smith that TransCanada lacked room to move on price. PTO - 1566.

With merger talks on hold, TransCanada's management debated how to justify paying more. Id. \(\mathbb{1} 568\); JX 912; see JX 907. Its CFO, Don Marchand, thought a deal "at \$26 would be off-the-charts in terms of premium paid and the market reaction could be quite tepid." PTO \& 568. He believed the transaction was "priced close to perfection at the \(\$ 25.25\) offer level." Id. TransCanada's COO thought Columbia was "playing ... poker to see where our barf price is." JX 911 at 3. Poirier suggested floating a number like \(\$ 25.75\) or \(\$ 26\), then asking Columbia for another month to find capital and sort out credit rating issues. JX 905 at 3 . To fund the Merger, TransCanada ultimately would sell more than \(\$ 7\) billion in assets and raise over \(\$ 3\) billion through the largest subscription receipts offering in Canadian history. JX 939; JX 1008 at 8, 13-14.

On March 6, 2016, TransCanada's management conveyed that they could support a price above \(\$ 25.25\) per share if Columbia's management would support a price below \(\$ 26.50\).

See PTO 『 569. After consulting with Skaggs and Cornelius, Smith asked Poirier to offer \(\$ 26\) per share. Id. \(9 \mathbb{C l}\) 570-71. Poirier replied that TransCanada's board needed until March 9 to make a decision.

\section*{L. The Wall Street Journal Leaks The Merger Talks.}

On March 8, 2016, Columbia learned that the Wall Street Journal was preparing a story about TransCanada being in advanced discussions to acquire Columbia. TransCanada's exclusivity expired that night. Id. \(\mathbb{\|} \mathbb{T} 579-81\).

On March 9, 2016, TransCanada made a revised offer at \(\$ 26\) per share, with \(90 \%\) of the consideration in cash and \(10 \%\) in TransCanada stock. The offer was subject to market conditions and feedback from credit rating agencies and TransCanada's underwriters.

On March 10, 2016, the Board convened to discuss TransCanada's proposal. \({ }^{16}\) Skaggs reminded the Board that TransCanada's exclusivity had expired. JX 1399 at 13. The Board discussed that the news story could lead to inbound offers. After the meeting, the Wall Street Journal broke the story. \({ }^{17}\)

\section*{M. Spectra Reaches Out.}
*12 After seeing the article, Spectra emailed Skaggs to propose merger talks. \({ }^{18}\) On March 11, 2016, the Board decided to renew TransCanada's exclusivity through March 18, subject to further evaluation of Spectra. The Board also instructed management to waive the standstills with Berkshire, Dominion, and NextEra. See JX 1399 at 15; see also JX 950. The next day, management sent emails waiving the standstills. PTO 99 603-05.

On the morning of March 12, 2016, the Board determined that Spectra was unlikely to propose a deal superior to TransCanada's latest offer. See JX 1399 at 15-16. Around this time, everyone at Columbia acted as if TransCanada's exclusivity had already been renewed. The Board approved a script "to use with Spectra and other inbounds." JX 964. It stated: "We will not comment on market speculation or rumors. With respect to indications of interest in pursuing a transaction, we will not respond to anything other than serious written proposals." JX 1399 at 15-16.

Based on advice from Goldman and Sullivan \& Cromwell, Skaggs proposed to send the script to TransCanada. He
described this move as a way to reassure TransCanada that its deal remained on track, and to pressure TransCanada to agree to an "expedited" closing. See JX 964. After the Board met on March 12, Columbia's in-house counsel asked TransCanada to approve the script:
[O]ur board has agreed to the renewal of the EA for one week subject to your agreement that this scripted response would not violate the terms of the EA (both in terms of the inbound received in the EA's gap period and going forward until signing, which unfortunately, given the leak, there is a potential that we will receive additional inquiries). Please confirm via response to this email that [TransCanada] is in agreement with this condition/interpretation and we will send over the new EA.
JX 968 at 2. Asking TransCanada whether the script violated the Exclusivity Agreement made no sense. Exclusivity had expired days before. Columbia's in-house counsel also conveyed to TransCanada that Columbia had received "an inbound from a credible, large, midstream player," without saying who it was. JX 973.

The Board had instructed Goldman to screen Spectra's calls so that Spectra could not talk directly with management. See JX 957; JX 1399 at 15-16. On March 12, Spectra's CFO called Goldman, and Goldman read the script. See JX 974 (Spectra's CFO: "[The Goldman banker] said he had to read from a script that had two messages."). The Spectra CFO told Goldman that "any indication of interest would have to be conditioned on further due diligence." Id. Spectra said it could "move quickly" and "be more specific subject to diligence," but the script did not allow for that option. JX 970. As one Goldman banker put it: "Does [Spectra] 'get it' that they aren't going to get diligence without a written proposal?" Id. The inverted approach effectively shut out Spectra. TransCanada had not bid without due diligence, and no one else was going to either. See, e.g., JX 1399 at 3 (discussing TransCanada's need for " 30 to 45 days of due diligence in order to firm up the potential offer").
*13 Later on March 12, Spectra's head of M\&A made a follow-up call. He said to expect a written offer in the "next few days" absent a "major bust." JX 992. The banker who took the call found Spectra's assurance credible, but Skaggs and Smith were not interested. \({ }^{19}\) The Board-approved script meant that Columbia could only entertain a "serious written proposal," which Smith defined as
a bona fide proposal that says I will pay you X for your company. Hard and fast. No outs. No anything. No way
to wiggle out of anything. This is going to happen. You're going to pay whatever you're going to pay per share and we're going to sign that agreement and we're done. I don't know of any company that would do that in that short of a timeframe.
Smith Tr. 272. Spectra never made a written offer, and TransCanada never faced competition or a meaningful threat of competition from the anonymous yet "credible, large" industry player that Columbia's management had described. See Poirier Tr. 417-18.

\section*{N. TransCanada Changes Its Offer.}

On March 14, 2016, Columbia renewed TransCanada's exclusivity through March 18, making it retroactive to March 12. PTO ब 617; see JX 978. After the renewal, Skaggs learned that TransCanada was revising its offer. See JX 1005; JX 1006. Citing execution risk with the stock component, TransCanada reduced its offer from \(\$ 26\) per share to \(\$ 25.50\), all cash. PTO 『 618. TransCanada threatened that if Columbia did not accept its reduced offer, then TransCanada would "issue a press release within the next few days indicating its acquisition discussions had been terminated." Id. Exclusivity terminated automatically upon receipt of TransCanada's reduced offer. See JX 978.

At a telephonic meeting held the same day, the Board acknowledged that TransCanada was pushing Columbia to act before Spectra could make an offer. \({ }^{20}\) The Board decided to proceed with TransCanada as long as the termination fee in the Merger Agreement did not exceed \(3 \%\) of equity value. See id. On March 15, 2016, Columbia and TransCanada agreed to a termination fee of \(3 \%\).

\section*{O. The Board Approves The Merger Agreement.}

On March 16 and 17, 2016, the Board convened to consider the Merger. Sullivan \& Cromwell reviewed the Merger Agreement. Goldman and Lazard opined that the consideration was fair to Columbia's stockholders. Goldman presented a DCF analysis that valued Columbia's stock at \$18.64-\$23.50 per share. JX 1016 at 107. Lazard's DCF ranges valued the stock at \(\$ 18.88-\$ 24.38\) per share on a sum-of-the-parts basis and at \(\$ 20.00-\$ 25.50\) per share on a consolidated basis. Id. at 80; JX 1136 at 75-76. Other valuation methods generated higher and lower ranges. \({ }^{21}\) The Board determined that there was a serious risk that TransCanada would withdraw its offer if Columbia delayed signing to buy time for Spectra. The Board also determined
that Spectra was unlikely to make a competitive offer, if it made one at all. \({ }^{22}\)
*14 At the conclusion of the meeting, the Board unanimously approved the Merger Agreement. Its terms provided for (i) a \(\$ 309\) million termination fee equal to \(3 \%\) of the Merger's equity value, (ii) a no-shop provision, and (iii) a fiduciary out that the Board could exercise after giving TransCanada four days to match any superior proposal. JX 1025 §§ 4.02, 7.02(b).

\section*{P. Columbia's Stockholders Approve the Merger.}

Columbia held a special meeting of stockholders on June 22, 2016, to consider the Merger. Holders of \(73.9 \%\) of the outstanding shares voted in favor of the Merger. Holders of \(95.3 \%\) of the shares present in person or by proxy at the meeting voted in favor of the Merger. PTO 9¢ \(5-6\). The Merger closed on July 1, 2016.

\section*{II. LEGAL ANALYSIS}
"An appraisal proceeding is a limited legislative remedy intended to provide shareholders dissenting from a merger on grounds of inadequacy of the offering price with a judicial determination of the intrinsic worth (fair value) of their shareholdings." Cede \& Co. v. Technicolor, Inc. (Technicolor I), 542 A.2d 1182, 1186 (Del. 1988). Section 262(h) of the Delaware General Corporation Law states that
the Court shall determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation, together with interest, if any, to be paid upon the amount determined to be the fair value. In determining such fair value, the Court shall take into account all relevant factors.
8 Del. C. § 262(h). The statute thus places the obligation to determine the fair value of the shares squarely on the court. Gonsalves v. Straight Arrow Publ'rs, Inc., 701 A.2d 357, 361 (Del. 1997).

Because of the statutory mandate, the allocation of the burden of proof in an appraisal proceeding differs from a traditional liability proceeding. "In a statutory appraisal proceeding, both sides have the burden of proving their respective valuation positions ...." M.G. Bancorp., Inc. v. Le Beau, 737 A.2d 513, 520 (Del. 1999). "No presumption, favorable or unfavorable,
attaches to either side's valuation ...." Pinson v. CampbellTaggart, Inc., 1989 WL 17438, at *6 (Del. Ch. Feb. 28, 1989). "Each party also bears the burden of proving the constituent elements of its valuation position ..., including the propriety of a particular method, modification, discount, or premium." Jesse A. Finkelstein \& John D. Hendershot, Appraisal Rights in Mergers and Consolidations, Corp. Prac. Series (BNA) No. 38-5th, at A-90 (2010 \& 2017 Supp.) [hereinafter Appraisal Rights].

As in other civil cases, the standard of proof in an appraisal proceeding is a preponderance of the evidence. M.G. Bancorp., 737 A. 2 d at 520 . A party is not required to prove its valuation conclusion, the related valuation inputs, or its underlying factual contentions by clear and convincing evidence or to exacting certainty. See Triton Constr. Co. v. E. Shore Elec. Servs., Inc., 2009 WL 1387115, at *6 (Del. Ch. May 18, 2009), aff'd, 2010 WL 376924 (Del. Jan. 14, 2010) (ORDER). "Proof by a preponderance of the evidence means proof that something is more likely than not. It means that certain evidence, when compared to the evidence opposed to it, has the more convincing force and makes you believe that something is more likely true than not." Agilent Techs., Inc. v. Kirkland, 2010 WL 610725, at *13 (Del. Ch. Feb. 18, 2010) (internal quotation marks omitted).
*15 "In discharging its statutory mandate, the Court of Chancery has discretion to select one of the parties' valuation models as its general framework or to fashion its own." M.G. Bancorp., 737 A.2d at 525-26. "The Court may evaluate the valuation opinions submitted by the parties, select the most representative analysis, and then make appropriate adjustments to the resulting valuation." Appraisal Rights, supra, at A-31 (collecting cases). The court also may "make its own independent valuation calculation by ... adapting or blending the factual assumptions of the parties' experts." M.G. Bancorp., 737 A.2d at 524. It is also "entirely proper for the Court of Chancery to adopt any one expert's model, methodology, and mathematical calculations, in toto, if that valuation is supported by credible evidence and withstands a critical judicial analysis on the record." Id. at 526. "If neither party satisfies its burden, however, the court must then use its own independent judgment to determine fair value." Gholl v. eMachines, Inc., 2004 WL 2847865, at *5 (Del. Ch. Nov. 24, 2004).

In Tri-Continental Corporation v. Battye, 74 A.2d 71 (Del. 1950), the Delaware Supreme Court explained in detail the concept of value that the appraisal statute employs:

The basic concept of value under the appraisal statute is that the stockholder is entitled to be paid for that which has been taken from him, viz., his proportionate interest in a going concern. By value of the stockholder's proportionate interest in the corporate enterprise is meant the true or intrinsic value of his stock which has been taken by the merger. In determining what figure represents the true or intrinsic value, \(\ldots\) the courts must take into consideration all factors and elements which reasonably might enter into the fixing of value. Thus, market value, asset value, dividends, earning prospects, the nature of the enterprise and any other facts which were known or which could be ascertained as of the date of the merger and which throw any light on future prospects of the merged corporation are not only pertinent to an inquiry as to the value of the dissenting stockholder's interest, but must be considered .... \({ }^{23}\)
Subsequent Delaware Supreme Court decisions have adhered consistently to this definition of value. \({ }^{24}\) Most recently, the Delaware Supreme Court reiterated that " \([\mathrm{f}]\) air value is ... the value of the company to the stockholder as a going concern," i.e. the stockholder's "proportionate interest in a going concern." Verition P'rs Master Fund Ltd. v. Aruba Networks, Inc., 210 A.3d 128, 132-33 (Del. 2019).
*16 The trial court's "ultimate goal in an appraisal proceeding is to determine the 'fair or intrinsic value' of each share on the closing date of the merger." Dell, Inc. v. Magnetar Global Event Driven Master Fund Ltd., 177 A.3d 1, 20 (Del. 2017) (quoting Cavalier Oil, 564 A.2d at 1142-43). To accomplish this task, "the court should first envisage the entire pre-merger company as a 'going concern,' as a standalone entity, and assess its value as such." Id. (quoting Cavalier Oil, 564 A.2d at 1144). When doing so, the corporation "must be valued as a going concern based upon the 'operative reality' of the company as of the time of the merger," taking into account its particular market position in light of future prospects. M.G. Bancorp., 737 A. 2 d at 525 (quoting Cede \& Co. v. Technicolor, Inc. (Technicolor IV), 684 A.2d 289, 298 (Del. 1996)); accord Dell, 177 A.3d at 20 . The concept of the corporation's "operative reality" is important because " \([t]\) he underlying assumption in an appraisal valuation is that the dissenting shareholders would be willing to maintain their investment position had the merger not occurred." Technicolor IV, 684 A.2d at 298. Consequently, the trial court must assess "the value of the company ... as a going concern, rather than its value to a third party as an acquisition." M.P.M. Enters., Inc. v. Gilbert, 731 A.2d 790, 795 (Del. 1999).
"The time for determining the value of a dissenter's shares is the point just before the merger transaction 'on the date of the merger.' " Appraisal Rights, supra, at A-33 (quoting Technicolor I, 542 A. 2 d at 1187). Put differently, the valuation date is the date on which the merger closes. Technicolor IV, 684 A.2d at 298; accord M.G. Bancorp., 737 A.2d at 525. If the value of the corporation changes between the signing of the merger agreement and the closing, then the fair value determination must be measured by the "operative reality" of the corporation at the effective time of the merger. See Technicolor IV, 684 A.2d at 298.

The statutory obligation to make a single determination of a corporation's value introduces an impression of false precision into appraisal jurisprudence.
[I]t is one of the conceits of our law that we purport to declare something as elusive as the fair value of an entity on a given date .... [V]aluation decisions are impossible to make with anything approaching complete confidence. Valuing an entity is a difficult intellectual exercise, especially when business and financial experts are able to organize data in support of wildly divergent valuations for the same entity. For a judge who is not an expert in corporate finance, one can do little more than try to detect gross distortions in the experts' opinions. This effort should, therefore, not be understood, as a matter of intellectual honesty, as resulting in the fair value of a corporation on a given date. The value of a corporation is not a point on a line, but a range of reasonable values, and the judge's task is to assign one particular value within this range as the most reasonable value in light of all the relevant evidence and based on considerations of fairness. \({ }^{25}\)
Because the determination of fair value follows a litigated proceeding, the issues that the court considers and the outcome it reaches depend in large part on the arguments advanced and the evidence presented.

An argument may carry the day in a particular case if counsel advance it skillfully and present persuasive evidence to support it. The same argument may not prevail in another case if the proponents fail to generate a similarly persuasive level of probative evidence or if the opponents respond effectively.
Merion Capital L.P. v. Lender Processing Servs., L.P., 2016 WL 7324170, at *16 (Del. Ch. Dec. 16, 2016). Likewise, the approach that an expert espouses may have met "the approval of this court on prior occasions," but may be
rejected in a later case if not presented persuasively or if "the relevant professional community has mined additional data and pondered the reliability of past practice and come, by a healthy weight of reasoned opinion, to believe that a different practice should become the norm ...." Global GT LP v. Golden Telecom, Inc. (Golden Telecom Trial), 993 A.2d 497, 517 (Del. Ch.), aff'd, 11 A.3d 214 (Del. 2010).
*17 In this case, the parties proposed three valuation indicators: (i) the deal price minus synergies, (ii) Columbia's unaffected trading price, and (iii) a DCF analysis. The petitioners relied on the DCF analysis. The respondent relied on the other two metrics. Although technically the respondent in an appraisal proceeding is the surviving company, the acquirer is typically the real party in interest on the respondent's side of the case. In this case, that party is TransCanada. Reflecting this reality, this decision refers to the respondent's arguments as TransCanada's.

\section*{A. Deal Price}

TransCanada contends that the deal price of \(\$ 25.50\) per share is a reliable indicator of fair value if adjusted downward to eliminate elements of value arising from the Merger. The petitioners argue that the deal price should receive no weight, but that if it does receive weight, then it should be adjusted upward to reflect improvements in value that Columbia experienced between signing and closing. As the proponent of using the deal price, TransCanada bore the burden of establishing its persuasiveness. Each side bore the burden of proving its respective adjustments.

\section*{1. Guidance Regarding How To Approach The Deal Price}

In three recent decisions, the Delaware Supreme Court has endorsed using the deal price in an arm's-length transaction as evidence of fair value. \({ }^{26}\) In each decision, the Delaware Supreme Court weighed in on aspects of the sale process that made the deal price a reliable indicator of fair value, both by describing guiding principles and by applying them to the facts of the case. These important decisions illuminate what a trial court should consider when assessing the deal price as a valuation indicator.

\section*{a. \(D F C\)}

The first decision- \(D F C\)-involved the acquisition of a payday lender (DFC Global) by a private equity firm (Lone Star). In re Appraisal of DFC Glob. Corp. (DFC Trial), 2016 WL 3753123, at *1 (Del. Ch. July 8, 2016) (subsequent history omitted). The respondent urged the court to rely on the deal price as the most reliable evidence of fair value. Id. To assess the deal price, the trial court examined the strength of the sale process, explaining that the deal price "is reliable only when the market conditions leading to the transaction are conducive to achieving a fair price." Id.

The pre-signing sale process for DFC Global lasted two years, but proceeded in fits and starts. In April 2012, DFC Global hired a banker to explore a sale to a private equity firm. \(I d\). at *3. The banker selected six firms, and a seventh expressed interest independently. By September 2012, none had bid, and the banker spent the next year reaching out to another thirtyfive private equity firms and three potential strategic buyers.

In September 2013, two private equity firms-Crestview Partners and J.C. Flowers \& Co.-expressed interest in a joint acquisition. In December 2013, Lone Star expressed interest in a transaction at \(\$ 12.16\) per share. After Crestview withdrew from the joint bid, J.C. Flowers expressed interest in a transaction at \(\$ 13.50\) per share.

During due diligence, DFC Global provided both bidders with a lowered set of projections, leading Lone Star to reduce its expression of interest to \(\$ 11\) per share. In March 2014, DFC Global entered into exclusive negotiations with Lone Star. During the exclusivity period, DFC Global provided an even lower forecast, and Lone Star dropped its formal bid to \(\$ 9.50\) per share. Lone Star gave DFC Global twenty-four hours to accept, but later extended the deadline by five days. DFC Global accepted, and the parties announced the transaction publicly on April 2, 2014. It closed on June 13, 2014. Id. at *4.
*18 In the appraisal proceeding, the court first worked through the parties' DCF valuations and the respondent's comparable-companies analysis. Having done so, the court turned to the deal price, describing it as "an appropriate factor to consider" and observing that the company "was purchased by a third-party buyer in an arm's-length sale" after a process that "lasted approximately two years and involved [DFC Global's] advisor reaching out to dozens of financial sponsors as well as several potential strategic buyers." Id. at *21. The court noted that the deal "did not involve the potential conflicts of interest inherent in a management buyout or negotiations to retain existing management ...." Id. Instead,

Lone Star took the opposite approach and replaced most of the key executives. \(I d\). At the same time, the court expressed concern that DFC Global was facing a period of regulatory uncertainty in which it could not access its full range of strategic options. The evidence also indicated that Lone Star had "focused its attention on achieving a certain internal rate of return and on reaching a deal within its financing constraints, rather than on [DFC Global's] fair value." Id. at *22. The trial court also observed that Lone Star had secured exclusivity during a critical phase of the sale process and pressured the company into the final price with an exploding offer. \(I d\). at \(* 23\). The post-signing phase, by contrast, was relatively open, with a termination fee that "was reasonable and bifurcated to allow for a reduced fee in the event of a superior proposal." Id.

The trial court ultimately concluded that each of the three indicators that the parties advanced-the DCF analysis, the comparable-companies analysis, and the deal price-had limitations. But all three provided meaningful insight into DFC Global's value, and all three fell within a reasonable range. The court therefore averaged them, arriving at a valuation of \(\$ 10.21\) per share. Id. That outcome reflected a premium of \(7.5 \%\) over the deal price of \(\$ 9.50\) per share.

On appeal, the Delaware Supreme Court reversed. In its first argument for reversal, the respondent contended that the Delaware Supreme Court should presume that the deal price reflects fair value under specified conditions, effectively asking the Delaware Supreme Court to overrule its decision in Golden Telecom, Inc. v. Global GT LP, 11 A.3d 214 (Del. 2010). There, the high court had rejected a similar request to establish a presumption, explaining that "Section 262(h) neither dictates nor even contemplates that the Court of Chancery should consider the transactional market price of the underlying company. Rather, in determining 'fair value,' the statute instructs that the court 'shall take into account all relevant factors.'" Id. at 217 (quoting 8 Del. C. § 262(h)). The Golden Telecom decision observed that "[r]equiring the Court of Chancery to defer-conclusively or presumptively - to the merger price, even in the face of a pristine, unchallenged transactional process, would contravene the unambiguous language of the statute and the reasoned holdings of our precedent." Id. at 218.

In \(D F C\), the Delaware Supreme Court again declined to establish a presumption, but cautioned that its
refusal to craft a statutory presumption in favor of the deal price when certain conditions pertain does not in any way
signal our ignorance to the economic reality that the sale value resulting from a robust market check will often be the most reliable evidence of fair value, and that secondguessing the value arrived upon by the collective views of many sophisticated parties with a real stake in the matter is hazardous.
\(D F C, 172\) A.3d at 366 . The justices also cautioned that "we have little quibble with the economic argument that the price of a merger that results from a robust market check, against the back drop of a rich information base and a welcoming environment for potential buyers, is probative of the company's fair value." Id.

The Delaware Supreme Court then elaborated on what fair value means when evaluating a deal price:
[F]air value is just that, "fair." It does not mean the highest possible price that a company might have sold for had Warren Buffett negotiated for it on his best day and the Lenape who sold Manhattan on their worst.... Capitalism is rough and ready, and the purpose of an appraisal is not to make sure that the petitioners get the highest conceivable value that might have been procured had every domino fallen out of the company's way; rather, it is to make sure that they receive fair compensation for their shares in the sense that it reflects what they deserve to receive based on what would fairly be given to them in an arm's-length transaction.
*19 Id. at 370-71.

Addressing the merits, the Delaware Supreme Court reversed the trial court's determination of fair value, noting that the trial court had made the following post-trial findings of fact:
i) the transaction resulted from a robust market search that lasted approximately two years in which financial and strategic buyers had an open opportunity to buy without inhibition of deal protections;
ii) the company was purchased by a third party in an arm's length sale; and
iii) there was no hint of self-interest that compromised the market check.
Id. at 349 (formatting altered). The high court further observed that
[a]lthough there is no presumption in favor of the deal price, under the conditions found by the Court of Chancery, economic principles suggest that the best evidence of fair value was the deal price, as it resulted from an open
process, informed by robust public information, and easy access to deeper, non-public information, in which many parties with an incentive to make a profit had a chance to bid.
Id.

The Delaware Supreme Court cited "the failure of other buyers to pursue the company when they had a free chance to do so" as one of several "objective factors that support the fairness of the price paid ...." Id. at 376. The high court also observed that Lone Star "was subjected to a competitive process of bidding[.]" Id. at 350 . That finding was supported by the competition between Lone Star and J.C. Flowers before signing and the passive market check after signing. The Delaware Supreme Court also explained that "the fact that the ultimate buyer was alone at the end provides no basis for suspicion" given the trial court's findings that
i) there was no conflict of interest;
ii) [DFC Global's investment banker] had approached every logical buyer;
iii) no one was willing to bid more in the months leading up to the transaction before management significantly adjusted downward its projections; and
iv) management continued to miss its targets after Lone Star was the only buyer remaining.
Id. at 376 (formatting altered). The Delaware Supreme Court found that "the record does not include the sorts of flaws in the sale process that could lead one to reasonably suspect that the ultimate price paid by Lone Star was not reflective of DFC's fair value." Id.

Based on this analysis, the Delaware Supreme Court determined that the Court of Chancery's "decision to give one-third weight to each metric was unexplained and in tension with the Court of Chancery's own findings about the robustness of the market check." Id. at 388. The senior tribunal therefore remanded the case for the trial court to "reassess [its] conclusion as to fair value in light of our decision." Id. at 388-89.

\section*{b. Dell}

The second decision-Dell-involved a management buyout of Dell Inc. in which its founder and CEO (Michael Dell) teamed up with a private equity firm (Silver Lake) to acquire
the company. When the merger agreement was signed, the deal price was \(\$ 13.65\) per share. With the stockholder vote trending against the merger, the buyout group increased its bid to \(\$ 13.75\) per share (the "Final Merger Consideration").
*20 The respondent contended that the Final Merger Consideration was the best evidence of Dell's fair value on the closing date. In re Appraisal of Dell Inc. (Dell Trial), 2016 WL 3186538, at *21 (Del. Ch. May 31, 2016) (subsequent history omitted). To analyze this contention, the trial court separately examined the pre- and post-signing phases of the transaction process.

The trial court found that bidding during the pre-signing phase had not produced fair value. Three factors contributed to this determination: (i) the bidders' use of leveraged-buyout models to price their bids, (ii) evidence that the stock market had undervalued Dell by focusing on its disappointing shortterm prospects, and (iii) limited pre-signing competition. See \(i d\). at *29-37.

For present purposes, the third factor is most pertinent. The trial court determined that pre-signing competition was limited because Dell's special committee only invited one other private equity firm to compete with Silver Lake at any given time, and all of the firms priced the deal using the same leveraged-buyout financing model that Silver Lake had used. See id. at *9-10, *30-31, *37. The committee did not approach strategic buyers during the pre-signing phase, in part because one of the committee's financial advisors (Evercore) discouraged the committee from contacting a wider universe of buyers until the go-shop process, when the advisor would earn a premium for generating a higher bid. \(I d\). at * \(6, * 11\). The committee's other financial advisor (JPMorgan) expressed concern about the absence of a competitive dynamic and its effect on the bidding. See id. at *6, *37.

Having found that the pre-signing phase failed to support the reliability of the deal price, the trial court examined whether the post-signing phase validated it. The merger agreement contemplated a go-shop period, and during this phase, two financial sponsors emerged with competing recapitalizations. In response, and to secure a favorable stockholder vote, the buyout group increased its price to the Final Merger Consideration. Id. at *14, *16-18, *3738. The trial court found that the results of the go-shop ruled out a large gap between the Final Merger Consideration and fair value, because if Dell's value had approached what the petitioners claimed, then a strategic bidder would
have intervened. But the trial court also concluded that impediments to bidding undercut the reliability of the goshop as a price-discovery tool, citing (i) the magnitude of the transaction, (ii) Mr. Dell's participation in the buyout group, including his financial incentives as a net buyer of shares and his valuable relationships with customers, and (iii) information asymmetries between the buyout group and competing bidders. See id. at *40-44.

Having concluded that the respondent did not carry its burden of proving the reliability of the deal price, the trial court relied on a DCF analysis. After resolving various disputes between the parties, the trial court made a fair-value determination of \(\$ 17.62\) per share, a result \(28 \%\) over the deal price. This outcome appeared consistent with the result from the sale process, because it exceeded what a financial sponsor would pay under a leveraged-buyout model, but was below the level where the valuation gap would be sufficiently attractive for a strategic buyer to intervene. It suggested that the company's best option was to remain independent and ride out what appeared to be a trough in the stock price. The trial court perceived that this dynamic permitted the buyout group to take the company private at a premium to market but at a discount to fair value. See id. at *51.
*21 On appeal, the Delaware Supreme Court reversed. Consistent with its earlier decisions in Golden Telecom and \(D F C\), the high court stressed that that "there is no requirement that the court assign some mathematical weight to the deal price ...." Dell, 177 A.3d at 23. But on the facts presented, the high court held that the trial court "erred in not assigning any mathematical weight to the deal price" under circumstances suggesting that "the deal price deserved heavy, if not dispositive weight." Id.; accord id. at 30 ("Overall, the weight of evidence shows that Dell's deal price has heavy, if not overriding, probative value.").

The Delaware Supreme Court explained that Dell's sale process featured "fair play, low barriers to entry, outreach to all logical buyers, and the chance for any topping bidder to have the support of Mr. Dell's own votes ...." Id. at 35. In reaching this conclusion, the Delaware Supreme Court viewed the pre-signing process favorably, noting that (i) the members of the special committee who ran the sale process were "independent, experienced ... and armed with the power to say 'no,'" (ii) the committee persuaded the buyout group to raise its bid six times, from an initial range of \(\$ 11.22\) -to- \(\$ 12.16\) to \(\$ 13.65\), and (iii) there was "[n]othing in the record [that] suggests that increased competition would have
produced a better result." Id. at 11,28. The Delaware Supreme Court also cited "leaks that Dell was exploring strategic alternatives," which corroborated Evercore's assumption that "interested parties would have approached the Company before the go-shop if serious about pursuing a deal." \(I d\). at 28. Finally, the high court cited JPMorgan's view that "any other financial sponsor would have bid in the same ballpark as Silver Lake." Id.

The Delaware Supreme Court also viewed the post-signing process favorably. The high court cited the number of parties that the committee's bankers contacted and the fact that the go-shop's structure was more flexible than other go-shops. Id. at 29. As with its assessment of the pre-signing phase, the Delaware Supreme Court stressed the absence of evidence that another party was interested in proceeding, explaining that "[ \(f\) ]air value entails at minimum a price some buyer is willing to pay-not a price at which no class of buyers in the market would pay." Id.; see id. at 32,34 . The absence of a higher bid meant "that the deal market was already robust and that a topping bid involved a serious risk of overpayment[,]" which in turn "suggests the price is already at a level that is fair." Id. at 33.

Although it reversed the trial court's finding of fair value, the Delaware Supreme Court did not require that the trial court adopt the deal price: "Despite the sound economic and policy reasons supporting the use of the deal price as the fair value award on remand, we will not give in to the temptation to dictate that result." Id. at 44. The high court left it to the trial judge to reach his own conclusion, while "giv[ing] the [trial judge] the discretion on remand to enter judgment at the deal price if he so chooses, with no further proceedings." Id.

\section*{c. \(A r u b a\)}

The third decision-Aruba-involved the acquisition of a technology company (Aruba Networks) by a much larger competitor (Hewlett-Packard). See Verition P'rs Master Fund Ltd. v. Aruba Networks, Inc. (Aruba Trial), 2018 WL 922139 (Del. Ch. Feb. 15, 2018) (subsequent history omitted). The respondent asked the court to give heavy weight to the deal price. To evaluate its reliability, the trial court examined the sale process in light of the Delaware Supreme Court's decisions in Dell and DFC.
*22 The pre-signing sale process in Aruba had two phases. In late August 2014, HP approached Aruba about a deal. Id.
at *7-8. Aruba hired an investment banker (Qatalyst), and the banker and Aruba management anticipated obtaining a deal for around \(\$ 30\) per share. \(I d\). at \(* 9\). The companies entered into an NDA that restricted HP from speaking with Aruba management about post-transaction employment, and HP began conducting due diligence. After receiving projections from Aruba, HP determined that with synergies, the pro forma value of acquiring Aruba was as high as \(\$ 32.05\) per share. \(I d\). at *11. Meanwhile, Qatalyst identified thirteen potential partners and approached five of them. For reasons having "nothing to do with price," none was interested. \(I d\). at \(* 10\).

Despite the restriction in the NDA, HP asked Aruba's CEO, Dominic Orr, to take on a key role with the combined entity. Orr replied that he had no objection. Id. at *11. The parties seemed to be making progress towards a deal, but the HP board of directors balked at making a bid without further analysis, recalling the fallout from HP's disastrous acquisition of Autonomy Corporation PLC in 2011. By the end of November 2014, Orr felt the process had dragged on long enough, and with the approval of the Aruba board, he terminated the discussions. Id. at *12.

For its part, HP continued to evaluate an acquisition of Aruba. In December 2014, HP tapped Barclays Capital Inc. as its financial advisor, a firm that had worked for Aruba and had been trying for months to secure the sell-side engagement. Id. at *13. On January 21, 2015, HP's CEO met Orr for dinner. During the meeting, when HP's CEO proposed resuming merger talks, Orr responded positively and suggested trying to announce a deal by early March. But HP's CEO also told Orr that because Qatalyst had represented Autonomy when HP acquired it, HP would not proceed if Aruba used Qatalyst. Id. at *14.

The Aruba board decided to move forward with the deal and informed Qatalyst about HP's ukase. Aruba was obligated to pay Qatalyst a fee in the event of a successful transaction, so it kept Qatalyst on as a behind-the-scenes advisor. From then on, Qatalyst's primary goal was to repair its relationship with HP, and Qatalyst regarded a successful sale of Aruba to HP as a key step in the right direction. Aruba also needed a new HP-facing banker. It hired Evercore, a firm that was trying to establish a presence in Silicon Valley. During the sale process, Evercore likewise sought to please HP, viewing HP as a major source of future business. See id. at *9, *15-16, *19, *21.

The ensuing negotiations proceeded quickly. HP had anticipated making an opening bid of \(\$ 24\) per share, but after

Orr's enthusiastic response, HP opened at \(\$ 23.25\) per share. Id. at *16-17. Qatalyst reached out to a sixth potential strategic partner, but it was not interested. Id. at *17. The Aruba board decided to counter at \(\$ 29\) per share. Evercore conveyed the number to Barclays, but when Barclays dismissed it, Evercore emphasized Aruba's desire to announce a deal quickly. Id. at *17-18. On February 10, 2015, twenty days after HP resumed discussions with Orr, the Aruba board agreed to a price of \(\$ 24.67\) per share. Id. at * 19 . The parties negotiated a merger agreement, and on March 1, 2015, the Aruba board approved it.

The post-signing phase was uneventful. On March 2, 2015, Aruba and HP announced the merger. The merger agreement (i) contained a no-shop clause subject to a fiduciary out, (ii) conditioned the out for an unsolicited superior proposal on compliance with an unlimited match right that gave HP five days to match the first superior proposal and two days to match any subsequent increase, and (iii) required Aruba to pay HP a termination fee of \(\$ 90\) million, representing \(3 \%\) of the Aruba's equity value. No competing bidder emerged, and on May 1, 2015, Aruba's stockholders approved the merger. \(I d\). at *21-22.
*23 The trial court found that under Dell and \(D F C\), Aruba's sale process was sufficiently reliable to make the deal price a persuasive indicator of fair value. The HP-Aruba transaction was an arm's-length merger. The ultimate decision-makers for Aruba-the board and the stockholders-did not face any conflicts of interest. During the sale process, Aruba extracted price increases from HP. There was also evidence that the deal price credited Aruba with a portion of the substantial synergies that the merger would create. And the merger agreement's deal protections were relatively customary and would not have supported a claim for breach of fiduciary duty. Id. at *36-38. The trial court therefore viewed the HPAruba merger as "a run-of-the-mill, third party-deal," where "[n]othing about it appears exploitive." Id. at *38.

The trial court next turned to the petitioners' specific challenges to the deal price. The petitioners argued that deal price resulted from a closed-off sale process in which HP had not faced a meaningful threat of competition. Id. at *39. The trial court rejected that contention, noting that the petitioners failed "to point to a likely bidder and make a persuasive showing that increased competition would have led to a better result." Id. (citing Dell, 177 A.3d at 28-29, 32, 34). The petitioners proved that HP knew that it did not face a meaningful threat of competition, but they did not show
that anyone else would have paid more. Id. at *41. Instead, the record showed that none of the six parties that Qatalyst contacted was willing to bid, and no one emerged between signing and closing. Id.

The petitioners next argued that the negotiators' incentives undermined the sale process, citing the desire of Aruba's bankers to cater to HP and the more subtly divergent interests of Aruba's CEO. The trial court found that although the petitioners proved that Aruba could have negotiated more aggressively, they did not prove that "the bankers, [the CEO], the Aruba Board, and the stockholders who approved the transaction all accepted a deal price that left a portion of Aruba's fundamental value on the table." Id. at *44.

In other portions of the decision, the trial court found that Aruba's unaffected trading price was a reliable indicator of fair value and rejected the parties' DCF valuations as unreliable. These holdings left the trial court with two reliable valuation indicators: the unaffected trading price and the deal price. The trial court determined that the unaffected trading price was the better measure of the fair value of Aruba's shares. See id. at *53-55.

On appeal, the Delaware Supreme Court reversed. The high court found that the trial court had incorrectly relied on the unaffected trading price, but it accepted the trial court's finding that the deal price was a reliable indicator of fair value. Aruba, 210 A.3d at 141-42.

Addressing the petitioners' claim that the sale process lacked a competitive bidding dynamic, the Delaware Supreme Court explained that the trial court had misinterpreted DFC and Dell as downplaying the value of competition. See id. at 136. The Delaware Supreme Court emphasized that
when there is an open opportunity for many buyers to buy and only a few bid (or even just one bids), that does not necessarily mean that there is a failure of competition; it may just mean that the target's value is not sufficiently enticing to buyers to engender a bidding war above the winning price.
Id. The high court then applied this principle to the facts in Aruba:

Aruba approached other logical strategic buyers prior to signing the deal with HP, and none of those potential buyers were interested. Then, after signing and the announcement of the deal, still no other buyer emerged even though the merger agreement allowed for superior bids. It cannot be
that an open chance for buyers to bid signals a market failure simply because buyers do not believe the asset on sale is sufficiently valuable for them to engage in a bidding contest against each other. If that were the jurisprudential conclusion, then the judiciary would itself infuse assets with extra value by virtue of the fact that no actual market participants saw enough value to pay a higher price. That sort of alchemy has no rational basis in economics.
*24 Id. On the facts presented, the level of competition in Aruba was sufficient to support the reliability of the deal price.

The Delaware Supreme Court also explained that a buyer in possession of material nonpublic information about the seller is in a strong position (and is uniquely incentivized) to properly value the seller when agreeing to buy the company at a particular deal price, and that view of value should be given considerable weight by the Court of Chancery absent deficiencies in the deal process.
Id. at 137. The high court observed that HP and Aruba went "back and forth over price" and that HP had "access to nonpublic information to supplement its consideration of the public information available to stock market buyers ...." Id. at 139. The Delaware Supreme Court elsewhere emphasized that "HP had signed a confidentiality agreement, done exclusive due diligence, gotten access to material nonpublic information," and "had a much sharper incentive to engage in price discovery than an ordinary trader because it was seeking to acquire all shares." Id. at 140 . On the facts presented, the extent of the negotiations in Aruba was sufficient to support the reliability of the deal price.

The high court ultimately concluded that Aruba's sale process was sufficiently reliable to render the deal price the best measure of fair value. The Delaware Supreme Court declined to use the trial court's estimate of the deal price minus synergies, instead adopting HP's contemporaneous synergies estimate and remanding with instructions that "final judgment be entered for the petitioners in the amount of \(\$ 19.10\) per share plus any interest to which the petitioners are entitled." Id. at 142.

\section*{2. Applying The Delaware Supreme Court's Precedents To This Case}

The Delaware Supreme Court's precedents indicate that the sale process in this case was sufficiently reliable to make the deal price a persuasive indicator of fair value. These
authorities call for rejecting the petitioners' challenges to the sale process.

\section*{a. Objective Indicia Of Deal-Price Fairness}

When assessing whether a sale process results in fair value, it is critical to recall that "fair value is just that, 'fair.' " \(D F C\), 172 A.3d at 370 . "[T]he key inquiry is whether the dissenters got fair value and were not exploited." Dell, 177 A.3d at 33. "The issue in an appraisal is not whether a negotiator has extracted the highest possible bid." Id. Rather, "the purpose of an appraisal is ... to make that [the petitioners] receive fair compensation for their shares in the sense that it reflects what they deserve to receive based on what would fairly be given to them in an arm's-length transaction." \(D F C, 172\) A.3d at \(370-\) 71.

When applying this standard, the Delaware Supreme Court has cited "objective indicia" that "suggest[ ] that the deal price was a fair price." Dell, 177 A.3d at 28; accord DFC, 172 A.3d at 376 . In each of its recent decisions, the Delaware Supreme Court found that the objective indicia outweighed the sale processes' shortcomings. In this case, a similar analysis shows that the deal price is a reliable indicator of fair value.
*25 First, the Merger was an arm's-length transaction with a third party. See DFC, 172 A.3d at 349 (citing fact that "the company was purchased by a third party in an arm's length sale" as factor supporting fairness of deal price). TransCanada was a pure outsider with no prior stock ownership in Columbia.

Second, the Board did not labor under any conflicts of interest. Six of the Board's seven members were experienced outside directors. Cf. Dell, 177 A.3d at 28 (citing fact that special committee was "composed of independent, experienced directors and armed with the power to say 'no' " as factor supporting fairness of deal price). Columbia's stockholders were widely dispersed, and the petitioners have not identified divergent interests among them.

Third, TransCanada conducted due diligence and received confidential insights about Columbia's value. \({ }^{27}\) Like the acquirer in Aruba, TransCanada "had signed a confidentiality agreement, done exclusive due diligence, gotten access to material nonpublic information," and had a "sharp[] incentive to engage in price discovery ... because it was seeking to acquire all shares." Aruba, 210 A.3d at 140.

Fourth, during the first pre-signing phase, Columbia contacted other potential buyers, and those parties failed to pursue a merger when they had a free chance to do so. See \(D F C, 172\) A.3d at 376 (citing "failure of other buyers to pursue the company when they had a free chance to do so" as factor supporting fairness of deal price). The degree of presigning interaction is similar to or compares favorably with the facts in the Delaware Supreme Court precedents. \({ }^{28}\)

Fifth, Columbia negotiated with TransCanada and extracted multiple price increases. See Aruba, 210 A.3d at 139 (citing "back and forth over price"); Dell, 177 A.3d at 28 (citing fact that special committee "persuaded Silver Lake to raise its bid six times"). After TransCanada offered \(\$ 24\) per share, Columbia said no. When TransCanada raised its offer to \(\$ 25.25\), Columbia again said no. The deal price of \(\$ 25.50\) per share was more than any other party had ever seriously offered, including before the equity offering when Columbia sold \(25 \%\) of its stock for less than its trading price.
*26 Finally, no bidders emerged during the post-signing phase, which is a factor that the Delaware Supreme Court has stressed when evaluating a sale process. \({ }^{29}\) The suite of deal protections in the Merger Agreement fell within the norm, making the absence of a topping bid significant.

Considering these factors as a whole, the sale process that led to the Merger bore objective indicia of fairness that rendered the deal price a reliable indicator of fair value.

\section*{b. Management Conflicts}

As their central theme in this case, the petitioners argue that Skaggs and Smith engineered a fire sale of Columbia to obtain personal benefits. \({ }^{30}\) They cite evidence that both had targeted a 2016 retirement date. E.g., JX 163; JX 251. Each had a change-in-control agreement that paid out triple the sum of his base salary and target annual bonus if he retired after a sale of Columbia. If the sale occurred after July 1, 2018, then the multiple would drop from triple to double. PTO \(\mathbb{1 4 \|}\) 206, 217; Taylor Tr. 1263. When Columbia separated from NiSource, both joined Columbia knowing that it was likely to be an acquisition target. According to the petitioners, the executives then strived to engineer a near-term sale, knowing they would come out ahead even in a sale at less than fair value.

The Aruba decision involved a sale process where the top executive and the company's investment bankers had conflicting incentives. The CEO wanted to retire, but he cared deeply about the company and its employees. When HP proposed to acquire Aruba and keep the CEO on to integrate the companies, it offered the perfect path "to an honorable personal and professional exit." Aruba Trial, 2018 WL 922139, at *5; see id. at *43 (analyzing CEO's conflict). Aruba's investment bankers faced more direct conflicts because both wanted to curry favor with HP. Qatalyst was desperate to save its Silicon Valley franchise, and Evercore was auditioning for future business. Id. at * 43 . The trial court acknowledged the petitioners' concerns, but found that the conflicting incentives did not undermine the deal price as an indicator of fair value:

The evidence does not convince me that the bankers, Orr, the Aruba Board, and the stockholders who approved the transaction all accepted a deal price that left a portion of Aruba's fundamental value on the table. Perhaps different negotiators could have extracted a greater share of the synergies from HP in the form of a higher deal price. Maybe if Orr had been less eager, or if Qatalyst had not been relegated to the back room, then HP would have opened at \(\$ 24\) per share. Perhaps with a brash Qatalyst banker leading the negotiations, unhampered by the Autonomy incident, Aruba might have negotiated more effectively and gotten HP above \(\$ 25\) per share. An outcome along these lines would have resulted in HP sharing a greater portion of the anticipated synergies with Aruba's stockholders. It would not have changed Aruba's standalone value. Hence, it would not have affected Aruba's fair value for purposes of an appraisal.
*27 Id. at *44. On appeal, the Delaware Supreme Court accepted the reliability of the deal price as a valuation indicator and used it when making its own fair value determination. Aruba, 210 A.3d at 141-42.

The Dell decision also involved a conflict: Mr. Dell, the company's founder and top executive, was a buy-side participant in the management buyout and would emerge from the transaction with a controlling stake. He did not lead the negotiations on the sell side (that task fell to the special committee), but the trial court regarded his involvement as a factor cutting against the reliability of the deal price. For example, the trial court found that Mr. Dell gave the buyout group a leg-up given his relationships within the company and his knowledge of its business, and the trial court accepted the testimony of a sale-process expert that if bidders competed to pay more than what Mr. Dell's group would pay, then they
risked a winner's curse. Dell Trial, 2016 WL 3186538, at *4243. Mr. Dell also was a net purchaser of shares in the buyout, so any increase in the deal price cost him money.

If Mr. Dell kept the size of his investment constant as the deal value increased, then Silver Lake would have to pay more and would demand a greater ownership stake in the post-transaction entity. Subramanian showed that if Mr. Dell wanted to maintain \(75 \%\) ownership of the posttransaction entity, then he would have to contribute an additional \(\$ 250\) million for each \(\$ 1\) increase in the deal price. If Mr. Dell did not contribute any additional equity and relied on Silver Lake to fund the increase, then he would lose control of the post-transaction entity at a deal price above \(\$ 15.73\) per share. Because Mr. Dell was a net buyer, any party considering an overbid would understand that a higher price would not be well received by the most important person at the Company.
\(I d\). at *43 (footnote omitted). These factors did not make Mr. Dell's involvement with the buyout group preclusive, as that term is used in an enhanced scrutiny case, because Mr. Dell testified credibly that he was willing to work with any bidder, and there was evidence that two of the buyout group's competitors had questioned Mr. Dell's value. But for purposes of price discovery in an appraisal case, the trial court perceived that Mr. Dell's involvement and incentives undermined the effectiveness of the sale process and the reliability of the deal price. \(I d\). at *44.

On appeal, the Delaware Supreme Court held that Mr. Dell's involvement in the buyout group had not undermined the sale process. See Dell, 177 A.3d at 32-33. The high court noted that "the [trial court] did not identify any possible bidders that were actually deterred because of Mr. Dell's status." Id. at 34. The Delaware Supreme Court also emphasized Mr. Dell's willingness to work with rival bidders during due diligence and the absence of evidence that Mr. Dell would have left the company if a rival bidder prevailed. Id. at 32-34. The high court concluded that the lack of a higher bid did not call into question the sale process, because " \([i] f\) a deal price is at a level where the next upward move by a topping bidder has a material risk of being a self-destructive curse, that suggests the price is already at a level that is fair." \(I d\). at 33.
*28 In this case, management's divergent interests fell short of the conflicts that failed to undermine the sale process in Dell. The alignment issue confronting Skaggs and Smith more closely resembled the negotiators' incentives in Aruba. Like Aruba's CEO and its bankers, Skaggs and Smith had personal reasons to secure a deal under circumstances where
disinterested participants might have preferred a standalone option: Their change-in-control benefits incentivized them to favor selling Columbia before 2018. To minimize the risk of missing that window, it was safer to act sooner rather than later. See In re Rural Metro Corp., 88 A.3d 54, 94-95 (Del. Ch. 2014) (discussing how incentives of contingently compensated representative are generally aligned with principal's but diverge over whether to do a deal at all), aff'd sub nom. RBC Capital Mkts., LLC v. Jervis, 129 A.3d 816 (Del. 2015).

But Skaggs and Smith also had countervailing incentives to pursue the best deal possible. Their change-in-control benefits included significant equity components that appreciated with a higher deal price. After the Merger, Skaggs retired and received change-in-control payments totaling \(\$ 26.8\) million, with over \(\$ 19\) million from equity awards. Skaggs received an additional \(\$ 30\) million when the Merger cashed out his nearly 1.2 million shares and phantom shares of Columbia stock. Smith similarly retired and received change-in-control payments totaling \(\$ 10.9\) million, with over \(\$ 7.3\) million from equity awards. PTO \(9 \mathbb{1}\) 654, 656; JX 1370 at 17-18; see JX 1346 वT/ 12, 27.

When directors or their affiliates own "material" amounts of common stock, it aligns their interests with other stockholders by giving them a "motivation to seek the highest price" and the "personal incentive as stockholders to think about the trade off between selling now and the risks of not doing so."
Chen v. Howard-Anderson, 87 A.3d 648, 670-71 (Del. Ch. 2014) (quoting In re Dollar Thrifty S'holder Litig., 14 A.3d 573, 600 (Del. Ch. 2010)); see also Lender Processing, 2016 WL 7324170, at *22 (discussing incentive to maximize deal price where target managers were net sellers and would not retain jobs post-merger). That said, the equity components in the change-in-control benefits did not fully solve the alignment problem, because their contingent nature made their recipients more averse to losing a deal, thereby limiting their incentive to push for the final nickel or quarter. See Rural Metro, 88 A.3d at 94-95 (discussing how incentives of contingently compensated representative and principal diverge during final negotiations).

In sum, there is evidence to support the petitioners' theory, and I have considered it seriously. Ultimately, however, I cannot credit it. Although Skaggs and Smith wanted to retire, they were professionals who took pride in their jobs and wanted to do the right thing. They were not going to arrange a fire sale
for below Columbia's standalone value, and the Board would not have let them.

Consistent with their incentives and professional responsibilities, Skaggs and Smith rejected opportunities for a quick sale. When Dominion expressed interest at an all-time high valuation, Skaggs demanded more. Instead of taking what they could get from Berkshire or TransCanada in fall 2015, Skaggs and Smith recommended a dilutive equity raise. JX 534; JX 1399 at 2-3. When Columbia told TransCanada that it was pursuing the equity raise, Girling offered a prompt deal at a higher price. JX 588. Skaggs thought that was too risky for Columbia and declined. A Columbia director recognized that by pursuing the equity raise, Skaggs and Smith had opted for "BIG, at least near, financial hits to your net worth." JX 621.

When negotiations with TransCanada resumed, Skaggs remained focused on obtaining a fair price. While awaiting TransCanada's formal offer in February 2016, Skaggs told Cornelius that "if the cash portion of the initial salvo [is] below \(\$ 25\), I would be inclined to not even counter." JX 855. When TransCanada offered \(\$ 24\), Skaggs and Smith said it was a nonstarter. See PTO ๆ 563. TransCanada came back at \(\$ 25.25\), and Skaggs recommended that the Board reject it. JX 1399 at 10; Skaggs Tr. 908-10; see Cornelius Tr. 1142-43. The Board agreed, and after Skaggs told Girling, Lazard and Skaggs believed the deal had died and that Columbia would be proceeding with its standalone plan. See JX 901; JX 906; JX 913.
*29 The most troubling event in the deal timeline is Smith's one-on-one meeting with Poirier, when he explained that TransCanada lacked competition. But Columbia did not take TransCanada's \(\$ 24\) per share offer, or even its \(\$ 25.25\) offer. Skaggs and the Board held out for a higher price, ultimately obtaining the Merger consideration of \(\$ 25.50\).

There is some evidence that if the Board had said no to \(\$ 25.50\) per share, then TransCanada would have looked for ways to go back up to \(\$ 26\). See Poirier Tr. 420-21. That prospect is insufficient to undermine the deal price for appraisal purposes. See Dell, 177 A.3d at 33 (explaining that fair value in an appraisal is not a measure of "whether a negotiator has extracted the highest possible bid"); accord DFC, 172 A.3d at 370 .

The evidence does not convince me that the Skaggs, Smith, and the Board accepted a deal price that left a portion of

Columbia's fundamental value on the table. As in Aruba, perhaps different negotiators could have done better. If they had, then the higher price would have resulted in TransCanada sharing a portion of the anticipated synergies with Columbia's stockholders. It would not have affected whether Columbia's stockholders received fair value.

\section*{c. Claims Of Favoritism During The Pre-Signing Process}

In their second attack on the sale process, the petitioners contend that the pre-signing phase "yields no reliable indication of fair value" because Columbia favored TransCanada over opportunities with other buyers. See Dkt. 428 at 73-74. It is true that Columbia began to favor TransCanada over time, but that was because a deal with TransCanada offered higher and more certain value than the alternatives.

The Aruba decision illustrates how a targeted pre-signing process can evolve to focus on a single bidder without undermining the deal price as an indicator of fair value. There, the initial phase of the sale process involved outreach to five potential strategic partners, and Aruba's banker later contacted a sixth. All declined to bid. During the second phase of the process, Aruba effectively engaged in a singlebidder negotiation with HP, and the petitioners proved that HP knew that it did not face a meaningful threat of competition. Aruba Trial, 2018 WL 922139, at *40-41. As the high court made clear on appeal, this fact pattern did not mean that there was insufficient competition, nor did it render the deal price unfair. See Aruba, 210 A.3d at 136 ("[W]hen there is an open opportunity for many buyers to buy and only a few bid (or even just one bids), that does not necessarily mean that there is a failure of competition; it may just mean that the target's value is not sufficiently enticing to buyers to engender a bidding war above the winning price.").

The sale process in this case followed a similar pattern. It is true that Columbia did not treat all bidders identically, but Columbia's actions did not result in an ineffective sale process or unreliable deal price. Rather than favoring TransCanada throughout, Columbia initially expected Dominion to be the logical buyer. After TransCanada's unsolicited outreach to Smith in October 2015, Columbia remained focused on Dominion, believing that it could pay more. See PTO 『 428. In early November 2015, when Dominion said it could not meet the Board's ask of \$28 per share, Lazard recommended broadening the process with private outreach to TransCanada,

Berkshire, and Spectra to "put pressure on [Dominion]." JX 503 at 2-3. Goldman agreed and recommended conducting a broader market test only if the private process failed to produce a bid materially greater than \(\$ 24\) per share. See JX 505.
*30 The targeted pre-signing process ultimately included Dominion, NextEra, TransCanada, and Berkshire, but not Spectra. The petitioners fault Columbia for not pursuing Spectra, but they failed to prove that more vigorous pursuit "would have produced a better result." Dell, 177 A.3d at 28. On November 3, 2015, Spectra's CEO emailed Skaggs to request a meeting or telephone call "in the next couple of weeks to discuss what we may be able to accomplish together." JX 500. The two talked by phone on November 9. During the call, Spectra's CEO "referenced potential strategic opportunities for Columbia and Spectra, but provided no specifics ... and did not request a follow-up meeting or conversation." PTO ब 438. Skaggs told Spectra to move quickly, because otherwise Columbia would end talks and proceed with an equity offering. Skaggs Tr. 960; see id. at 871. After the call, Spectra went "radio silent." Skaggs Tr. 879; accord JX 541. On November 17, Skaggs reported to the Board that Spectra's CEO "had again expressed interest in a potential strategic transaction ... but had only spoken in terms of generic transaction considerations and had not provided a specific, actionable proposal or requested a substantive follow-up." PTO ब 456. In a November 25 update to the Board, Skaggs confirmed that "no additional word had been received" from Spectra. \(I d\). \(\mathbb{\|} 471\). Spectra had a "free chance" to pursue Columbia during the pre-signing phase. \(D F C, 172\) A.3d at 376. Spectra's failure to act does not undermine the fairness of the deal price.

The petitioners next claim that Columbia gave more information to TransCanada than to others in November 2015. The simple answer is that the bidders requested different levels of information. Berkshire was the most demanding. \({ }^{31}\) TransCanada was next, and both TransCanada and Berkshire asked for redacted precedent agreements. Dominion did not receive them because it did not ask.

The petitioners also complain that Skaggs gave TransCanada and Berkshire an informal bid deadline of November 24, 2015, without sharing the deadline with Dominion. Columbia told all of the parties it contacted to act quickly before Columbia pivoted to an equity offering, so Dominion knew there was time pressure. See Skaggs Tr. 960-61. By November 22, because of extensive interactions with

TransCanada and Berkshire, Columbia management expected imminent indications of interest from those firms. Dominion "ha[d] been radio silent." JX 569. Sure enough, TransCanada and Berkshire made prompt bids, and Dominion did not. The petitioners cite an email from November 25, 2015 in which Dominion's partner, NextEra, expressed surprise when Columbia called off the sale process to pursue an equity offering, saying that the deadline "was news to us —we were working on it." JX 592. Dominion and NextEra knew they had to move quickly, and had they been more interested, they would have. There is no evidence that an expression of interest from Dominion and NextEra would have been sufficiently competitive and sufficiently actionable to cause Columbia to forego the equity offering and agree to a preemptive transaction at a higher value than the Merger.

The petitioners likewise claim that Columbia unduly favored TransCanada after the equity offering. As it did throughout the process, Columbia pursued the best opportunity. Columbia first focused on Dominion. Because of Dominion's reticence, Columbia next focused on Berkshire and TransCanada. After the equity offering, Berkshire withdrew for good, calling Columbia's business model "fundamentally broken." See JX 547. TransCanada, by contrast, called to express continued interest. That call spurred Smith's meeting with TransCanada in January 2016. See Smith Tr. 323; accord id. at 234.

As with the evidence regarding management conflicts, Smith's one-on-one meeting with Poirier is the most serious evidence of favoritism towards TransCanada. But as noted in the section on management's incentives, Columbia did not take TransCanada's \(\$ 24\) per share offer, or even its \(\$ 25.25\) offer. Skaggs and the Board forced Columbia to pay \(\$ 25.50\). The results of Columbia's negotiations compare favorably with the facts in Aruba and DFC. During the meat of the negotiations in Aruba, the company focused exclusively on HP, which knew that it was not facing competition. HP had anticipated offering \$24 per share and then giving ground. When Aruba's CEO responded with enthusiasm to HP's approach, HP instead made an opening bid of \(\$ 23.25\). Although HP later increased its bid, after adjusting for a corrected share count, HP described the deal price of \(\$ 24.67\) as "the new \$24.00." See Aruba Trial, 2018 WL 922139, at *39-41. Likewise, in \(D F C\), Lone Star was the only bidder that negotiated price with DFC Global, and rather than increasing its bid, Lone Star lowered it twice. See DFC Trial, 2016 WL 3753123, at *3-4.
*31 The petitioners make similar arguments about Columbia's decision to grant exclusivity to TransCanada and to treat the exclusivity as effectively remaining in place even after it terminated. As with Smith's meeting with Poirier, the fact that only one bidder bids "does not necessarily mean that there is a failure of competition ...." Aruba, 210 A.3d at 136. The trial court in DFC found that DFC Global had granted Lone Star exclusivity at an inopportune point in the negotiations and that Lone Star had pressured the company with an exploding offer. See DFC Trial, 2016 WL 3753123, at *23. But those factors did not undermine the reliability of the deal price given the objective indicia of fairness that were also present in this case. See DFC, 172 A.3d at 349-50, 375-76.

As with their arguments about management incentives, the petitioners have mustered evidence that supports their theory of bidder favoritism, but they failed to show that Columbia favored TransCanada to a degree that left fundamental value on the table. The Board and management believed that TransCanada was the optimal buyer to pursue, which is why they gave TransCanada exclusivity and continued to deal with TransCanada. See PTO 『 519. Put simply, "[n]othing in the record suggests that increased competition would have produced a better result." Dell, 177 A.3d at 28.

\section*{d. The Standstills}

The petitioners appear to argue that the standstills distinguish this case from those where the deal price was reliable despite weak interest from potential suitors. They assert that Columbia permitted TransCanada to breach its standstill by reengaging after the equity offering, while at the same time failing to waive the standstills that bound rival bidders. Although the Board ultimately waived the standstills with Dominion, NextEra, and Berkshire in March 2016, the petitioners say it should have done so sooner, claiming that by that point TransCanada had an insurmountable head start towards a transaction.

Each party that engaged with Columbia during fall 2015 entered into an NDA containing a standstill provision substantially in the form of the following:

In consideration for being furnished with Evaluation Material by [Columbia], each Party (each such Party in such context, the "Standstill Party") agrees that until the date that is eighteen months after the date of this [NDA], unless [Columbia's] board of directors otherwise
so specifically requests in writing in advance, the Standstill Party shall not, and shall cause its Representatives not to ... directly or indirectly,
(A) acquire or offer to acquire, or seek, propose or agree to acquire ... beneficial ownership ... or constructive economic ownership ... of any securities or material assets of [Columbia], including rights or options to acquire such ownership,
(B) seek or propose to influence, advise, change or control the management, board of directors, governing instruments or policies or affairs of [Columbia], including by means of a solicitation of proxies ..., contacting any person relating to any of the matters set forth in this [NDA] or seeking to influence, advise or direct the vote of any holder of voting securities of [Columbia] or making a request to amend or waive this provision or any other provision of this Section 3 or of Section 1 or Section 2 or
(C) make any public disclosure, or take any action that could require the other Party to make any public disclosure, with respect to any of the matters that are the subject of this [NDA]....
JX 526 § 3 (formatting altered); see PTO \(\mid 455\). The standstills prohibited the counterparties from "seek[ing]" to acquire Columbia or influence its management without the Board's prior written invitation.
*32 The petitioners proved at trial that TransCanada breached its standstill several times. The first breach occurred in mid-December 2015, when Poirier called Smith to convey TransCanada's continued interest in acquiring Columbia. The second breach occurred when Poirier and Smith met in January 2016. There are other instances. \({ }^{32}\)

The petitioners posit that but for their own standstills, Berkshire, Dominion, or NextEra would have competed with TransCanada in spring 2016, driving up the deal price. But there is no evidence that Dominion or NextEra had any interest in reengaging with Columbia after the equity offering, and Berkshire refused to do so. \({ }^{33}\)
*33 In March 2016, Columbia waived the standstills. If Berkshire, Dominion, or NextEra wanted to bid, then they could have done so in the post-signing phase (but they did not). Their failure to do so resembles the fact pattern in Aruba, which cited the absence of bidding during a passive post-signing market check as supporting the fairness of the price. See Aruba, 210 A.3d at 136 ("[A]fter signing and the
announcement of the deal, still no other buyer emerged even though the merger agreement allowed for superior bids."). The \(D F C\) decision also involved a passive post-signing market check in which no bidders emerged. \(D F C, 172\) A.3d at 359 .

The evidence does not show that the standstills undermined the fairness of the deal price. None of the standstill parties wanted to bid, and they in fact did not bid.

\section*{e. Claims About An Information Vacuum}

In a variant of their arguments about bidder favoritism, the petitioners contend that Skaggs and Smith misled the Board or otherwise ran the sale process unsupervised. They posit that but for these actions, the Board would have engaged more vigorously with other bidders. If credited, these arguments would show that the Board could have gotten more than fair value, but they would not show that the deal price fell below that mark. See DFC, 172 A.3d at 370 (noting that "the purpose of an appraisal is not to make sure that the petitioners get the highest conceivable value that might have been procured had every domino fallen out of the company's way").

On different facts, fraud on the board could lead to a deal price below fair value. In this case, the petitioners' assertions are largely unsupported. The Board received a steady flow of information, with Skaggs regularly keeping the directors informed through written memos, presentations during meetings, and one-on-one communications. \({ }^{34}\)

The petitioners contend that Skaggs misled the Board in November 2015 by failing to report that Spectra asked for a meeting, but Skaggs testified credibly that he regarded Spectra's passes as "casual passes" that "weren't serious." Skaggs Tr. 946. The petitioners also say that Skaggs should have told the Board that he gave TransCanada and Berkshire a bid deadline of November 24, 2015, without sharing the deadline with the other suitors. The better view of the evidence is that Skaggs told all of the interested parties that they had to move quickly before Columbia pivoted to an equity offering in December. TransCanada and Berkshire received more specific guidance because they showed the most interest. The petitioners also assert that Skaggs should have told the Board that not all suitors received the same due diligence in November 2015, but the bidders got what they requested.

As with the petitioners' other challenges to the sale process, their best argument centers on Smith's meeting with Poirier on January 7, 2016. Smith sent Poirier confidential due diligence materials and assured him that TransCanada faced no competition. The Board did not authorize the meeting or the disclosures. \({ }^{35}\) And although Skaggs generally was forthcoming with the Board, in this instance Skaggs told the Board that TransCanada had reached out to Smith, without mentioning that Smith met with Poirier and without reporting Smith's unauthorized disclosures. See JX 698.
*34 The petitioners have identified a flaw in the process, but they have not shown that it led to a price below fair value. After Poirier's meeting with Smith, TransCanada proposed a price range similar to its indication from before the equity offering. Columbia declined and pushed back.

The petitioners also assert that when the Board met on January 28 and 29, 2016, Skaggs "manipulate[d] the Board into approving a TransCanada bid." Dkt. 428 at 21-22. Skaggs presented a chart discussing what the directors "would have to believe" about Columbia's future trading price to reject a merger proposal at \(\$ 26\) per share, and Skaggs recommended that the Columbia directors accept an offer at \$26 unless they believed Columbia would trade at \(\$ 30.11\) in 2017. JX 753 at 9 . Goldman prepared the initial version of the chart, and at trial, the petitioners pressed Skaggs on why his version omitted a column which showed that the directors should be indifferent to an offer at \(\$ 26\) per share if they believed Columbia would trade at \(\$ 27.69\) at a \(8.5 \%\) cost of equity in 2016. See Skaggs. Tr. 982-90. In reality, Skaggs' chart was Goldman's summary of the other charts it had prepared. Compare JX 753 at 9 , with JX 726 at 4 . The absent column came from a chart that Skaggs did not present. Skaggs did not mislead the Board by presenting the summary chart in its entirety.

Finally, the petitioners fault Skaggs for not telling the Board that on March 12, 2016, Spectra requested due diligence and promised a written offer "in the next few days," or that Goldman thought Spectra was "serious." JX 992. The Board had previously approved a script that required a "serious written proposal" as a condition to diligence. Skaggs prepared for an offer from Spectra by having Goldman get an ability-to-pay analysis ready. See JX 1009. Goldman determined that at a price of \(\$ 25.50\), Spectra risked a credit downgrade and dilution until 2019. \({ }^{36}\) Spectra never made a written offer.

The petitioners did not prove that the Board was misled or deprived of material information. The petitioners did
prove that management at times knew more about the sale process, which is inevitable because directors do not run companies on a day-to-day basis. The record does not show that informational differences led to a deal price below fair value.

\section*{f. The Stockholder Vote}

In an entire fairness case, the unitary entire fairness standard "embraces questions of when the transaction was timed, how it was initiated, structured, negotiated, disclosed to the directors, and how the approvals of the directors and the stockholders were obtained." Weinberger v. UOP, Inc., 457 A.2d 701, 711 (Del. 1983). Drawing on an entire fairness case, TransCanada posits that the informed approval of disinterested stockholders, especially by a large margin, "is compelling evidence that the price was fair." ACP Master, Ltd. v. Sprint Corp., 2017 WL 3421142, at *29 (Del. Ch. July 21, 2017), aff'd, 2018 WL 1905256 (Del. Apr. 23, 2018) (ORDER). The petitioners take the opposite tack and argue that if they can show defects in the stockholder approval process, such as disclosure violations, then that should undermine a claim that the deal price reflects fair value.
*35 It is not self-evident that stockholder approval should have the same implications for an appraisal proceeding as an entire fairness case, given that the former is a statutory remedy that turns solely on inadequacy of price, while the latter is a liability proceeding in which the entire fairness test is used to determine whether fiduciaries have breached their duties. \({ }^{37}\) The entire fairness test can apply to a wide range of transactions, only some of which require stockholder approval under the Delaware General Corporation Law. A complex body of law governs the extent to which stockholder approval lowers the standard of review from entire fairness to the business judgment rule, shifts who bears the burden of proving fairness, or operates as evidence of fairness under the unitary entire fairness test. See, e.g., ACP Master, 2017 WL 3421142, at *16-19, *29. When an appraisal proceeding follows a long-form merger like the one in this case, stockholder approval is a statutory prerequisite. See 8 Del. C. § 251(c). The Merger would not have closed (and appraisal rights would not have been triggered) unless the stockholders approved the transaction. How different levels of stockholder approval should affect the valuation inquiry is something that our cases have yet to work out.

In this case, TransCanada argues that holders of approximately \(95.3 \%\) of the shares that were present in person or by proxy at Columbia's meeting of stockholders favored the Merger. Under Delaware law, a merger requires the approval of holders of a majority of the outstanding shares, making that the appropriate denominator for consideration. See 8 Del. C. § 251(c). Under this voting standard, a non-vote counts the same as a "no" vote. In Columbia's case, holders of 73.9\% of its shares voted in favor of the Merger, making the rate of approval perhaps not as high as it might appear. Neither side introduced expert testimony or other evidence that would enable the court to assess the degree to which this level of approval reflected an endorsement of the deal price, other than recognizing the obvious fact that a majority of the outstanding shares approved it.

The petitioners argue that the court should not give any weight to stockholder approval in this case because the proxy statement that Columbia distributed to its stockholders was materially misleading. See JX 1136 (the "Proxy"). The petitioners cite a list of issues, but three are most significant.

The first concerns an omission and a misleading partial disclosure about Columbia's NDAs. The Proxy disclosed that Columbia had entered into NDAs in November 2015 with Parties B, C, and D, but the Proxy did not disclose that the NDAs contained standstills, much less DADWs. The Proxy then disclosed misleadingly that "[u]nlike TransCanada, none of Party B, Party C or Party D sought to reengage in discussions with [Columbia] after discussions were terminated in November 2015." Id. at 46. The Proxy failed to provide the additional disclosure that all four parties were subject to standstills with DADWs, that TransCanada breached its standstill, and that Columbia opted to ignore TransCanada's breach.

In an effort to blunt these issues, TransCanada points out that the Proxy disclosed that "none of Party A, Party B, Party C or Party D would be subject to standstill obligations that would prohibit them from making an unsolicited proposal to the Board following announcement of entry into the merger agreement with TransCanada." Id. at 60. TransCanada cites a secondary source indicating that some \(80 \%\) of surveyed NDAs contained standstills and \(64 \%\) contained DADWs, then argues that stockholders should have known that the NDAs contained these restrictions and that Columbia waived them. Stockholders should not have had to guess about whether the NDAs contained these powerful provisions, and while it was true that the restrictions did not apply post-signing, the Proxy
created the misleading impression that Parties B, C, and D were not bound by standstills during the pre-signing period.
*36 These problems with the Proxy were material. A reasonable stockholder would have found it significant that TransCanada and Parties B, C, and D were bound by standstills in fall 2015 and that TransCanada was permitted to breach its standstill to pursue the Merger. A leading treatise on mergers and acquisitions identifies benefits to standstills, but also warns of potential dangers.
[I]t may well be that the presence of [standstill] provisions will cause third parties to put their highest and best prices on the table in any pre-signing market check or auction since, for them, there will be no "tomorrow." However, such provisions, especially if coupled with either a provision that prohibits the target from waiving the prohibition or one which does not permit the third party from requesting \([s i c]\) a waiver undercuts the effectiveness of the post-signing market check.
Lou R. Kling \& Eileen T. Nugent, Negotiated Acquisitions of Companies, Subsidiaries and Divisions § 4.04[6][b], at 4-92 (2019 ed.) (footnotes omitted). The limitations imposed by the standstills and DADWs made their presence material to Columbia's stockholders.

The petitioners next cite the Proxy's failure to disclose that Skaggs and Smith were planning to retire in 2016. TransCanada disputes the factual claim, arguing that Skaggs was open to continuing work and observing that the Board wanted Smith to stay on as CFO after the Merger. It was not inevitable that Skaggs or Smith would retire in 2016, but they wanted to and did. See, e.g., JX 1034 (Smith asking advisor immediately after signing: "[D]o you think I can retire now?"). Although this decision has found that Skaggs and Smith's desire to retire did not undermine the sale process, a reasonable stockholder would have regarded their plans as material. See, e.g., In re Lear Corp. S'holder Litig., 926 A.2d 94, 114 (Del. Ch. 2007) ("[A] reasonable stockholder would want to know an important economic motivation of the negotiator singularly employed by a board to obtain the best price for the stockholders, when that motivation could rationally lead that negotiator to favor a deal at a less than optimal price, because the procession of a deal was more important to him, given his overall economic interest, than only doing a deal at the right price.").

Finally, the petitioners cite the Proxy's partial disclosure regarding Smith's meeting with Poirier on January 7, 2016. See JX 1136 at 46. The Proxy failed to mention that Smith
invited a bid and told Poirier that TransCanada did not face competition. TransCanada downplays the meeting as preliminary and immaterial given the generous deal price. Stockholders could decide how much weight to give the information, but the information itself was material.

The petitioners proved that the Proxy contained material misstatements and omissions. In light of the flawed Proxy, this decision does not give any weight to the stockholder vote for purposes of evaluating the reliability of the deal price.

\section*{g. The Deal Protections}

The petitioners contend that the deal protection measures in the Merger Agreement undermined the effectiveness of the sale process. Under the Delaware Supreme Court's precedents, the deal protections did not have that effect.

The Merger Agreement contained a no-shop clause with a fiduciary out. As is customary, the Merger Agreement provided broadly that Columbia could not solicit, provide information to, or engage in discussions with any party other than TransCanada, then created an exception identifying circumstances under which Columbia could respond to an interested party. The first half of Section 4.02(a) of the Merger Agreement established the broad prohibition, stating:
*37 The Company agrees that, except as permitted by this Section 4.02, neither it nor any of its Subsidiaries nor any of the officers and directors of it or its Subsidiaries shall, and it shall instruct and use its reasonable best efforts to cause its and its Subsidiaries' employees, investment bankers, attorneys, accountants and other advisors or representatives (such officers, directors, employees, investment bankers, attorneys, accountants and other advisors or representatives, collectively, "Representatives") not to, directly or indirectly:
(i) initiate, solicit or encourage any, or the making of any, inquiry, indication of interest, proposal or offer that constitutes, or could reasonably be expected to lead to, any Acquisition Proposal;
(ii) engage in, continue or otherwise participate in any discussions or negotiations regarding, or provide any information or data to any Person relating to, any inquiry, indication of interest, proposal or offer that constitutes, or could reasonably be expected to lead to, an Acquisition Proposal; or
(iii) otherwise knowingly facilitate any effort or attempt to make any inquiry, indication of interest, proposal or offer that constitutes, or could reasonably be expected to lead to, an Acquisition Proposal.
JX 1025 § 4.02(a) (the "No-Shop Clause") (formatting altered).

The second half of Section 4.02(a) of the Merger Agreement carved out the exception to the general prohibition. It stated:

Notwithstanding anything in the foregoing to the contrary, prior to the time the Company Requisite Vote is obtained, the Company may, subject to the Company providing prior notice to Parent,
(A) provide information in response to a request therefor by a Person who has made a bona fide written Acquisition Proposal that did not result from a breach of this Section 4.02 if the Company receives from the Person requesting such information an executed confidentiality agreement on terms not less restrictive to the other party than those contained in the Confidentiality Agreement (it being understood that such confidentiality agreement need not prohibit the making, or amendment, of an Acquisition Proposal but which shall not prohibit the Company from fulfilling its obligations under this Section 4.02); provided, however, that the Company shall promptly after the execution thereof provide a true and complete copy to Parent of any such confidentiality agreement and any such information to the extent not previously provided to Parent, in each case, redacted, if necessary, to remove the identity of the Person making the proposal or offer; or
(B) engage or participate in any discussions or negotiations with any Person who has made such an unsolicited bona fide written Acquisition Proposal, if and only to the extent that,
(x) prior to taking any action described in clause (A) or (B) above, the board of directors of the Company determines in good faith (after consultation with its outside legal counsel) that the failure to take such action would reasonably be expected to result in a breach of the directors' fiduciary duties under applicable Law and
(y) in each such case referred to in clause (A) or (B) above, the board of directors of the Company has determined in good faith based on the information then available and after consultation with its outside legal counsel and its financial advisor that such Acquisition

Proposal either constitutes a Superior Proposal or could reasonably be expected to result in a Superior Proposal....
Id. § 4.02(a) (the "Superior-Proposal Out") (formatting altered).
*38 Importantly for present purposes, the Superior-Proposal Out permitted Columbia to provide due diligence information in response to "a request therefor by a Person who has made a bona fide written Acquisition Proposal," subject only to the bidder entering into an NDA "on terms not less restrictive to the other party than those contained in" the NDA with TransCanada. It also provided that the NDA did not have to contain a standstill, thereby eschewing the deal lawyer's trick of turning the requirement that the bidder sign an equivalent confidentiality agreement into a powerful backdoor defensive measure. The provision also authorized Columbia to redact the name of the person making written Acquisition Proposal. This aspect of the provision did not require a superior-proposal determination before furnishing due diligence, nor did it impose any delay before Columbia could comply. Cf. In re Compellent Techs., Inc. S'holder Litig., 2011 WL 6382523, at *6-8 (Del. Ch. Dec. 9, 2011) (discussing a radically buyer-friendly version of superiorproposal out and possible alternative formulations). The definition of Acquisition Proposal made this aspect of the provision easy to satisfy by defining that term as
any proposal or offer ... relating to any transaction or series of transactions involving
(A) any direct or indirect sale, lease, transfer, exchange, acquisition or purchase of any assets or one or more businesses that constitute more than fifteen percent (15\%) of the net revenues, net income, or assets of the Company and its Subsidiaries, taken as a whole, or more than fifteen percent ( \(15 \%\) ) of the total voting power of any class of equity securities of the Company,
(B) any direct or indirect sale, exchange, transfer or other disposition, tender offer or exchange offer or similar transaction that, if consummated, would result in any Person or "group" ... acquiring beneficial or record ownership of more than fifteen percent \((15 \%)\) of the total voting power of any class of securities of the Company, or
(C) any merger, reorganization, consolidation, share exchange, business combination, recapitalization, liquidation, joint venture, partnership, dissolution or similar transaction involving the Company (or any

Subsidiary or Subsidiaries ... whose business constitutes more than fifteen percent ( \(15 \%\) ) of the net revenues, net income or consolidated assets of the Company and its Subsidiaries, taken as a whole).
JX 1025 § 4.02(b)(i) (formatting altered).

The Superior-Proposal Out required that before engaging or participating in any discussions or negotiations, Columbia had to made additional determinations. First, the Board had to determine "in good faith (after consultation with its outside legal counsel) that the failure to take such action would reasonably be expected to result in a breach of the directors' fiduciary duties under applicable Law." Second, the Board had to determine that the Acquisition Proposal "either constitutes a Superior Proposal or could reasonably be expected to result in a Superior Proposal," with that term defined as
a bona fide written Acquisition Proposal that did not result from a breach of this Section 4.02 relating to any acquisition or purchase by a Person or group of Persons of
(A) assets that generate more than fifty percent (50\%) of the consolidated total revenues of the Company and its Subsidiaries, taken as a whole, (B) assets that constitute more than fifty percent ( \(50 \%\) ) of the consolidated total assets of the Company and its Subsidiaries, taken as a whole, or (C) more than fifty percent \((50 \%)\) of the total voting power of the equity securities of the Company,
in each case, that the board of directors of the Company determines in good faith (after consultation with its financial advisor and outside legal counsel)
[1] is reasonably likely to be consummated in accordance with its terms, taking into account
(x) the timing and likelihood of consummation of the proposal (including whether such Acquisition Proposal is contingent on receipt of third party financing or is terminable by the acquiring Person or group upon payment of a termination fee),
*39 (y) all legal, financial and regulatory aspects of the Acquisition Proposal and
(z) the Person or group making the Acquisition Proposal (including in respect of the potential effects of any actions that might be required by any Government Antitrust Entity in connection with the consummation of such transaction), and
[2] if consummated, would result in a transaction more favorable to the Company's stockholders from a financial point of view than the Merger.
\(I d\). § 4.02(b)(ii) (formatting altered; Arabic numerals added). This dimension of the Superior-Proposal Out contained relatively middle-of-the-road standards for its exercise. \(C f\). Compellent, 2011 WL 6382523, at *6-8.

The Merger Agreement also contained a no-change-ofrecommendation provision with its own fiduciary out. As with the structure of the No-Shop Clause and Superior-Proposal Out, the provision first broadly prohibited the Board from taking any action or agreeing to take any action to (i) change its recommendation in favor of the Merger, (ii) recommend any Acquisition Proposal, (iii) cause or permit Columbia to enter into any letter of intent, agreement in principle, acquisition agreement, or merger agreement regarding any Acquisition Proposal, other than a confidentiality agreement as contemplated by the Superior-Proposal Out, or (iv) take any action to exempt an Acquisition Proposal from any takeover statute. JX 1025 § 4.02(c). The Merger Agreement then provided that if Columbia received a Superior Proposal and the Board determined that its fiduciary duties required it, then the Board could change its recommendation or, if it wished, terminate the Merger Agreement for purposes of entering into an agreement with respect to Superior Proposal. Before taking either step, Columbia had to give TransCanada notice that the Board intended to take that action, and TransCanada then would have four business days to match the Superior Proposal. The matching right was unlimited, and any new or revised Superior Proposal triggered an additional matching period of four business days. The pertinent provisions stated:

Notwithstanding anything to the contrary set forth in [the no-change-of-recommendation provision], prior to the time [that stockholder approval of the Merger] is obtained and so long as the Company is in compliance with [No-Shop Clause]:
(i) the board of directors of the Company may
(A) effect a Change of Recommendation in response to a Superior Proposal that is not otherwise withdrawn at the time of the Change of Recommendation or
(B) cause the Company to terminate this Agreement for the purpose of entering into a definitive agreement with respect to a Superior Proposal that is not otherwise withdrawn at the time of such termination (provided
that the Company shall have paid the Termination Payment prior to or concurrently with such termination), which definitive agreement the Company shall enter into concurrently with or immediately following such termination,
in either case, if and only if the board of directors of the Company determines in good faith (after consultation with its financial advisor and outside legal counsel) that the failure to take any such action would be inconsistent with the directors' fiduciary duties under applicable Law; provided, however, that the board of directors of the Company may not take any such action unless
*40 (1) the Company first provides written notice to Parent (a "Superior Proposal Notice") advising Parent that the board of directors of the Company intends to either effect a Change of Recommendation or terminate this Agreement pursuant to Section 7.01(c) (i), which notice shall specify the reasons therefor and include the material terms and conditions of the applicable Superior Proposal and attach a copy of the most current draft of any written agreement relating thereto,
(2) during the four (4) Business Day period following receipt by Parent of the Superior Proposal Notice (the "Superior Proposal Negotiation Period") (it being understood that the first Business Day following the day on which a Superior Proposal Notice is received shall be the first day of the Superior Proposal Negotiation Period), the Company negotiates in good faith with Parent and its Representatives, to the extent requested by Parent, with respect to any revisions to the terms of the transactions contemplated by this Agreement proposed by Parent; provided, however, that if during any Superior Proposal Negotiation Period there shall occur any subsequent amendment to any material term of the applicable Superior Proposal, the Company shall provide a new Superior Proposal Notice and a new Superior Proposal Negotiation Period shall commence (provided that, with respect to any Superior Proposal, each new Superior Proposal Negotiation Period that commences shall be for a period of four (4) days, except that in no event shall any new Superior Proposal Negotiation Period shorten the four (4) Business Day duration of the first Superior Proposal Negotiation Period) and
(3) at or after 5:00 p.m., New York City time, on the last day of the Superior Proposal Negotiation Period, the board of directors of the Company (after consultation with its financial advisor and outside legal counsel) determines that the Superior Proposal would continue to be a Superior Proposal, taking into account any changes to the terms of this Agreement theretofore agreed to by Parent in writing ....
\(I d\). § 4.02(d)(i) (formatting altered). A separate fiduciary out permitted the Board to change its recommendation in response to an "Intervening Event," defined as "an event, fact, occurrence, development or circumstance that was not known to" the Board "as of the date of this Agreement (or if known, the consequences of which were not known to the board of directors of the Company as of the date of this Agreement) ...." Id. § 4.02(d)(ii). Unlike with a Superior Proposal, the Board could not terminate the Merger Agreement in response to an Intervening Event.

If the Board terminated the Merger Agreement in response to a Superior Proposal or if Columbia's stockholders failed to approve the Merger, then Columbia was required to (i) pay TransCanada a \(\$ 309\) million termination fee and (ii) reimburse TransCanada for "authorization, preparation, negotiation, execution and performance" expenses not to exceed \(\$ 40\) million. Id. § 7.02(c). Those amounts represented \(3.42 \%\) of the total equity value of the Merger, which was \(\$ 10.2\) billion. TransCanada believed that a Superior Proposal would "effectively require total consideration greater than \(\$ 26.27\) per share" because the termination fee was equivalent to 77 cents per share, or roughly \(3 \%\) of \(\$ 25.50\). JX 1093 at 6 . The \(\$ 40\) million expense reimbursement would increase the per-share figure by another 10 cents.

Although these provisions created obstacles for competing bidders, they did not undermine the sale process for appraisal purposes. Commentators have perceived that under the Delaware Supreme Court's recent appraisal decisions, a sale process will function as a reliable indicator of fair value if it would pass muster if reviewed under enhanced scrutiny in a breach of fiduciary duty case. \({ }^{38}\) The combination of deal protection measures would not have supported a claim for breach of fiduciary duty. \({ }^{39}\)
*41 The facts of Aruba involved a similar suite of deal protections. The merger agreement in that case "prohibited Aruba from soliciting competing offers and required the Aruba Board to continue to support the merger, subject to a
fiduciary out and an out for an unsolicited superior proposal" and included a termination fee equal to \(3 \%\) of the merger's equity value. Aruba Trial, 2018 WL 922139, at *21, *38. The matching rights were similar too: HP had "an unlimited match right, with five days to match the first superior proposal and two days to match any subsequent increase, and during the match period Aruba had to negotiate exclusively and in good faith with HP." Id. at *38 (footnote omitted). Viewing the deal protections holistically, the Delaware Supreme Court found that potential buyers had an open chance to bid, which supported the high court's use of a deal-price-less-synergies metric to establish fair value. See Aruba, 210 A.3d at 136.

The outcome in Aruba comports with guidance from a frequently cited treatise, which identifies "critical aspects" of a merger agreement that does not "preclude or impermissibly impede a post-signing market check." Kling \& Nugent, supra, § 4.04[6][b], at 4-89 to -90.

First, the economics of the executed agreement must be such that it does not unduly impede the ability of third parties to make competing bids. Types of arrangements that might raise questions in this regard include asset lockups, stock lock-ups, no-shops, force-the-vote provisions, and termination fees. The operative word is "unduly;" the impact will vary depending upon the actual type of device involved and its specific terms.

Second, the target should be permitted to disclose confidential information to any third party who has on its own (i.e., not been solicited) "shown up" in the sense that it has submitted a proposal or, at a minimum, an indication of interest which is, or which the target believes is, reasonably likely to lead to (and who is capable of consummating) a higher competing bid. In this regard, the target should also be able to negotiate with such third parties. This removes any informational advantage that the initial (anointed) purchaser may have.

\section*{***}

Finally, the target board of directors should have the contractual right, without violating the acquisition agreement, to withdraw or modify its recommendation to shareholders with respect to the transaction provided for in the executed acquisition agreement.
Id. at 4-90 to -94.1 (footnotes omitted). Using this framework, the deal protections did not preclude or impermissibly impede a post-signing market check. Columbia waived the
standstills with Dominion, NextEra, and Berkshire before signing the Merger Agreement, so those provisions did not operate as a constraint during the post-signing period. Any party could obtain due diligence simply by submitting a bona fide written Acquisition Proposal and entering into the required confidentiality agreement; the initial Acquisition Proposal did not itself have to be a Superior Proposal. If the competing bidder then made an Acquisition Proposal that either constituted or could reasonably be expected to result in a Superior Proposal, and if the Board determined that its fiduciary duties required it, then the Board could negotiate with the competing bidder. And if the competing bidder made a Superior Proposal that TransCanada was unable or unwilling to match, then the Board could withdraw or modify its recommendation in support of the Merger Agreement. Going beyond what the treatise describes, Columbia could take the additional step of terminating the Merger Agreement and entering into an agreement regarding the Superior Proposal, subject only to paying a termination fee and expense reimbursement equal to \(3.42 \%\) of the Merger's equity value.

The petitioners try to bolster their argument about the deal protections by contending that the Proxy distorted the informational content of the post-signing phase by creating the false impression that Parties \(\mathrm{B}, \mathrm{C}\), and D were never subject to standstills, which they say a competing bidder would take into account when deciding whether to intervene. Under this view, if those parties and TransCanada had been conducting due diligence in November 2015, and if only TransCanada renewed its interest later on, then a party considering a competing bid might reasonably believe that TransCanada was paying top dollar because only TransCanada had decided to proceed. Under those circumstances, a potential competing bidder might view Columbia as fully vetted and decline to bid because of the winner's curse. \({ }^{40}\) But a potential topping bidder might be more likely to take the risk of competing with TransCanada if it perceived that TransCanada had been able to move forward while standstills blocked its competitors. In that case, the competing bidder might think there was value that had not yet been priced.
*42 This argument presents a variation of the winner'scurse theory that the Delaware Supreme Court rejected in Dell. There, the trial court found that Mr. Dell's participation gave the buyout group advantages that competing bidders would struggle to overcome and which therefore would deter bidding. See Dell Trial, 2016 WL 3186538, at *36, *42-44. The Delaware Supreme Court explained that "the
likelihood of a winner's curse can be mitigated through a due diligence process where buyers have access to all necessary information." Dell, 177 A.3d at 32. The high court also cited the trial court's observation that strategic buyers "are less subject to the winner's curse because they typically possess industry-specific expertise and have asset-specific valuations that incorporate synergies." Id. (internal quotation marks omitted). Finally, the Delaware Supreme Court emphasized the absence of evidence that another party was interested, explaining that "[f]air value entails at minimum a price some buyer is willing to pay-not a price at which no class of buyers in the market would pay." Id. at 29.

Similarly in this case, any competing bidder could gain access to due diligence by submitting a bona fide written Acquisition Proposal and entering into a confidential agreement. Moreover, all of the likely bidders were strategic buyers. Most importantly, the petitioners have not shown that anyone would have made a topping bid. Columbia's sale process involved most of the parties that its bankers thought would be interested, including Berkshire, Dominion, and NextEra. See JX 499. Each knew that it was subject to a standstill, and each would have believed that others were similarly bound. None wanted to buy Columbia at anything near TransCanada's price. Spectra was never bound by a standstill, yet did not bid. There is no persuasive evidence that any other party wanted to bid. The evidence instead shows that no one wanted to bid. As in Dell, the most plausible explanation is that "a topping bid involved a serious risk of overpayment." Dell, 177 A.3d at 33 . That in turn suggests that the deal price was "already at a level that is fair." Id.

The petitioners failed to show that the Proxy distorted bidder behavior during the post-signing phase. More broadly, the petitioners failed to prove that the deal protection measures undermined the validity of the deal price. The better view of the evidence is that if a bidder had been serious, then it would have come forward.

\section*{h. The Sale Process Was Reliable.}

TransCanada proved by a preponderance of the evidence that the sale process made the deal price a persuasive indicator of fair value. The sale process was not perfect, and the petitioners highlighted its flaws, but the facts of this case, when viewed as a whole, compare favorably or are on par with the facts in DFC, Dell, and Aruba.

In reaching this conclusion, I recognize the existence of other decisions that have sought to apply the teachings of DFC and Dell, and which have declined to rely on the deal price as an indicator of fair value. \({ }^{41}\) The petitioners have cited similarities between aspects of the sale processes in those cases and aspects of the sale process in this case, arguing that the deal price here was unreliable.

In this decision, I have attempted to adhere to the principles expressed in DFC, Dell, and Aruba and to take into account how those decisions applied those principles to the facts. Those factual applications have important implications for the outcome here.

I also continue to regard it as important that the Delaware Supreme Court's decisions in Dell and DFC reversed trial court decisions for failing to give adequate weight to the deal price. In each case, the Delaware Supreme Court regarded the sale process as sufficiently good that the deal price deserved "heavy, if not dispositive, weight." Dell, 177 A. 3 d at 23 ; see \(D F C, 172\) A.3d at 349,351 . The decisions did not address when a sale process would be sufficiently bad that a trial court could give the deal price no weight. The decisions also did not address when a sale process that was not as good would still be good enough for a trial court to give the deal price weight. Technically, the holdings did not delineate when a sale process was sufficiently good that the trial court should give it heavy if not dispositive weight. The Delaware Supreme Court could have believed the sale processes in \(D F C\) and Dell warranted that level of consideration without excluding the possibility that a not-as-good sale process could deserve the same treatment. I thus do not believe that the Delaware Supreme Court's favorable comments regarding the sale processes in Dell and DFC establish minimum requirements for other sale processes to meet before the deal price can be considered as a persuasive indicator of fair value.
*43 The Aruba decision points in the same direction. There, the trial court found the sale process to be sufficiently reliable to use the deal price as a valuation indicator, but declined to give it weight. The Delaware Supreme Court accepted that the sale process was sufficiently reliable and used the deal price as the exclusive basis for its own fair value determination. As with Dell and DFC, the Aruba decision did not have to address when a sale process was sufficiently bad that a trial court could decline to rely on the deal price.

The sale process in this case had aspects that compare favorably with the processes in DFC, Dell, and Aruba. It also
had aspects that differed from the processes in those cases. On balance, TransCanada proved that the deal price is a reliable indicator of fair value.

\section*{3. The Synergies Deduction}
"[I]t is widely assumed that the sale price in many M\&A deals includes a portion of the buyer's expected synergy gains, which is part of the premium the winning buyer must pay to prevail and obtain control." \(D F C, 172\) A.3d at 371 . "In an arm's-length, synergistic transaction, the deal price generally will exceed fair value because target fiduciaries bargain for a premium that includes ... a share of the anticipated synergies ...." Olson v. ev3, Inc., 2011 WL 704409, at *10 (Del. Ch. Feb. 21, 2011). "[S]ection 262(h) requires that the Court of Chancery discern the going concern value of the company irrespective of the synergies involved in a merger." M.P.M. Enters., 731 A.2d at 797. To derive an estimate of fair value, the court must exclude "any synergies or other value expected from the merger giving rise to the appraisal proceeding itself ...." Golden Telecom Trial, 993 A.2d at 507. "Of course, estimating synergies and allocating a reasonable portion to the seller certainly involves imprecision, but no more than other valuation methods, like a DCF analysis ...." Aruba, 210 A.3d at 141.

TransCanada announced a total of \(\$ 250\) million in target annual synergies, with \(\$ 150\) million attributable to cost and revenue synergies and \(\$ 100\) attributable to financing synergies. PTO 94I 555, 632, 642; see Marchand Tr. 489490. The financing synergies resulted predominantly from TransCanada generating funds at its lower cost of capital, then channeling them through offshore financing structures to generate tax advantages. Marchand Tr. 490.

The petitioners have questioned the financing synergies because they were not labeled "synergies." In a board presentation, TransCanada labeled the cost and revenue saving as "synergies" and the financing benefits as "offshore." \({ }^{42}\) The label is not dispositive. See Marchand Tr. 518. The Merger created value if it enabled TransCanada to finance Columbia's business plan using its lower cost of capital. To the extent that value is included in the transaction price, it is value arising from the accomplishment or expectation of the Merger that must be deducted under Section 262(h).

TransCanada asked its valuation expert, Mark Zmijewski, to value the synergies. Using a standard DCF methodology,

Zmijewski calculated the net present value of the synergies at \(\$ 4.64\) per share. JX 1351 Ex. VI-3. Zmijewski did not use a DCF analysis to value Columbia, and he disagreed with many aspects of the DCF analysis prepared by the petitioners' expert, so there is some irony in Zmijewski using it here. In Highfields, this court declined to use a synergies estimate that the respondent's expert prepared using a DCF analysis, in part because the respondent's expert had not used a DCF methodology when rendering his other valuation opinions. See Highfields Capital, Ltd. v. AXA Fin., Inc., 939 A.2d 34, 60-61 (Del. Ch. 2007).
*44 The real question is the extent to which the deal price included synergies. TransCanada's CFO testified that the deal price included \(100 \%\) of the estimated synergies. See Marchand Tr. 490-91. Zmijewski tried to support this testimony by analyzing the reaction of TransCanada's stock to the announcement of the Merger. He found that TransCanada's share price dropped, which was consistent with the view that the Merger was a "bad deal for ... TransCanada" and a "good deal for Columbia." Zmijewski Tr. 1447-48. Zmijewski's analysis operated at the level of the overall deal price; it did not address the more detailed level of the synergy deduction. See JX 1350 बTI 63-65.

The contemporaneous evidence does not indicate that TransCanada allocated synergies to Columbia, much less all of the synergies. TransCanada relies on a presentation to its board that references the full value of both the cost and financing synergies and claims it shows that the synergies were fully allocated to Columbia. See JX 935 at 12. The page where these figures appear calculates transaction multiples by taking enterprise values for Columbia that were implied by various prices per share, then dividing those multiples by EBITDA metrics, some of which add synergy figures. See id. This table does not indicate that the synergies were allocated to Columbia, and the "football field" page in the presentation places the deal price comfortably within TransCanada's DCF valuation of Columbia without synergies. See id. at 6. TransCanada also observes that after Columbia rejected its offer of \(\$ 25.25\) per share, Poirier suggested attempting to identify additional synergies that could justify increasing the offer. See JX 911 at 1, 4. TransCanada says that if it had not already priced the synergies into its offer, then there would have been no need to search for additional synergies. But the email exchange shows a range of views among TransCanada executives about the amount that TransCanada should be willing to pay. The email does not suggest that TransCanada
had topped out its bid with all of the synergies going to Columbia.

Other internal TransCanada documents focus only on cost synergy estimates of \(\$ 150\) million per year. See JX 878 at 48; JX 886 at 28 . One informative package of materials for the TransCanada board of directors values Columbia at \(\$ 26.51\) per share using a DCF methodology, then values the cost synergies at \(\$ 1.93\) per Columbia share, with a sensitivity range of \(\$ 1.89\) to \(\$ 2.61\) per share. See JX 1008 at 54; accord JX 1018 at \(1,24,26\). The deal price of \(\$ 25.50\) per share falls comfortably within TransCanada's valuation ranges without any allocation of synergies. See JX 1008 at 50; JX 1018 at 22; JX 1365 9TI 91-92. It also appears, as TransCanada argues, that there were many sources for merger-related value creation that justified paying a premium over Columbia's trading price, and the cost, revenue, and financing synergies were simply the easiest to quantify. See, e.g., JX 1027 (synergy overview). But the fact that TransCanada perceived synergies does not mean that the deal price included them. \({ }^{43}\)
*45 Given this evidence, I am not able to credit TransCanada's position that Columbia received \(100 \%\) of synergies worth \(\$ 4.64\) per share. TransCanada bore the burden of proving a downward adjustment for synergies. TransCanada did not meet its burden of proof. TransCanada likely could have justified a smaller synergy deduction, but it claimed a larger and unpersuasive one. This decision therefore declines to make any downward adjustment to the deal price.

\section*{4. Change In Value Between Signing And Closing}

Because the valuation date in an appraisal is the date on which the merger closes, fair value must be determined based on the "operative reality" at the effective time. See Technicolor \(I V, 684\) A.2d at 298. The deal price provides an indication of the value of the company on the date of signing. It does not necessarily provide an indication of the value of the company on the date of closing. In this case, over three months passed between the signing of the Merger Agreement on March 17, 2016, and the closing of the Merger on July 1, 2016. The petitioners contend that Columbia's value increased during this period. As the party arguing for an upward adjustment to the deal price, the petitioners bore the burden of proof on this issue.

By treating the petitioners as having argued that Columbia's value increased between signing and closing, this decision is
giving the petitioners the benefit of the doubt on an argument they did not explicitly make. The petitioners argued that if the court adopted Columbia's unaffected trading price as an indicator of fair value, then it should make an upwards adjustment because Columbia's value would have increased by the time of closing. The petitioners did not make the same argument about the deal price, but the same logic applies. Using either the unaffected trading price or the deal price results in a temporal gap between the valuation indicator and the closing date. In this case, the date for the unaffected trading price was March 9, 2016. The parties signed the Merger Agreement on March 17. The deal closed on July 1. The length of the intervening periods differs by only eight days.

The problem with giving the petitioners the benefit of the doubt on this argument is that they did not suggest a means of adjusting the deal price to reflect the increases in value that resulted from the factors they cite. Perhaps an expert could have constructed a metric, but the petitioners in this case did not provide one. For purposes of adjusting the deal price, the petitioners failed to satisfy their burden of proof.

The petitioners' arguments for an upward adjustment are also unpersuasive in their own right. They contend that Columbia's value increased because the market for CPPL's equity recovered and because commodity prices improved. The petitioners did not provide persuasive evidence on either point.

\section*{a. An Improved Market For CPPL Equity}

In their first argument for an upward adjustment, the petitioners contend that Columbia's value increased between signing and closing because the market for CPPL's peers recovered. They proposed using changes in indices of peer companies to translate those developments into an increased trading price for CPPL. They also cite circumstantial evidence that CPPL's trading price was rising in late February and early March 2016, possibly suggesting an upward trend that would have continued if Columbia had not announced the Merger. See Dkt. 390 Ex. D.

The petitioners' theory builds on the fact that after the spinoff, CPPL's trading price declined as part of broader investor dissatisfaction with MLPs. Columbia recognized that it could not use CPPL to raise the growth capital needed for its business plan, so it explored less attractive alternatives like a
parent-level equity raise. The petitioners argue that if CPPL's trading price had recovered, then Columbia could have used CPPL to fund its business plan.
*46 As their primary evidence of a price change, the petitioners cite the Alerian MLP Index and the Alerian Natural Gas MLP Index (the "Gas Index"), both of which improved by approximately \(17 \%\) between signing and closing. \({ }^{44}\) CPPL's price did not improve during the same period; it fell. The petitioners address this difficulty by pointing to two analyst reports and to internal emails from a petitioner fund, which suggest that CPPL's trading price dropped after the announcement of the Merger because market participants feared that TransCanada would not transfer assets to CPPL to the same degree as Columbia would have on a standalone basis. See JX 1069 at 8; JX 1056; JX 1061.

There are several problems with the petitioners' reliance on the indices. The broader Alerian MLP Index is a poor proxy for CPPL. It consists of firms that transport or store energy commodities generally, and it tends to tracks the price of crude oil. See Jeffers Tr. 743-44; Jeffers Dep. 75; see also JX 740 at \(9-10\). The Gas Index provides a better proxy, but the petitioners' industry expert testified that the higher prices and lower yields associated with that index resulted from the announcement of the Merger, which restored the market's faith in natural gas MLPs. See Goodof Tr. 151. To the extent his testimony accurately captured the reasons for the change, then any increase in value implied by the Gas Index would have resulted from the accomplishment or expectation of the Merger and would need to be excluded under Section 262(h). In actuality, TransCanada demonstrated that the lower yields resulted from changes in the composition of the Gas Index. See JX 1470; Goodof Tr. 152-54. TransCanada also demonstrated that the lower yields did not reach the level that Columbia needed to use CPPL to fund its business plan. See Adamson Tr. 1338-39. The change in the Gas Index does not persuasively support an increase in Columbia's value.

More broadly, Columbia's inability to raise growth capital through CPPL reflected investors' wider concerns about MLPs. Because of developments in the broader MLP industry, this model of raising capital was fundamentally broken. See JX 547; JX 1345 at 72-76. It was particularly broken at Columbia, which faced additional difficulties in raising capital because of its high debt load. See Adamson Tr. 1332-37. A three-month uptick in the two Alerian indices
does not prove that Columbia fixed its model and does not support an increase in Columbia's value.

\section*{b. An Improved Market For Commodities}

In their second argument, the petitioners cite changes in commodity prices. They point out that after the spinoff, Columbia's trading price dropped as energy stocks fell out of favor because of a decline in commodity prices. They argue that as commodity prices recovered, energy stocks recovered. They point out that between signing and closing, the prices of natural gas and natural gas futures increased by \(58.79 \%\) and \(55.15 \%\), respectively. See PTO \(\mathbb{1 T} 685,690\).

One difficulty with this argument is that Columbia's stock price did not recover with commodity prices. It remained stagnant until the Merger leaked on March 9, 2016. See Dkt. 390 Ex. A. The bigger difficulty with this argument is something everyone agrees on: Columbia's value does not depend on commodity prices, except at the extremes when ultra-low commodity prices could affect the creditworthiness of Columbia's counterparties. See PTO 9ql 293-94. The petitioners correctly point out that the declining stock market hurt Columbia in fall 2015, and they say that the mirrorimage trend should benefit Columbia on the upside. But in fall 2015, the declining market hurt Columbia because it could not use CPPL to raise equity capital. Columbia then faced the prospect of raising equity capital by issuing its own shares in a declining market, which would dilute Columbia's value and threaten a downward spiral. The problems that Columbia faced from a declining market did not reflect operational problems. They reflected constrained financing alternatives. The commodity-price story does not support an increase in Columbia's value.

\section*{5. The Conclusion Regarding The Deal Price}
*47 TransCanada proved that the deal price is a reliable indicator of fair value. TransCanada failed to prove that the consideration provided in the Merger included synergies of \(\$ 4.64\) per share. The petitioners failed to prove that Columbia's value increased between signing and closing, and they failed to prove how any change in value could be translated into an adjustment to the deal price. The markettested indicator for the fair value of Columbia is therefore \(\$ 25.50\) per share.

\section*{B. The Unaffected Trading Price}

TransCanada contends that the unaffected trading price of Columbia's stock is a strong indicator of Columbia's fair value. The petitioners contend that the court should not give any weight to Columbia's trading price. As the proponent of this valuation metric, TransCanada bore the burden of demonstrating its reliability.

Both sides retained experts who rendered opinions on the persuasiveness of the unaffected trading price as an indicator of fair value. TransCanada relied on Zmijewski, who is an emeritus professor of finance at the University of Chicago and a consultant at Charles River Associates. The petitioners relied on Eric Talley, a professor of law at Columbia University and co-director of the Millstein Center for Global Markets and Corporate Ownership.

The parties debated many issues relating to the unaffected trading price, including (i) whether the trading price could provide insight into fundamental value, (ii) whether the trading price contained an implicit minority discount, (iii) whether investors lacked access to or the trading price otherwise failed to incorporate material information about Columbia's value, and (iv) whether investor sentiment about broader trends in the energy markets artificially depressed Columbia's trading price. This decision could devote many pages to parsing through the competing expert testimony, the parties' evidentiary showings, and their legal arguments.

Ultimately, however, Delaware precedent demonstrates that a reliable trading price is not a prerequisite to a reliable determination of fair value based on a deal-price-lesssynergies metric. Consequently, assuming TransCanada failed to prove that the trading price was a reliable indicator of fair value, that ruling would not undermine this court's ability to rely on the deal price. Indeed, even if the petitioners proved affirmatively that the trading price was an unreliable indicator of fair value, that finding would not undermine this court's ability to rely on the deal price. On the facts of this case, the deal-price-less-synergies metric is the most reliable approach, making the analysis of the trading price comparatively unimportant.

The Delaware cases that have developed the deal-price-lesssynergies metric demonstrate that a reliable trading price is not a prerequisite to a reliable deal-price-based determination of fair value. The Union Illinois decision was the first time a Delaware court deployed the deal-price-less-synergies metric, \({ }^{45}\) and that decision used it as the exclusive basis for valuing a privately held company. See Union Illinois, 847
A. 2 d at 343 ("UFG was not a public company and therefore its shares were not listed for trading on a stock exchange."). The foundational decision for the deal-price-less-synergies metric thus deployed it in the absence of any trading price, much less a reliable trading price. See id. at 357, 364 (awarding "the value of the Merger Price net of synergies" after finding that the deal price was "the most reliable evidence of fair value" and "giving \(100 \%\) weight to that factor").
*48 Three years after Union Illinois, the Highfields decision was next to deploy the deal-price-less-synergies metric, and the first to use it for a widely held, publicly traded firm. See Highfields, 939 A.2d at 61 (giving 75\% weight to deal-price-less-synergies metric). The court regarded the trading price as an unreliable indicator of fair value, because the "stock price included an element of value reflecting merger speculation leading up to [the merger's] announcement." Id. at 58. Even so, the court had no difficulty finding that after deducting synergies, the deal price was a reliable indicator where it "resulted from an arm's-length bargaining process where no structural impediments existed that might prevent a topping bid." Id. at 59. The Highfields decision shows that the deal-price-less-synergies metric does not require a reliable trading price.

After Highfields, the deal-price metric lay dormant for six years before returning to prominence in a string of five decisions issued between 2013 and 2015. \({ }^{46}\) Each of those decisions determined fair value based solely on the deal price, and in finding that the deal price was reliable, each decision focused predominantly on whether the merger resulted from a "proper transactional process." 47 The decisions did not view the reliability of the deal price as turning on the reliability of the trading price. Only one of the decisions considered the reliability of the trading price. In AutoInfo, the petitioners argued that the company "was thinly traded and lacked financial analyst coverage[,]" which led to "the market underpric[ing] the company because it was ignorant of its potential." AutoInfo, 2015 WL 2069417, at *12. The court rejected this argument as a basis for undermining the deal price as an indicator of fair value, explaining that "the Merger price does not reflect the value that a potentially uniformed market attributed to AutoInfo." Id. The court noted that the deal price generated a premium of \(22 \%\) over the unaffected trading price and concluded that "[w]hile the market may have been uninformed about AutoInfo before the sale process, it subsequently gained ample information" by virtue of the sale process. Id. The reliability of the sale process rendered irrelevant the potential unreliability of the trading price.

The decisions that followed Highfields and preceded the Delaware Supreme Court's decision in \(D F C\) thus illustrate a general rule that trading-price reliability is not a prerequisite for deal-price reliability. \(D F C\) does not suggest a contrary rule. The DFC decision cited with approval both Union Illinois, where the trial court used the deal price for a privately held company, and multiple post-Highfields rulings that had relied on the deal price without regard to the trading price or despite evidence that it was unreliable. See DFC, 172 A.3d at 363 n. 84 .
*49 Dell also does not suggest a contrary rule. The Delaware Supreme Court found that both the trading price and the deal price were reliable indicators of value. See Dell, 177 A.3d at 5-7, 24-27, 35. The high court did not hold that its finding as to the latter depended on the former. Instead, the Dell decision regarded the trial court's treatment of the trading price and the deal price as independent sources of error.

The Delaware Supreme Court's most recent appraisal decision cuts the same way. In Aruba, the Delaware Supreme Court held that the trial court erred by relying on the unaffected trading price. The high court indicated that the trading price was unreliable partly because the market had not received information about Aruba's strong earnings. See Aruba, 210 A.3d at 138-39. At the same time, the decision accepted the trial court's finding that the deal price was a reliable valuation indicator. See id. at 141-42. The Delaware Supreme Court pointed to HP's "access to nonpublic information to supplement its consideration of the public information available to stock market buyers," including that it "knew about Aruba's strong quarterly earnings before the market did, and likely took that information into account when pricing the deal." Id. at 139. The reliability of the deal price thus operated independently of the trading price. Like DFC, the Aruba decision cited Union Illinois and Highfields with approval. See id. at 135 n. 41.

Based on these authorities, this decision does not have to make a finding regarding the reliability of the trading price as a condition to relying on the deal price. It remains conceivable that there could be a case where the parties anchored deal negotiations off the trading price, but this is not that case. All of the bidders, including TransCanada, submitted expressions of interest based on their views of Columbia's value. Although the various parties at times referred to market premiums when discussing bids or potential bids, the bids were not priced at a premium over the trading price. TransCanada's chief
concern about the trading price was that Columbia might demand a big premium, creating a risk of overpayment. See, e.g., JX 594 (Poirier remarking that "[if] the stock trades up, [Columbia's] pricing expectations will increase accordingly, and this transaction will be challenging for us.").

As in Aruba, TransCanada submitted its formal bids after conducting extensive due diligence and receiving considerable non-public information, including (i) long-term management projections and (ii) the precedent agreements that secured Columbia's growth projects. TransCanada and Columbia then went back and forth over price based on the confidential information that Columbia possessed and TransCanada had obtained. These efforts "improved the parties' ability to estimate" Columbia's "going-concern value over that of the market as a whole." Aruba, 210 A.3d at 139.

To reiterate, if the petitioners proved that the trading price in this case was an unreliable indicator of fair value, then it would not undermine the reliability of the deal price given the manner in which Columbia proceeded. This decision therefore has not parsed the parties' many arguments about the trading price. I have considered that form of market evidence, and having done so, I regard the deal price as a more reliable indicator of value. Relying on the trading price would only inject error into the fair value determination.

\section*{C. The Discounted Cash Flow Method}
*50 The petitioners contend that the court should determine Columbia's fair value using a DCF analysis prepared by their expert, William Jeffers. He valued Columbia at \(\$ 32.47\) per share. TransCanada did not submit its own DCF analysis. Instead, Zmijewski critiqued Jeffers's model. As the proponent of valuing Columbia based on the work of their expert, the petitioners bore the burden of proving the reliability of his valuation.

The DCF method is a technique that is generally accepted in the financial community. "While the particular assumptions underlying its application may always be challenged in any particular case, the validity of [the DCF] technique qua valuation methodology is no longer open to question." Campbell-Taggart, 1989 WL 17438, at *8 n.11. It is a "standard" method that "gives life to the finance principle that firms should be valued based on the expected value of their future cash flows, discounted to present value in a manner that accounts for risk." Andaloro v. PFPC Worldwide, Inc., 2005 WL 2045640, at *9 (Del. Ch. Aug. 19, 2005).

The DCF model entails three basic components: an estimation of net cash flows that the firm will generate and when, over some period; a terminal or residual value equal to the future value, as of the end of the projection period, of the firm's cash flows beyond the projection period; and finally a cost of capital with which to discount to a present value both the projected net cash flows and the estimated terminal or residual value.
In re Radiology Assocs., Inc. Litig., 611 A.2d 485, 490 (Del. Ch. 1991) (internal quotation marks omitted).

In Dell and DFC, the Delaware Supreme Court cautioned against using the DCF methodology when market-based indicators are available. In Dell, the high court explained that "[a]lthough widely considered the best tool for valuing companies when there is no credible market information and no market check, DCF valuations involve many inputsall subject to disagreement by well-compensated and highly credentialed experts-and even slight differences in these inputs can produce large valuation gaps." Dell, 177 A.3d at 37-38. The high court warned that when market evidence is available, "the Court of Chancery should be chary about imposing the hazards that always come when a law-trained judge is forced to make a point estimate of fair value based on widely divergent partisan expert testimony." Id. at 35 . Making the same point conversely in \(D F C\), the Delaware Supreme Court advised that a DCF model should be used in appraisal proceedings "when the respondent company was not public or was not sold in an open market check ...." DFC, 172 A.3d at 369 n .118 . The high court commented that "a singular discounted cash flow model is often most helpful when there isn't an observable market price." Id. at 370.

This case is not one where a DCF valuation is likely to provide a reliable indication of fair value. Columbia was publicly traded, widely held, and sold in a process that began with pre-signing outreach and finished with an open, albeit passive, post-signing market check. Jeffers's valuation of \(\$ 32.47\) per share stands in contrast with contemporaneous market evidence.
- Jeffers's valuation is \(27 \%\) higher than the deal price of \(\$ 25.50\) per share.
- Jeffers's valuation is \(64 \%\) higher than the unaffected trading price of \(\$ 19.75\) per share. \({ }^{48}\)
- Jeffers's opinion that the value of Columbia materially exceeded the deal price conflicts with the market
behavior of other potential strategic acquirers who had shown interest in Columbia, and who did not step forward to top TransCanada's price.
*51 Dell and DFC teach that a trial court should have greater confidence in market indicators and less confidence in a divergent expert determination. See Dell, 177 A.3d at 3538; DFC, 172 A.3d at 369-70 \& n. 118 .

Consistent with the Delaware Supreme Court's observations in Dell and \(D F C\), Jeffers's DCF valuation had many inputs, and Zmijewski questioned a number of them. The proper choices were matters of legitimate debate, and the outcome of those debates generated large swings in the valuation output.

For Columbia, the swings were particularly large because management's business plan (the " \(0 \& 12\) Plan") forecasted major capital expenditures between 2016 and 2021, resulting in projected negative cash flow of nearly \(\$ 4\) billion during that period. See Zmijewski Tr. 1457-58. As a result, all of the positive value derived from the terminal period. In Jeffers's calculation, the terminal value represented \(125 \%\) of his valuation of Columbia. Jeffers Tr. 783-85. Given this fact, small changes in the assumptions and inputs that generated the terminal value, such as the discount rate, growth rate, or base-year free cash flow, had a much larger effect on the valuation of Columbia than they would on a typical valuation. See Zmijewski Tr. 1457-58. This court has questioned the utility of a DCF in a case where the terminal value represented \(97 \%\) of the result, finding that " \([t]\) his backloading highlights the very real risks" presented by using that methodology and "undermin[ing] the reliability of applying the DCF technique." \({ }^{49}\)
*52 For example, Jeffers used a beta derived from a fiveyear regression of weekly returns. Based on his review of the forward pricing curves for natural gas and crude oil, Zmijewski argued that Jeffers should have used a shorter period. Zmijewski also pointed out that Columbia's financial advisors both used betas derived from two-year regressions of weekly observations, and TransCanada's financial advisor used a beta derived from a one-year regression of daily observations. Using a two-year regression of weekly returns would lower the output of the Jeffers DCF model to \(\$ 18.10\) per share. See Zmijewski Tr, 1463-67; JX 1368 ■ 94.

In another example, Jeffers separately valued Columbia's three sources of cash flow: its operating income, its distributions from its limited partner interest in CPPL, and its distributions from its general partner interest in CPPL.

But Zmijewski pointed out that Jeffers treated all three as if they were subject to identical risks, thereby underestimating the cost of capital for the limited partner and general partner interests. Correcting Jeffers's discount rates for these cash flows would lower his valuation to a range of \(\$ 18.96\) to \(\$ 19.23\) per share. See Zmijewski Tr. 1458-60; JX 1368 © 108.

A final example involves the terminal value calculation. Jeffers used a perpetuity growth rate of \(3 \%\). The Proxy indicates that Lazard's DCF analysis implied perpetuity growth rates from \(1.4 \%\) to \(1.9 \%\), and that Goldman's was \(1 \%\) to \(2 \%\). See JX 1136 at 65, 75. Reducing Jeffers's terminal growth rate to \(1.5 \%\) would lower his valuation to \(\$ 17.28\) per share. See JX 1368 Ex. V-2.

The wide swings in output that result from legitimate debate over reasonable inputs undermine the reliability of Jeffers's DCF model. And the experts' debates went further, with Zmijewski raising significant questions about the reliability of the Jeffers model's core input (Columbia's management projections). Although the preparation of the \(0 \& 12\) Plan started with a bottoms-up process, senior management added a "growth wedge" or "initiative layer" to meet top-down targets. Zmijewski Tr. 1454-56; see also JX 491. These addons assumed significant returns on unidentified projects that lacked customers or regulatory approval. See Adamson Tr. 1317-18; Skaggs Tr. 881-82; Mayo Dep. 273. This too raised
fundamental questions about the reliability of Jeffers's DCF analysis as a whole.

If this were a case where a reliable market-based metric was not available, then the court might have to call the balls and strikes of the valuation inputs. In this case, the DCF technique "is necessarily a second-best method to derive value." Union Illinois, 847 A. 2 d at 359 . This decision therefore does not use it. See Solera, 2018 WL 3625644, at *32.

\section*{III. CONCLUSION}

The fair value of Columbia's common stock at the effective date was \(\$ 25.50\) per share. The legal rate of interest, compounded quarterly, shall accrue on the appraised value from the effective date until the date of payment. The parties shall cooperate on a form of final order. If there are additional issues for the court to resolve before entering a final order, then the parties shall submit a joint letter within fourteen days that identifies them and proposes a path to conclude this case at the trial level.

\section*{All Citations}

Not Reported in Atl. Rptr., 2019 WL 3778370

\section*{Footnotes}

1 Citations in the form "PTO II -" refer to stipulated facts in the pre-trial order. Dkt. 397. Citations in the form "[Name] Tr." refer to witness testimony from the trial transcript. Citations in the form "[Name] Dep." refer to witness testimony from a deposition transcript. Citations in the form "JX - at -" refer to a trial exhibit with the page designated by the last three digits of the control or JX number or, if the document lacked a control or JX number, by the internal page number. If a trial exhibit used paragraph numbers, then references are by paragraph.
2 The parties designated the transcripts as joint exhibits rather than lodging them separately. The JX designations made it more difficult to determine during briefing when a deposition transcript was being cited and whose testimony it was. It would be more helpful to have the deposition transcripts lodged and collected in a separate binder, then cited in the form "[Name] Dep." I offer this point not to criticize the parties' approach, which was a reasonable one, but rather as a suggestion for the future.
3 See Tom Miesner, A Practical Guide to US Natural Gas Transmission Pipeline Economics, 8 J. Pipeline Eng'g 111, 112 (2009); Matthew J. McCabe, Comment, Master Limited Partnerships' Cost of Capital Conundrum, 17 U. Pa. J. Bus. L. 319, 325 (2014).
4 JX 258 at 2; see JX 886 at 34 ("[Columbia's] 'Drop Downs’ are atypical in that the transaction is effected through [CPPL] acquiring incremental interests in OpCo .... [Columbia's] interest in OpCo is accordingly diluted down.").
5 See id. at 46 (Lazard anticipating stock-price improvement of up to \(\$ 12\) per share; observing that NiSource traded "at a premium valuation relative to its diversified utility peers, but at a discount to the blended consolidated multiple implied by MLP valuations for [Columbia]"); see also JX 231 at 2 (consulting firm remarking in January 2015 that despite " \(40 \%\) drop in gas price since 2014" and "pressure" on "[g]as basin economics," that "original [spinoff] rationale holds: Utilities and [Columbia] are separate businesses, the market is supportive of focused players, growth stories and risk profiles
are different"). See generally Mir Dep. 55-73. As anticipated, separating NiSource, Columbia, and CPPL increased their total market capitalization by approximately \(\$ 4\) billion. See JX 404 at 6 .
See Mir Tr. 1197 ("[T]he business plan was dependent on being able to raise a lot of equity through the MLP, CPPL. The MLPs at the time were the de facto means of raising equity for pipeline and midstream projects."); JX 300 at 20 (Lazard warning that Columbia's " \([\mathrm{f}]\) inancing plan [was] highly dependent on CPPL's ability to issue equity at attractive terms over time"); JX 480 at 7 (Lazard identifying upside of "[s]trong access to capital and low cost of CPPL equity" and downside of "CPPL unable to access equity market at attractive terms (potentially requiring [Columbia] to issue equity)"); JX 214 at 17 (CPPL IPO pitch materials indicating CPPL's equity would "be the primary source of new funding for Columbia OpCo expansion capital projects"); JX 277 at 4 (analyst report identifying risks like "highly leveraged balance sheet," growth plan's execution risk, and "financing strategy which relies almost completely on [CPPL's] ability to access the equity capital markets during the next several years"); see also Kittrell Tr. 1052 ("As part of the spin, we had been able to launch [CPPL] in January of 2015 and raise just over a billion dollars. We also had done a series of debt financings as of the spin for about \(\$ 3\) billion. So that gave Columbia \(\$ 4\) billion of permanent capital to kind of come out of the chute with as a standalone independent company. That still left \(\$ 3\) to 4 billion of capital that we were going to need for '16, '17, and '18."); JX 96 at 12 (Lazard observing that the "most successful" MLPs had "low-risk assets and visible growth opportunities, driven by either organic investments or dropdowns from a supportive general partner that is motivated to grow IDR distributions [to itself]").
JX 167; see Mir Tr. 1195-97. Pre-spinoff, the operative entity was Columbia Energy Group, but for simplicity this decision uses "Columbia."
8 See id. Compare JX 753 at 4 (Skaggs explaining in January 2016 that "for CPPL to be a viable equity currency," prices would have to improve to at least \(\$ 21\) per unit by 2017 and at least \(\$ 27\) per unit by 2018), with Dkt. 390 Ex. D (stipulated CPPL price chart showing prices below \(\$ 14\) per unit in late 2015).
9 ld.; see id. ("Il]f there is a real or perceived expectation of reduced growth rates, all the more pressure is placed on the value of CPG's currencies, thereby exacerbating the challenge."); Mir Tr. 1198-1202 (discussing equity overhang at Columbia and CPPL levels); JX 1351 IT 100-01 (respondent's expert opining that "disruption in the MLP market and [Columbia's] equity overhang could have forced [Columbia] into issuing increasingly large numbers of shares to raise equity as the market drove down the value of [Columbia] shares in expectation of repeated [Columbia] equity issuances" (citing Jonathan Berk \& Peter DeMarzo, Corporate Finance 888 (4th ed. 2017)).
10 Id. ๆ| 425; see Skaggs Tr. 862-63; Cornelius Tr. 1133-34; see also JX 493.
11 Id. \(\boldsymbol{1 T} 442-49,452-54\). Goldman regarded Berkshire and TransCanada as the most likely buyers, followed by Dominion. See, e.g., JX 499 ("We know D[ominion] is interested, but at a price."). Poirier expected an auction. See JX 528. He encouraged his colleagues to act quickly because Columbia had a "massive financing overhang" and was preparing to "prefund[ ] [its] 2016/17 capex with a \$1bn equity issuance." Id.
12 See PTO I 500; Smith Tr. 248; see also JX 646 (Goldman: "[TransCanada] indicated that they could be ~\$28.00/share."); Poirier Dep. 148 ("The goal posts of 26 and 30 would translate to 24 and 28 post equity issuance.").
13 See JX 736 at 11; id. (noting that Dominion ("capital, HSR"), Enbridge ("complex structure"), Energy Transfer Equity ("overextended"), and Kinder Morgan ("out of the market") were unlikely to be suitors for Columbia); Poirier Dep. 149-52.
14 See Smith Tr. 343 ("It was to negotiate with him, to basically say ... the market is in disarray. There are number of, you know, big players that are dealing with issues. This is your opportunity, you know, to step up to the plate and make an offer that will get the attention of the board."); Poirier Dep. 150-51 (framing Smith's approach as "encouragement to dedicate time and resources" by describing TransCanada's strong odds of success at the right price); Poirier Tr. 435 ("He was simply trying to encourage us to be aggressive, that there was an opportunity for us to acquire this company.").
15 Broadly speaking, precedent agreements address future customer needs and can help justify pipeline expansion to regulators. E.g., Mayo Dep. 277 ("[Precedent agreements are] the agreements signed before the final contract."). Columbia's precedent agreements covered infrastructure construction and defined the quantities of natural gas to transport, transportation path, and terms of service. PTO \| 280. A party with access to the precedent agreements could discern whether a given Columbia customer "was an ExxonMobil" or "a single B grade producer" prone to default in a downturn. See Marchand Tr. 526; see also JX 815 (TransCanada due diligence memo finding credit terms relatively disappointing yet "normal for U.S. regulated natural gas pipeline projects"); JX 829 (analyst report stating that Columbia "requires credit support for non-I grade customers equivalent to 12-24 months of demand charges").
16 In internal emails exchanged on March 10, 2016, TransCanada's bankers discussed that "[t]he [Columbia] board is freaking out and told the management team to get a deal done with 'whatever it takes' .. Oddly, the [Columbia] team has relayed this info to [TransCanada]." JX 938. This exchange could suggest that there was a path for Columbia to
extract additional merger consideration from TransCanada, but the petitioners have not briefed this document, and I take no position on it.
17 See Ben Dummett et al., Keystone Pipeline Operator TransCanada in Takeover Talks, Wall St. J., March 10, 2016, https://www.wsj.com/articles/keystone-pipeline-operator-transcanada-in-takeover-talks-1457627686 ("TransCanada ... is in takeover talks with Columbia Pipeline Group Inc., a U.S. natural-gas pipeline operator with a market value of about \(\$ 9\) billion. The companies could reach a deal in the coming weeks, according to people familiar with the matter.").
18 JX 949. Goldman received calls too. See JX 951 at 3 ("One question [Skaggs] asked is shd [sic] we let [TransCanada] know we are getting calls."); see also JX 948 (Goldman banker indicating "[n]ot a lot of interest [from Columbia's management] in engaging with Spectra. Would be all-stock deal, they don't love Spectra's assets.").
19 See id. (Smith email to Goldman and management: "We need to think about what the protocol is if we get a letter. Presumably, the Board would have to respond officially, we would have to notify [TransCanada] and we should think about what our response is if they make it public after being rebuked."); Skaggs Tr. 1021-22 ("Q. ... During this stage when you were getting an inbound call from the CEO of Spectra, an inbound e-mail from the CEO of Spectra, a call from the CFO of Spectra to Goldman Sachs, and a call from the chief development officer of Goldman Sachs, did you, Mr. Skaggs, or another member of management, do anything to respond to Spectra? And since I'm going to anticipate what you're going to say, other than tell Goldman to look at the script. A. That was it, sir. Q. So the answer's no. A. No.").
20 See JX 1399 at 17 ("The Board ... acknowledged that proceeding with TransCanada on the expedited timetable would mean that the Company would potentially be entering into the merger agreement without having the opportunity to consider [the] formal proposal from Spectra" that Goldman expected to arrive "in the next few days.").
21 See, e.g., JX 1016 at 78-79, 107; JX 1136 at 66, 74-77.
22 See PTO ๆ 625. The Board made a related determination that the renewed Exclusivity Agreement prohibited Columbia from soliciting an offer from Spectra or anyone else. See id. That was inaccurate. The renewed Exclusivity Agreement expired upon "written notification to [Columbia] that [TransCanada] has determined that it is no longer interested in pursuing a Potential Transaction on terms at least as favorable to the stockholders of [Columbia] as the terms discussed ... on March 10, 2016." JX 978 at 4. TransCanada's March 10 proposal offered \(\$ 26\) per share. TransCanada's reduced offer of \(\$ 25.50\) per share terminated exclusivity. But if the Columbia directors had considered this fact, it would not have changed how they proceeded. When exclusivity terminated the first time, the Board acted as if it remained in place, and the script used with Spectra was the functional equivalent of exclusivity. See JX 968. The Board worried about losing the TransCanada offer, and it regarded that risk as outweighing the benefit of an expedited solicitation process involving other bidders.
23 Id. at 72. Although Battye is the seminal Delaware Supreme Court case on point, Chancellor Josiah Wolcott initially established the meaning of "value" under the appraisal statute in Chicago Corporation v. Munds, 172 A. 452 (Del. Ch. 1934). Citing the "material variance" between the Delaware appraisal statute, which used "value," and the comparable New Jersey statute that served as a model for the Delaware statute, which used "full market value," Chancellor Wolcott held that the plain language of the statute required "value" to be determined on a "going concern" basis. Id. at 453-55. But see Union III. 1995 Inv. Ltd. P'ship v. Union Fin. Gp., Ltd., 847 A.2d 340, 355-56 (Del. Ch. 2004) ("This requirement that the valuation inquiry focus on valuing the entity as a going concern has sometimes been confused as a requirement of \(\S 262\) 's literal terms. It is not."). The going-concern standard also tracks the judicially endorsed account in which the appraisal statute arose "as a means to compensate shareholders of Delaware corporations for the loss of their common law right to prevent a merger or consolidation by refusal to consent to such transactions." See, e.g., Alabama By-Products Corp. v. Cede \& Co., 657 A.2d 254, 258 (Del. 1995). As Battye explains, the appraisal statute calls for valuing the corporation as a going concern, using its operative reality as it then existed as a standalone entity, because that is the alternative that the dissenters wished to maintain. Battye, 74 A. 2 d at 72 . Commentators have questioned the accuracy of the historical tradeoff, but it remains part of the foundational understanding that has informed the concept of fair value. See Lawrence A. Hamermesh \& Michael L. Wachter, The Fair Value of Cornfields in Delaware Appraisal Law, 31 J. Corp. L. 119, 130 n. 52 (2005) ("The historical accuracy of this trade-off story is questionable, however, given the fact that the appraisal remedy was often added well after the adoption of statutes permitting mergers without unanimous consent." (citing Robert B. Thompson, Exit, Liquidity, and Majority Rule: Appraisal's Role in Corporate Law, 84 Geo L.J. 1, 14 (1995))).
24 See, e.g., Montgomery Cellular HIdg. Co. v. Dobler, 880 A.2d 206, 222 (Del. 2005); Paskill Corp. v. Alcoma Corp., 747 A.2d 549, 553 (Del. 2000); Rapid-Am. Corp. v. Harris, 603 A.2d 796, 802 (Del. 1992); Cavalier Oil Corp. v. Harnett, 564 A.2d 1137, 1144 (Del. 1989); Bell v. Kirby Lumber Corp., 413 A.2d 137, 141 (Del. 1980); Universal City Studios, Inc. v. Francis I. duPont \& Co., 334 A.2d 216, 218 (Del. 1975).

25 Cede \& Co. v. Technicolor, Inc., 2003 WL 23700218, at *2 (Del. Ch. Dec. 31, 2003), as revised (July 9, 2004), aff'd in part, rev'd in part on other grounds, 884 A.2d 26 (Del. 2005); accord Finkelstein v. Liberty Dig., Inc., 2005 WL 1074364, at *12 (Del. Ch. Apr. 25, 2005) ("The judges of this court are unremittingly mindful of the fact that a judicially selected determination of fair value is just that, a law-trained judge's estimate that bears little resemblance to a scientific measurement of a physical reality. Cloaking such estimates in grand terms like 'intrinsic value' does not obscure this hard truth from any informed commentator.").
26 See Aruba, 210 A.3d at 135; Dell, 177 A.3d at 23; DFC Glob. Corp. v. Muirfield Value P'rs, 172 A.3d 346, 367 (Del. 2017).
27 See Aruba, 210 A.3d at 137 (emphasizing that buyer armed with "material nonpublic information about the seller is in a strong position (and is uniquely incentivized) to properly value the seller"). But see In re Dunkin' Donuts S'holders Litig., 1990 WL 189120, at *9 (Del. Ch. Nov. 27, 1990) ("A bidder's objective is to identify an underpriced corporation and ... acquire it at the lowest price possible."); cf. DFC, 172 A.3d at 374 n .145 (rejecting reliance on evidence indicating buyer's contemporaneous belief that it purchased target "at trough pricing"; commenting that "it is in tension with the statute itself to argue that the subjective view of post-merger value of the acquirer can be used to value the respondent company in an appraisal"; observing "[t]hat a buyer views itself as having struck a good deal is far from reliable evidence that the resulting price from a competitive bidding process is an unreliable indicator of fair value").
28 See Aruba, 210 A.3d at 136-39, 142 (adopting deal price less synergies as fair value where company's banker contacted six potential buyers after HP's initial outreach, none were interested, sale process terminated, and sale process later resumed as single-bidder engagement with HP); Dell, 177 A.3d at 28 (finding competitive pre-signing process where Silver Lake competed one-at-a-time with interested parties); DFC, 172 A.3d at 350, 376 (finding "competitive process of bidding" where company's banker contacted "every logical buyer," three expressed interest, and two named a preliminary price with one dropping out before serious negotiations commenced).
29 See Aruba, 210 A.3d at 136 ("It cannot be that an open chance for buyers to bid signals a market failure simply because buyers do not believe the asset on sale is sufficiently valuable for them to engage in a bidding contest against each other."); Dell, 177 A.3d at 29 ("Fair value entails at a minimum a price some buyer is willing to pay-not a price at which no class of buyers in the market would pay."); id. at 33 (finding that absence of higher bid meant "that the deal market was already robust and that a topping bid involved serious risk of overpayment," which "suggests the price is already at a level that is fair").
30 At times, the petitioners also targeted a third executive-Glen Kettering-who served as President of Columbia. He was less involved in the sale process than Skaggs and Smith, and the petitioners never deposed him. Although Kettering retired after the Merger and received change-in-control benefits, the evidence does not support the contention that he pushed for an early sale.
31 Smith Tr. 316; see JX 562 (Goldman describing Berkshire's requests as atypically granular for "early [ ] M\&A dialogue"); JX 555 (Berkshire requesting separate operating models for each OpCo subsidiary); JX 550 (detailed Berkshire diligence questionnaire); JX 565 (same); JX 568 (same); JX 551 (responding to Berkshire request about MLP tax structure); JX 554 (same). See generally PTO IT 460-66 (describing Berkshire diligence).
32 E.g., JX 746 (Skaggs writing to Board on January 26, 2016: "Consistent with our recent one-on-one conversations about a potential inbound overture, TransCanada's ... CEO called me on Monday afternoon ( \(1 / 25\) ) to outline a proposition to acquire CPG.").
Before Poirier and Smith met in January 2016, Poirier assured Smith that he could share due diligence materials without TransCanada breaching the standstill. See JX 485 at 2 ("My understanding is that our respective counsels have talked, and that we are ok to proceed with exchanging information. As we destroyed all non public [sic] information, in addition to the data room index, would it be possible to receive again the information you previously sent, including the board summaries?"). At trial, Poirier unpersuasively rationalized his overtures to Smith as complying with the standstill because he "wasn't submitting a formal offer for the company." Poirier Tr. 387. Poirier is an experienced investment banker. He should have understood the standstill's scope. When pushed, he cited unspecified legal advice from TransCanada's counsel. See id.; id. at 454.
On January 22, 2016, TransCanada's in-house counsel drafted an email to Columbia's in-house counsel opining that an upcoming call between Girling and Skaggs would not breach the standstill, because although "there may be some broad discussion regarding valuation of [Columbia]," Girling would not make an offer to buy. JX 735. The point of talking numbers was to facilitate a bid, thus breaching the standstill. TransCanada's in-house counsel concluded her email by seeking confirmation that TransCanada would not breach the standstill "in the event [that it made] a verbal or written offer or proposal." Id. That request effectively sought waiver of the DADW, also a breach.

33 The petitioners advance a similar argument about the threat of massive tax liability deterring potential acquirers from buying Columbia. NiSource spun off Columbia in a tax-free transaction, but an acquirer could become liable for the tax if it had negotiated to buy Columbia before the spinoff and then bought it afterwards. See I.R.C. § 355(c)(2), (e); Tres. Reg. \(\S 1.355-7\) (b)(3)(iii); Rev. Rul. 2005-2 C.B. 684. The petitioners cite an April 2016 email in which TransCanada's CFO cited "rumblings, that we are unable to confirm or refute, that Enbridge may have had prior discussions with NiSource that could impact the tax-free status of the spin of Columbia." JX 1108. With the potential exception of TransCanada, there is no direct evidence of anyone negotiating with NiSource before the spinoff. See, e.g., JX 311 (circumstantial evidence of TransCanada and Lazard engaging in talks before spinoff). The petitioner failed to carry their burden of proof on this issue.
34 By February 2016, Skaggs was updating the Board on an at least weekly basis. See, e.g., JX 780; JX 785; JX 806; JX 808; JX 830; JX 846; JX 852; JX 855. By March, Skaggs was updating the Board on a near-daily basis. See, e.g., JX 874; JX 913; JX 929; JX 939; JX 945; JX 962; JX 964; JX 995; JX 1004; JX 1007; JX 1010.
35 See, e.g., Kittrell Tr. 1107-08 ("Q.... And it's fair to say that the board never authorized management to tell any potential bidder that Columbia had eliminated the competition for a competing bid. Right? A. The board would never have given that specific direction."); accord Kittrell Dep. 164 (describing Smith's strategy as "counterintuitive").
36 See JX 1022; JX 1016 at 20; see also Mir Tr. 1212 (describing Lazard's view that Spectra was "not a credible or capable buyer").
37 See generally Charles Korsmo \& Minor Myers, Reforming Modern Appraisal Litigation, 41 Del. J. Corp. L. 279, 320-25 (2017) (comparing appraisal with fiduciary review with primary focus on deals without a controlling stockholder); Charles Korsmo \& Minor Myers, Appraisal Arbitrage and the Future of Public Company M\&A, 92 Wash. U. L. Rev. 1551, 160709 (2015) (same).
38 Compare Lawrence A. Hamermesh \& Michael L. Wachter, Finding the Right Balance in Appraisal Litigation: Deal Price, Deal Process, and Synergies, 73 Bus. Law. 961, 962 (2018) (commending outcomes in Dell and DFC and arguing that "the Delaware courts' treatment of the use of the deal price to determine fair value does and should mirror the treatment of shareholder class action fiduciary duty litigation"), and id. at 982-83 (citing Dell and DFC and observing, "What we discern from the case law, however, is a tendency to rely on deal price to measure fair value where the transaction would survive enhanced judicial scrutiny .... Thus, in order to determine whether to use the deal price to establish fair value, the Delaware courts are engaging in the same sort of scrutiny they would have applied under Revlon if the case were one challenging the merger as in breach of the directors' fiduciary duties." (footnote omitted)), with Charles Korsmo \& Minor Myers, The Flawed Corporate Finance of Dell and DFC Global, 68 Emory L.J. 221, 269 (2018) (criticizing Dell and DFC as "conflat[ing] questions of fiduciary duty liability with the valuation questions central to appraisal disputes").
39 See, e.g., Dent v. Ramtron Int'I Corp., 2014 WL 2931180, at *8-10 (Del. Ch. June 30, 2014) (rejecting fiduciary challenge to "(1) a no-solicitation provision; (2) a standstill provision; (3) a change in recommendation provision; (4) information rights for [the acquirer]; and (5) a \(\$ 5\) million termination fee" where termination fee represented \(4.5 \%\) of equity value and change-of-recommendation provision included unlimited match right); In re Novell, Inc. S'holder Litig., 2013 WL 322560, at *10 (Del. Ch. Jan. 3, 2013) (describing "the no solicitation provision, the matching rights provision, and the termination fee" as "customary and well within the range permitted under Delaware law" and observing that " \([\mathrm{t}] \mathrm{he}\) mere inclusion of such routine terms does not amount to a breach of fiduciary duty"); In re Answers Corp. S'holders Litig., 2011 WL 1366780 , at *4 \& n. 47 (Del. Ch. Apr. 11, 2011) (describing "a termination fee plus expense reimbursement of \(4.4 \%\) of the Proposed Transaction's equity value, a no solicitation clause, a 'no-talk' provision limiting the Board's ability to discuss an alternative transaction with an unsolicited bidder, a matching rights provision, and a force-the-vote requirement" as "standard merger terms" that "do not alone constitute breaches of fiduciary duty" (quoting In re 3Com S'holders Litig., 2009 WL 5173804, at *7 (Del. Ch. Dec. 18, 2009))); In re Atheros Commc'ns, Inc. S'holder Litig., 2011 WL 864928, at *7 n. 61 (Del. Ch. Mar. 4, 2011) (same analysis for no-solicitation provision, matching right, and termination fee); In re 3Com, 2009 WL 5173804, at *7 \& n. 37 (also same analysis for no-solicitation provision, matching right, and termination fee (collecting authorities)).
40 Cf. In re Toys "R" Us, Inc. S'holder Litig., 877 A.2d 975, 1015 (Del. Ch. 2005) ("Il]n his scholarly work Subramanian argues that [the] combination of a termination fee and matching rights raises the fears second bidders have of suffering a 'winner's curse.' This is the anxiety that a first bidder will match the initial topping bid, only to refuse to match the next topping gambit, leaving the second bidder having paid more than was economically rational. This fear, Subramanian points out, is further exacerbated by the common circumstance that first bidders often have superior information on the target, and presumably know when to say when. Of course, the other side of this story is that the first bidder has taken the risk, suffered the search and opportunity costs, and done the due diligence required to establish the bidding floor.").

41 See Blueblade Capital Opportunities LLC v. Norcraft Cos., 2018 WL 3602940, at *23-27 (Del. Ch. July 27, 2018); In re Appraisal of AOL, Inc., 2018 WL 1037450, at *8-10 (Del. Ch. Feb. 23, 2018) (subsequent history omitted). After posttrial briefing and argument in this case, this court took a similar approach in In re Appraisal of Jarden Corporation, 2019 WL 3244085, at *24-25 (Del. Ch. July 19, 2019).
42 JX 935 at 12. In the presentation, TransCanada estimated \(\$ 150\) million in financing synergies. TransCanada lowered this estimate to \(\$ 100\) million for purposes of communicating to the markets, viewing the lower number as more realistic and achievable. See Marchand Tr. 494-96.
43 The petitioners argue that the alternative is zero, relying on an article from 1987 that Zmijewski cited in his report. See JX 9. The authors examined a sample of tender offers from 1963 to 1984 and observed that "[o]nly when competing bids are actually made do we observe greater returns to target shareholders and a dissipation of the initial gains to the stockholders of the bidding firms." Id. at 22-23. The petitioners argue that Columbia never solicited competing bids, so Columbia could not have extracted any synergies. The article does not support this claim. It finds that targets extract a share of surplus even in single-bidder contests, but also finds that only in multi-bidder contests do the returns to bidders dissipate. The article thus supports the view that TransCanada did not share all of its synergies with Columbia. It does not support the view that TransCanada did not share any of its synergies with Columbia.
44 The petitioners also rely on a Wells Fargo research report that mentions that certain MLPs had success raising capital in 2016, but it did not focus on natural gas MLPs. See JX 1468. The successful equity raises largely involved blue-chip sponsors, offered preferred units that Columbia could not support because of its debt load, or were completed through at-the-market raises, a technique that could not have sustained Columbia's business plan. See Adamson Tr. 1333-40, 1406-09.
45 As precedent for the deal-price-less-synergies metric, the Union Illinois decision cited three cases: M.P.M. Enterprises, Cooper v. Pabst Brewing Company, 1993 WL 208763 (Del. Ch. June 8, 1993), and Van de Walle v. Unimation, Inc., 1991 WL 29303 (Del. Ch. Mar. 7, 1991). See Union Illinois, 847 A.2d at 343 (citing the three cases and stating that "our case law recognizes that when there is an open opportunity to buy a company, the resulting market price is reliable evidence of fair value").
The Pabst decision appears to be the first Delaware case to determine fair value by drawing on the pricing of the deal that gave rise to the appraisal proceeding, but the Pabst court did so in a manner that differed from Union Illinois. After a public auction involving competitive bidding by multiple suitors, G. Heileman Brewing Company acquired Pabst Brewing Company through a structurally coercive, two-tiered tender offer, in which Heileman paid \(\$ 32\) per share in the first step and squeezed out the remaining stockholders in the back-end merger for a package of subordinated debentures with a face value of \(\$ 24\) per share. Pabst, 1993 WL 208763, at *2, *8. The court rejected all of the parties' valuation methods, forcing the court to "make a determination based upon its own analysis." Id. at *8. The court reached a fair value conclusion of \(\$ 27\) per share by blending the front-end and back-end consideration to reach a value of \(\$ 29.50\), and then deducting a control premium, which the court estimated "did not exceed \(\$ 2.50\) per share." Id. at * 8 , *10. The court did not equate the control premium with a synergies-based deduction.
After Pabst, the concept of a deal price metric next surfaced in M.P.M. Enterprises. The petitioners were minority stockholders in privately held company that was sold to a third-party buyer. The trial court valued the company using a DCF analysis. The respondent appealed, asserting that the trial court erred by failing to give weight to the transaction price and relying heavily on Van de Walle, a breach of fiduciary duty action in which a controlled company was sold to a third party and all stockholders received consideration having the same value. As one of many reasons for entering judgment in favor of the defendants, the Van de Walle court cited the arm's-length negotiations between the seller and the buyer. In an eloquent turn of phrase that has figured prominently in twenty-first century appraisal decisions, the Van de Walle court observed that "[t]he fact that a transaction price was forged in the crucible of objective market reality (as distinguished from the unavoidably subjective thought process of a valuation expert) is viewed as strong evidence that the price is fair." 1991 WL 29303, at *17. In M.P.M. Enterprises, however, the Delaware Supreme Court distinguished Van de Walle as a breach of fiduciary duty case and observed that "[a] fair merger price in the context of a breach of fiduciary duty claim will not always be a fair value in the context of determining going concern value." 731 A.2d at 797. The high court did express agreement with "the general statement made by the Court in Van de Walle" to the effect that "[a] merger price resulting from arms-length negotiations where there are no claims of collusion is a very strong indication of fair value." Id. But the high court again cautioned that "in an appraisal action, that merger price must be accompanied by evidence tending to show that it represent the going concern value of the company rather than just the value of the company to one specific buyer." Id. Citing the trial court's broad discretion when assessing fair value, the high court in M.P.M. Enterprises affirmed the trial court.

46 Merion Capital LP v. BMC Software, Inc., 2015 WL 6164771 (Del. Ch. Oct. 21, 2015); LongPath Capital, LLC v. Ramtron Int'I Corp., 2015 WL 4540443 (Del. Ch. June 30, 2015); Merlin P'rs LP v. AutoInfo, Inc., 2015 WL 2069417 (Del. Ch. Apr. 30, 2015); In re Appraisal of Ancestry.com, Inc., 2015 WL 399726 (Del. Ch. Jan. 30, 2015); Huff Fund Inv. P'ship v. CKx, Inc., 2013 WL 5878807 (Del. Ch. Nov. 1, 2013). At the trial level in Golden Telecom, this court stated that "an arms-length merger price resulting from an effective market check is entitled to great weight in an appraisal." Golden Telecom Trial, 993 A. 2 d at 507. The trial court in Golden Telecom declined to apply the deal-price-less-synergies metric on the facts of the case because two large stockholders holding a combined \(44 \%\) of the equity stood on both sides of the transaction and a special committee treated the deal as if the company had a controlling stockholder. Id. at 508-09.
47 Ramtron, 2015 WL 4540443, at *20; see BMC, 2015 WL 6164771, at *14 ("robust, arm's-length sales process"); Ancestry.com, 2015 WL 399726, at *16 ("[T]he process here ... appears to me to represent an auction of the Company that is unlikely to have left significant stockholder value unaccounted for.").
48 For reasons previously discussed, this decision has not relied on the unaffected trading price as a valuation metric and has not made a finding as to whether or not the trading price was reliable. The significant distance between the trading price of \(\$ 19.75\) and expert valuation of \(\$ 32.47\) per share is nevertheless worth observing, because it suggests that at least one of these metrics, and possibly both, is wrong.
49 Union Illinois, 847 A. \(2 d\) at 361 ; see In re Appraisal of Solera HIdgs., Inc., 2018 WL 3625644, at *32 (Del. Ch. July 30, 2018) (discounting petitioners' DCF analysis in part because "nearly \(88 \%\) of the petitioners' enterprise valuation is attributable to periods after the five year Hybrid Case Projections"). In Union Illinois and Solera, as in this case, growth rates drove the back-loading of the valuation. In other decisions, when valuators used an exit multiple to derive the terminal value, this court has criticized valuations where a high percentage of value resulted from the terminal period because "the entire exercise amounts to little more than a special case of the comparable companies approach." Gray v. Cytokine Pharmasciences, Inc., 2002 WL 853549, at *9 (Del. Ch. Apr. 25, 2002) (criticizing a valuation on this basis where the terminal value accounted for over \(75 \%\) of the total value); see Gholl, 2004 WL 2847865, at *13 (criticizing discounted cash flow valuation where exit multiples method for calculating terminal year value resulted in the terminal value representing over \(70 \%\) of its total present value); Prescott Gp. Small Cap. v. Coleman Co., Inc., 2004 WL 2059515, at *24-25 (Del. Ch. Sept. 8, 2004) (same criticism of terminal value derived using exit multiple method that comprised \(70 \%\) to \(80 \%\) of present value).

\section*{KeyCite Yellow Flag - Negative Treatment}

On Reargument in Part In re Jarden Corporation, Del.Ch., September 16, 2019

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> UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.

\section*{Court of Chancery of Delaware.}

> IN RE: APPRAISAL OF JARDEN CORPORATION


\section*{Attorneys and Law Firms}

Stuart M. Grant, Esquire, Cynthia M. Calder, Esquire, Kimberly A. Evans, Esquire, Kelly L. Tucker, Esquire and Vivek Upadhya, Esquire of Grant \& Eisenhofer P.A., Wilmington, Delaware, Attorneys for Petitioners.

Srinivas M. Raju, Esquire, Brock E. Czeschin, Esquire, Robert L. Burns, Esquire, Sarah A. Clark, Esquire and Matthew W. Murphy, Esquire of Richards, Layton \& Finger, P.A., Wilmington, Delaware and Walter W. Davis, Esquire, Michael J. McConnell, Esquire and Robert A. Watts, Esquire, of Jones Day, Atlanta, Georgia, Attorneys for Respondent Jarden Corporation.

\section*{MEMORANDUM OPINION}

\section*{SLIGHTS, Vice Chancellor}
*1 This statutory appraisal action arises from a merger whereby Newell Rubbermaid, Inc. ("Newell") acquired Jarden Corporation ("Jarden" or the "Company") (the "Merger") for cash and stock totaling \(\$ 59.21\) per share (the "Merger Price"). Petitioners, Verition Partners Master Fund Ltd., Verition Multi-Strategy Master Fund Ltd., Fir Tree Value Master Fund, LP and Fir Tree Capital Opportunity Master Fund, LP (together "Petitioners"), were Jarden stockholders
on the Merger's effective date and seek a judicial appraisal of the fair value of their Jarden shares as of that date.

At the close of the trial, I observed, "[w]e are in the classic case where ... very-well credentialed experts are miles apart.... There's some explaining that is required here to understand how it is that two very well-credentialed, I think, well-intended experts view this company so fundamentally differently." \({ }^{1}\) This observation was prompted by the all-too-frequently encountered disparity in the experts' opinions regarding Jarden's fair value. Jarden's expert, Dr. Glenn Hubbard, applying a discounted cash flow ("DCF") analysis, opines that Jarden's fair value as of the Merger was \(\$ 48.01\) per share. Petitioners' expert, Dr. Mark Zmijewski, applying a comparable companies analysis, contends that Jarden's fair value as of the Merger was \(\$ 71.35\) per share. To put the disparity in context, Dr. Zmijewski's valuation implies that the market mispriced Jarden by over \(\$ 5\) billion.

In a statutory appraisal action, the trial court's function is to appraise the "fair value" of the dissenting stockholder's "shares of stock" by "tak[ing] into account all relevant factors." \({ }^{2}\) The statute does not define "fair value" but our courts understand the term to mean the petitioner's "pro rata share of the appraised company's value as a going concern." \({ }^{3}\) This definition of fair value "is a jurisprudential, rather than purely economic, construct." \({ }^{4}\) Even so, the remarkably broad "all relevant factors" mandate necessarily leads the court deep into the weeds of economics and corporate finance. These are places law-trained judges should not go without the guidance of experts trained in these disciplines. In other words, corporate finance is not law. The appraisal exercise is, at bottom, a fact-finding exercise, and our courts must appreciate that, by functional imperative, the evidence, including expert evidence, in one appraisal case will be different from the evidence presented in any other appraisal case. Different evidence, of course, can lead to different decision paths and different outcomes. After all, the appraisal exercise prescribed by the governing statute contemplates a trial-a good, old-fashioned trial-where the parties carry burdens of proof, present their evidence in hopes of meeting that burden and subject their adversary's evidence to the "crucible of cross-examination" in keeping with the traditions of our adversarial process of civil justice. \({ }^{5}\)
*2 Our Supreme Court has had several opportunities recently to provide direction with regard to certain frames of reference this court should consider while performing the
statutory appraisal function. \({ }^{6}\) I will not recount those holdings here as they are well known. Suffice it to say, as I approached my deliberation of the evidence in this case, my "takeaway" from the Supreme Court's recent direction reduced to this: "What is necessary in any particular [appraisal] case [ ] is for the Court of Chancery to explain its [fair value calculus] in a manner that is grounded in the record before it." \({ }^{7}\) That is what this court endeavors to do after every trial and what I have endeavored to do here. \({ }^{8}\)

The parties have reveled in the statutory mandate that the court consider "all relevant factors." Indeed, they have joined issue on nearly every possible indicator of fair value imaginable, including market indicators (unaffected market price, deal price less synergies, Jarden stock offerings shortly before the Merger) and traditional valuation methodologies (comparable companies and DCF analyses). \({ }^{9}\) The result: an unfortunately long opinion, made so by a sense that I needed to traverse every road the parties waived me down right to the bitter end, even if that road did not lead to the desired fair value destination. Appraisal litigation can be unwieldy. This is one of those cases. Apologies in advance to those who read on.

I begin my fair value analysis where I believe I mustwith the market evidence. \({ }^{10}\) As explained below, I have found Jarden's unaffected market price of \(\$ 48.31\) per share is a reliable indicator of its fair value at the time of the Merger. This finding is supported by credible, unrebutted expert testimony from Dr. Hubbard, including an event study that analyzed the market's response to earnings and other material announcements. Dr. Hubbard's expert analysis of the Unaffected Market Price is corroborated by credible evidence, including that Jarden had no controlling stockholder, its public float was \(93.9 \%\), it was well covered by numerous professional stock analysts, its stock was heavily traded and it enjoyed a narrow bid-ask spread. As important, there was no credible evidence that material information bearing on Jarden's fair value was withheld from the market as of the Merger. This market evidence was persuasive and I have given it substantial weight in my fair value determination.
*3 As noted, the Merger consideration, or "deal price," was \(\$ 59.21\) per share. Respondent proffers this evidence as a reliable indicator fair value, particularly when synergies are "backed out" as required by our law. \({ }^{11}\) Petitioners respond that the sale process leading to the Merger was highly flawed
because Jarden's lead negotiator was willing to sell Jarden on the cheap and the Jarden board of directors (the "Board") failed to test the market before agreeing to sell the Company to Newell. After considering the evidence, I agree with Petitioners that the sale process left much to be desired. Jarden's lead negotiator acted with little to no oversight by the Board and, in doing so, got way out in front of the Board and Jarden's financial advisors in suggesting to Newell a price range the Board would accept to sell the Company before negotiations began in earnest. There was no pre-signing or post-signing market check. Moreover, the contemporaneous evidence regarding deal synergies was conflicting and the parties' experts acknowledged that valuing the synergies and assessing which party took that value in the Merger was especially difficult in this case. For these reasons, I have placed little weight on the deal price less synergies beyond considering that evidence as a "reality check" on my final fair value determination.

As additional market evidence of Jarden's fair value, Respondent points to Jarden's decision to finance a sizeable acquisition just prior to the Merger (in the midst of negotiations) with an equity offering valued at \(\$ 49.00\) per share. When the market reacted poorly to the acquisition, Jarden announced that it would buy back up to \(\$ 50\) million in Jarden shares at prices up to \(\$ 49.00\) per share as a signal of confidence to the market. This contemporaneous evidence of Jarden management's internal valuation of the Company, performed to facilitate Jarden's acquisition strategy in furtherance of its standalone operations, is relevant market evidence of fair value. While far from dispositive, Jarden's internal efforts to value itself as a going concern for business, not litigation, purposes provides a useful input.

In keeping with their theme that the market evidence is not reliable, Petitioners have focused on "traditional valuation methodologies" to carry their burden of proving Jarden's fair value as of the Merger. Their valuation expert opines that a comparable company/market multiples analysis provides the best evidence of fair value, and that methodology supports his conclusion that Jarden's fair value at the Merger was \(\$ 71.35\) per share. The credibility, or not, of this methodology depends in large measure on the quality of the comparables. And then the appraiser must select an appropriate multiple. After considering the evidence, I am satisfied that Petitioners' comparable companies analysis is not credible because Jarden had no reliable comparables. Consequently, I give no weight to the results derived from this valuation approach.

Not surprisingly, both parties proffered expert evidence regarding Jarden's fair value based on DCF and, not surprisingly, the experts' DCF analyses yielded results that were solar systems apart. After carefully reviewing the evidence, including the valuation treatises submitted as evidence in support of the experts' conclusions, I am satisfied that both experts utilized inputs in their DCF models that were not justified and that skewed the results. \({ }^{12}\) Accordingly, I have utilized the most credible components of both expert's analyses to conduct my own DCF valuation, in my best effort to obey our appraisal statute's "command that the Court of Chancery undertake an 'independent' assessment of fair value" when performing its mandated appraisal function. \({ }^{13}\) As explained below, my DCF analysis reveals a valuation of \(\$ 48.13\) per share.
*4 After considering all relevant factors, I have appraised Jarden's fair value as of the Merger at \(\$ 48.31\) per share. This value, derived from the unaffected market price, is consistent with Jarden's DCF value and the less reliable, but still relevant, deal price less synergies value.

\section*{I. FACTUAL BACKGROUND}

I recite the facts as I find them by a preponderance of the evidence after a four-day trial beginning in June 2018. That evidence consisted of testimony from twenty-eight witnesses (twenty-five fact witnesses, some presented live and some by deposition, and three live expert witnesses) along with more than 2,000 exhibits. To the extent I have relied upon evidence to which an objection was raised but not resolved at trial, I will explain the bases for my decision to admit the evidence at the time I first discuss it.

\section*{A. Parties and Relevant Non-Parties}

Prior to its acquisition by Newell on April 15, 2016 (the "Merger Date"), Jarden was a consumer products company that held a diversified portfolio of over 120 quality brands. \({ }^{14}\) This portfolio included well-known goods like Ball jars, Coleman sporting goods, Crock-Pot appliances and Yankee Candle candles. \({ }^{15}\) Jarden was incorporated in Delaware with headquarters in Boca Raton, Florida, and corporate offices in Norwalk, Connecticut and Miami, Florida. \({ }^{16}\) Prior to the Merger, Jarden traded on the New York Stock Exchange. \({ }^{17}\) Following the Merger, the combined company was re-named Newell Brands, Inc. ("Newell Brands"). \({ }^{18}\)

Petitioners are Verition Partners Master Fund Ltd., Verition Multi-Strategy Master Fund Ltd., Fir Tree Value Master Fund, LP and Fir Tree Capital Opportunity Master Fund, LP. \({ }^{19}\) Petitioners acquired their Jarden shares after the announcement of the Merger and were stockholders as of the Merger Date. They collectively hold 2,435,971 shares of Jarden common stock.

\section*{B. The Company}

Jarden traces its origins to Alltrista Corporation, a company that was spun off in 1993 from Ball Corporation's canning business. \({ }^{20}\) In 2000, Martin Franklin and Ian Ashken acquired Alltrista after having initiated a stockholder campaign to unseat Alltrista's board and senior management. \({ }^{21}\) By 2001, Franklin and Ashken served as Alltrista's Chief Executive Officer and Chief Financial Officer, respectively, and renamed the company Jarden. \({ }^{22}\) In August 2003, James Lillie joined the Jarden team as Chief Operating Officer. \({ }^{23}\) Their shared goal was to create the "best consumer products company in the world." \({ }^{24}\)

Franklin served as CEO and Chairman of the Board until 2011, \({ }^{25}\) when Jarden reorganized its management structure. The Company created the "Office of the Chairman," comprising Franklin as Executive Chairman, Ashken as Vice Chairman and CFO, \({ }^{26}\) and Lillie as CEO. \({ }^{27}\) As a result of this reorganization, Franklin surrendered direct control of Jarden's day-to-day operations, but remained chiefly in charge of capital distribution and M\&A activity. \({ }^{28}\) Lillie and Ashken took over the day-to-day operation of the Company. \({ }^{29}\) Ashken also maintained a dominant role in Jarden's financial planning and acquisitions. \({ }^{30}\)
*5 As a holding company, \({ }^{31}\) Jarden maintained a unique, decentralized structure. Its various businesses functioned autonomously, allowing them to pursue outside opportunities and synergies. \({ }^{32}\) The respective business unit heads exercised full control over the development of their individual strategic plans. \({ }^{33}\) Even so, the businesses stayed in constant communication with Jarden senior management regarding operations. \({ }^{34}\)

\section*{C. Jarden Experiences Strong Growth from 2001-2015}

Jarden pursued a two-pronged growth strategy, focusing on internal growth and growth via acquisitions. \({ }^{35}\) In this regard, management set a goal of 3 to \(5 \%\) annual internal revenue growth, \({ }^{36} 10\) to \(15 \%\) earnings per share ("EPS") growth, 3 to \(5 \%\) organic top-line growth, 7 to \(10 \%\) EBITDA growth and 20 to 50 basis points of gross margin growth. \({ }^{37}\) These targets produced laudable results. From 2010 through 2015, Jarden saw average organic yearly revenue growth of \(4.8 \%\), the top of its targeted range. \({ }^{38}\) In fact, Jarden was regarded as "best in class by any measure in terms of shareholder returns over 15 years, 10 years, 5 years, 3 years, 1 year." \({ }^{39}\) Jarden's margins experienced continued expansion and it met or exceeded its guidance in all but one quarter of its existence. \({ }^{40}\) By 2015, Jarden generated over \(\$ 1.2\) billion in segment earnings and revenues of almost \(\$ 9\) billion. \({ }^{41}\) This reflected an increase in revenue of \(4.8 \%\) year over year in fiscal year 2015. \({ }^{42}\)

Given its impressive results, it is not surprising that Jarden's stock performed well and traded efficiently. In 2012, Jarden joined the "S\&P 400."43 By the end of 2015, Jarden's market capitalization topped \(\$ 10.2\) billion, placing it among the top \(20 \%\) of all US publicly traded firms. \({ }^{44}\) More than twenty professional financial analysts followed Jarden, reporting regularly on the Company's business operations and forecasts. \({ }^{45}\) In addition to its high average trading volume, Jarden's "bid-ask spread" was just \(0.02 \%\) and its public float was approximately \(94 \%\) of its outstanding stock. \({ }^{46}\) Jarden's stock trading price historically responded to the announcement of value-relevant information as one would expect in a semi-strong efficient market. \({ }^{47}\)

M\&A drove Jarden's growth. \({ }^{48}\) With Franklin at the helm, Jarden acquired over 40 companies and brands, its stock grew over \(5,000 \%\) and its sales progressed from approximately \(\$ 305\) million in 2001 to over \(\$ 8.6\) billion in \(2015 .{ }^{49}\) Franklin and his team were not only well-known "deal-makers" in the public markets, \({ }^{50}\) they were among "the best performers in the sector." \({ }^{51}\)
*6 Under Franklin's leadership, Jarden management constructed a well-conceived convention for singling-out and completing acquisitions. \({ }^{52}\) Jarden avoided acquisitions that would insert it in spaces where major pure-play competitors, like Proctor \& Gamble, operated. \({ }^{53}\) Jarden, instead, concentrated on acquiring top brands in niche
markets. \({ }^{54}\) This strategy developed secure trenches that presented barriers to others who might look to compete with Jarden's niche product lines. \({ }^{55}\) It also enabled Jarden globally to expand its brands. \({ }^{56}\)

\section*{D. Jarden Shifts Its Strategic Focus}

Jarden's businesses sold their products across a vast spread of distribution channels, including business-to-business, direct-to-consumer ("DTC"), e-commerce retailers, and club, department store, drug, grocery and sporting goods retailers. \({ }^{57}\) In 2014, Jarden committed to expanding its DTC operations by promoting then-Vice President of International Development, Leo Trautwein, to Vice President of Direct to Consumer and Revenue Development. Trautwein, along with Jarden management, developed a DTC Council that comprised of representatives from Jarden and each of its individual business units. \({ }^{58}\) The DTC Council aimed to detect DTC best practices and put in place DTC initiatives. \({ }^{59}\) It set meaningful benchmarks to enhance DTC sales. \({ }^{60}\) In their July 2015 Board presentation, Jarden management expected online sales to represent \(13 \%\) of Jarden's total sales by 2019, equating to \(15.9 \%\) of total EBITDA. \({ }^{61}\) The DTC initiative, on the other hand, was expected to yield a \(55-60 \%\) return on investment. \({ }^{62}\) As it turned out, from 2012 through 2016, Jarden's DTC e-commerce sales (i.e., not including brick and mortar DTC sales) experienced a more than \(270 \%\) increase in five years-expanding from roughly \(\$ 237\) million to \(\$ 643\) million. \({ }^{63}\)

\section*{E. Jarden Makes Two Major Acquisitions Just Prior to the Merger}

Jarden completed two of the largest acquisitions in its history in 2015. In July 2015, Jarden acquired the Waddington Group, Inc. for approximately \(\$ 1.35\) billion. \({ }^{64}\) Waddington manufactures plastic consumables for the \(\$ 14\) billion U.S. food sector market. \({ }^{65}\) The acquisition was projected to yield revenue of \(\$ 840\) million in 2016 with an approximately \(20 \%\) EBITDA margin. \({ }^{66}\)

In November 2015, Jarden acquired the parent company of Jostens, Inc. for \(\$ 1.5\) billion. \({ }^{67}\) Jostens was a market leader in manufacturing and marketing yearbooks, rings, caps and gowns, diplomas, regalia and varsity jackets, mainly selling to schools, universities and professional sports leagues. \({ }^{68}\) Jarden
predicted the Jostens acquisition would not only offer Jarden "unique access to the difficult-to-enter academic market," \({ }^{\text {" }}\), but also would allow Jarden to grow a number of its existing distribution channels and develop new ones, intensifying Jarden's DTC impact. \({ }^{70}\) Jostens provided superior market positions, steady financial performance, strong margins and attractive cash flow to Jarden's portfolio. \({ }^{71}\) Indeed, Jostens' gross margins were anticipated to better Jarden's overall margins and, in fact, the transaction was instantly accretive. \({ }^{72}\)
*7 Overall, Jarden anticipated that these two acquisitions would push Jarden's total annual revenues over the \(\$ 10\) billion threshold. At the same time, however, they simultaneously would increase Jarden's debt to a point where Jarden would be unable to make another substantial acquisition for at least another year. \({ }^{73}\)

\section*{F. Franklin Considers a Sale of Jarden}

Jarden was not Franklin's only business interest. In 2013, Franklin founded Platform Specialty Products Corporation ("Platform"), a specialty chemicals production company, with financial backing from Bill Ackman. \({ }^{74}\) In 2014, Franklin founded Nomad Foods Ltd. ("Nomad"), a frozen foods company headquartered in the U.K. \({ }^{75}\) Franklin also ran a "family investment vehicle" called Mariposa Capital. \({ }^{76}\) Mariposa entities often acquired orphan brands, like its acquisition of Royal Oak in 2016. \({ }^{77}\) In 2017, after the Merger, Franklin created a special purpose acquisition vehicle, J2 Acquisition Limited ("J2"), that raised more than \(\$ 1\) billion in order to buy consumer-focused brands. \({ }^{78}\) Franklin also looked forward to pursuing business ventures with his sons, as his father did with him. \({ }^{79}\)

In early July 2015, during a meeting between Franklin and Roland Phillips of Centerview Partners relating to Nomad, Phillips mentioned that Newell's CEO, Michael Polk, wanted to meet Franklin. \({ }^{80}\) As discussed below, Newell had previously retained Centerview to assist with Newell's search for transformative M\&A opportunities. \({ }^{81}\) Understanding that Polk would likely want to talk about a Newell/Jarden transaction, Franklin told Phillips he would take the meeting, he "would gladly take equity, [and he] ha[d] no issue with someone else running the combined business., 82

Later that month, Franklin met with Bill Ackman, his Platform partner, and expressed his willingness to sell Jarden so he could devote more energy to Platform and Nomad. \({ }^{83}\) Ackman emailed Warren Buffett the following day and indicated that Franklin would entertain a negotiated sale of Jarden to Berkshire Hathaway. \({ }^{84}\)

Franklin was not authorized by the Board to entertain discussions regarding a sale of Jarden nor did he disclose to the Board his discussions with Phillips or Ackman. \({ }^{85}\)

\section*{G. Newell and Franklin Meet}
*8 Like Jarden, Newell was a major consumer products company with a vast portfolio of products sold under brands like Sharpie, Paper Mate, Elmer's, Rubbermaid, Lenox, Graco and Baby Jogger. \({ }^{86}\) In 2011, Newell implemented a strategic roadmap known as the "Growth Game Plan" under the direction of its new CEO, Polk. \({ }^{87}\) This plan incorporated an initiative known as "Project Renewal" to streamline the Company's business structure and decrease costs. \({ }^{88}\)

For many years, Newell operated as a traditional holding company, much as Jarden did, owning several portfolio businesses that essentially functioned as independent companies. \({ }^{89}\) In 2010, Newell retooled by implementing an integrated operating company model as contemplated by Project Renewal. \({ }^{90}\) Newell "delayered the structure of the company, ... releas[ing] a whole bunch of money" that was invested back into Newell's brands. \({ }^{91}\) As a result, Newell doubled its brand expenditures, creating fast-tracked growth and amplified margins for its business. \({ }^{92}\) By the fall of 2014, Newell realized that the "investment firepower" Project Renewal generated "was going to wane" by late 2018. \({ }^{93}\) It needed a new growth plan.

In late 2014, Newell initiated a strategy of pursuing "transformational M\&A" opportunities that would generate larger scale and market share in its central businesses, in addition to new prospects for growth. \({ }^{94}\) This new strategy prompted Newell to engage Centerview to produce a list of possible targets for Newell and to arrange "get-to-knowyou meetings" as requested. \({ }^{95}\) While Jarden was included on Centerview's list, it was the target "least familiar" to Newell since it "had been built [steadily] through acquisitions from 2001 onward" and was, therefore, in Newell's eyes,
a "relatively new company." \({ }^{96}\) Polk had reservations about Jarden because it was seen as a "company of diversified niche categories," when Polk was "looking for scaled brands and big, global categories." \({ }^{, 97}\) Even so, Polk asked Centerview to arrange the "get-to-know-you meeting" with Franklin. \({ }^{98}\) As noted, Franklin agreed to take the meeting. \({ }^{99}\)

Franklin and Polk's first meeting took place at the Barclays' investor "Back-to-School" conference on September 9, 2015 (the "Back-to-School Meeting"). \({ }^{100}\) The conversation exposed their different perspectives regarding the roles they played at their respective companies-Franklin defined his role at Jarden as creating value and "[ \(t]\) hat's it," while Polk defined his role at Newell as building stronger brands and a stronger company. \({ }^{101}\) In other words, Franklin focused on M\&A, while Polk concentrated on organic growth. \({ }^{102}\) Near the meeting's end, Franklin directed the conversation to where he believed Polk wanted it to go by confirming that his team was open to "strategically connecting" with Newell. \({ }^{103}\) The meeting closed with both Franklin and Polk agreeing to continue the conversation about a potential deal. \({ }^{104}\)
*9 Polk reported back to the Newell board that Franklin "cut straight to the chase about being willing to sell his company and offered a deeper discussion over the next few weeks." \({ }^{105}\) At this point, however, Franklin still had not informed Jarden's Board that he was entertaining Newell's overture. \({ }^{106}\) Indeed, it was not until several days after the Back-to-School meeting that Franklin made individual calls to members of the Board to let them know about his discussions with Polk. \({ }^{107}\)

For his part, Polk warmed quickly to the idea of acquiring Jarden, believing that Jarden would provide scale and immediate cost synergies once Newell consolidated Jarden's operations per Project Renewal. \({ }^{108}\) As Polk explained, "we believed we had the potential, based on what we could see through the public data, to apply the playbook we'd just run on Newell Rubbermaid to a broader set of categories that looked very similar to the categories that we were managing as part of [Newell].,"109

On October 5, 2015, Franklin and Polk met again, this time on Franklin's yacht in Miami, along with Ashken, Lillie and Mark Tarchetti, Newell's then-Chief Development Officer (the "Boat Meeting"). \({ }^{110}\) While Franklin informally provided some advance notice of the Boat Meeting to certain members
of the Board, he did not obtain Board approval to meet with Newell and certainly did not have Board approval to discuss the financial parameters of a deal. \({ }^{111}\) But that is precisely what he did.
*10 Franklin advised Newell's team that Newell's offer for Jarden would have to "start with a six" and would have to include a significant cash component if Newell's goal was to gain control of the combined company. \({ }^{112}\) According to Franklin, he arrived at this number based, in part, on his understanding of Jarden's value as determined in connection with the Jostens acquisition which was underway as of the Boat Meeting. \({ }^{113} \mathrm{He}\) also wanted to state a number he believed Newell had the "ability to pay," \({ }^{114}\) and he assumed a price of \(\$ 70.00\) or higher was "laughable." 115 At the time of the Boat Meeting, Jarden's stock was trading in the high \(\$ 40\) s. \({ }^{116}\) Therefore, by this metric, a price "starting with a six," by any measure, would be a premium for Jarden's stockholders. \({ }^{117}\) According to Franklin, even if \(\$ 60\) per share undervalued Jarden, \({ }^{118}\) Franklin believed Jarden stockholders would reap additional value by sharing in the upside of the Merger with stock in the combined company. \({ }^{119}\)

On the other side of the table, Polk expressed Newell's hope that a merger would open substantial synergies given the Newell team's demonstrated ability to consolidate business functions and utilize the resulting cost savings to produce growth. \({ }^{120}\) Jarden's team had a more modest outlook on possible synergies in the early stages of the discussions, but became progressively more "excited" by the opportunity to unlock significant transaction synergies as the negotiations advanced. \({ }^{121}\)

Although he had not sought Board approval to meet with Newell, Franklin briefed the Board on the Boat Meeting within a matter of days, including his admonition to Newell that an offer would need to "start with a six." \({ }^{122}\) The Board was supportive and encouraged Franklin and his team to continue the discussions with Newell within Franklin's outlined parameters. \({ }^{123}\)

Jarden did not formally engage Barclays until November 2015. Even so, Franklin contacted Welsh, his personal Barclays banker, on October 16, 2015, after the Boat Meeting. \({ }^{124}\) Franklin told Welsh he already signaled to Newell that Jarden would agree to sell at \(\$ 60\) per share and
instructed him to start developing an analysis supporting a transaction in the range of \(\$ 60-\$ 69\) per share. \({ }^{125}\)

\section*{H. The Ebb and Flow of the Negotiations}
*11 On October 9, 2015, Newell distributed a press release revealing that Tarchetti and another executive would leave Newell at the end of the year. \({ }^{126}\) Franklin was "very upset" Polk had not informed him that "his chief lieutenant" was on his way out of Newell. \({ }^{127}\) Franklin was so upset, in fact, that he entertained the idea of "stopping the conversations at that point" because he "didn't want to look stupid in front of [the Jarden] board ... [by] having a conversation with someone that wasn't serious." \({ }^{128}\) Within days of the announcement, Franklin and Polk had a "tough conversation" where Polk explained that Tarchetti would stay with Newell if the parties agreed to a deal. \({ }^{129}\) After this, Franklin "got over it" and negotiations continued. \({ }^{130}\)

As the parties were discussing a Jarden/Newell combination, Jarden was closing the Jostens deal. On October 14, 2015, Jarden announced it would acquire Jostens and finance the acquisition through an equity offering priced at \(\$ 49.00\) per share and additional debt. \({ }^{131}\) The next day, Jarden presented five-year projections to potential financing sources that reflected net sales growth of \(3.1 \%\) (the "Lender Presentation"). \({ }^{132}\)

The market reacted negatively to the Jostens acquisition. \({ }^{133}\) Jarden's stock price dropped approximately \(12 \%\) over the following two weeks and analysts' reduced their Jarden price targets accordingly. \({ }^{134}\) The Board determined that Jarden needed to project confidence to the market. Accordingly, in early November 2015, it approved a stock buy-back up to \(\$ 50\) million at prices capped at \(\$ 49.00\) per share. \({ }^{135}\) Jarden ultimately repurchased 276,417 shares on November 2, 2015, at an average price of \(\$ 45.96\) per share, and repurchased an additional 775,685 shares on November 3, 2015, at an average price of \(\$ 48.05\) per share. \({ }^{136}\)

On October 15, 2015, Franklin caused Jarden to enter into a mutual confidentiality and standstill agreement with Newell, and the parties began preliminary due diligence. \({ }^{137}\) True to form, Franklin did not seek Board authorization to begin diligence on Jarden's behalf. \({ }^{138}\) The next day, also without the Board's authorization, Franklin and Polk spoke on the phone
to continue negotiations on the cash and stock components of a deal, and Franklin introduced the concept of Jarden taking seats on the combined company's board. \({ }^{139}\)

On October 22, 2015, Franklin, Ashken and Lillie met with Newell representatives at Jarden's offices in Norwalk, Connecticut (the "Norwalk Meeting") and shared nonpublic information, including a set of three-year financial projections. \({ }^{140}\) The three-year projections, apparently created in connection with the negotiations, incorporated financials for both the Waddington and Jostens acquisitions, \({ }^{141}\) and forecast \(5 \%\) revenue growth, i.e., growth at the high end of Jarden's historic guidance range of \(3 \%\) to \(5 \%{ }^{142}\)
*12 Entering into negotiations with Newell, Jarden had set the market standard for average annual revenue growth within the \(3 \%\) to \(5 \%\) range. \({ }^{143}\) These growth figures were meant to reflect Jarden's "organic growth" range, but they included revenue from "tuck-in" acquisitions, where a Jarden portfolio company would acquire a target. \({ }^{144}\) Other public companies operating as holding companies typically do not include tuck-in acquisitions when projecting "organic growth." 145 Nevertheless, even when tuck-in acquisitions are excluded, Jarden generally performed in line with its target growth range. \({ }^{146}\)

At trial, Lillie justified giving Newell projections at the very top of the Company's \(3 \%-5 \%\) guidance range by explaining that \(5 \%\) was a "round number[ ]." \({ }^{147}\) He went on to explain that, while the projections given to Newell were not "wildly optimistic," Jarden internally projected growth "in the fours." \({ }^{148}\) Polk took notice of Jarden's "really aggressive" projections. \({ }^{149} \mathrm{He}\) and his team determined that it was best to stick with the \(3.1 \%\) growth projections as stated in the Lender Presentation when evaluating the transaction. \({ }^{150}\)

In November 2015, Jarden's financial advisor, Barclays, asked Jarden management for projections extended to 2020. \({ }^{151}\) In response, Lillie told Barclays to "extrapolate out" the three-year forecast at a continuing growth rate of \(5 \%\) (the "November Projections"). \({ }^{152}\) Barclays used these five-year projections in its analyses of the potential transaction and in its fairness opinion. \({ }^{153}\)

In addition to negotiating price terms during the Norwalk Meeting, Newell and Franklin began to discuss specifics
regarding change-in-control payments that would be due to Franklin, Ashken and Lillie in the event of a merger. \({ }^{154}\) And, again, Franklin did not seek Board approval before undertaking these discussions. \({ }^{155}\)

Following the Norwalk Meeting, Franklin, Ashken, Lillie and John Welsh of Barclays on behalf of Jarden, and Polk and Tarchetti on behalf of Newell, met for dinner. \({ }^{156}\) Franklin believed whether the transaction would be consummated depended on whether Tarchetti stayed at Newell. \({ }^{157}\) Accordingly, he asked Tarchetti to share his thoughts on the potential transaction. \({ }^{158}\) Tarchetti declined to respond, explaining he believed Newell still lacked adequate information to evaluate the transaction. \({ }^{159}\) Franklin was not happy.
*13 After this "difficult dinner" among the negotiators, Franklin told Ashken and Lillie, "I'm done. I don't want to deal with this." \({ }^{160}\) Likewise, Polk said he thought about "pull[ing] the plug" on the negotiations. \({ }^{161}\) After a "conciliatory" call between Lillie and Tarchetti, however, the parties decided not to "let a bad dinner get in the way of looking at whether this makes sense[,]" and negotiations continued. \({ }^{162}\)

The Board held its first formal meeting to discuss a potential Newell transaction on October 28, 2015. \({ }^{163}\) There was no discussion of a pre-signing market check. \({ }^{164}\) Instead, the Board focused its attention on Newell and directed that negotiations continue. \({ }^{165}\)

In the meantime, Newell retained both Goldman Sachs ("Goldman") and Bain \& Company ("Bain") as additional financial advisors to assist in evaluating a possible acquisition of Jarden. \({ }^{166}\) Tasked with performing a thorough evaluation of Jarden's product categories, Bain's initial assessment was that Jarden's portfolio demonstrated strong performance across many promising product segments, \({ }^{167}\) but its historic organic growth rate, once "tuck-in" acquisitions were separated, was at most \(3.5 \%\). \({ }^{168}\) Early in the process, Centerview had projected that potential synergies of \(\$ 500\) million to \(\$ 900\) million would result from a combination with Jarden. \({ }^{169}\) By the end of October 2015, Bain was estimating that the combination had the "potential to create \(\$ 700 \mathrm{M}-\) \$800M in cost synergies." \({ }^{170}\) Bain's assessment encompassed "annualized savings" that would recur annually. \({ }^{171}\)

Through due diligence, Newell discovered "almost every deal Jarden had done, which were profound in number, had been left standalone with almost no cost synergies or revenue synergies realized." \({ }^{172}\) As a result of this holding company structure, Newell and its advisors believed that Jarden presented a substantial opportunity to replicate Newell's Project Renewal success by combining Jarden's businesses into Newell's operating company structure. \({ }^{173}\)

\section*{I. Newell Makes an Offer and Jarden Negotiates}
*14 On November 10-11, 2015, the Newell board met to discuss, among other things, whether to make an offer to acquire Jarden. \({ }^{174}\) On the first day, Tarchetti presented the results of the diligence efforts so far, in addition to management's perspective on the benefits of a merger with Jarden. \({ }^{175}\) On the second day, Bain and Goldman presented their analysis of potential synergies. \({ }^{176}\) Bain opined that the potential Newell/Jarden "combination would enable ~ \(\$ 600 \mathrm{M}\) in cost savings opportunities, with potential upside to \(\sim \$ 700 \mathrm{M}\)." \({ }^{177}\) Goldman appraised cost synergies based on comparable transactions ranging from \(2.1 \%\) to \(14.0 \%\) of revenue, with a median of \(10.0 \%\), translating to roughly \(\$ 850\) million of annual cost synergies resulting from the acquisition. \({ }^{178}\)

Despite Bain and Goldman's synergies estimates, Newell and its advisors structured their deal model on an estimate of \(\$ 500\) million in annual cost synergies. \({ }^{179}\) With this estimate, Newell's model priced Jarden at \(\$ 57.00\) to \(\$ 61.00\) per share. \({ }^{180}\) Within these parameters, the Newell board understood that if its management team did not realize the \(\$ 500\) million synergies estimate, then Newell shareholders would not receive any increase in EPS. \({ }^{181}\) After the advisors' presentations, the Newell board authorized management to negotiate an acquisition of Jarden at a price between \(\$ 57.00\) and \(\$ 60.00\) per share, with cash consideration up to \(\$ 21.00\) per share. \({ }^{182}\)

On November 12, 2015, Polk sent Franklin an offer whereby Newell would acquire Jarden in a cash-and-stock transaction consisting of \(\$ 20.00\) cash plus a fixed exchange ratio of 0.823 Newell shares for each share of Jarden common stock, representing total per share consideration of \(\$ 57.00 .{ }^{183}\) The offer reflected an \(18 \%\) premium over Jarden's then-current share price ( \(\$ 48.19\) ) and a \(19 \%\) premium to Jarden's 30 -
day volume-weighted average share price (\$47.89). Newell arrived at the cash and stock mix to preserve Newell's investment grade credit rating and dividend policy. \({ }^{184}\) Polk's offer letter made clear that Newell "expect[ed] that Mr. Franklin would join the Newell Brands Board of Directors given the role he has played in Jarden's performance and strategy to date," and allowed that Newell was "open to adjusting the size of our board and taking on a limited number of [additional] members from Jarden's board." \({ }^{185}\)

The Board met that day to discuss Newell's offer. \({ }^{186}\) Barclays made a presentation regarding the adequacy of Newell's \(\$ 57.00\) offer in which it provided a preliminary valuation of Jarden based on Jarden's historic market price as well as comparable companies, precedent transactions and DCF analyses. \({ }^{187}\)

While the \(\$ 57.00\) per share offer was higher than Jarden's stock had ever traded, the Board unanimously decided "it was not inclined to engage in discussions and possible negotiation with [Newell] on the economic terms set forth in the [offer] [1]etter," and authorized management to "seek to obtain a revised proposal with more favorable proposed terms." \({ }^{188}\) The Board "emphasized that the Company was not for sale and that it would consider a potential business combination with [Newell] only on terms that appropriately valued the relative contribution (including revenue and EBITDA) of each standalone company to the pro forma combined company." \({ }^{189}\)
*15 The Board authorized Franklin to continue negotiations with Newell, but did not authorize him to make a counteroffer because, as director Robert Wood testified, doing so would "tie their hands." \({ }^{190}\) Franklin, however, recalled, "the board basically authorized [him] to go back and have further discussions and ... push the envelope to try to come back to them with an enhanced offer from Newell." \({ }^{191}\)

During the November 12 Board meeting, Franklin suggested that the Board formally engage Barclays as the lead banker for the Company and UBS Group AG as "co-investment banker." \({ }^{192}\) Jarden thought a transaction of this magnitude justified having two banks on board to guide the Company through the process. \({ }^{193}\) Barclays, in particular, had a longstanding, fruitful relationship with Franklin and it knew Jarden well. \({ }^{194}\) Accordingly, Franklin believed Barclays was positioned to provide Jarden with "genuine good advice" on
the potential merger. \({ }^{195}\) And he believed UBS would serve as a well-informed source for "second opinions." \({ }^{196}\) The retention of UBS, however, did cause Jarden director Ros L'Esperance to recuse herself from all deliberations and votes of the Board, as she led UBS's Client Corporate Solutions Group. \({ }^{197}\)
*16 On November 16, 2015, Jarden and Newell, along with their financial advisors, met to continue negotiations over the potential transaction. \({ }^{198}\) In advance of the meeting with Newell, the Jarden management team scheduled an evening Board dinner anticipating there would be new developments in the negotiations that would require the Board's prompt attention. \({ }^{199}\) In yet another demonstration of Franklin getting ahead of his Board, Franklin announced to the Newell team at the outset of the meeting that their \(\$ 57.00\) offer was too low and then made a counteroffer of \(\$ 63.00\) per share\(\$ 21.00\) in cash with the balance in stock of the combined company. \({ }^{200}\) The Newell team balked. Not only did they decline the counteroffer on the spot, they also refused to raise their \(\$ 57.00\) offer. \({ }^{201}\) Discussions turned "acrimonious" and the meeting abruptly adjourned. \({ }^{202}\)

After the meeting, Ashken emailed the Board to advise that the parties were at impasse and there was no need for the scheduled Board dinner. \({ }^{203}\) According to Ashken, "[a]s far as we were concerned the deal was dead., 204

\section*{J. Newell Increases Its Offer}

On November 21, 2015, Newell submitted a revised offer to acquire Jarden for \(\$ 21.00\) in cash plus a floating exchange ratio between 0.85 to 0.92 Newell shares for each Jarden share to be determined based on Newell's trailing 10-day unaffected volume weighted average price ("VWAP") at the time of signing, with a target price of \(\$ 60.00\) per share. \({ }^{205}\) This revised proposal was a \(30 \%\) premium over Jarden's thencurrent stock price (\$46.33) and a \(27 \%\) premium over Jarden's 30-day VWAP (\$47.43). Newell reiterated that it expected the potential merger to produce annual cost synergies of approximately \(\$ 500\) million. \({ }^{206}\) It also renewed its offer for Franklin, Ashken, Lillie and a new independent director to join the board of the combined company. \({ }^{207}\)

The Board convened the following day to discuss the \(\$ 60.00\) per share offer. After discussions with its financial advisers,
the Board determined that the offer would be accepted and that Newell would be granted exclusivity during a period of confirmatory due diligence. \({ }^{208}\) Outside director Robert Wood testified that the Board viewed the revised offer "much more favorably, \({ }^{, 209}\) and explained that while the Board thought Jarden's forecast of \(5 \%\) growth over the next three years was achievable, "the [B]oard's level of concern [regarding future growth] was higher" following recent acquisitions. \({ }^{210}\) Specifically, the Board had come to appreciate that Jarden could not sustain historic growth without pursuing "bigger and bigger acquisitions," a strategy the Company had found was increasingly difficult to execute. \({ }^{211}\) As a result, Wood and the other directors believed the \(\$ 60.00\) offer provided more value for shareholders than Jarden could deliver as a standalone company. \({ }^{212}\)
*17 Franklin believed the \(\$ 60.00\) offer represented a 13.5 x EBITDA multiple, "a high multiple, by any standard, for our business ... [and] the highest multiple, by far, our company would have ever traded or been valued. \({ }^{213}\) By way of comparison, just a few weeks before Newell delivered its revised offer, Jarden had acquired Jostens for \(\$ 1.5\) billion, representing a \(7.5 x\) EBITDA multiple. \({ }^{214}\) The Board also concluded that Jarden stockholders stood to benefit from any synergies on top of the \(\$ 500\) million estimate baked into the purchase price, by remaining invested in the combined company following the Merger. \({ }^{215}\)

As noted, the Board agreed to mutual exclusivity. \({ }^{216}\) This, of course, disabled any market check prior to consummation of the Merger. \({ }^{217}\) The Board thought "Newell was the best and most likely acquirer of our business" and there were no other "companies that had the same fit in terms of synergies and ability to pay as Newell., \({ }^{218}\) From the Board's perspective, Jarden was a "very diverse business" operating in siloed industries that were not of interest to other large consumer product companies. \({ }^{219}\) Accordingly, the Board and management understood that Jarden would likely continue standalone unless a unique opportunity for a business combination came along. \({ }^{220}\) Newell provided that opportunity.

\section*{K. Jarden and Newell Finalize Deal Documents}

Over November 29 and 30, 2015, Jarden and Newell convened at Jarden's Norwalk, Connecticut offices, where
the Newell team continued its diligence and presented its strategic plan for the combined company. \({ }^{221}\) Both Newell and Jarden knew from the outset that a deal could only be done if a substantial portion of the consideration was Newell stock. \({ }^{222}\) Because Newell understood this and appreciated the magnitude and significance of Jarden's assets to the combined company, Newell committed that certain Jarden directors would be offered a seat on the Newell board postclosing. \({ }^{223}\) Newell specifically wanted Franklin to sit on the combined board to provide a positive signal to the market of his confidence in the future of the combined company. \({ }^{224}\)
*18 The parties understood that Newell's management team would lead the combined company since capturing synergies through the implementation of Project Renewal was the "logic for the deal." \({ }^{225}\) Franklin, Ashken and Lillie each were subject to two-year non-competition covenants in event they were terminated following a change of control. \({ }^{226}\) Newell wanted to draw out these non-competition covenants to four years. \({ }^{227}\) It also wanted to have access to Franklin, Ashken and Lillie as consultants post-closing if needed. \({ }^{228}\) Accordingly, Newell, Franklin, Ashken and Lillie negotiated an "Advisory Services Agreement" that extended their noncompetes but also provided for Mariposa (on behalf of the three executives) to be paid an annual consulting fee of \(\$ 4\) million for three years ( \(\$ 12\) million in total). \({ }^{229}\) The Advisory Services Agreement provided that Mariposa "shall, upon the request of [Newell], devote up to an average of 120 hours per fiscal quarter" to Newell, and that Franklin and Ashken waived "any and all fees and compensation" they would have ordinarily received as directors of Newell during the term of the agreement. \({ }^{230}\)

\section*{L. The Leak}

On December 7, 2015, The Wall Street Journal reported that Newell and Jarden were discussing a potential business combination, though the article did not reveal the specifics of who would be buying whom or the transaction consideration. \({ }^{231}\) In reaction to this news, Newell's shares traded up \(7.4 \%\), closing at \(\$ 48.16\) and Jarden's shares traded up \(3.7 \%\), closing at \(\$ 50.09 .{ }^{232}\)

Following the leak, and resulting impact on the companies' stock prices, the parties agreed that it no longer made sense to calculate the final exchange ratio based upon the 10-day
trailing VWAP as of the day of signing. \({ }^{233}\) Ashken contacted Tarchetti to re-negotiate and the parties ultimately settled on a fixed ratio of \(0.862,{ }^{234}\) resulting in total merger consideration at that time of \(\$ 60.03\) based upon Newell's closing stock price on December 11, 2015. \({ }^{235}\)

The 10-day trailing VWAP through the last unaffected day prior to the leak, was \(\$ 44.60 .{ }^{236}\) If Jarden held firm to the original agreement, on top of the \(\$ 21.00\) in cash, Jarden stockholders would have received 0.874 shares of Newell stock for every share of Jarden stock they owned. \({ }^{237}\) In other words, Jarden stockholders would have received \(\$ 120\) million more in consideration if not for the renegotiation.

\section*{M. Jarden and Newell Stockholders Approve the Merger}
*19 On December 10, 2015, the Board met to discuss the status of negotiations and to assess whether the transaction continued to make sense. Lillie opened the meeting by presenting the 2015 estimated financial results that demonstrated \(4.4 \%\) growth in organic net sales over 2014. \({ }^{238}\) Barclays also presented a summary of the transaction's proposed terms and an analysis of Jarden's standalone value. \({ }^{239}\) The meeting minutes emphasize that "the Company has not been and is not currently for sale and that remaining independent (as a standalone entity) is the sole alternative to the proposed business combination with Newell, which offers unique revenue and cost synergies and long-term value accretion opportunities for the Company's stockholders.,240

Jarden's negotiating team had been discussing change of control payments with Newell for several weeks but raised the subject with the Board for the first time at the December 10 meeting. \({ }^{241}\) Ashken recommended to the Board that he, Franklin and Lillie receive their 2017 and 2018 Restricted Stock Awards ("RSAs") should the transaction with Newell be approved. \({ }^{242}\) The RSAs would not have been due under the existing employment agreements but Franklin's team instructed Barclays to include the RSAs in the shares outstanding calculation used for its valuation analyses of the transaction and they had already presented that share calculation to Newell. \({ }^{243}\) John Capps, Jarden's General Counsel, advised the Board that Jarden was legally obligated to grant the RSAs even though the agreements themselves were, at best, ambiguous on the point. \({ }^{244}\) Ultimately, the

Board's Compensation Committee recommended that the Board award the 2017 and 2018 RSAs. \({ }^{245}\)

The Board met next on December 13, 2015. Barclays presented the revised proposed deal terms and its revised valuation of Jarden as a standalone company. \({ }^{246}\) Barclays also orally presented its opinion that the proposed merger was fair from a financial point of view to Jarden and its stockholders. \({ }^{247}\) After hearing from Barclays and reviewing the final deal terms, the Board approved the Merger. \({ }^{248}\) The Board also approved the separation agreements and amendments to the employment agreements with Franklin, Ashken and Lillie. \({ }^{249}\) The final Merger Agreement provided that Jarden stockholders would receive 0.862 shares of Newell stock plus \(\$ 21.00\) in cash for each Jarden share, representing a value as of signing of \(\$ 60.03 .{ }^{250}\)
*20 The Newell board also met on December 13 to consider the final transaction terms and to receive Goldman and Centerview's final presentations. \({ }^{251}\) In their analyses, both Goldman and Centerview used five-year projections for Jarden, assuming 3.1\% revenue growth during FY18-20, consistent with the Lender Presentation and below the \(5 \%\) revenue growth forecast in the November Projections. \({ }^{252}\) Goldman maintained its estimate of \(\$ 500\) million in annual cost synergies. \({ }^{253}\) Centerview estimated \(\$ 500-\$ 700\) million in synergies. \({ }^{254}\) After the presentations by its advisors, the Newell board approved the terms of the final Merger Agreement and the parties announced the Merger. \({ }^{255}\)

\section*{N. The Market Reacts}

The Merger announcement, released on December 14, 2015, stated "[Newell] anticipates incremental annualized cost synergies of approximately \(\$ 500\) million over four years., 256 In response to the announcement, Jarden's stock price closed at \(\$ 54.09\), roughly \(12 \%\) above the unaffected trading price of \(\$ 48.31\) from December 4, 2015. \({ }^{257}\) The delta between Jarden's stock price and the implied Merger Price (i.e., the merger arbitrage spread) slowly narrowed following the announcement and ultimately converged in the days leading up to the closing. \({ }^{258}\)

Newell's stock price rose \(7.4 \%\) on December 7, 2015, when financial media outlets first reported the parties were negotiating. \({ }^{259}\) When the final terms of the transaction were
made public on December 14, 2015, however, Newell's stock price declined by \(6.9 \%\) to \(\$ 42.15 .{ }^{260}\) After accounting for market fluctuations, Newell's stock price after the announcement of the Merger terms reflected, at best, a neutral market response. \({ }^{261}\)

On February 26, 2016, Jarden reported its 2015 year-end results, including a considerable loss in operating income and net income as compared to the prior two years. \({ }^{262}\) A few days later, on February 29, 2016, Lillie shared weak results for the first quarter of 2016 with the Board. \({ }^{263}\) Lillie also shared the final 2016 budget, which was adjusted downward to reflect year-end revenue of \(\$ 9.79\) billion (as compared to the \(\$ 10.15\) billion in the November Projections). \({ }^{264}\)
*21 During March and April 2016, before the Merger closed, Jarden management prepared updated multi-year projections for the period 2016 to 2020 (the "April Projections"). \({ }^{265}\) The original version of the April Projections reflected a "bottoms up build" from the business units and forecast a \(4.4 \%\) compound annual revenue growth rate. \({ }^{266}\) This was well below the \(5.0 \%\) forecast in the November Projections. \({ }^{267}\)

Jarden and Newell stockholders voted to approve the Merger on April 15, 2016. \({ }^{268}\) As of the closing, the mix of cash and Newell shares valued Jarden at \(\$ 59.21\) per share. \({ }^{269}\)

\section*{O. Post-Closing}

By January 2016, Bain shortened the time Newell would realize \(\$ 500\) million in recurring annual cost synergies from four years to three. \({ }^{270}\) By May 2016, Bain raised its projection of potential cost savings to a range of \(\$ 900\) million to \(\$ 1\) billion. \({ }^{271}\) In February 2017, Newell announced it would meet the initial estimate of \(\$ 500\) million in annual cost synergies by Q3 2018, and doubled the size of its total cost synergy target from \(\$ 500\) million to \(\$ 1\) billion, to be reached by 2021. \({ }^{272}\) Newell also announced its intention to divest several businesses-both historical Jarden and Newell —and to exit certain product lines. \({ }^{273}\) In early 2018, Newell announced it would sell businesses accounting for almost \(50 \%\) of its customer base and approximately one-third of its revenue. \({ }^{274}\)

The Jarden/Newell integration did not go smoothly. \({ }^{275}\) Newell Brands (the combined company) faced an uphill battle with the divestitures of highly-profitable and valuable businesses. \({ }^{276}\) In early 2018, Franklin resigned from the Newell Brands board in spectacular fashion, publicly proclaiming that Polk was "ruining the company" and calling for Polk's ouster. \({ }^{277}\) Ashken, L'Esperance and long-time Newell director, Dominico De Sole, left the Newell Brands board soon after. \({ }^{278}\)
*22 After leaving, Franklin, Ashken and Lillie united with Starboard Value LP, an activist hedge fund, to advance a slate of directors to challenge the Newell Brands board. \({ }^{279}\) Carl Icahn entered the mix and ultimately was successful in placing his slate of five directors on the Newell Brands board, thereby effectively ending the Franklin/Starboard-led challenge. \({ }^{280}\) In the fallout of the proxy contest, Tarchetti, President of Newell Brands, resigned. \({ }^{281}\)

\section*{P. Procedural Posture}

Between June 14, 2016 and August 12, 2016, four petitions for appraisal were filed in connection with the Merger. \({ }^{282}\) By order of the Court dated October 3, 2016, the four appraisal actions were consolidated. \({ }^{283}\) On July 5, 2017, Merion Capital LP, Merion Capital II LP and Merion Capital ERISA LP were dismissed from the consolidated action after reaching settlement agreements with Jarden. \({ }^{284}\) On July 7, 2017, Dunham Monthly Distribution Fund, WCM Alternatives: Event-Driven Fund, Westchester Merger Arbitrage Strategy sleeve of the JNL Multi-Manager Alternative Fund, JNL/Westchester Capital Even Driven Fund, WCM Master Trust, The Merger Fund, The Merger Fund VL and SCA JP Morgan Westchester were also dismissed, again after reaching settlement agreements with Jarden. \({ }^{285}\)

The Court held a four-day trial in June 2018. Three experts testified. For Petitioners, Dr. Mark Zmijewski evaluated the standalone value of Jarden on the Merger Date by conducting a market multiples analysis and a DCF analysis, ultimately relying on his multiples (comparable company) analysis for his fair value conclusion. He opined that Jarden's fair value on the Merger Date was \(\$ 71.35\) per share. Dr. Zmijewski holds the Charles T. Horngren Professorship at the University of Chicago Booth School of Business.

For Respondent, Dr. Glenn Hubbard evaluated the standalone value of Jarden on the Merger Date by analyzing market evidence, including Jarden's unaffected market price and the Merger Price less synergies, and traditional valuation methodologies, including comparable companies and DCF. Based on his DCF analysis, which he correlated to the market evidence, Dr. Hubbard opined that Jarden's fair value on the Merger Date was \(\$ 48.01\) per share. Dr. Hubbard holds the Russell L. Carson Professorship in Finance and Economics in the Graduate School of Business of Columbia University, where he is also the Dean. \({ }^{286}\)

Respondent also presented the testimony of Dr. Marc Zenner, a retired investment banker. Dr. Zenner testified that the projected synergies estimates reported in the joint proxy statement issued by Jarden and Newell in connection with the Merger were conservative and that the synergies were taken by Jarden stockholders. He also opined that the Board's decision not to hold an auction for Jarden was reasonable because Jarden's size and diverse product portfolio made it unlikely that a merger partner more suitable than Newell would have emerged.
*23 Following post-trial briefing and argument, the Court wrote to the parties, as previewed at the conclusion of posttrial oral argument, to advise that it would postpone the issuance of its post-trial opinion in this case until our Supreme Court issued its decision in Aruba. \({ }^{287}\) The parties submitted brief (and unsolicited) letters regarding Aruba on April 30 and May 1, 2019, at which time the matter was submitted for decision.

\section*{II. ANALYSIS}

Delaware's appraisal statute, 8 Del. C. § 262(h) provides, in part:

Through [the appraisal] proceeding, the Court shall determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation, together with interest, if any, to be paid upon the amount determined to be the fair value. In determining such fair value, the Court shall take into account all relevant factors. \({ }^{288}\)
"Section 262(h) unambiguously calls upon the Court of Chancery to perform an independent evaluation of 'fair value' at the time of a transaction ... [and] vests the Chancellor and Vice Chancellors with significant discretion to consider
'all relevant factors' and determine the going concern value of the underlying company." 289 "By instructing the court to 'take into account all relevant factors' in determining fair value, the statute requires the Court of Chancery to give fair consideration to 'proof of value by any techniques or methods which are generally considered acceptable in the financial community and otherwise admissible in court.' "290 Since " '[e]very company is different; [and] every merger is different,' the appraisal endeavor is 'by design, a flexible process.' „291

I have carefully considered all relevant factors. I have weighed those factors according to the credible evidence in the record and applied "accepted financial principles" as derived from that evidence. \({ }^{292}\) To follow is my independent evaluation of Jarden's fair value as informed by my findings of fact.

\section*{A. Merger Price Less Synergies}

Respondent has proffered the Merger Price less synergies as a reliable indicator of fair value, and for good reason. Our Supreme Court has stated, "a buyer in possession of material nonpublic information about the seller is in a strong position (and is uniquely incentivized) to properly value the seller when agreeing to buy the company at a particular deal price, and that view of value should be given considerable weight by the Court of Chancery absent deficiencies in the deal process." \({ }^{293}\) This court has heeded the Supreme Court's guidance and regularly rests its appraisal analysis on the premise that when a transaction price represents an unhindered, informed and competitive market valuation, that price "is at least first among equals of valuation methodologies in deciding fair value., 294

In PetSmart, I observed, "[a]fter years of striving for it, Vince Lombardi finally arrived at the understanding that perfection in human endeavors is not attainable." 295 "Even in the best case, a process to facilitate the sale of a company, constructed as it must be by the humans who manage the company and their human advisors, will not be perfect." \({ }^{296}\) With that said, I am mindful of our Supreme Court's guidance in Dell, where the Court observed that certain factors, including "fair play, low barriers to entry, [and] outreach to all logical buyers," are reflective of the kind of "robust sale process" that will discover a company's fair value. 297
*24 The "sale process" for Jarden, if one can call it that, raises concerns. To be sure, there was no need for a full-blown auction of Jarden. In this regard, Dr. Zenner's testimony, corroborated by other evidence, was credible. \({ }^{298}\) Moreover, there were signs of arms-length, provocative negotiating between Jarden and Newell. \({ }^{299}\) This is not surprising given that Jarden's negotiators owned millions of Jarden's shares and had every incentive to negotiate a good deal. \({ }^{300}\) But the evidence revealed a troubling theme. Franklin immediately took charge and, consistent with a stereotypical "cut to the chase" CEO mentality, \({ }^{301}\) he laid Jarden's cards on the table before the negotiations began in earnest and before the Board and its financial advisors had a chance to formulate a plan. Petitioners are right to complain that Franklin's approach may well have set an artificial ceiling on what Newell was willing to pay.

Franklin did not inform the Board he was meeting with Polk at the Back-to-School Meeting or the Boat Meeting, and he certainly did not receive authority from the Board to suggest a price ("beginning with a 6") at which the Board might agree to sell the Company. \({ }^{302}\) Franklin made counteroffers unauthorized by the Board. \({ }^{303} \mathrm{He}\) negotiated his change-in-control compensation with no authorization from (or knowledge of) the Board. \({ }^{304}\) And he recommended Barclays as the lead financial advisor for the deal without fully disclosing his prior substantial relationship with the bank, just as he nudged the Board to hire UBS as a second banker as a "kiss" in gratitude for its prior uncompensated work for the Company. \({ }^{305}\)
*25 As factfinder, these flaws in the sale process, coupled with the fact that there was no effort to test the Merger Price through any post-signing market check, raise legitimate questions regarding the usefulness of the Merger Price as an indicator of fair value. \({ }^{306}\) As explained below, the difficulty in assessing the extent to which Newell ceded synergies to Jarden in the Merger makes the Merger Price less synergies an even less reliable indicator of fair value.

In Merion Capital LP v. BMC Software Inc., the court set forth a useful framework to approach the appraisal statute's mandate that the court appraise "the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation., 307 BMC recommends a "two-step
analysis[:]" "first, were synergies realized from the deal; and if so, were they captured by the sellers in the deal price?"308

There is no dispute here that synergies were realized in the Merger, as one would expect when two strategic partners combine. \({ }^{309}\) Indeed, the synergies created the "logic for the deal" from Newell's perspective. \({ }^{310}\) The first announcement of the Merger stated, "[Newell] anticipates incremental annualized cost synergies of approximately \(\$ 500\) million over four years., \({ }^{311}\) This remained the case through the release of the joint proxy statement. \({ }^{312}\) Internally, Newell believed the \(\$ 500\) million estimate was conservative. \({ }^{313}\) Nevertheless, the experts have focused on the expected synergies as disclosed in the joint proxy statement ( \(\$ 500\) million), and they have assumed that estimate is accurate. \({ }^{314}\) In the absence of any real expert analysis of the issue, I have no basis in the evidence to depart from that assumption.

As for whether Jarden captured the synergies in the Merger, the evidence is less clear. There is evidence in the trial record that would suggest Newell believed it was not paying any of the synergies at the \(\$ 59.21\) per share Merger Price. \({ }^{315}\) During negotiations, Polk told his board that if Newell could "get the deal done between \(\$ 60\) and \(\$ 65\) [per share], we are basically getting the synergies with no value ascribed to them." \({ }^{" 316}\) After the Merger, Polk further suggested that the premium over market price that Newell paid in the Merger was not for synergies but instead was for control of the combined company. \({ }^{317}\) Polk explained, "Jarden shareholders get a premium versus their current stock price for [Jarden]. The Newell shareholders get ownership of [Jarden], and after the synergies are delivered, the future value creation that comes through the new combination., \({ }^{318}\) Even Franklin questioned whether the premium to market price that Newell paid was for control of the combined entity. \({ }^{319}\)
*26 On the other hand, Jarden points out that there is evidence Newell was keenly aware of synergies and that it was incorporating synergies into its value thesis for the Merger. \({ }^{320}\) Dr. Hubbard supported Jarden's view of the evidence that Jarden stockholders realized the value of the synergies by conducting two separate analyses. First, he performed a "discounted value of cash flows" analysis, in which the expected future cash flows from the synergies (net of the costs to achieve them) were discounted to their value as of the Merger Date, to conclude that the synergies
had a value of \(\$ 4.2\) billion, or \(\$ 17.43\) per Jarden share. This happens to line up nicely with the delta between the unaffected market price (\$48.31) and the Merger Price (\$59.21), indicating that the delta, or premium, represented expected synergies. \({ }^{321}\) He then prepared a market-based analysis of the expected synergy value in which he observed that the rise in stock price of both companies after the leak of merger negotiations revealed that the market appreciated the presence of significant synergies. The fact that Newell's stock price fell when Jarden's rose after announcement of the Merger indicates the market appreciated that the anticipated synergies would accrue to the Jarden stockholders. \({ }^{322}\)

Jarden bears the burden of demonstrating "what, if any, portion of [the synergies] value was included in the price-pershare ...., \({ }^{323}\) The evidence on this point stands in equipoise. It is difficult to square Polk's contemporaneous assessment of where the synergies would land with Newell's internal valuation exercises and Dr. Hubbard's straightforward analysis of the issue. Given the state of the evidence, I give little weight to the Merger Price less synergies evidence when assessing fair value. \({ }^{324}\) Not because I believe the Merger created no synergies. And not because I believe that Jarden stockholders probably did not receive the value of the synergies that were created by the deal. I place less weight on this market-based valuation approach in this case because the sales process was not well-conceived or well-executed and the expert analysis of the transaction synergies raised more questions than it answered.

\section*{B. Unaffected Market Price}

Jarden has proffered its unaffected stock trading price, \(\$ 48.31\) per share (the "Unaffected Market Price"), as strong evidence of the Company's fair value. \({ }^{325}\) According to Jarden, " \([t]\) his value impounded the collective judgments of thousands of stockholders, as well as the more than twenty professional analysts that followed Jarden." \({ }^{326}\) Jarden supports its position that the Unaffected Market Price is indicative of fair value with detailed analysis from Dr. Hubbard. \({ }^{327}\) Petitioners elected not to counter that evidence with expert evidence of their own. \({ }^{328}\) Instead, they attacked Dr. Hubbard's opinion as lacking in doctrinal and factual foundation. For reasons explained below, I find Dr. Hubbard's analysis of the reliability of Jarden's Unaffected Market Price as an indicator of fair value both credible and persuasive.

\section*{1. The Market for Jarden's Stock Was Efficient}
*27 In an efficient stock market, "a company's market price quickly reflects publicly available information., \({ }^{329}\) In this environment, the company's trading price "balances investors' willingness to buy and sell the shares in light of [available] information, and thus represents their consensus view as to the value of the equity in the company., \({ }^{330}\) Efficient markets aggregate all available information and quickly digest new information, which is then reflected by proportionate changes in market price. \({ }^{331}\) When the market is efficient, the trading price of a company's stock can be a proxy for fair value. \({ }^{332}\)

As Dr. Hubbard explained, several factors support the conclusion that Jarden's stock traded in a semi-strong efficient market. \({ }^{333}\) The stock was traded on the New York Stock Exchange ("NYSE") and Jarden became a member of the S\&P 400 index in 2012. \({ }^{334}\) In 2015, Jarden's shares traded with a daily and weekly average trading volume in the top \(25 \%\) of the S\&P 500. \({ }^{335}\) High trading volume contributes to the efficiency of the market. \({ }^{336}\) Jarden's market capitalization of approximately \(\$ 10.2\) billion placed it in the top \(20 \%\) of all publicly traded firms. \({ }^{337}\) High market capitalization leads to greater "interest in the security being analyzed," which, in turn, "increases the likelihood that new information will be quickly incorporated into the stock price., 338

Jarden had no controlling shareholder. \({ }^{339}\) In fact, Jarden had a \(94 \%\) public float. \({ }^{340}\) A high public float is another factor indicating an efficient market for Jarden's stock because the more holders of a security that are not insiders with access to non-public information, the more likely the market will demand that information be released for public consumption. \({ }^{341}\) Jarden stock exhibited a "bid-ask spread" of only \(0.02 \%\). \({ }^{342}\) A narrow bid-ask spread indicates minimal information asymmetry between insiders and the public markets and, as a result, higher market efficiency. \({ }^{343}\) Approximately twenty professional market analysts covered and disseminated reports on Jarden in the year prior to the Merger Date. \({ }^{344}\) Jarden exhibited no serial correlation, meaning there were no patterns detached from events or news from the Company that would enable the market to divine future price movements based purely on past performance. \({ }^{345}\) Additionally, Jarden's Unaffected Market Price aligned with
options market pricing, suggesting there were no arbitrage opportunities for Jarden stock. \({ }^{346}\)
*28 Dr. Hubbard summarized the factors allowing him to conclude that Jarden's stock traded in a semi-strong efficient market in a helpful chart:
\begin{tabular}{|lrl|}
\hline Indicator & Jarden & Comment \\
\hline Market Capitalization & \(\$ 10.2\) bn & Top 20\% of public firms \\
\hline Weekly Trading Volume (\% of Shares Outstanding) & \(4.24 \%\) & Top 25\% of S\&P 500 \\
\hline Daily Trading Volume (\% of Shares Outstanding) & \(0.88 \%\) & Top 25\% of S\&P 500 \\
\hline Bid-Ask Spread & 2.2 bps & Median of S\&P 500 \\
\hline Short Interest / Daily Trading Volume & 6.03 & \(<10\) \\
\hline Analyst Coverage & 20 analysts \\
\hline Float & \(93.9 \%\) & \\
\hline Serial Correlation & -0.01 & Not significant \((t-\) stat \(=-0.29)\) \\
\hline Put-Call Parity Mispricing & No & \(0 / 29\) mispriced option pairs \\
\hline Controlling Shareholder & No \\
\hline Reaction to News Consistent with Efficiency & Yes \\
\hline
\end{tabular}

For context, and to illustrate that Jarden's stock price historically reacted appropriately to material information, Dr. Hubbard performed an event study to trace how, in the two years prior to the Merger, Jarden's stock price responded quickly and appropriately to earnings announcements and other performance guidance, even when the news was unanticipated. \({ }^{347}\) In each instance, Dr. Hubbard traced the public disclosure of material information, the reaction of analysts to the information and the commensurate adjustment, up or down depending upon whether the news was positive or negative, in the trading price of the stock. \({ }^{348}\)

The evidence shows that Jarden's stock reached a pre-Merger peak of \(\$ 56.25\) on July 20, 2015, and then declined gradually over the next few months in response to poor earnings reports. \({ }^{349}\) The decline was marked by low quarterly growth and it prompted Jarden to lower its guidance for the second and third quarters of 2015. \({ }^{350}\) Jarden's stock price recovered somewhat in the fourth quarter and closed at \(\$ 48.31\) on December 4, 2015 (i.e., the Unaffected Market Price). \({ }^{351}\) After The Wall Street Journal article reported on the merger negotiations the following Monday, Jarden's stock price rose and continued to rise to \(\$ 54.09\) on December 14 , 2015, the day Jarden and Newell officially announced the Merger. \({ }^{352}\) The steady climb continued following the announcement and then plateaued before the calendar year ended. \({ }^{353}\) Jarden's stock price oscillated between \(\$ 59.00\) and \(\$ 50.00\) until early March 2016. \({ }^{354}\) In March, as the negotiations finalized and the Merger Date neared, Jarden's share price approached
but never exceeded the Merger Price of \(\$ 59.21 .{ }^{355}\) As Dr. Hubbard explained:

The fact that Jarden's stock price never closed above the Merger Price is a strong indicator that fair value is no greater than the Merger Price. If investors believed that the Company was worth materially more, then one would expect to see the market price exceeding the Merger Price in anticipation of a topping bid. In more than five percent of M\&A deals since 2001, the merger arbitrage spread the day after the merger announcement was negative, implying that the market expected a topping bid. \({ }^{356}\)

Newell's stock also traded in an efficient market and the market's reaction to the announcement of the Merger with respect to Newell's trading price provides further evidence that the Unaffected Market Price is reflective of Jarden's fair value. \({ }^{357}\) Newell's stock price jumped after the leak of negotiations when the terms of the deal were unknown. \({ }^{358}\) The market reacted differently, however, when the terms of the Merger were announced. Newell's stock price dropped significantly (6.9\%). Dr. Hubbard explained the significance: "The initial positive reaction to the deal rumors suggests that the market was hopeful that some value would accrue to Newell, but after learning the terms of the deal and additional information about synergies, the market reassessed and shifted the value from Newell to Jarden., 359
*29 After carefully reviewing the evidence, I am satisfied that Jarden's Unaffected Market Price is a powerful indicator of Jarden's fair value on the Merger Date. Petitioners' attempts to undermine this evidence, as explained below, were not persuasive.

\section*{2. Petitioners Did Not Persuasively Rebut Jarden's Market Evidence}

Petitioners mount three challenges to the reliability of Jarden's Unaffected Market Price: (a) as of the date fixed for the Unaffected Market Price (December 4, 2015), the market lacked material information concerning Jarden (i.e., information asymmetry) that skewed the trading price; (b) the Unaffected Market Price must be adjusted to account for a so-called "conglomerate discount" and a "minority discount;" and (c) the Unaffected Market Price was stale by the time the Merger closed on April 15, 2016. \({ }^{360}\) I address each in turn.

\section*{a. Information Asymmetry}

According to Dr. Zmijewski, Jarden's market-based evidence should be disregarded because the market lacked material information as of the date fixed for Jarden's Unaffected Market Price. \({ }^{361}\) Dr. Zmijewski cited the decline in the federal risk-free rate, the rise in Jarden's share price and the divergence between Jarden management and market analysts' projections for Jarden's future performance as reasons the Unaffected Market Price was not a reliable indicator of fair value. \({ }^{362}\) Importantly, Dr. Zmijewski also observed that Jarden stockholders had no access to the November Projections as of the date fixed for the Unaffected Market Price. The evidence supports the factual predicates for these observations, but it does not support a conclusion that the absent facts resulted in the kind of information asymmetry that would render the Unaffected Market Price unreliable.

As for the decline in the federal risk-free rate, Dr. Zmijewski states that, "[a]ll else equal, the decline in the risk-free rate results in an increase in Jarden's Fair Value," and goes on to argue that because the federal risk-free rate declined from December 2015 to April 2016, Jarden's fair value must be higher than the Unaffected Market Price. \({ }^{363}\) Interest rates on U.S. Treasury 20-year constant maturity bills declined \(19 \%\), from \(2.65 \%\) to \(2.14 \%\), between December 4, 2015 and April 15, 2016. \({ }^{364}\) Dr. Hubbard conceded that, if "all else" were, in fact, "equal," as Dr. Zmijewski posited, then Jarden's fair value would increase as the risk-free rate decreased. \({ }^{365}\) But then Dr. Hubbard exposed the flaw in Dr. Zmijewski's elephant-sized assumption that "all else" remained "equal." Specifically, Dr. Hubbard referred directly to market data showing that, as the interest rate on 20-Year Treasury Bonds declined between December 2015 and April 2016, stock prices in general, represented by the S\&P 500 Market Index, did not increase in response. \({ }^{366}\) Contrary to Dr. Zmijewski's "all else equal" assumption, the evidence shows that the stock market declined just as the risk-free rate declined. \({ }^{367}\) In other words, the correlation that supports the supposed information asymmetry is no correlation at all.
*30 Regarding the lack of consensus between Jarden management and third-party analysts' projections, Dr. Hubbard emphasized the qualitative difference between unvarnished raw information tracking Jarden's performance and well-reasoned opinions about Jarden's prospects. \({ }^{368}\)

Jarden's revenue projections for 2016, 2017, and 2018 were \(1.0 \%, 1.7 \%\) and \(2.6 \%\) higher, respectively, than financial analysts' consensus forecast. \({ }^{369}\) Jarden's EBITDA projections for 2016, 2017 and 2018 were \(1.3 \%, 6.6 \%\) and \(9.0 \%\) higher, respectively, than financial analysts' consensus forecasts. Jarden's November Projections incorporated this data but were not released to the public until March 2016, and thus would not have been incorporated into the Unaffected Market Price. \({ }^{370}\) But is this evidence of information asymmetry? Dr. Hubbard hypothesized the answer is no. \({ }^{371}\)

To test his hypothesis, Dr. Hubbard turned to his event study. The November Projections were disclosed in the joint proxy in March 2016. If the November Projections revealed information not previously incorporated in Jarden's stock price, Hubbard reasoned, then both Jarden and Newell's stock price should have proportionately reflected that information. In other words, if the November Projections justified more value (according to Dr. Zmijewski substantially more value), then Newell's stock price should have increased substantially to reflect that Newell was acquiring Jarden at less than fair value. \({ }^{372}\) But, of course, that is not what happened; Jarden's stock price climbed while Newell's stock price dropped. \({ }^{373}\) Moreover, Jarden's April Projections lowered the Company's financial guidance to forecasts more in line with the analysts' earlier projections. \({ }^{374}\) Dr. Hubbard persuasively opined that the April Projection's convergence with the analysts' forecasts was a strong indication that the difference between the November Projections (as disclosed in the joint proxy) and the analysts' projections was not attributable to unreasonable market pessimism, but instead showed that market analysts had more accurately estimated Jarden's 2016 outlook than Jarden's management (who may have been motivated by factors other than actual anticipated results when making their forecasts). \({ }^{375}\)

The credible evidence reflects no information asymmetry. The market was well informed and the Unaffected Market Price reflects all material information.

\section*{b. The Conglomerate and Minority Discounts}

Dr. Zmijewski also criticizes Dr. Hubbard's Unaffected Market Price analysis because it does not account for Jarden's massively diversified portfolio of operating companies (the conglomerate discount) and does not adjust for embedded
agency costs (the minority discount). \({ }^{376}\) Here again, Dr. Zmijewski flags the issues but makes no attempt to quantify their impact, if any. \({ }^{377}\)
*31 As for the conglomerate discount, the evidence does not support that this is even "a thing," meaning it is not clear that this notion is accepted within the academy or among valuation professionals. \({ }^{378}\) With that said, there is evidence that Jarden's unique structure and diversified portfolio did pose valuation challenges. Newell's Tarchetti described Jarden as a "fast-changing company" that was difficult to appraise, in part, due to its complexity and tendency to grow and evolve at any point in time. \({ }^{379}\) Even so, the Company's high trading volume and the intense scrutiny paid it by market analysts has convinced me that the market understood Jarden's holding company structure as an operative reality, considered the high overhead costs associated with decentralized management and imputed those factors into Jarden's Unaffected Market Price. \({ }^{380}\)

The minority discount, likewise, does not fit here. For a company without a controlling stockholder, the premise is that the appraiser must consider the conflict of interest between Company management and a diffuse stockholder base and account for minority trading multiples. \({ }^{381}\) Setting aside that Petitioners have offered no credible evidentiary basis to quantify any minority discount here, I see no basis to even try given that the foundation for applying the discount has not been laid. Jarden's management was well known to stockholders and well known to the market. But for the Merger, they were not going anywhere as the Company was not for sale. \({ }^{382}\) As Dr. Hubbard explained, under these circumstances, Jarden's agency costs were embedded in its operative reality and reflected in its Unaffected Market Price. \({ }^{383}\)

\section*{c. Staleness of the Unaffected Market Price}

Petitioners also argue that the Unaffected Market Price was stale as of the Merger Date. \({ }^{384}\) I disagree. There is no evidence to suggest that Jarden gained value from the date set for the Unaffected Market Price and the closing of the Merger, or that the market was deprived of information that might have been perceived as enhancing value. Indeed, following a period where Jarden had been especially acquisitive, the Company was experiencing declines in operating income
and net income and management was giving the Board revised, more conservative projections for 2016. \({ }^{385}\) The April Projections forecasted reduced revenue growth and increased working capital investment for FY17-20. \({ }^{386}\) This is not a case where the credible evidence reveals that the Unaffected Market Price was demonstrably below Jarden's fair value as of the Merger.
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After carefully considering the evidence, I find that the Unaffected Market Price is a reliable indicator of Jarden's value as a going concern on the Merger Date. I have given it substantial weight in my assessment of fair value.

\section*{C. The Other Market Evidence}

As Jarden was negotiating with Newell, it was also pursuing an acquisition of Jostens. To raise capital for that deal, Jarden initiated a share offering priced at \(\$ 49.00\) per share. \({ }^{387}\) At the time, the stock was trading in the mid-\$40s. \({ }^{388}\) When the market reacted poorly to the Jostens acquisition, and the stock price fell, the Board believed it needed to send a signal that the Company and its management were optimistic about Jostens. So it authorized a \(\$ 50\) million stock buyback, \({ }^{389}\) and it set the price cap again at \(\$ 49.00\) because, after internal assessments, it believed that price reflected Jarden's value. \({ }^{390}\) Ultimately, Jarden repurchased 276,417 shares on November 2, 2015, at an average price of \(\$ 45.96\) per share, and another 775,685 shares on November 3, 2015, at an average price of \(\$ 48.05\) per share. \({ }^{391}\) This evidence is by no means dispositive. But it is persuasive evidence that, in the weeks leading up to the leak of the merger negotiations, uncluttered by transactional or forensic incentives, both the Company and the market saw Jarden's value well below what Petitioners seek here.

\section*{D. Comparable Companies}
*32 Both parties' experts performed comparable companies analyses to estimate Jarden's value relative to sets of proposed peer firms. Applying his comparable companies analysis, Dr. Zmijewski concluded that Jarden's fair value on the Merger Date, based on Jarden's 2016 forecasted EBITDA using the 90th, 75th and 50th percentiles of his peer set, was \(\$ 81.44\), \(\$ 70.49\) and \(\$ 66.30\), respectively. \({ }^{392}\) Based on Jarden's 2017 forecasted EBITDA, the market multiples based-valuation using the 90th, 75th and 50th percentiles of his peer set,
revealed a per share value of \(\$ 77.39, \$ 72.20\) and \(\$ 65.56\), respectively. \({ }^{393}\) For his part, Dr. Hubbard disclaimed the efficacy of a comparable companies valuation for Jarden, but then performed his own comparable analysis for the sake of completeness, resulting in a value range of \(\$ 40.12\) to \(\$ 55.21\) per share. \({ }^{394}\) Before addressing the experts' divergent analyses and conclusions, it is useful to review basic concepts, separated from forensics.

\section*{1. The Comparable Companies Methodology}

As a threshold matter, before a comparable companies multiples analysis can be undertaken with any measure of reliability, it is necessary to establish a suitable peer group through appropriate empirical analysis. \({ }^{395}\) In fact, nearly every text in the record states that the accuracy of a multiples-based valuation depends entirely on the existence of comparable peers:
- Holthausen \& Zmijewski (JX 242): "While selecting comparable companies might not appear to be too difficult, we often quickly conclude that not many, if any, companies are truly comparable to the company we are valuing for purposes of a market multiple valuation once we understand all the different dimensions of comparability and begin to analyze the potential comparable companies ... simply selecting close competitors is not sufficient to ensure the companies are comparable, as we observe a substantial amount of variation in multiples within an industry.,396
- Koller (JX 2516): "Selecting the right peer group is critical to coming up with a reasonable valuation using multiples."397
- Damodaran (JX 2515): "... finding similar and comparable firms is often a challenge, and frequently we have to accept firms that are different from the firm being valued on one dimension or the other. When this is the case, we have to either explicitly or implicitly control for differences across firms on growth, risk, and cash flow measures."398
- Berk \& DeMarzo (JX 2032): "Of course, firms are not identical. Thus, the usefulness of a valuation multiple will depend on the nature of the differences between
firms and the sensitivity of the multiples to these differences." \({ }^{\text {" } 99}\)

McKinsey recommends beginning the peer group identification process with the Standard Industrial Classification ("SIC") or Global Industry Classification Standard ("GICS") codes. \({ }^{400}\) While these codes are a good starting point for selecting a peer group, the industry-specific company lists they produce require significant refinement to identify truly comparable firms. \({ }^{401}\)

To isolate a relevant peer group from a larger industry data set, the appraiser must identify firms with similar risk profiles, costs of capital, return on invested capital and growth. \({ }^{402}\) It is better to have a smaller number of peers that truly compete in the same markets with similar products than including aspirational or nearly comparable companies. \({ }^{403}\) In order effectively to narrow down a list of potential comparables according to growth and risk, the analysis must consider whether the companies have similar "value drivers" as the target. \({ }^{404}\) As Dr. Zmijewski described in his text:
*33 [A] company's product lines, customer types, market segments, types of operation, and so forth are all important aspects to consider when we identify comparable companies. Even after all these are taken into consideration, two companies can be in the same industry yet not be comparable on all of the characteristics that are important for a market multiple valuation. \({ }^{405}\)

In addition, the finance literature advises against relying on peers provided by the target company's management. This reasoning reflects common sense; optimistic executives often provide "aspirational peers" rather than companies that actually compete head-to-head with their firm. \({ }^{406}\)

The importance of selecting a proper peer set in the performance of a proper comparable companies analysis cannot be overstated. Because this threshold task is so important, and yet so difficult, the valuation treatises generally view the comparable companies methodology as inferior to other methodologies: "a key shortcoming of the comparables approach is that it does not take into account the important differences among firms," therefore "[u]sing a valuation multiple based on comparables is best viewed as a 'shortcut' to the discounted cash flow methods of valuation., 407

If, and only if, a proper peer set can be selected, the next step in the comparable companies analysis is to select an appropriate multiple and then determine where on the distribution of peers the target company falls. \({ }^{408}\) The Enterprise Value to EBITDA multiples valuation ("EV/ EBITDA") is widely accepted as the most reliable data set for a comparable companies analysis. \({ }^{409}\) In this regard, it appears that the preference is to use forward-looking projections instead of a firm's historical earnings data. \({ }^{410}\) Forward-looking multiples are deemed more consistent with the principles of valuation, especially in the context of estimating the present value of a company as a going concern. \({ }^{411}\) Projections generally exhibit less variation across peer companies compared to historical data, and although long-term earnings projections are favored, one- and two-year forecasts are reliable when they uniformly represent the firm's long-term prospects. \({ }^{412}\)
*34 With these generally accepted features of a proper comparable companies valuation in mind, I turn to the experts' comparable companies valuation of Jarden.

\section*{2. The Experts Attempt But Fail to Select a Valid Peer Set}

Both experts developed their peer set by drawing from the peer set developed by Barclays in its valuation work for the Company with regard to the Merger. They then made adjustments based on their own sense of comparability. For his part, Dr. Zmijewski conceded that he "did not do any qualitative assessment of any inherent differences between the Jarden business and the business of its peers companies., \({ }^{413}\) Giving such deference to the peer set selected by management, without any meaningful, independent assessment of comparability, is not useful and, frankly, not credible. \({ }^{414}\) Dr. Zmijewski made no mention of GICS or SIC codes in his report and there is no indication that he employed them, or any other objective criteria, in his selection of a peer set. \({ }^{415}\)

Failing to ground his peer set in any objective methodology is all the more problematic given Dr. Zmijewski's apparent willingness to adjust the management/Barclays' peer set when it suited him to yield a higher valuation for Jarden. As stated in his report, Dr. Zmijewski excluded Kimberly-Clark Corporation and Colgate-Palmolive Company, which were
both included in the Barclays list, because both companies maintain a significantly larger market capitalization than Jarden and the other comparables. \({ }^{416}\) The notion that a company with a very large market capitalization is not a true peer of a company with a relatively smaller market capitalization has a certain lay appeal. But Dr. Zmijewski's own text makes clear that "there is no theoretical model we are aware of that includes size as a determinant of market multiples., \({ }^{, 417}\) It may well be that Kimberly-Clark and Colgate-Palmolive are not "comparables" for Jarden, but the absence of any meaningful analysis or explanation in Dr. Zmijewski's report leaves the Court with no way to determine if the exclusion was arbitrary or principled. 418
*35 Before addressing Dr. Hubbard's peer set, it must be emphasized that Dr. Hubbard does not sponsor the comparable companies methodology as the appropriate means by which to assess Jarden's fair value. \({ }^{419}\) His preferred methodology is DCF. \({ }^{420}\) Nevertheless, Dr. Hubbard engaged with Dr. Zmijewski on comparable companies and, not surprisingly, reached a very different conclusion after doing so.

Dr. Hubbard assessed Jarden's peers by using GICS codes. \({ }^{421}\)
He then cited to over a dozen industry analyst reports that corroborated his peer set, which included companies that were larger and smaller than Jarden and companies that were not on the Barclays list. \({ }^{422}\) Once he completed his peer set, however, Dr. Hubbard emphasized his view that Jarden's unique and highly diversified portfolio of businesses, its aggressively acquisitive growth strategy and its holding company structure made the selection of a valid peer set for a comparable companies analysis a fundamentally flawed exercise since Jarden "lack[ed] truly comparable peers.",423

After carefully reviewing the evidence, I am convinced that Dr. Hubbard is correct-Jarden had no comparable peers, at least not as developed in the credible evidence presented at trial. Under these circumstances, the fact that Dr. Zmijewski engaged in no real analysis when developing his peer set is not surprising. \({ }^{424}\)

Having found that the first, and most important, element of a proper comparable companies analysis is lacking in this record, I give the experts' comparable companies conclusions no weight in my fair value determination. \({ }^{425}\) Accordingly, I move next to the parties' competing DCF valuations.

\section*{E. Discounted Cash Flow}
*36 As I approach the parties' fantastically divergent conclusions following their DCF analyses, I am mindful of our Supreme Court's admonition that, tempting as it is to select the entirety of one expert's analysis over the other's, my review of the experts' opinions must not be presumptively binary:

The role of the Court of Chancery has evolved over time to the present requirement that the court independently determine the value of the shares that are the subject of the appraisal action. Even though today a Chancellor may be faced with wildly divergent values presented by the parties' experts, the acceptance of one expert's value, in toto, creates the risk that the favored expert will be accorded a status greater than that of the now eliminated [expert appraiser]. This is not to say that the selection of one expert to the total exclusion of another is, in itself, an arbitrary act. The testimony of a thoroughly discredited witness, expert or lay, is subject to rejection under the usual standards which govern receipt of such evidence. The nub of the present appeal is not merely that the Chancellor made an uncritical acceptance of the evidence of SAP's appraiser but that he announced in advance that he intended to choose between absolutes. \({ }^{426}\)

As I discuss below, in many important respects, the experts have utilized very different inputs in their DCF models leading to a substantial delta between their ultimate DCF valuations-Dr. Zmijewski's DCF valuation produced a range of \(\$ 70.36\) and \(\$ 70.40\) per share; \({ }^{427}\) Dr. Hubbard's DCF valuation is \(\$ 48.01\) per share. \({ }^{428}\) The number and degree of their differences has necessitated the lengthy discussion that follows. For reasons I explain, I have adopted some of both expert's inputs to construct my own DCF model. Based on that model, my DCF valuation is \(\$ 48.13\) per share.
\begin{tabular}{lll} 
FY2016-E & FY2017-E & FY2018-E \\
\$869 million & \(\$ 967\) million & \(\$ 1,062\) million
\end{tabular}

Using Jarden's NOPAT, I have calculated Jarden's unlevered free cash flows for each projection year by: (1) adding back depreciation; (2) deducting Jarden's year-over-year change in working capital; and (3) deducting Jarden's capital
expenditures. These adjustments track those made by Dr. Hubbard (albeit at a \(35 \%\) marginal rate), \({ }^{435}\) and yield the following as Jarden's unlevered free cash flow in each of the projected years:

FY2020-E
\(\$ 572\) million \(\quad \$ 701\) million \(\quad \$ 783\) million \(\$ 853\) million \(\quad \$ 927\) million

\section*{2. Jarden's Terminal Value}

Jarden's terminal value is the value of the Company beyond the discrete projection period as defined in a discounted future earnings model ("Terminal Value"). \({ }^{436}\) In the context of the experts' DCF analyses for Jarden, Terminal Value refers to Jarden's estimated value taking into account all future cash flows at the end of the November Projection's explicit forecast period assuming a stable growth rate in perpetuity. \({ }^{437}\)

Dr. Zmijewski's Terminal Value calculation and accompanying analysis mostly relies on his comparable companies analysis, \({ }^{438}\) which I have found not reliable for reasons already stated. Dr. Hubbard used a formula developed by McKinsey \& Co. to calculate Jarden's Terminal Value. The McKinsey formula involves dividing the value of cash flow in the Terminal Period by the difference between the Discount Rate (the rate at which future cash flows are discounted to present) and Jarden's Terminal Growth Rate. \({ }^{439}\) According to Dr. Hubbard, this formula generally provides that "all else remaining equal," a company's terminal value is larger when cash flow is high, and the discount rate is low or the growth rate is high. \({ }^{440}\) The "all else remaining equal" caveat, Hubbard explains, assumes that increased growth will be supported by increased investment which, in turn, reduces cash flow. \({ }^{441}\) In other words, increasing investment in the Terminal Period will proportionately reduce Jarden's cash flow and thereby lower Jarden's measurable value in the Terminal Period. To calculate Jarden's Terminal Value, it is necessary to estimate its Terminal Growth Rate, Terminal Investment Rate and Discount Rate.

\section*{a. Terminal Growth Rate}
*38 "Of all the inputs into a discounted cash flow valuation model, none creates as much angst as estimating the [terminal] growth rate. Part of the reason for it is that small changes in the [terminal] growth rate can change the terminal value significantly[.]"442 The terminal growth rate ("TGR") describes Jarden's long-term growth in revenue, earnings and cash flow in the Terminal Period, which includes the years starting in 2021 and onward. Since acquisitions are typically not considered in organic growth rate calculations, \({ }^{443}\) a
key question is whether Jarden's several tuck-in acquisitions should be included in the TGR. \({ }^{444}\)

Both experts measure Jarden's TGR based on estimates of U.S. nominal GDP growth and long-term economic inflation. This method makes sense and is generally accepted. \({ }^{445}\) The experts disagreed, however, as to what forecast sources provide the most useful data. \({ }^{446}\)

Dr. Zmijewski derived a \(2.1 \%\) projected long-term inflation rate from four estimates of U.S. economic outlooks and an expected nominal GDP growth rate of \(4.3 \%\) from three projections of U.S. GDP growth. \({ }^{447}\) Based on these projections, Dr. Zmijewski applied the midpoint of \(3.2 \%\), which he asserts is a reasonable long-term growth rate for Jarden. \({ }^{448}\) Dr. Zmijewski's TGR analysis included an assessment of the Company's acquisition-driven and organic growth, and the results showed Jarden's historic organic growth rate to be roughly \(3.1 \% .{ }^{449}\) As corroboration, Dr. Zmijewski emphasized that key players in the Merger projected that Jarden would grow between \(2.0 \%\) to \(4.0 \%\) annually in perpetuity. \({ }^{450}\)

For his Composite DCF calculation, Dr. Zmijewski used the \(2.1 \%\) projected U.S. inflationary growth rate as Jarden's TGR. \({ }^{451}\) Dr. Zmijewski explained he used U.S. inflation as Jarden's TGR as a "conservative" measure because the Composite DCF relies on calculations supplemented by comparable companies data, and Jarden's long-term growth was estimated to be much higher than any of the companies in Dr. Zmijewski's peer set. \({ }^{452}\) For his Jarden-Specific DCF analysis, Dr. Zmijewski set Jarden's TGR at 3.2\%, which he suggested conforms to the other Jarden-only measurements and calculations in that valuation. \({ }^{453}\)

Dr. Hubbard's report set Jarden's TGR at \(2.5 \%\) based on several inflation and nominal GDP growth forecasts for the U.S. economy and the European Union's Eurozone. \({ }^{454} \mathrm{He}\) noted that his TGR comports with the TGR utilized by Goldman Sachs and Centerview in advising Newell, both of which used a TGR of \(2.0 \%\) in their valuations of Jarden. \({ }^{455}\) He also pointed to analyst reports by Deutsche Bank and RBC Capital that estimated Jarden's TGR at \(1.5 \%\) and \(2.5 \%\), respectively. \({ }^{456}\) Finally, he noted that his TGR is consistent
with Jarden's historic organic growth, which he determined to be \(2.2 \%\) annually. \({ }^{457}\) With all these factors considered, Dr. Hubbard concluded that his \(2.5 \%\) TGR falls squarely between his estimated range of inflation and nominal GDP and aligns well with Jarden's historic organic growth when fairly adjusted for "tuck-in" acquisitions. \({ }^{458}\)
*39 Dr. Zmijewski took issue with Dr. Hubbard's adjustments for "tuck-ins" because the adjustments result in double counting certain companies that did not fit Jarden's definition of a "tuck-in." \({ }^{459}\) Dr. Hubbard conceded this error, revised his analysis and found Jarden's organic, nonacquisitive growth rate to be \(3.2 \%\) annually. \({ }^{460}\) Despite his upward revision to Jarden's historic organic growth, Dr. Hubbard did not change his \(2.5 \%\) TGR estimate. \({ }^{461}\)

Jarden's "tuck-in" acquisitions, although relatively small in scale, are acquisition-driven growth, not organic growth. \({ }^{462}\) Accordingly, Dr. Hubbard's attempt to account for "tuck-in" acquisitions when estimating Jarden's TGR is well taken. Dr. Hubbard's reluctance, however, to acknowledge the impact of his organic growth rate miscalculation on his estimate of Jarden's TGR is not. \({ }^{463}\) Moreover, considering Dr. Hubbard's revised \(3.2 \%\) historic organic growth rate in light of his economic research supporting long-run inflation in the range of \(2.0 \%\) annually, and nominal GDP growth in the range of \(4.07 \%\) annually, with a midpoint of roughly \(3.04 \%,{ }^{464}\) Dr. Hubbard's 2.5\% TGR is not supported.

Dr. Zmijewski calculated Jarden's historic organic growth rate to be \(3.1 \% .{ }^{465}\) His economic research supported U.S. long-run inflation at \(2.1 \%\) annually and nominal GDP growth at \(4.3 \%\) annually. \({ }^{466}\) And his estimates are within oneor two-tenths of a percentage point of Dr. Hubbard's. The midpoint of each experts' inflation and GDP estimates is approximately \(3.1 \%\), which aligns with Dr. Hubbard's \(3.2 \%\) revised historic organic growth rate and Dr. Zmijewski's 3.2\% midpoint TGR in his Jarden-Specific DCF. \({ }^{467}\) The literature recommends a conservative approach to estimating longterm growth rates for a DCF valuation, in recognition that many companies experience cyclical growth in relation to the overall economy. \({ }^{468}\) Jarden was considered a GDP growth business. \({ }^{469}\)

Based on these factors, and the credible evidence in the trial record, I apply a \(3.1 \%\) TGR. In my view, this reflects the most
credible aspects of the experts' analyses and comports with the most persuasive view of Jarden's historic growth.

\section*{b. Terminal Investment Rate}

The experts' disagreement over the terminal investment rate ("TIR") accounts for \(87 \%\) of the disparity in their DCF valuations. \({ }^{470}\) In other words, of the \(\$ 22.39\) difference between Dr. Hubbard's DCF per share value of \(\$ 48.01\) and Dr. Zmijewski's DCF per share value of \(\$ 70.40, \$ 19.56\) is attributable to the disagreement over Jarden's TIR. After carefully considering the experts' analyses of TIR, and exposing what I believe to be flaws in both, I have determined that an appropriate TIR for Jarden is \(27.75 \%\).
*40 The disagreement between the experts boils down to whether Dr. Hubbard improperly relied upon accounting theory when calculating TIR. \({ }^{471}\) Dr. Zmijewski's approach to Jarden's TIR aligns, in concept, with the Bradley-Jarrell Plowback Formula, which provides, in broad terms, that the rate of reinvestment must be measured by what is realistically required to drive real growth. \({ }^{472}\) Real growth, under the plowback paradigm, is measured by the delta between the company's growth rate and inflationary growth, which is driven by the greater economy and not cash reinvestment. \({ }^{473}\) In other words, as Jarden's growth slowed over time and became steadier, the Company required less capital expenditure to drive real growth because a greater percentage of its overall growth was driven by inflation and broader economic factors. According to Dr. Zmijewski, because Jarden was a steady-growth company that expected lower growth in the Terminal Period, it required a much lower TIR, which he calculated at only \(4.9 \% .{ }^{474}\)

Dr. Hubbard calculated TIR by applying a formula from McKinsey \& Co. \({ }^{475}\) The McKinsey formula posits that a company's return on invested capital ("ROIC") should converge towards its WACC over time. \({ }^{476}\) The formula rests on the premise that a company operating in a competitive industry will not "have both high and rising forever returns on invested capital., \({ }^{477}\) Applying the McKinsey formula, \({ }^{478}\) Dr. Hubbard used \(2.5 \%\) as his TGR and \(7.38 \%\) as his WACC/ ROIC, yielding a TIR of \(33.9 \%\). \({ }^{479}\)

Dr. Zmijewski expressed four principal criticisms of Dr. Hubbard's application of the McKinsey formula. \({ }^{480}\) First,
according to Dr. Zmijewski, Dr. Hubbard incorrectly assumes that any new investment Jarden made starting in 2021 would not create any value. \({ }^{481}\) Second, Dr. Zmijewski believes Dr. Hubbard improperly defined investments to include only working capital and capital expenditures, which, according to Dr. Zmijewski, is the accounting definition of investments (meaning "what you put on a balance sheet") that does not account for real world economics. \({ }^{482}\) In other words, Dr. Hubbard's definition of investment excludes research and development, advertising and human capital expenditures that would create value for Jarden in years beyond 2021. \({ }^{483}\) Third, Dr. Hubbard's definition of net investment as investment above depreciation is, again, an accounting definition that does not fit when calculating TIR. \({ }^{484}\) Fourth, Dr. Hubbard improperly calculated WACC by "using accounting rates of return" instead of "economic rates of return," which do "not measure the same thing." 485
*41 Dr. Hubbard's testimony that, in competitive industries, the return on new invested capital should equal the company's WACC was credible, and it is supported by the valuation treatises. \({ }^{486}\) Although I found credible Dr. Hubbard's wellreasoned premise that companies like Jarden cannot maintain growth without sufficient investment to drive growth above inflation over time, his relatively high TIR raises at least yellow flags. At first glance, the empirical analysis Dr. Hubbard undertook to support his \(33.9 \%\) TIR appears reasonable, particularly given Jarden's historic investment rates, which averaged roughly \(26.9 \%\) of comparable growth over six years. \({ }^{487}\) But why study six years here when Dr. Hubbard's TGR estimation was premised on five years of Jarden's historic growth? \({ }^{488}\) By including the sixth year, 2010, in his calculation, Dr. Hubbard was able to reach a significantly higher number for Jarden's historical average growth. After excluding the 2010 investment rate of \(64.3 \%\), Jarden's five-year average investment rate is \(21.6 \%\).

In view of Jarden's five-year \(21.6 \%\) average historic investment rate, Dr. Zmijewski's \(4.6 \%\) TIR is too low; it unreasonably assumes rising ROIC for more than 40 years into the Terminal Period, unreasonably assumes all new investment in the Terminal Period will be comprised entirely of working capital, and is based on a methodology that conflicts with the valuation goal of striking a balance between investment and growth. \({ }^{489}\) The November Projection's forecast of net investment in 2021 at \(9.8 \%\), likewise, stands out as low relative to Jarden's five-year average investment
rate. The midpoint of Dr. Hubbard's 33.9\% TIR and Jarden management's projected \(9.8 \%\) TIR is roughly \(21.8 \%\). With a calculated TGR of \(3.1 \%\), which coincides with Jarden's historic organic growth rate, the appropriate TIR should reflect Jarden's historic investment rate but account for a slight increase to accommodate sustained growth in the Terminal Period. The credible evidence, in my view, supports a TIR for Jarden of \(27.75 \%{ }^{490}\)

\section*{c. Jarden's Weighted Average Cost of Capital/Discount Rate}

As previously stated, both experts' DCF models used Jarden's WACC as the input for the Discount Rate in the DCF formula. \({ }^{491}\) The Discount Rate converts Jarden's future cash flows from the November Projections to present value as of the Merger Date. \({ }^{492}\) WACC reflects Jarden's cost of equity and debt financing and the relative weight of each in Jarden's capital structure. \({ }^{493}\) Given that a DCF valuation is meant to calculate Jarden's value as a going concern, the components relied upon to calculate WACC should represent Jarden's prospective outlook. \({ }^{494}\) The experts agreed on one of the relevant inputs to calculate Jarden's WACC, the risk-free rate of return. They differed, however, in their respective estimates of Jarden's capital structure, beta, equity risk premium, and whether a size premium was appropriate. \({ }^{495}\) I address each issue below.
*42 The application of a discount rate to financial projections converts the target company's future income stream at its expected opportunity cost of capital to its present value. \({ }^{496}\) A company's WACC represents the cost (to the company) of financing its business operations; it comprises the weighted average of the company's cost of debt and equity: \({ }^{497}\)
\[
\mathbf{w A C C}=\left(r_{\text {equity }} \times \frac{E}{V}\right)+\left(r_{\text {debt }} \times \frac{D}{V} \times(1-t)\right)
\]

\footnotetext{
where:
\(r_{\text {equity }}=\) cost of equity capital
\(E \quad=\quad\) market value of the company's equity
\(r_{\text {debt }}=\) cost of debt capital
\(D \quad=\quad\) value of the company's debt
\(V=E+D=\) total value of the company's equity and debt
\(t\) marginal tax rate
}

\section*{i. Jarden's Capital Structure}

A company's capital structure indicates what percentage of its activities is financed by debt and what percentage is financed by equity. \({ }^{498}\) Determining the correct capital structure is essential to WACC because without a clear picture of a company's debt-to-equity ratio, the cost of financing future operations will be improperly weighted. 499

Both experts recognized the impact of the substantial amount of convertible debt in Jarden's capital structure. \({ }^{500}\) Jarden's convertible debt conceptually existed as both debt and equity components in its capital structure, and both experts valued the debt and equity components of Jarden's convertible notes separately. \({ }^{501}\)

Dr. Zmijewski calculated Jarden's capital structure based on Jarden's median capital structure ratios in the last four quarters before December 4, 2015. \({ }^{502}\) According to the previous year's ratios, Dr. Zmijewski selected a Jarden capitalization ratio of \(69 \%\) combined equity and \(31 \%\) debt. \({ }^{503}\)

For his part, Dr. Hubbard examined Jarden's capital structure ratio for the five years prior to the Merger. \({ }^{504} \mathrm{He}\) noted that Jarden maintained a debt level of roughly \(50 \%\) from the last quarter of 2010 through 2011, but beginning in 2012, Jarden's debt to equity ratio began shifting due to Jarden's increased acquisition activity. \({ }^{505}\) As Jarden stepped up acquisitions between 2012 and 2015, its total debt nearly doubled but its equity value expanded in even greater proportions. \({ }^{506} \mathrm{By}\) the third quarter of 2015, Jarden's market capitalization nearly tripled and its capital structure had shifted from nearly a \(50: 50\) ratio to \(37.5 \%\) debt and \(62.5 \%\) equity. \({ }^{507}\) Following the Yankee Candle acquisition in 2013, Jarden's goal was to de-lever itself to three times its bank leverage-to-EBITDA ratio. \({ }^{508}\)

Dr. Hubbard observed that, in order to capture Jarden's value as a going concern, the capital structure ratio used in the WACC analysis should reflect Jarden's long-run target capital structure. \({ }^{509}\) He concluded that, because Jarden was on a trajectory of lower debt leading up to the Merger, and its longterm goal was to achieve an even lower debt-to-equity ratio, Jarden's average debt in the one-year period before the Merger was the best estimate of Jarden's target capital structure for

WACC. \({ }^{510}\) Based on that judgment, Dr. Hubbard calculated a capital structure equal to Jarden's one-year average ratios of \(36.1 \%\) debt and \(63.9 \%\) equity. \({ }^{511}\)
*43 The valuation literature suggests that because of the increased use of convertible securities, assessing the debt-toEBITDA ratio alongside capital structure helps build a more comprehensive picture of a company's leverage risk. \({ }^{512}\) Both experts were cognizant of the effect of Jarden's convertible securities on its capital structure, and Dr. Hubbard went on to consider changes in Jarden's debt-to-EBITDA ratio and the corresponding effect on Jarden's future leverage risk. \({ }^{513}\)

The two experts relied on one year of debt-to-equity information to calculate their capital structure estimates. Dr. Zmijewski calculated Jarden's capital structure according to its median debt-to-equity ratios prior to the unaffected trading date of December 4, 2015. \({ }^{514}\) That is where Dr. Zmijewski's analysis ended. Dr. Hubbard made a similar assessment of Jarden's capital structure as it stood just prior to the unaffected trading date, but did not end his analysis there. Instead, Dr. Hubbard assessed Jarden's target debt-to-EBITDA ratios, which reflected the capital structure Jarden set as a forwardlooking goal well before merger negotiations began. \({ }^{515}\)

This further analysis makes sense. The cost of capital analysis should be based on target debt-to-equity ratios instead of current ratios. \({ }^{516}\) Target capital structure represents the ratios expected to prevail over the life of the business and the literature stresses that relying solely on current capital structure can distort the cost of capital analysis. \({ }^{517}\) Overly optimistic capital structure targets must be accounted for if they are expected to take many years to be realized. \({ }^{518}\) Jarden's target capital structure and debt-to-EBITDA ratio was not overly optimistic under the circumstances. As of 2015's third quarter, Jarden's leverage had shifted downward to \(37.5 \%\) as its market capitalization grew, \({ }^{519}\) and Jarden planned to continue its deleveraging strategy until it reached a debt-to-EBITDA ratio of 3.0x. \({ }^{520}\) Adjusting Jarden's 37.5\% debt as of September 30, 2015, to conform to its target leverage ratio would lower Jarden's debt ratio to \(33.3 \%\). \({ }^{521}\) Based on the dramatic swings in Jarden's capital structure in the five years prior to the Merger, a \(4.2 \%\) deleveraging was well within Jarden's ability to achieve in the short term.

Because Dr. Hubbard's analysis conservatively includes Jarden's forward-looking target capital structure in his capitalization analysis, I adopt Dr. Hubbard's capital structure of \(63.9 \%\) equity and \(36.1 \%\) debt. \({ }^{522}\) Accordingly, I adopt Hubbard's estimated equity and debt values for Jarden at \(\$ 10,596,000,000\) and \(\$ 5,043,000,000\), respectively. \({ }^{523}\)

\section*{ii. Jarden's Cost of Debt}

A company's cost of debt reflects "the current cost to the firm of borrowing funds to finance projects. \({ }^{, 524}\) Generally, it is derived from three variables: (1) the riskless rate, (2) the default risk (and associated default spread) of the company and (3) the tax advantage associated with debt. \({ }^{525}\)
*44 Dr. Zmijewski estimated Jarden's after-tax Cost of Debt at \(2.8 \% .{ }^{526} \mathrm{He}\) arrived at this figure by calculating a Debt Beta of 0.36 based on Moody's Long-Term Corporate Family Rating of Ba3 for Jarden as of December 4, 2015, and the Duff \& Phelps debt beta estimate for Ba debt as of March 2016. \({ }^{527}\)

Dr. Hubbard estimated Jarden's Cost of Debt based on a tax adjusted yield to maturity rate of \(5.30 \% .{ }^{528}\) This yielded a Cost of Debt of 3.2\%. \({ }^{529}\)

I agree with Dr. Zmijewski that calculating the cost of below-investment-grade debt by using yield to maturity sets the cost of debt too high. \({ }^{530}\) I adopt his Cost of Debt of \(2.8 \%\)

\section*{iii. Jarden's Tax Rate}

Jarden's tax rate is \(35 \%\), which is the top marginal corporate tax rate for U.S. companies at the time of the Merger. \({ }^{531}\)

\section*{iv. Jarden's Cost of Equity}

Establishing an accurate Cost of Equity is an essential subcomponent of Jarden's WACC. Both experts used the Capital Asset Pricing Model ("CAPM") to calculate Jarden's cost of equity capital. \({ }^{532}\) This approach calculates Jarden's risk separately from systematic risk to produce a reliable estimate of Jarden's Cost of Equity. \({ }^{533}\) CAPM has four components: the risk-free rate, equity beta, equity risk
premium, and if necessary, a size premium. \({ }^{534}\) Following
CAPM, a company's cost of equity is calculated as follows: \({ }^{535}\)
\[
r_{\text {equity }}=r_{\text {no-risk }}+(\beta \times E R P)+S S
\]
\begin{tabular}{rll} 
where: & \\
\(r_{\text {no-risk }}\) & \(=\) & risk-free rate of return \\
\(\beta\) & \(=\) & beta coefficient of the subject company \\
\(E R P\) & \(=\) & equity risk premium \\
\(S S\) & & size premium
\end{tabular}

\section*{- The Risk-Free Rate}

The only point of agreement between the experts in the WACC analysis is the risk-free rate of return. Both experts set their analyses' risk-free rate at the 20-year constant maturity U.S. Treasury Bonds return as of the Merger. \({ }^{536}\) That rate was \(2.14 \% .{ }^{537}\) Relying on 20 -year U.S. Treasury Bonds for the risk-free rate is universally accepted practice in corporate valuation. \({ }^{538}\)

\section*{- Beta}

Beta, in short, is a measurement of the systemic risk that a particular security adds to a market portfolio. \({ }^{539}\) The consensus from the corporate finance literature in the record is that the conventional approach for estimating equity beta for a publicly traded company, like Jarden, is through a regression analysis of the historical returns of its stock against the returns of a market index. \({ }^{540}\) In other words, equity beta is derived by assessing a stock's sensitivity to and correlation with changes in the aggregate market. A beta regression analysis requires three parameter-setting choices. First, the time period for measuring returns must be established. \({ }^{541}\) Second, the return interval at which measurements will be taken over the duration of the designated time period must be specified. \({ }^{542}\) Third, an appropriate market index must be identified that will represent the cumulative market over time as a control to measure the target company's market price. \({ }^{543}\)
*45 The experts disagreed on the relevant time periods and return intervals to use in their regression analyses. From the evidence, it appears the most appropriate (and commonly used) parameters are two- or five-year time periods and weekly or monthly return intervals. \({ }^{544}\)

The control market index should be one developed from the exchange where the target company's stock trades. \({ }^{545}\) For companies traded on the NYSE, like Jarden, it is reasonable to use either the NYSE Composite or the S\&P 500 Index. \({ }^{546}\) The experts agreed that the S\&P 500 is an appropriate market index and both used the S\&P 500 as their control to measure Jarden. \({ }^{547}\)

In addition, both experts relied on Jarden's historical market returns data and estimated Jarden-specific betas. Yet, they disputed whether it was necessary to balance Jarden's beta with betas estimated from historical returns of comparable companies.

In his report, Dr. Zmijewski calculated two equity betas to use in his Jarden-Specific DCF and Composite DCF analyses. To estimate Jarden's beta as of the Merger Date, Dr. Zmijewski measured the equity beta for Jarden and for each of a list of comparable companies based on five years of weekly returns ending on the Merger Date. \({ }^{548} \mathrm{He}\) then performed a regression analysis for each company against the S\&P 500 for the same period that showed Jarden's unlevered beta was 1.04 and that the unlevered beta for his comparable companies (plus Jarden) was \(0.86 .{ }^{549}\) Finally, he made adjustments to account for Jarden's cash and other financial assets and relevered each beta to produce a Jarden-specific equity beta of 1.24 (the "Jarden-Specific Beta") and a combined equity beta for his comparable companies (plus Jarden) of 1.01 (the "Composite Beta"). \({ }^{550}\)

Dr. Hubbard's regression analysis yielded an equity beta of 1.18 (the "Hubbard Beta") that was based on Jarden's daily returns for one year ending on December 4, 2015. \({ }^{551}\) Unlike Dr. Zmijewski, Dr. Hubbard did not balance his Jarden-specific beta regression analysis with beta estimates of comparable companies. Instead, he regressed Jarden's single year daily returns against the S\&P 500 during the one-year period and calculated an unlevered beta of 0.771. \({ }^{552}\) Like Dr. Zmijewski, he then adjusted for cash and financial assets and re-levered the beta to produce a Jarden equity beta of 1.18. \({ }^{553}\) Dr. Hubbard also calculated Jarden-specific betas from two years of weekly returns and five years of monthly returns, but ultimately decided to use the single year daily returns beta to mitigate the potential confounding effects of several large acquisitions Jarden completed in the five years prior to the Merger. \({ }^{554}\) Dr. Hubbard explained that he chose the year
ending on December 4, 2015, in order to avoid contaminating his regression analysis with news of the possible merger. \({ }^{555}\)
*46 The literature in the record supports the use of comparable companies in a beta regression because companies in the same industry face similar "operating risks" and therefore should have similar operating betas. \({ }^{556}\) This, of course, assumes that "truly" comparable peers exist that can meaningfully be compared to the target company. \({ }^{557}\) Here again, Dr. Zmijewski failed convincingly to demonstrate that his comparable companies shared similar risk profiles with Jarden. \({ }^{558}\) As Dr. Hubbard persuasively testified, Dr. Zmijewski provided no analysis or discussion to support this assumption. \({ }^{559}\) Without a thorough explanation and corroborating evidence of how Dr. Zmijewski's comparable companies had risk profiles comparable to Jarden's "complex" \({ }^{\text {" }} 60\) and "unique" \({ }^{561}\) structure and business model, I am disinclined to consider on Dr. Zmijewski's Composite Beta.

Jarden's stock consistently traded in the upper quartile of market volume on the NYSE from 2011 to 2015. \({ }^{562}\) And its share price had a positive correlation with the market, as defined by the S\&P 500, throughout the same time period. \({ }^{563}\) With this in mind, I am persuaded that Dr. Hubbard's decision to use daily interval measurements is reasonable, and his opinion that Jarden's market returns data provide a reliable measurement of Jarden's beta is supported by the literature in the record. \({ }^{564}\)

Dr. Hubbard corroborated his calculated beta with a second regression using two-year weekly returns that yielded a Jarden-specific beta of \(1.22 .{ }^{565}\) Dr. Zmijewski's beta estimates were derived from a five-year period of weekly returns, and his Jarden-specific analysis produced a beta of 1.24 for Jarden alone. \({ }^{566}\) The spread between Dr. Hubbard's beta and Dr. Zmijewski's Jarden-specific beta is 0.06 , which, according to the literature, suggests that the Jarden-specific beta estimates have a low error rate across different time and interval measurements. \({ }^{567}\) A narrow error rate between firmspecific beta estimates of different intervals and time periods indicates the estimates are converging on the company's true beta. \({ }^{568}\)

Moreover, it is important to note that, when estimating beta, the goal is to evaluate Jarden's future beta, and by extension,
the sensitivity of Jarden's share price to future market risk as predicted by its historical performance. \({ }^{569}\) Because betas generally converge on the general market beta (1.0) over time, \({ }^{570}\) and Jarden, by all indicators, was a mature, highly traded company, I am satisfied that Dr. Hubbard's beta (1.18) is a reasonable estimate of Jarden's share price sensitivity to future market risk.

\section*{- Equity Risk Premium}
*47 Equity Risk Premium ("ERP") "captures the compensation per unit of risk that investors demand in order to hold risky investments rather than riskless investments."571 The experts' disagreement over the proper methodology for estimating Jarden's ERP reflects the lack of consensus regarding this issue within the valuation community at large. \({ }^{572}\) One aspect of the broader debate that has played out here is whether to approach ERP as Long-Term Historical ERP, Supply-Side ERP, or an adjusted hybrid ERP derived from the available data. As explained by Dr. Hubbard, when appraisers estimate ERP from Long-Term Historical ERP, they consult historical data regarding stock premiums, in his case from 1926 through 2015. \({ }^{573}\) As explained by Dr. Zmijewski, Supply-Side ERP incorporates adjustments to the Long-Term Historical ERP to account for a long-term decline in risk premiums that upwardly bias the Long-Term Historical rate in order more effectively to represent recent market conditions. \({ }^{574}\)

Dr. Zmijewski set Jarden's ERP at the Supply-Side ERP estimate of \(6.03 \% .{ }^{575}\) Dr. Hubbard determined the proper ERP to be \(6.47 \%\), which is the mid-point between the Long-Term Historical ERP and Supply-Side ERP. \({ }^{576}\) After considering the evidence, I am satisfied that Dr. Zmijewski's estimate of ERP reflects a more principled approach. First, there is strong support for the use of the forward-looking Supply-Side ERP in the valuation literature. \({ }^{577}\) Second, as Dr. Zmijewski persuasively observes, Dr. Hubbard's "midpoint" ERP estimate is unexplained and appears to lack any methodological foundation. \({ }^{578}\)

\section*{- Size Premium}

Dr. Zmijewski opined that a size premium must be incorporated in the calculation of Jarden's equity cost of capital given that, according to the Duff \& Phelps classification, Jarden is within the second decile of public companies, which justifies a size premium of \(0.57 \%\). \({ }^{579} \mathrm{Dr}\). Hubbard implied that a Size Premium was not necessary but provided no credible explanation for that position. \({ }^{580}\) The valuation texts in the record make the point that beta captures some, but not all of a company's size premium and that a size premium is an empirically observed correction to the CAPM. \({ }^{581}\) I agree with Dr. Zmijewski and the literature that the CAPM should include a size premium when appropriate, as here, and adopt his size premium of \(0.57 \%\) for Jarden.

Dr. Zmijewski calculated a Composite Cost of Equity, but for reasons previously stated, I have disregarded estimates based on Jarden's so-called comparable companies. Dr. Zmijewski calculated a Jarden-specific Cost of Equity at \(10.21 \%\). \({ }^{582}\) Dr. Hubbard calculated Jarden's Cost of Equity at \(9.74 \%\). \({ }^{583}\) In my view, for reasons stated, neither view lines up entirely with the credible evidence. Accordingly, I have calculated Jarden's Cost of Equity with the following CAPM inputs that reflect what I deem proven by a preponderance of the evidence: Dr. Hubbard's Beta of 1.18, Dr. Zmijewski's EquityRisk Premium of \(6.03 \%\), Dr. Zmijewski's Size Premium of \(0.57 \%\) and both experts' risk-free rate of \(2.14 \%\). With these inputs, I have calculated Jarden's Cost of Equity to be \(9.83 \%\).

Jarden's Calculated WACC: Dr. Zmijewski calculated a Jarden-Specific WACC of 7.88\%. \({ }^{584}\) Dr. Hubbard calculated a WACC of \(7.38 \% .{ }^{585}\) Once again, for reasons stated, I have found that neither experts' calculated WACC is supported entirely by the credible evidence. Instead, I calculate WACC with the following inputs: a \(9.83 \%\) Cost of Equity, a \(2.8 \%\) Cost of Debt, a \(35 \%\) marginal tax rate and a capital structure of \(63.9 \%\) equity and \(36.1 \%\) debt. These inputs yield a WACC of \(6.94 \%\) for Jarden. \({ }^{586}\) Thus, I adopt a Discount Rate of \(6.94 \% .{ }^{587}\)

\section*{3. The Final Calculation of Terminal Value}

Based on the credible evidence, I calculate Jarden's terminal value to be \(\$ 17.7\) billion, using the following equation: \({ }^{588}\)
\[
T V_{t}=\frac{N O P L A T P A_{T+1}\left(1-\frac{g_{\infty}}{R O I C}\right)}{W A C C-g_{\infty}}
\]
\begin{tabular}{lll} 
where: & \\
& \\
TV & & terminal value (at time T) \\
NOPLATPA \(A_{T+1}\) & \(=\quad\) unlevered free cash flow (at time T +1 ) \\
ROIC & \(=\quad\) incremental return on new invested capital \\
\(g_{\infty}\) & \(=\) & terminal growth rate \\
WACC & \(=\quad\) Weighted Average Cost of Capital
\end{tabular}

In order to arrive at the unlevered free cash flow for year 2021, I subtracted the predicted revenue for 2021 from the predicted capital expenditures for \(2021 .{ }^{589}\) The predicted revenue for 2021 is \(\$ 12.9\) billion, \(4.964 \%\) higher than the 2020 revenue. \({ }^{590}\) The predicted capital expenditure for 2021 is \(\$ 334\) million, \(2.6 \%\) higher than the 2020 capital expenditure. \({ }^{591}\)

\section*{4. The DCF Calculation of Fair Value}

Using \(6.94 \%\) as the Discount Rate, I calculate Jarden's enterprise value using the following formula: \({ }^{592}\)
\[
E V=\sum_{t=1}^{t=\infty} \frac{F C F_{t}}{(1+W A C C)^{t}}
\]


The final adjusted enterprise value is \(\$ 16.6\) billion. \({ }^{593}\)

\section*{5. Jarden-Specific Adjustments to the DCF Valuation}
*49 In order to determine the final share price under a DCF approach, the appraiser must account for Jarden's excess cash and debt in its enterprise value. \({ }^{594}\) Dr. Hubbard additionally adjusts for tax effects related to future profits not captured by tax rates, liability from net unrecognized tax benefits and pensions. \({ }^{595}\) I do not find any of Dr. Hubbard's arguments for these additional adjustments persuasive and, in any event, his proposed further adjustments have a marginal impact on the final share value. \({ }^{596}\)

\section*{a. Excess Cash}

Companies commonly keep liquid cash in order to conduct their operations. \({ }^{597}\) If the company holds more cash than necessary, the surplus is a source of value to the equity holders and must be added to the DCF valuation. \({ }^{598}\) Jarden held \(\$ 799\) million of cash and cash equivalents at the end of the first quarter of 2016. \({ }^{599}\) As of the Merger, Jarden required \(\$ 50\) million in cash for working capital purposes. \({ }^{600}\) The excess cash balance, or the difference between the total cash and the required cash, is \(\$ 749\) million, which I add to the enterprise value.

\section*{b. Nonconvertible Debt}

As of March 31, 2016, Jarden's non-convertible debt totaled \(\$ 5.04\) billion. \({ }^{601}\) Debt is a claim on the assets of the firm and must, therefore, be subtracted from the DCF enterprise value. \({ }^{602}\)

\section*{c. Convertible Debt}

To measure the value of Jarden's unconverted convertible notes at the Merger Date, Dr. Hubbard uses a standard options pricing methodology to estimate the embedded warrants value since they are economically analogous to an option on Jarden's common stock. \({ }^{603}\) This formula relies on various inputs for each series of notes, including the time remaining until maturity, the conversion price, the current value of Jarden's stock, the risk-free rate and the expected volatility of Jarden's stock returns. \({ }^{604}\) Using these inputs, Dr. Hubbard estimated the equity components of the convertible notes to be \(\$ 0.71\) billion in total at the Merger Date. \({ }^{605} \mathrm{He}\) further valued the debt component of the convertible notes by discounting the remaining coupons and principal value of each note at Jarden's \(5.3 \%\) cost of debt. In total, the value of the debt component of the convertible notes is \(\$ 1.00\) billion. The total value of Jarden's convertible securities is the sum of the debt and equity components. At the Merger Date, the value of Jarden's convertible debt totaled \(\$ 1.71\) billion. \({ }^{606} \mathrm{Dr}\). Hubbard's approach was conservative, made sense and I adopt it here.

\section*{6. Number of Shares}

I calculate the shares outstanding, following Dr. Zmijewski's calculation, \({ }^{607}\) by subtracting the Jarden stock awards issuable to executives in connection with the merger transactions and the Jarden common stock expected to be issued upon assumed conversion of outstanding Jarden convertible notes from the total estimated shares of Jarden's common stock entitled to the Merger consideration. With these inputs, the total amount of outstanding shares and restricted stock units as of the Merger was 219.9 million common shares. \({ }^{608}\)

\section*{7. Equity Value per Share from DCF Analysis}
*50 After adding non-operating assets to the enterprise value, and subtracting non-operating liabilities, Jarden's equity value as of the Merger Date was \(\$ 10.59\) billion. On a per share basis, the DCF valuation is \(\$ 48.13\).

\section*{REMAINDER OF PAGE INTENTIALLY LEFT BLANK}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multicolumn{7}{|c|}{Discounted Cash Flow Analysis \({ }^{609}\)} \\
\hline (S in Millions, except per share value) & FY16 & FY17 & FY18 & FY19 & FY20 & FY21 \\
\hline Revenue \({ }^{610}\) & \$10,147 & \$10,640 & \$11,172 & \$11,731 & \$12,317 & \$12,928 \\
\hline Growth Rate & - & 4.9\% & 5.0\% & 5.0\% & 5.0\% & 5.0\% \\
\hline Unlevered Cash Flow from Operations & \$869.05 & \$966.55 & \$1,062 & \$1,145.95 & \$1,235 & \$1,273 \\
\hline Capital Expenditures \({ }^{611}\) As \% of Revenue & \[
\begin{aligned}
& \$ 297 \\
& 2.9 \%
\end{aligned}
\] & \[
\begin{aligned}
& \$ 266 \\
& 2.5 \%
\end{aligned}
\] & \[
\begin{aligned}
& \$ 279 \\
& 2.5 \%
\end{aligned}
\] & \[
\begin{aligned}
& \$ 293 \\
& 2.5 \%
\end{aligned}
\] & \[
\begin{aligned}
& \$ 308 \\
& 2.5 \%
\end{aligned}
\] & \[
\begin{aligned}
& \$ 334 \\
& 2.6 \%
\end{aligned}
\] \\
\hline Unlevered Free Cash Flow Terminal Value & \$572 & \$701 & \$783 & \$853 & \$927 & \[
\begin{aligned}
& \$ 939 \\
& \$ 17,688
\end{aligned}
\] \\
\hline Time Perioditz & 0.36 & 1.21 & 2.22 & 3.22 & 4.22 & 4.22 \\
\hline Discounted Cash Flows & \$558 & \$646 & \$675 & \$687 & \$698 & \$13,326 \\
\hline Enterprise Value & \$16,591 & & & & & \\
\hline Non-Convertible Debt & \((\$ 5,043)\) & & & & & \\
\hline Value of Convertible Debt & (\$1,712) & & & & & \\
\hline Cash & \$749 & & & & & \\
\hline Equity Value & \$10,585 & & & & & \\
\hline Shares & 219.9 & & & & & \\
\hline Share Price & \$48.13 & & & & & \\
\hline
\end{tabular}
[Editor's Note: The preceding image contains the reference for footnote \({ }^{609,610,611,612}\) ]

\section*{8. The DCF Valuation Comports With the Market Evidence}

As indicated above, I have determined that the Unaffected Market Price, \(\$ 48.31\), is a reliable indicator of Jarden's fair value as of the Merger Date. While I have questioned the reliability of the Merger price less synergies approach, I recognize that the most reliable estimate of fair value under that approach is approximately \(\$ 46.21\). My DCF valuation yields a fair value of \(\$ 48.13\). What stands out here, of course, is that Petitioners' proffered estimate of fair value for Jarden of \(\$ 71.35\) is, to put it mildly, an outlier.

Based on the preponderance of evidence, I am satisfied that the Unaffected Market Price is the best evidence of Jarden's fair value on the Merger Date. Insofar as I am obliged to articulate a principled, evidence-based explanation for the delta between the Unaffected Market Price and the DCF valuation (here, \(\$ 0.18\) per share), I am satisfied the difference reflects the subjective imperfections of the DCF methodology. The DCF valuation corroborates the most persuasive market evidence and provides comfort that I have appraised Jarden as best as the credible evidence allows.

\section*{III. CONCLUSION}

For the foregoing reasons, I have found the fair value of Jarden shares as of the Merger was \(\$ 48.31\) per share. The legal rate of interest, compounded quarterly, shall accrue from the date of closing to the date of payment. The parties shall confer and submit an implementing order and final judgment within ten days.

\section*{All Citations}

Not Reported in Atl. Rptr., 2019 WL 3244085

\section*{Footnotes}

1 Trial Tr. 1315:21-1316:5.
28 Del. C. §262(h).
3 DFC Global Corp. v. Muirfield Value P'rs, L.P., 172 A.3d 346, 367 (Del. 2017). DFC explained that the statutory definition of fair value has been distilled further to require the court "to value the company on its stand-alone value." Id. at 368.
4 Id. at 367 (citing Cavalier Oil Corp. v. Hartnett, 564 A.2d 1137 (Del. 1989)). As the Court further explained, "the definition of fair value used in appraisal cases is a jurisprudential concept that has certain nuances that neither an economist
nor market participant would usually consider when either valuing a minority block of shares or a public company as a whole." ld.
5 Gilbert v. M.P.M. Enters., Inc., 1998 WL 229439, at *3 (Del. Ch. Apr. 24, 1998) (noting that while certain approaches to a DCF valuation might be endorsed in other cases, the experts endorsing those approaches had not been "subject to the crucible of cross-examination" in the appraisal trial conducted by the court and the court would not consider their testimony from other cases). See also Merion Capital L.P. v. Lender Processing Servs., Inc., 2016 WL 7324170, at *16 (Del. Ch. Dec. 16, 2016) (noting that the "relevant factors" informing the fair value determination will "vary from case to case depending on the nature of the [acquired] company"); DFC, 172 A.3d at 388 (observing: "[i]n some cases, it may be that a single valuation metric is the most reliable evidence of fair value and that giving weight to another factor will do nothing but distort that best estimate. In other cases, it may be necessary to consider two or more factors."); D.R.E. 702 (recognizing that lay fact-finders may rely upon expert testimony when the expert's "scientific, technical or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue"). In this regard, it is worth noting that submitting the fair value determination to a "court-appointed 'appraiser' " was "essentially required practice under the appraisal statute before 1976." Lawrence A. Hammermesh \& Michael L. Wachter, Finding the Right Balance in Appraisal Litigation: Deal Price, Deal Process, and Synergies, 73 Bus. Law 961, 976 (2018). Now that expert "appraisers" have been "eliminated as a statutory requirement," it is for the court to decide fair value based on its assessment of the factual evidence presented at trial, including expert evidence, using traditional fact-finding methods. Id.
6 See DFC, 172 A.3d 346; Dell, Inc. v. Magnetar Global Event Driven Master Fund Ltd., 177 A.3d 1 (Del. 2017); Verition P'rs Master Fund Ltd. v. Aruba Networks, Inc., 2019 WL 1614026 (Del. Apr. 16, 2019).
\(7 \quad\) DFC, 172 A.3d at 388.
8 In this regard, I reiterate with renewed appreciation then-Chancellor Chandler's astute observation in the Technicolor, Inc. appraisal saga:
[V]aluation decisions are impossible to make with anything approaching complete confidence. Valuing an entity is a difficult intellectual exercise, especially when business and financial experts are able to organize data in support of wildly divergent valuations for the same entity. For a judge who is not expert in corporate finance, one can do little more than try to detect gross distortions in the experts' opinions. This effort should, therefore, not be understood, as a matter of intellectual honesty, as resulting in the fair value of a corporation on a given date. The value of a corporation is not a point on a line, but a range of reasonable values, and the judge's task is to assign one particular value within this range as the most reasonable value in light of all the relevant evidence and based on the considerations of fairness.
Cede \& Co. v. Technicolor, Inc., 2003 WL 23700218, at *2 (Del. Ch. Dec. 31, 2003), aff'd in part, rev'd in part on other grounds, 875 A.2d 602 (Del. 2005), withdrawn from bound volume, opinion amended and superseded, 884 A.2d 26 (Del. 2005).
9 Respondent's expert undertook a precedent transactions analysis as well but the parties did not engage on this valuation approach at trial, so I will not address it here. See JX 1816 at \(\mathbb{1} 11\).
10 DFC, 172 A .3 d at 369-70 (observing that "[m]arket prices are typically viewed [as] superior to other valuation techniques because, unlike, e.g., a single person's [DCF] model, the market price should distill the collective judgment of the many based on all the publicly available information about a given company and the value of its shares.").
11 See ACP Master, Ltd. v. Sprint Corp., 2017 WL 3421142, at *31 (Del. Ch. July 21, 2017) (collecting cases and noting that if the court were to rely upon "deal price, it would have to determine the value of synergies and back them out.").
12 To the extent the parties sought to rely upon valuation texts or articles addressing valuation methodologies, they were directed to submit these sources as evidence in the case. Unlike a law review article cited by a party in support of a legal proposition, a text or scholarly article addressing economic or valuation principles contains factual matter, the admissibility of which must be tested under Delaware's Uniform Rules of Evidence. In my view, it is not proper for parties to an appraisal case, or any other case for that matter, to refer to, or expect the court sua sponte to refer to, a scholarly work addressing a matter that has been the subject of expert testimony without first having the work received as evidence in the case or at least tested under evidentiary standards. Nor is it proper, in my view, for parties to an appraisal case to cite to decisions of this court, or our Supreme Court, for the proposition that a particular valuation methodology should be applied to value the target company. While legal authority may support the contention that a valuation methodology has been accepted by Delaware courts as generally reliable, I see no value in referring to the factual conclusions of another court in another case while appraising the fair value of another company when attempting to fulfill the statutory mandate that I determine the fair value of this Company.

13 Dell, 177 A.3d at 21 (quoting Golden Telecom, Inc. v. Global GT LP, 11 A.3d 214, 218 (Del. 2010) (emphasis in original)) see also Gholl v. eMachines, Inc., 2004 WL 2847865, at *5 (Del. Ch. Nov. 24, 2004) (noting that both parties bear a burden of proof in a statutory appraisal trial and holding that, "[i]f neither party satisfies its burden ... the court must then use its own independent business judgment to determine fair value.").
14 Stip. Joint Pre-Trial Order ("PTO") \(\boldsymbol{\Pi} \uparrow 1,6,36\).
15 PTO 141 . Trial Tr. 49:20-50:10 (Lillie). Because consumable household staples primarily comprised Jarden's product offerings, Jarden's growth correlated to Gross Domestic Product ("GDP") growth. JX 860 at 1 ("As we suspected [Jarden] is a GDP growth business").
PTO \(\mathbb{T} 36\).
ld. \(\ddagger 39\).
ld. \(\uparrow 1\).
Id. \(\mathbf{I T 1 1 4 - 3 5 .}\)
JX 1780 (Franklin Dep.) at 5:14-18.
JX 1778 (Ashken Dep.) at 77:11-17.
JX 1778 (Ashken Dep.) at 9:3-5; JX 1780 (Franklin Dep.) at 5:20-25.
PTO 962.
JX 1777 (Lillie Dep.) at 195:17-23.
PTO 154.
JX 1778 (Ashken Dep.) at 8:24-11:5.
Trial Tr. 368:3-19 (Franklin).
Trial Tr. 367:15-22, 467:20-22 (Franklin).
JX 1778 (Ashken Dep.) at 11:9-10, 15:20-22.
Id. at 10:20-11:10.
PTO \(\mathbb{1} 38\).
JX 1777 (Lillie Dep.) at 11:5-12:24, 49:6-50:13.
JX 502 at 5; JX 1804 (Polk Dep.) at 17:15-21.
34 ld.
35 JX 502 at 6.
\(36 \quad l d\) at 21.
37 JX 1192 at 11; JX 1777 (Lillie Dep.) at 11:5-14; JX 1775 (Sansone Dep.) at 101:5-20, 146:21-147:3.
38 JX 786 at 17.
39 Trial Tr. 423:1-9 (Franklin).
40 Trial Tr. 451:14-18, 451:19-21(Franklin); Trial Tr. 81:10-11 (Lillie) ("Q. That was one quarter miss in 13 years? A. Yes."); JX 1779 (Tarchetti Dep.) at 265:16-266:7.
41 Trial Tr. 53:12-24 (Lillie); JX 1459 ("Consistent with its guidance, the Company expects that net sales for 2015 will be approximately \(\$ 8.6\) billion").
42 JX 1519 at 47.
43 See JX 1816 at \(\uparrow 47\). The S\&P 400 refers to the Standard \& Poor's MidCap 400 index.
44 ld.
45 Id. at \(\mathbf{9 T 4 6 - 4 8}\) and Figure 11; JX 1439.
46 JX 1816 at \(9 \uparrow 45-48\).
47 Id. at \(9 T 48-50\); see also Trial Tr. 1019:24-1020:23 (Hubbard).
48 Trial Tr. 370:17-18 (Franklin) ("We were building a business, both organically and by acquisition."); JX 578 at 33.
49 JX 1519 at 40, 44; JX 30 at 36; JX 502 at 19; JX 1459.
50 JX 1519 at 40.
51 Trial Tr. 125:12-22 (Gross); JX 502 at 25; JX 1773 (Talwar Dep.) at 21:19-22:3, 27:6-10.
52 The strategy included targeting: (i) category-leading positions in niche consumer markets; (ii) with recurring revenue and margin growth channels; (iii) robust cash flow characteristics, including substantial EBITDA multiples; (iv) a successful management team; and (v) strong transaction valuations, with value-generating presynergies. JX 502 at 25.
JX 1778 (Ashken Dep.) at 24:25-25:21; JX 1773 (Talwar Dep.) at 28:4-13.
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54
ld.
55 JX 1777 (Lillie Dep.) at 133:2-21; JX 1773 (Talwar Dep.) at 27:11-24.
56 JX 502 at 11.
[We] ... looked at everything. Again, it goes back to being professional opportunists, in terms of building a business.
You've got to-you know, we were a fairly unusual group. We started from a \$200 million business 15 years prior, to
becoming a 10-plus billion dollar business }15\mathrm{ years later. It wasn't done from sitting behind a desk. We were building
a business, both organically and by acquisition.
Trial Tr. 370:11-18 (Franklin).
PTO \40.
JX 763 at 25.
JX 514 at 10.
JX 1393.
JX 763 at 22.
ld. at 17.
JX 1795 at 21.
PTO \$110.
JX 527 at 23, 26.
66 ld. at 23; JX 606 at 3-4.
67 PTO \113.
68 JX 726 at 15.
69 ld.
70 Trial Tr. 455:3-9 (Franklin) ("Q. And in 2015, you were spending real money on direct-to-consumer and expanding your
distribution channels. Correct? A. Well, we bought a business that expanded our distribution capabilities. We bought
Jostens for the same kind of reason. It gave us a different access into schools.").
71 JX 726 at 11; JX 823 at 3-4.
72 JX 726 at 12.
73 JX 1816 at \946-48, Figure 11; JX 1439.
74 PTO \234. As of the Merger Date, Ashken was a director of Platform. Id. \61; JX 576 at 2.
75 PTO {235. As of the Merger Date, Lillie was a director of Nomad. Id. \63.
76 JX 1780 (Franklin Dep.) at 359:15-16; PTO {97. Lillie and Ashken were also investors in Mariposa. Trial Tr. 527:11-
13 (Franklin).
77 PTO \282. But for the Merger, Franklin would have pursued the Royal Oak transaction for Jarden. Trial Tr. 559:4-560:5
(Franklin). Jarden's lead independent director, Michael Gross, also participated in the Royal Oak acquisition. Id.; JX 1807
(Gross Dep.) at 14:22-15:10. Gross and Franklin have been close personal friends for 30 years. JX }1807\mathrm{ (Gross Dep.)
at 15:14-18.
PTO \249; JX 1807 (Gross Dep.) at 93:7-8. Ashken and Lillie were also investors in J2. JX 1770.
JX 765; JX 1804 (Polk Dep.) at 71:20-72:12; JX 1779 (Tarchetti Dep.) at 164:14-165:3.
JX 533; JX 490; PTO \125; Trial Tr. 584:12-585:24 (Polk). Phillips previously worked opposite Franklin in a transaction
with Nomad. Trial Tr. 585:14-18 (Polk); Trial Tr. 373:6-18 (Franklin).
81 Trial Tr. 576:5-13 (Polk); JX 490; JX 524; PTO \123.
82 JX 533; PTO \125.
83 JX 576 at 2.
84 ld.
85 JX 1807 (Gross Dep.) at 28:9-19; JX 1788 (L'Esperance Dep.) at 121:10-122:3; JX 1786 (Wood Dep.) at 157:25-158:14.
86 PTO \79. Newell was a member of the NYSE and the S\&P 500. PTO |84. It was followed by at least 16 financial analysts
and, like Jarden, its stock exhibited the attributes of a narrow "bid-ask spread," a high average trading volume and a
large public float. JX 1816 at \57, Figure 15.
87 Trial Tr. 566:21-567:8 (Polk).
88 Trial Tr. 567:9-569:3 (Polk); see also Trial Tr. 721:22-722:5 (Torres).
89 PTO \80. Trial Tr. 566:11-20 (Polk).
90 Trial Tr. 566:11-20 (Polk).

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91 Trial Tr. 567:20-569:3 (Polk).
92 Trial Tr. 571:2-7 (Polk).
93 Trial Tr. 571:20-572:2 (Polk).
94 Trial Tr. 572:6-574:19 (Polk).
95 Trial Tr. 576:12-582:1 (Polk). See JX 655; JX 860.
96 Trial Tr. 581:10-17 (Polk).
97 Trial Tr. 581:18-582:1 (Polk).
98 Trial Tr. 584:12-24 (Polk); Tr. 373:19-24 (Franklin).
99 Trial Tr. 375:5-14 (Franklin). As Franklin explained, "[i]f a CEO wants to meet with me, I'll always want to meet with him." Trial Tr. 376:17-20 (Franklin).
100 JX 902; PTO ITI127, 129.
101 Trial Tr. 588:3-13 (Polk).
102 Trial Tr. 586:14-21 (Polk).
103 Trial Tr. 376:13-20 (Franklin); Tr. 588:22-589:7 (Polk).
104 JX 902 at 2.
105 Id.
106 JX 1788 (L'Esperance Dep.) at 54:13-22; JX 1786 (Wood Dep.) at 25:2-7, 26:10-19. The Board met on September 28, 2015, but the minutes do not reflect any discussion of a potential transaction with Newell or Franklin's September 9th meeting with Polk. See JX 691; PTO ๆ131.
107 Trial Tr. 378:24-380:18, 480:16-17 (Franklin); JX 1788 (L'Esperance Dep.) at 57:2-23, 58:22-59:3 (Franklin called board members to advise them on meeting); JX 1807 (Gross Dep.) at 26:24-27:12 (same); JX 1786 (Wood Dep.) at 28:2029:8, 33:20-34:4 (same).
108 Trial Tr. 566:9-20 (Polk).
109 Trial Tr. 598:10-16 (Polk); JX 1779 (Tarchetti Dep.) at 29:18-30:9, 32:10-33:9 (explaining Jarden "was by far the most likely [acquisition] candidate to reapply the Newell Rubbermaid business model" of consolidation, which "could release a large amount of value").
110 JX 685 at 2; JX 902 at 2; PTO 9132 . Trial Tr. 383:23-384:8 (Franklin). Following the Merger, Tarchetti became the President of the combined entity. JX 1779 (Tarchetti Dep.) at 14:17-21.
111 JX 1788 (L'Esperance Dep.) at 58:9-21; JX 1786 (Wood Dep.) at 31:12-25; PTO \(\mathbb{1} 133\). I note that Franklin's testimony that he did not intend to negotiate definitive deal parameters during the Boat Meeting was credible. Trial Tr. 486:1116 (Franklin). It appears, instead, that Franklin intended to lay out certain expectations and then "tell[ ] [the] Newell [team that] if they had different expectations, they shouldn't bother spending time, effort, and money." Trial Tr. 489:14-17 (Franklin). As Franklin explained, "I didn't want to go down the path of having any real substantive conversations unless they understood that we were looking for a real premium." Trial Tr. 469:2-22 (Franklin); see also Trial Tr. 384:21-385:2 (Franklin); JX 1778 (Ashken Dep.) at 64:4-9 (explaining "we sort of made it very clear that Jarden wasn't for sale; but if we got an extraordinary offer our job was to create value for our shareholders, so we would always listen to whatever Mike had to say").
112 JX 1794 (Christian Dep.) at 159:9-160:14; JX 1780 (Franklin Dep.) at 72:2-3; JX 1804 (Polk Dep.) at 85:24-86:7; JX 1779 (Tarchetti Dep.) at 305:24-306:10; PTO ๆ134.
113 JX 2502; JX 1778 (Ashken Dep.) at 64:17-65:4, 97:14-98:2; JX 1785 (LeConey Dep.) at 27:10-21; Trial Tr. 369:22370:2, 471:11-472:16 (Franklin). While Jarden had asked Barclays to prepare some preliminary combination models and to do some "rough math" prior to the Boat Meeting (Trial Tr. 472:7-8 (Franklin); JX 688), Jarden had no formal analysis of its standalone value, nor had it retained a financial advisor when Franklin set the range for a transaction at \$60-\$69 per share. JX 1789 (Welsh Dep.) at 135:14-136:3; Trial Tr. 470:18-471:8 (Franklin).
114 JX 1780 (Franklin Dep.) at 95:15-19. See also Trial Tr. 473:24-475:1 (Franklin) (explaining his sense of Newell's financial limits).
115 Trial Tr. 391:24-392:10 (Franklin).
116 Trial Tr. 385:10-14 (Franklin).
117 Trial Tr. 385:24-386:4 (Franklin); Trial Tr. 666:6-7 (Polk) ("And I interpreted that to be between 60 and 69, which is a very wide range."); see also JX 1778 (Ashken Dep.) at 65:21-23 (referring to a price in the \(\$ 60\) s as "a very, very, very, very full price").
118 Trial Tr. 474:14-475:1 (Franklin); JX 1780 (Franklin Dep.) at 103:3-13.

119 Trial Tr. 475:18-476:22 (Franklin).
120 Trial Tr. 598:3-16 (Polk) (explaining that "the logic for the deal" was the expectation of synergies by recreating the success of Project Renewal); see also JX 674 at 2 (Polk noting that "there are tons of synergies because they have not done what we have done with Renewal (they are a holding company)") (emphasis in original).
121 Trial Tr. 387:13-388:23 (Franklin); see also Trial Tr. 664:3-665:8 (Polk).
122 Trial Tr. 391:24-392:10 (Franklin).
123 JX 1788 (L'Esperance Dep.) at 60:5-13 (discussing Franklin's view that any offer "needed to start with a 6 handle" and explaining that "[g]iven where the stock was trading, that made a lot of sense"); see also JX 1786 (Wood Dep.) at 49:3-11.
124 Trial Tr. 548:22-549:4 (Franklin); JX 1789 (Welsh Dep.) at 135:14-136:3.
125 JX 769; JX 785; JX 915; JX 977; JX 1073; JX 1203; JX 1862; Trial Tr. 550:16-20 (Franklin); JX 1789 (Welsh Dep.) at 137:22-138:18.
126 Trial Tr. 392:8-15 (Franklin); see also JX 1778 (Ashken Dep.) at 62:23-63:2.
127 Trial Tr. 392:16-393:6 (Franklin).
128 Id.
129 Trial Tr. 393:7-394:2 (Franklin).
130 Id.
131 JX 2502 at 2, 10.
132 JX 775.
133 JX 871 at 1; JX 1779 (Tarchetti Dep.) at 259:14-261:13.
134 On October 13, 2015, the day prior to the Jostens announcement, Jarden's stock price was \(\$ 50.69\). Jarden's stock price fell to \(\$ 44.80\) by the end of October 2015. PTO Ex. A; see also JX 1816 at \(9 \uparrow 66-68\).
135 Trial Tr. 404:1-9 (Franklin). Franklin testified, "we were buyers up to [\$]49, which we considered full value at the time." Trial Tr. 404:16-18 (Franklin).
136 JX 900 at 2.
137 JX 1565 at 85; PTO \(\mathbb{1} 135\). Trial Tr. 394:23-395:4 (Franklin).
138 JX 1780 (Franklin Dep.) at 136:12-15; JX 1565 at 85. See Trial Tr. 492:5-10 (Franklin) (explaining Jarden's Board learned of the confidentiality agreement).
139 PTO \({ }^{1} 136\).
140 JX 786 at 110; PTO ๆ138; Trial Tr. 396:17-397:2 (Franklin); Trial Tr. 602:24-603:15 (Polk).
141 JX 786 at 110; JX 1777 (Lillie Dep.) at 131:7-12, 148:6-149:5.
142 JX 786 at 111; see also Trial Tr. 827:19-828:11 (Waldron).
143 JX 1777 (Lillie Dep.) at 24:16-25:8.
144 Tuck-in acquisitions usually amounted to less than \(1 \%\) of Jarden's yearly revenue. See, e.g., JX 380 at 11; JX 1778 (Ashken Dep.) at 20:6-16; JX 432 at 5 ; JX 380 at 3, 11.
145 Trial Tr. 929:9-930:9 (Zenner).
146 JX 1816 at \(\mathbb{1} 30\); JX 1831, Ex. 5A. Jarden achieved "organic growth" of \(4 \%\) (including tuck-in acquisitions) and adjusted organic growth of \(3.2 \%\) (excluding all acquisitions), from 2011 to 2015. Id.
147 Trial Tr. 106:13-107:3 (Lillie).
148 Trial Tr. 106:1-9 (Lillie); JX 1777 (Lillie Dep.) at 252:15-253:6.
149 Trial Tr. 604:3-12 (Polk) (explaining Newell did not use Jarden's projections because "I didn't believe 6 percent and 5 percent compounded. Those were really aggressive growth rates in the environment."); see also id. 604:22-605:21 (Polk) (explaining that Newell utilized more realistic projections when analyzing Jarden's value).
150 JX 1252 at 12; JX 1247 at 29.
151 JX 927 at 1.
152 Id.
153 JX 1045 at 31 ; JX 1205 at 44. With only minor adjustments for 2015 year-end actuals, the November Projections were also included in the Company's proxy statement regarding the Merger.
154 JX 791 (Tarchetti told a colleague that "Martin change of control" was on a list of discussion points Franklin brought to the meeting on October 22); JX 1807 (Gross Dep.) at 33:20-35:4.
155 JX 1807 (Gross Dep.) at 38:12-16, 67:13-25; JX 1788 (L'Esperance Dep.) at 89:6-8; JX 1786 (Wood Dep.) at 67:1215, 68:11-13.

156 Trial Tr. 397:8-10, 399:6-10 (Franklin); see also JX 1789 (Welsh Dep.) at 154:4-10.
157 Trial Tr. 397:15-398:4 (Franklin) ("I thought it was a little odd that, you know, a potential \(\$ 20\) billion transaction would all hinge on the whims of the guy who is not the CEO, who is not even on the board ....").
158 ld.
159 Trial Tr. 398:5-20 (Franklin); JX 1779 (Tarchetti Dep.) at 201:6-202:7.
160 Trial Tr. 398:16-20 (Franklin).
161 Trial Tr. 615:5-14 (Polk); see also JX 799 at 2.
162 JX 1779 (Tarchetti Dep.) at 221:24-222:9; Trial Tr. 398:21-399:5 (Franklin).
163 JX 815; PTO I140; JX 1807 (Gross Dep.) at 35:9-36:17; JX 1786 (Wood Dep.) at 58:9-14.
164 JX 1786 (Wood Dep.) at 94:22-95:6; JX 1807 (Gross Dep.) at 46:17-20; JX 1785 (LeConey Dep.) at 87:2-13; JX 1789 (Welsh Dep.) at 162:20-163:9.
165 JX 815.
166 JX 1779 (Tarchetti Dep.) at 246:17-247:7; Trial Tr. 725:7-14 (Torres).
167 Trial Tr. 734:12-14 (Torres). Bain continued to analyze Jarden's category growth rates through closing. It eventually determined that Jarden's categories "were relatively weak and were actually losing market share," like the Coleman brand that lost distribution to dominant outlets such as WalMart. This prompted Bain to downgrade its category growth rate for Jarden to \(2.5 \%\) as of closing. Trial Tr. 737:16-738:8 (Torres). When additional information became available postclosing, Bain further decreased Jarden's category growth rate to 2.2\%. Trial Tr. 739:2-8 (Torres).
168 Trial Tr. 753:1-7 (Torres).
169 Trial Tr. 600:16-601:7 (Polk); see also JX 1309 at 80.
170 JX 706 at 3; Trial Tr. 746:22-23 (Torres).
171 Trial Tr. 741:4-742:2 (Torres).
172 JX 1779 (Tarchetti Dep.) at 251:9-14; Trial Tr. 722:8-16 (Torres).
173 Trial Tr. 598:10-16, 686:17-687:13 (Polk) (the "logic for the deal" was to apply the Newell integration playbook to Jarden's businesses); see also id. 699:6-9 (Polk) ("the costs associated with [Jarden's] decentralized model, that's where the synergies were").
174 JX 957 at 1.
175 Id. at 1-2.
176 Id. at 3 (Bain "highlighted three key benefits of the deal: transformational scale; high cost synergies; and likely above average revenue synergies due to channel overlap and the ability to apply the Growth Game Plan to selected categories at [Jarden]").
177 JX 973 at 42; Trial Tr. 767:2-24 (Torres).
178 JX 943 at 11.
179 Trial Tr. 614:4-18, 678:12-16 (Polk).
180 Id.
181 Trial Tr. 678:12-16 (Polk) ("The deal architecture assumed \(\$ 500\) million of gross synergies. If we didn't deliver \(\$ 500\) million of gross synergies, we would not have delivered the operating margin outcomes, and we would not have delivered accretive EPS.").
182 Trial Tr. 616:12-23 (Polk); JX 957 at 9.
183 JX 986; PTO 9142.
184 JX 986 at 2.
185 Id.
186 JX 976 at 1-2; PTO 『143.
187 JX 977.
188 JX 976 at 2-3; Trial Tr. 405:12-16 (Franklin).
189 JX 976 at 2; PTO \(\mathbb{1} 145\).
190 JX 1786 (Wood Dep.) at 91:22-25; see also JX 1807 (Gross Dep.) at 48:3-8 ("Q. Did Jarden to your knowledge ever make a counteroffer to Newell? A. Not that I'm aware of. Q. Did the Board ever discuss parameters of the counteroffer? A. Not that I'm aware of.").

191 Trial Tr. 406:2-5 (Franklin).
192 JX 976 at 3.

Trial Tr. 562:4-5 (Franklin) ("The board wanted a second advisor."); see also JX 1778 (Ashken Dep.) at 100:12-101:6. Trial Tr. 407:2-15 (Franklin). Barclays earned about \(\$ 180\) million from all of Franklin's businesses, including nearly \(\$ 70\) million from Platform alone in the four years between Platform's founding and the Merger Date. JX 1805; Trial Tr. 546:1117 (Franklin). Barclays' history with Franklin and his businesses earned Franklin "Platinum client" status. JX 438; JX 1789 (Welsh Dep.) at 50:25-54:4. The Board made no inquiry regarding the thickness of Franklin's relationship with Barclays and there is no indication that either Franklin or Barclays made any effort to disclose their past relationships to the Board. See JX 976; JX 1070.
195 Trial Tr. 407:16-408:3 (Franklin).
196 Trial Tr. 560:22-24 (Franklin). Franklin explained to the Board that UBS had done work for the Company in the past for free, and described the UBS engagement in connection with the Newell transaction as giving UBS a "kiss." Trial Tr. 561:19-562:12 (Franklin) ("I described it at one point as giving them a kiss. It was a way of saying thanks for all the work that you've done that you didn't get compensated for. We-you know, you're on par with a couple of other firms to do this advisory work for us for the board, and we're happy to have you do that work."). Petitioners argue that this means UBS was paid for doing no work and that the payment diverted value from stockholders. This is not a fair characterization of UBS's role. The record reflects that UBS prepared Board decks, led discussions at Board meetings and was generally available to the Board as a sounding board. Trial Tr. 560:22-24 (Franklin); JX 1785 (LeConey Dep.) at 35:23-36:10. Whether UBS's compensation was fully earned is beyond the scope of this appraisal proceeding.
197 Trial Tr. 408:4-15 (Franklin); JX 1807 (Gross Dep.) at 44:10-14; JX 976 at 3; PTO 1146 . See JX 1565 at 89 ("With respect to UBS, it was noted that Ms. Ros L'Esperance is the Head of Client Corporate Solutions of UBS, and as such she would be recused from all deliberations and votes of the Jarden board, if any, in respect of the possible business combination with Newell Rubbermaid.").

200 Trial Tr. 409:1-8 (Franklin); Trial Tr. 618:24-619:3 (Polk); JX 1789 (Welsh Dep.) at 214:2-9; JX 1779 (Tarchetti Dep.) at 297:3-12, 300:8-16; JX 1807 (Gross Dep.) at 48:3-8; JX 1016 at 3; JX 1786 (Wood Dep.) at 91:15-92:2; PTO T148.
201 Trial Tr. 410:2-7 (Franklin).
202 JX 1778 (Ashken Dep.) at 116:22-119:20 ("[A]s we explained to them, we were not sellers. If you want to buy it, buy it. But don't waste our time. And it was a pretty acrimonious meeting. And it didn't make any difference to us whether we bought or sold."); see also Trial Tr. 410:8-24 (Franklin).
203 JX 1778 (Ashken Dep.) at 116:13-21.
204 JX 1778 (Ashken Dep.) at 119:6-9. Franklin similarly explained: "I went back to the board and said, This deal is dead. We tried to get a better offer out of them, and they refused." Trial Tr. 504:23-505:1 (Franklin).
205 JX 1069; JX 1066 at 2; JX 1149; PTO 1153 ; JX 1064 at 2; see also Trial Tr. 619:18-620:5 (Polk) (\$21.00 was "the limit to what we could afford" in cash consideration). According to Franklin, Newell "blinked" and agreed to increase its offer. Trial Tr. 412:19-413:2 (Franklin).
206 JX 1064 at 3; see also JX 1779 (Tarchetti Dep.) at 307:4-8 ("So by this stage, we'd obviously recommended to the board that we should try to consummate the transaction because we believed the synergies would create a lot of value for both parties.").
207 JX 1064 at 3.
208 JX 1070 at 2; PTO \(\mathbb{T 1 5 5 , ~ 1 5 7 . ~ F r a n k l i n ~ w e n t ~ o v e r ~ t h e ~ t e r m s ~ o f ~ t h e ~ r e v i s e d ~ o f f e r , ~ d i s c u s s i n g ~ t h e ~ i n c r e a s e d ~ p r o p o s e d ~}\) cash consideration from \(\$ 20.00\) to \(\$ 21.00\) per share and the formula for determining the exchange ratio. JX 1070 at 1 . Barclays also presented its analysis of the updated offer, including a revised valuation analysis of Jarden as a standalone company. JX 1079 at 27-28.
209 JX 1786 (Wood Dep.) at 112:5-6.
210 Id. at 55:7-15.
211 Id. at 55:10-56:9.
212 Id. at 49:3-11. See also JX 1778 (Ashken Dep.) at 68:19-23, 69:23-70:4 ("When we looked at it and we thought, you know, if we can realize something that begins with a 6 for our shareholders is that more than we could expect if we continue to run the operations and did all the stuff? And we felt the answer was yes.").
213 Trial Tr. 415:2-11 (Franklin).
214 Trial Tr. 415:19-23 (Franklin).

215 Trial Tr. 684:13-685:22 (Polk) (explaining that \(\$ 500\) million in synergies was assumed in the deal model, but "if there's future value to be created, more synergies, more growth, then any equity owner benefits from that"); see also Trial Tr. 415:2-15 (Franklin). Franklin described the \(\$ 60.00\) offer as "a full and fair price by any measure." Trial Tr. 444:5-10 (Franklin).
216 JX 1070 at 2-3; PTO \(\mathbb{1} \uparrow 155\), 157. During the exclusivity period, Franklin and Ashken continued to negotiate the terms of the Merger Agreement, but also negotiated for Franklin, Ashken, and Lillie to continue with the combined company as paid consultants through Mariposa. See JX 906; JX 1061; JX 1074.
217 JX 1786 (Wood Dep.) at 102:6-8 (explaining the Board's view that "it would not be value enhancing and perhaps very distracting to management to run an auction"). Respondent acknowledges that the Board never considered authorizing its bankers to reach out to other potential strategic buyers or financial sponsors. Id. at 94:22-95:6.
218 ld. at 100:13-23.
219 Trial Tr. 419:21-420:5 (Franklin); see also Trial Tr. 918:10-921:11 (Zenner) (explaining that other large consumer product companies had targeted businesses and were probably not interested in a diversified company like Jarden). Until Newell surfaced, no potential acquirer had expressed interest in Jarden during its entire 15-year history. Trial Tr. 425:10-13 (Franklin).
220 JX 1786 (Wood Dep.) at 129:2-130:14; JX 1778 (Ashken Dep.) at 65:5-10.
221 JX 1565 at 90; JX 1116 at 194-242.
222 Trial Tr. 475:2-7 (Franklin); Trial Tr. 617:5-18 (Polk).
223 Trial Tr. 621:9-13 (Polk).
224 Trial Tr. 620:17-20 (Polk); Trial Tr. 406:24-407:1 (Franklin) ("Il]t would almost look odd if I didn't agree to serve as a director in the go-forward company."); JX 1779 (Tarchetti Dep.) at 120:3-16, 124:6-18 (discussing Franklin's role as the "face of Jarden" and the importance of having Franklin on the board of the combined entity, which would serve as an endorsement of the Merger); JX 1803 (Cowhig Dep.) at 153:24-154:3.
225 Trial Tr. 686:17-687:13 (Polk) ("We wanted as part of-the deal terms, to get control of the company. Because there was no way that, without our leadership of the change agenda, those synergies were going to be realized."); JX 1778 (Ashken Dep.) at 153:15-19.
226 JX 1778 (Ashken Dep.) at 163:13-14.
227 Id. at 163:14-19 (explaining Newell was "very keen to have [the noncompete period] be four years" because Newell "had had a bad experience" before with competition from a past executive); see also JX 1807 (Gross Dep.) at 58:16-59:9 (noting Newell was "requiring that the management team extend their non-compete agreements from two to four years," which was a "big ask" since management was in the prime of their careers).
228 Trial Tr. 526:18-20 (Franklin); JX 1779 (Tarchetti Dep.) at 347:15-349:7.
229 JX 1233 at 2-3.
230 ld.
231 JX 1150 at 1-2; JX 1148; PTO \(\mathbb{1} 164\). According to one witness, Newell's counsel leaked news of the Merger to a reporter. JX 1779 (Tarchetti Dep.) at 322:23-323:9.
232 PTO, Exs. A, B.
233 Trial Tr. 424:1-5 (Franklin); Trial Tr. 658:16-659:2 (Polk) (explaining that after the leak, Newell "had to" negotiate a fixed exchange rate because "we would have had exposure, potentially, if the stock had run one way or the other"); JX 1779 (Tarchetti Dep.) at 325:17-23 (fixing the exchange ratio was "in the interest of both parties because the stock prices were very volatile, and it was against the spirit of the agreement to not reflect the fact that there had been a leak"); JX 1778 (Ashken Dep.) at 136:12-17 (same).
234 JX 1195 at 1.
235 JX 1241 at 5; Trial Tr. 507:1-19 (Franklin).
236 JX 1218 at 2. Had Jarden negotiated for a 0.90 exchange ratio, Jarden stockholders would have received \(\$ 380\) million in additional equity. Id.
237 ld.
238 JX 1207 at 3.
239 JX 1205.
240 JX 1202 at 1.
241 ld.
242 ld.

243 JX 906 at rows 15-17; JX 1057; JX 1072 at 1-2.
244 JX 1786 (Wood Dep.) at 158:15-159:5. In addition to his work as Jarden's General Counsel, Capps has served as General Counsel for Platform since 2016. S\&P Global Market Intelligence, Platform Specialty Products (ESI:NYSE) (2019). Capps was also to be a beneficiary of any grant of 2017 and 2018 RSAs. JX 1565 at 146-147.
245 JX 1231 at 18. There is no evidence the Compensation Committee ever looked at the employment agreements. JX 1231 at 16; JX 1807 (Gross Dep.) at 66:12-22, 81:15-82:2 ("I don't even know if I've seen it before.").
246 JX 1232; JX 1231 at 2.
247 JX 1231 at 2; see JX 1255. Barclays delivered its written fairness opinion the following day. JX 1255.
248 JX 1231 at 4. The Jarden board reiterated "its belief that the combined company's long-term value, prospects and benefits from the merger would exceed the value that could be realized by Jarden's stockholders were Jarden to continue operating on a stand-alone (independent) basis." Id. at 3.
249 Id. at 4, 9. The amended employment agreements for Franklin, Ashken and Lillie extended the term of their non-competes upon termination from two years to four years. JX 1326 at 15. They also confirmed the acceleration of certain RSAs in connection with the transaction. JX 1326 at 15; see also Trial Tr. 638:11-16 (Polk) (explaining that the negotiations concerning the RSAs were between the Jarden executives and the Jarden board). Franklin, Ashken and Lillie had threeyear "evergreen" employment agreements. Under those agreements, they each were guaranteed their 2017 and 2018 RSAs, which the Board agreed to grant prior to the Merger. JX 1778 (Ashken Dep.) at 142:23-143:4, 146:4-7; Trial Tr. 517:9-19 (Franklin). Using Newell's stock price as of the Merger Date to determine the exchange ratio cash equivalent, Franklin received a total of \(\$ 71.04\) per share in Merger-related consideration, Ashken received a total of \(\$ 76.11\) per share and Lillie received an equivalent of \(\$ 81.69\) per share. JX 1818 at \(\mathbb{T} 40\).
250 JX 1231 at 2 . The final Merger consideration represented a premium of \(24.3 \%\) over the unaffected market price of \(\$ 48.31\) on December 4, 2015 (the last day of trading before the leak) and a premium of \(24 \%\) over the VWAP of \(\$ 48.35\) for the 30-day period prior to December 11, 2015. Id.
251 JX 1251 at 1-2.
252 JX 1252 at 12; JX 1247 at 29; see also JX 775 at 5 . Newell also used numbers in line with the Lender Presentation projections in its internal modeling and in the presentation made to rating agencies on December 7, 2015. JX 1154 at 41. JX 1230 at 10.
254 JX 1228 at 7. Bain's report in advance of the meeting estimated total annual synergies ranging from \(\$ 585\) million to \(\$ 1\) billion, comprised of \(\$ 500-\$ 700\) million in cost synergies and \(\$ 85-\$ 320\) million in revenue synergies. JX 1139 at 50 . Bain was "very comfortable" Newell would meet at least the low end of its estimate range. Trial Tr. 773:14-22, 774:17775:6 (Torres).

262 JX 1519 at 68. Net income fell by nearly \(40 \%\) as compared to 2014 year-end. Id. Jarden also adjusted its guidance downward twice during 2015. JX 454 at 4, 17, 41. And, in November 2015, Lillie advised investors that Q4 2015 organic growth would be in the 2-4\% range, not the 3-5\% range as earlier reported. JX 1034 at 1.
263 JX 1514 at 1-2; see also Trial Tr. 622:15-17 (Polk) (noting that Jarden fell below its goals for Q1 2016).
264 Id.; Trial Tr. 440:22-441:1 (Franklin); see also JX 1510; Trial Tr. 823:13-19, 856:1-6 (Waldron). The 2016 budget assumed Jarden would remain a standalone company. Trial Tr. 830:16-21 (Waldron).
265 JX 1562 (revised multi-year plan projecting \(\$ 9.816\) billion in total revenue); see also Trial Tr. 833:5-834:11 (Waldron). Newell asked for a copy of Jarden's updated multi-year plan in mid-March 2016, which Jarden provided. Trial Tr. 833:5834:11 (Waldron). Newell later asked Jarden to reevaluate the operating cash flow assumptions in the plan. After doing this, Jarden circulated a revised version on April 1, 2016. Trial Tr. 832:24-838:3 (Waldron). See also JX 1563; JX 1597; JX 1598. While this revision included minor adjustments, the annual revenue and EBITDA projections remained the same as those estimated in the unrevised plan. Id.
266 Trial Tr. 834:12-835:11 (Waldron).

267 JX 1598; JX 1565; see also JX 1826 at 988 , Figure 16. Newell incorporated the revised multi-year plan into its own multiyear forecast. Newell's forecast, however, assumed growth at 3.5\%. JX 1691 at 95; Trial Tr. 626:4-627:15 (Polk).
268 PTO \(\mathbb{1} 183\). Over \(97 \%\) of voting Jarden stockholders approved the Merger (representing \(83 \%\) of the outstanding shares). JX 1663 at 7.
269 JX 1816 at \(\mathbb{1} 10\). The per share decrease in consideration from \(\$ 60.03\) to \(\$ 59.21\) reflects the change in Newell's stock price from signing to closing.
270 Trial Tr. 780:14-781:2 (Torres); see also JX 1373 at 11.
271 Trial Tr. 781:18-782:20 (Torres); JX 1691 at 7.
272 Trial Tr. 783:4-784:7 (Torres).
273 JX 1666; JX 2015; Trial Tr. 447:16-18 (Franklin); Trial Tr. 796:22-797:11, 798:20-799:11, 800:20-801:24, 802:18-804:3 (Torres).
274 JX 1801; JX 1802; Trial Tr. 802:18-803:4 (Torres). Franklin strongly objected to this strategy. JX 1808; JX 1809; JX 1825; JX 1807 (Gross Dep.) at 16:9-14.
275 JX 1803 (Cowhig Dep.) at 191:13-20.
276 Newell Brands announced an agreement to sell Waddington in April 2018 for \(\$ 2.3\) billion, almost \(\$ 1\) billion more than the price Jarden paid less than three years prior. Trial Tr. 450:18-451:2 (Franklin) ("Q. Okay. Waddington, you bought for 1.35 million [sic] in July of 2015. Correct? A. Correct. Q. And Newell sold that business this year for 2.3 billion. Right? A. Correct. Q. They made almost a billion on that. Right? A. Yes.").

277 Trial Tr. 447:2-11 (Franklin); JX 1808; JX 1809; JX 1823; JX 1834.
278 JX 1803 (Cowhig Dep.) at 184:17-188:12; JX 1809.
279 Trial Tr. 447:12-15 (Franklin); JX 1809.
280 JX 1822.
281 Newell Brands, Inc., Form 8-K at 3 (dated May 17, 2018).
282 PTO 911.
283 D.I. 13.
284 D.I. 35.
285 D.I. 37.
286 The expert reports were submitted under seal. At the close of this case, the Court will unseal the reports. Perhaps the legal and business academies will find interesting, and worthy of study and classroom discussion, how two such well-credentialed experts in their fields reached such wildly divergent conclusions regarding the fair value of the same company as of the same date.
287 D.I. 154.
288 8 Del. C. § 262(h).
289 DFC, 172 A.3d at 364 (quoting 8 Del. C. § 262(h)).
290 Dell, 177 A.3d at 21 (quoting Weinberger v. UOP, 457 A.2d 701, 713 (Del. 1983)).
291 ld.
292 ld. at 22.
293 Aruba, 2019 WL 1614026, at *6.
294 In re Appraisal of AOL Inc., 2018 WL 1037450, at *1 (Del. Ch. Feb. 23, 2018). See also In re Appraisal of PetSmart, Inc., 2017 WL 2303599, at *27 (Del. Ch. May 26, 2017) (collecting cases).
295 In re Appraisal of PetSmart, Inc., 2017 WL 2303599, at *27 (citing Chuck Carlson, Game of My Life: 25 Stories of Packer Football (Sports Pub. 2004) (quoting Coach Lombardi as opening his first Packers team meeting in 1959, after twenty years of coaching, by saying: "Gentleman, we are going to relentlessly chase perfection, knowing full well we will not catch it, because nothing is perfect.")).
296 Id. (citing Merlin P’rs LP v. AutoInfo, Inc., 2015 WL 2069417, at *14 (Del. Ch. Apr. 30, 2015) (observing that no "realworld sales process" will live up to "a perfect, theoretical model")).
297 Dell, Inc., 177 A.3d at 35.
298 Dr. Zenner testified that auctions are less effective as companies increase in scale and complexity. Trial Tr. 915:3-14, 916:17-917:17 (Zenner). For sale transactions over \(\$ 5.4\) billion, as here, only one in five are the product of an auction. Id.; JX 1817, App'x C-5. See also JX 1827 at \(9 \uparrow 53-54\) (explaining that the most logical strategic partners were too small to buy the Company); JX 1786 (Wood Dep.) at 101:18-102:11 (Jarden routinely "looked at likely people we could have business combinations with or that we could acquire ... [and] didn't think there was anybody out there who would come
in and make a preemptive offer to buy the company"); Trial Tr. 921:12-923:16 (Zenner); JX 1817 at 995 (explaining that financial sponsors were not interested in Jarden because its leverage was too high); Trial Tr. 419:6-8 (Franklin) ("In 15 years of building the company, I haven't had one company come and sort of make an offer to buy Jarden."); JX 1789 (Welsh Dep.) at 143:5-10 ("The combination with Newell was viewed to be a highly strategic combination that couldn't necessarily be replicated with other counterparties...."); JX 1785 (LeConey Dep.) at 88:3-4 ("UBS was not aware of any other buyers that were interested in acquiring all of Jarden.").
299 Trial Tr. 504:23-505:1 (Franklin) ("I went back to the board and said, This deal is dead. We tried to get a better offer out of them, and they refused."); JX 1778 (Ashken Dep.) at 119:6-9; see also JX 1807 (Gross Dep.) at 41:3-15.
JX 1816 at 9169 , Figure 23.
301 I appreciate Franklin was no longer CEO when he negotiated with Newell. With regard to M\&A, however, his role as Executive Chairman was tantamount to that of a typical CEO. Trial Tr. 367:15-22, 467:20-22 (Franklin).
302 JX 1788 (L'Esperance Dep.) at 54:13-22, 58:9-21, 121:10-122:3; JX 1786 (Wood Dep.) at 25:2-7, 26:10-19, 31:1225, 32:2-17, 157:25-158:14. Franklin's revelation at the Boat Meeting that he would like to exit from Jarden in order to have more time to pursue business ventures with his sons also made an impression on Polk and, when coupled with his direction regarding an acceptable offer price, likely communicated to Newell that he was eager, maybe overly eager, to do a deal. See JX 765 (Tarchetti reporting that Franklin revealed "his desire for an exit, which as the company figurehead is difficult. He says he would like to inve[st] in business with his sons having taken some money off the table (assuming he has about 0.5bn if this happened")); Trial Tr. 71:20-72:12 (Polk); Trial Tr. 164:14-165:3 (Tarchetti). There is other evidence in the record that Franklin was perceived as an anxious seller. See JX 576 (Bill Ackman's July 2015 email to Warren Buffett, copying Franklin, attempting to interest Buffett in acquiring Jarden); JX 533; JX 1786 (Wood Dep.) at 157:25-158:14; JX 860 (Centerview set up the first meeting between Franklin and Polk, marketing Jarden to Newell as a "willing seller."); JX 902 at 2 (Polk stating that Franklin "cut straight to the chase" about his willingness to sell Jarden).
303 JX 1807 (Gross Dep.) at 38:12-16, 48:3-8, 67:13-25; JX 1786 (Wood Dep.) at 72:9-18, 91:15-92:2; JX 1788 (L'Esperance Dep.) at 89:6-8.
304 JX 1049. The Board justified the compensation awards after the fact. JX 1212 at 15; JX 1565 at 146. Moreover, as Franklin and Ashken were telling Newell they were entitled to the 2017 and 2018 RSAs, Jarden's Compensation Committee had not discussed the possibility of awarding those grants. JX 1145; JX 1202. The Board was told by in-house counsel Capps —who was also receiving 2017 and 2018 RSAs-that Jarden was contractually obligated to make these awards even though the agreements at issue were not clear on the point. JX 1629 at 5; JX 1786 (Wood Dep.) at 158:15-159:5. There are other troubling facts relating to the change-in-control payments, including that Franklin arranged for his long-time legal counsel to advise the Board with respect to the payments and the payments ultimately resulted in the lead negotiators for Jarden receiving substantially more in Merger consideration than Jarden's other stockholders. See JX 1145; JX 1234; JX 1235; JX 1236; Trial Tr. 534:18-536:11-18 (Franklin); JX 1780 (Franklin Dep.) at 362:20-22. Respondent argues the RSAs that made up most of the Merger consideration differential Franklin and the other Jarden managers received were owed to them "in the regular course absent a sale." Resp't Jarden Corp.'s Opening Post-Trial Br. ("ROB") at 57. The Merger agreement, however, terminated the employment contracts under which the RSAs were granted. See JX 1235. Franklin and the other Jarden managers claimed they were contractually owed the 2017 and 2018 RSAs under their employment agreements before the separation agreements even existed. JX 906 at rows 15-17; JX 1057; JX 1072; JX 1786 (Wood Dep.) at 158:15-159:5. The Board then justified the disconnect by explaining the 2017 and 2018 RSAs served as consideration for the commitment to add two more years to the non-compete covenants. JX 1565 at 146. Of course, when the dust settled, the separation agreements extended the term of the non-compete covenants by only one year. JX 1234; JX 1235; JX 1236.
305 JX 1805; Trial Tr. 546:11-17 (Franklin); JX 438; JX 1789 (Welsh Dep.) at 50:25-54:4; JX 1780 (Franklin Dep.) at 269:619.

306 By so finding, I do not intend to suggest that Franklin or any Jarden fiduciary breached any fiduciary duty. That inquiry is beyond the scope of this appraisal proceeding. See In re Unocal Expl. Corp. S'holders Litig., 793 A.2d 329, 340 (Del. Ch. 2000) (noting that a breach of fiduciary finding is beyond the scope of statutory appraisal).
307 Merion Capital LP v. BMC Software Inc., 2015 WL 6164771 (Del. Ch. Oct. 21, 2015).
308 Id. at *17.
309 JX 1817 at \(\mathrm{I} \uparrow 32-33,41-43\).
310 Trial Tr. 686:17-687:13 (Polk) ("We wanted as part of-the deal terms, to get control of the company. Because there was no way that, without our leadership of the change agenda, those synergies were going to be realized."); JX 1778 (Ashken Dep.) at 153:15-19.

311 JX 1269 at 3.
312 JX 1565 at 85.
313 JX 1228 at 7. Bain had estimated synergies ranging from \(\$ 585\) million to \(\$ 1\) billion, comprised of \(\$ 500-\$ 700\) million in cost synergies and \(\$ 85-\$ 320\) million in revenue synergies. JX 1139 at 50.
314 JX 1817 at 940 ; JX 1816 at 9183 ;
315 JX 1100 at 18; JX 1804 (Polk Dep.) at 100:2-5, 101:15-16.
316 JX 1100 at 18.
317 Trial Tr. 649:5-8 (Polk); JX 2022 ("The premium is designed to get Newell management control."); JX 1804 (Polk Dep.) at 100:2-5, 101:15-16 (When asked "how did you come to the conclusion that a modest premium to their current market valuation would give Newell control," Polk responded "I knew that it was a quid pro quo" and "[i]f we were going to pay a premium for the asset, we need management control."). Of course, Polk clarified that control was necessary to achieve the synergies since Newell was not satisfied that Jarden management would take the steps needed to create synergies. See Trial Tr. 686:17-22 (Polk).
318 JX 1804 (Polk Dep.) at 115:4-9.
319 Trial Tr. 476:3-5 (Franklin).
320 Trial Tr. 598:10-21, 599:14-600:6, 614:4-18, 678:12-6 (Polk); JX 1803 (Cowhig Dep.) at 62:20-63:2; JX 1779 (Tarchetti Dep.) at 29:6-30:9; JX 674 at 2 (September 2015 Polk email, emphasizing the "tons of synergies" to be realized by employing the Project Renewal strategy) (emphasis in original); Trial Tr. 725:7-14, 742:3-743:19 (Torres); JX 973 at 36; JX 1139 at 50, 56; JX 1565 at 67.
321 JX 1816 at 9 T181-83; JX 1831 at 94 , Figure 25; Trial Tr. 1087:23-1091:9 (Hubbard).
322 JX 1816 at \(\mathbb{1} 188\) ("These results indicate that the market expected nearly all of the synergy value to accrue to Jarden shareholders, consistent with academic research finding that most of the benefits of mergers accrue to target-firm shareholders."); Trial Tr. 1090:18-20 (Hubbard).
323 BMC Software, 2015 WL 6164771, at *17.
324 To be clear, and as explained below, I am satisfied from the evidence that the Merger Price exceeded fair value. It is less clear, however, what exactly justified the premium Newell was willing to pay for Jarden. This is partially a product of the complications in valuing synergies where the merger consideration includes stock, versus a strictly cash-for-stock merger. In such a transaction, shareholders of both constituent corporations remain shareholders in the continuing combined enterprise. Thus, both groups-acquirer shareholders and target shareholders-are able to participate pro rata in gains arising out of the merger. Therefore, a premium to the target's shareholders cannot be justified, as in a cash acquisition, on the premise that it is the only way to permit those shareholders to share in the gains arising from the merger.
Lawrence A. Hamermesh, Premiums in Stock-for-Stock Mergers and Some Consequences in the Law of Director Fiduciary Duties, 152 U. Pa. L. Rev. 881, 884 (2003).
325 As noted, news of the potential merger between Jarden and Newell leaked to the public on Monday, December 7, 2015. See JX 1150 at 1-2; JX 1148; PTO \(\mathbb{1} 164\); JX 1164; Liz Hoffman, Dana Mattioli \& Dana Cimilluca, Newell Rubbermaid, Jarden in Merger Talks, The Wall Street Journal (2015), https://www.wsj.com/articles/newell-rubbermaid-jarden-in-merger-talks-1449521419 (last visited July 19, 2019). The last day Jarden stock was traded without being affected by news of the merger negotiations was Friday, December 4, 2015. JX 1231 at 2. On that day, Jarden stock closed at \(\$ 48.31\) per share. JX 1816 at \(\uparrow 47\).
326 ROB at 2.
327 Trial Tr. 1267:17-1268:5 (Hubbard) ("I've seen nothing in the record that would suggest to me the unaffected stock price is not the right anchor [for fair value].").
328 Trial Tr. 323:15-326:14 (Zmijewski). See also Trial Tr. 1021:2-9 (Hubbard) ("Does Dr. Zmijewski in his reports dispute that either Newell or Jarden traded in an efficient market? A. Not in his reports, no. Q. And did you hear that in his testimony? A. I did not. I was present, and I didn't hear that.").
329 JX 1816 at 945 . See also JX 2032, Jonathan Berk \& Peter DeMarzo, Corporate Finance 301 (Pearson Education Limited, 4th ed. 2017) ("Berk \& DeMarzo, Corporate Finance"); JX 2515, Aswath Damodaran, Investment Valuation: Tools and Techniques for Determining the Value of Any Asset 4 (Wiley, 3d ed. 2012) (Damodaran, Investment Valuation); JX 2516, Tim Koller et al., McKinsey \& Co., Valuation: Measuring and Managing the Value of Companies 37-38 (Wiley, 6th ed. 2015) ("Koller, Valuation").

330 JX 1816 at \(\mathbb{T} 45\).

JX 2032, Berk \& DeMarzo, Corporate Finance at 302.
332 JX 1816 at \(\uparrow 45\); Trial Tr. 323:15-324:4 (Zmijewski) (acknowledging that one "can look to stock price to corroborate a fair value conclusion"); Trial Tr. 1017:11-14 (Hubbard) ("For the unaffected stock price to be relevant, Your Honor, to your consideration, you need to believe that it's an unbiased indicator of the value of the firm. That's an efficient market.").
Dr. Hubbard stated,
[ t\(] \mathrm{here}\) are tests for whether a market is efficient, tests that economists suggest, but tests that have been widely used
in courts. So I used a number of factors that capture the scope of the firm, whether analysts follow it, transactions
cost, liquidity, and so on. I do those tests for both Jarden and Newell and conclude that both trade in an efficient market, semi-strong form.
Trial Tr. 1017:11-14 (Hubbard).
334
Resp't Jarden Corp.'s Pre-Trial Br. at 6.
JX 1816 at 944 , Figure 10.
336 JX 242, Robert W. Holthausen \& Mark E. Zmijewski, Corporate Valuation: Theory, Evidence \& Practice 301-03 (Cambridge Business Publishers, 1st ed. 2014) ("Holthausen \& Zmijewski, Corporate Valuation").
337 JX 1345, Duff \& Phelps LLC, 2016 Valuation Handbook: Guide to Cost of Capital (Chapter 3) 9 (John Wiley, 2016) ("Duff \& Phelps, Valuation Handbook").
338 JX 1816 at \(\uparrow 46\).
339 Id. at 948 .
340 ld
341 JX 2032, Berk \& DeMarzo, Corporate Finance at 73.
342 JX 1816 at \(9947-48\).
343 ld. at 947 .
344 ld. at 948.
345 ld
346 Id.; JX 2032, Berk \& DeMarzo, Corporate Finance at 73 ("The term efficient market is also sometimes used to describe a market that, along with other properties, is without arbitrage opportunities.") (emphasis in original).
347 JX 1816 at 949 ; JX 2514 at 8-11; Trial Tr. 1019:2-16 (Hubbard).
348 ld
349 JX 1816 at 951.
350 ld
351 ld.
352 Id. at \(\uparrow 52\).
353 ld. at पศโ52-53.
354 ld
355 Id. at 954 .
356 ld.
357 The Merger marks the rare instance where two public companies of comparable size, comparable capital structure and comparable stock trading patterns combine. As Dr. Hubbard explained, for most of the reasons one can conclude that Jarden traded in an efficient market, the same can be said for Newell. Id., Figure 15.
358 Id. at 958.
359 Id. at 960 . See also id. at 962 ("According to the analysts covering Newell at the time, consumer recession fears, merger integration risks, and the high initial leverage resulting from the Merger were key factors affecting Newell's stock price.").
360 Jarden is justified in pointing out that while he raised the criticisms, Dr. Zmijewski did "not explicitly opine on whether or not any of these factors actually depressed Jarden's [unaffected] market price relative to fair value." JX 1826 at 998 . See also JX 1828 at 990 (Dr. Zmijewski making observations regarding the Unaffected Market Price but not correlating them). JX 1828 at 990 ; JX 1826 at \(\uparrow 98\).
362 ld
363 JX 1818 at \(\uparrow 30\).
364 Id. at 9 IT29-31.
365 JX 1826 at \(9 \uparrow 99-100\).
366 Id., Figure 17.

367 Id
368 Id. at TIT101-04.
369 JX 1818 at \(\uparrow 31\).
370 Id.
371 Trial Tr. 1022:21-1023:14 (Hubbard).
372 JX 1826 at 9 IT101-04.
373 Id. at If103-04. I acknowledge, and understand, Petitioners' 'tethering" argument, but I reject it as not supported by the credible evidence. The argument is that the market was not efficient as of the Merger because, after the announcement of the Merger, "Jarden's stock price was tethered to Newell and to the perception of the stockholders of both companies that there was a large risk that Jarden could not be successfully integrated." Pet'rs' Post-Trial Opening Br. at 60 . Newell's stockholders may have reacted to that risk, as reflected in the stock's performance after the announcement, but there is no evidence that Jarden's stockholders, or the market, associated that risk with Jarden. See Trial Tr. 1020:12-23 (Hubbard); JX 2514 at 9; JX 1816 at I 1 184-90.
374 JX 1826, Figures 18, 19.
375 ld . That the November Projections did not really move the needle is not surprising. They were optimistic, to be sure, but their projected growth was consistent with prior forecasts, albeit at the top of the range. JX 927 at 1; Trial Tr. 106:1107:3 (Lillie). They were also not out of line with the views of several of the many analysts that followed the Company. See, e.g., JX 1401; JX 1407; JX 1439.
376 JX 1818 at \(\mathbb{9} \$ 37-39\).
377 JX 1826 at Iff108-12; JX 2505 (Zmijewski Dep.) 318:23-319:4, 320:8-11. Dr. Zmijewski's opinion that the market had not assessed Jarden's acquisitions of Jostens and Waddington, as best I can tell, is nothing more than speculation. The fact that the market reacted poorly to the Jostens acquisition does not mean it did not understand it. Nor is there credible evidence that the market did not know, or understand, that Jarden had leveraged up to do the Jostens and Waddington deals.
378 Trial Tr. 1029:3-9 (Hubbard) ("academics differ in opinions on whether there is or isn't [a conglomerate discount]"); JX 1826 at \(\boldsymbol{\Phi} 111\) \& n .176 (citing academic commentary rejecting the notion of a conglomerate discount).
379 JX 1779 (Tarchetti Dep.) at 32-33.
380 JX 1826 at \(9 \uparrow 108-10\); Trial Tr. 1029:10-21 (Hubbard); Trial Tr. 335:9-21 (Zmijewski) ("Q. So the holding company structure of Jarden, whatever its affects may be, were the operative reality of Jarden. Correct? As of the merger date? A. That's true.").

381 JX 2505 (Zmijewski Dep.) at 319:22-320:16; JX 1818 at IT33-39.
382 JX 1778 (Ashken Dep.) 117:10-17; Trial Tr. 378:14-17 (Franklin).
383 JX 1826 at \(\mathbb{1} \$ 106-07\). See also JX 59, Lawrence A. Hamermesh \& Michael L. Wachter, The Short and Puzzling Life of the "Implicit Minority Discount" in Delaware Appraisal Law, 156 U. Pa. L. Rev. 1, 2 (2007).
384 JX 1818 at 930.
385 JX 1519 at 68; JX 1514 at 2.
386 JX 1562; Trial Tr. 821:6-828:1, 830:7-835:11 (Waldron).
387 JX 2502.
388 JX 1780 (Franklin Dep.) 201:19-24.
389 Trial Tr. 404:1-9 (Franklin); JX 900.
390 JX 1780 (Franklin Dep.) 241:11-14.
391 JX 900 at 2.
392 ld. at 65.
393 Id. It is not entirely clear to me that Dr. Zmijewski feels as strongly about his comparable companies valuation of Jarden as Petitioners do. See JX 1828 at 98 ("I do not consider revenue multiples to be reliable to value Jarden ....").
394 JX 1816 at \(\ddagger 200\).
395 JX 242, Holthausen \& Zmijewski, Corporate Valuation at 510, 527-30; Trial Tr. 1068:13-15 (Hubbard) ("Il you use [a] comparables [analysis], you have to be sure they are really comparable or you are introducing error yourself.").
396 JX 242, Holthausen \& Zmijewski, Corporate Valuation at 527-29.
397 JX 2516, Koller, Valuation at 345.
398 JX 2515, Damodaran, Investment Valuation at 20.

JX 2032, Berk \& DeMarzo, Corporate Finance at 296.
400 JX 2516, Koller, Valuation at 345-46.
401 Id. at 346; JX 242, Holthausen \& Zmijewski, Corporate Valuation at 528-29.
402 JX 2516, Koller, Valuation at 346. See also JX 2032, Berk \& DeMarzo, Corporate Finance at 710; Damodaran, Investment Valuation at 462 ("A comparable firm is one with cash flows, growth potential, and growth risk similar to the firm being valued .... The implicit assumption being made here is that firms in the same sector have similar risk, growth, and cash flow profiles and therefore can be compared with much more legitimacy").
403 Id. Trial Tr. 1068:13-15 (Hubbard) ("I mean, it's really just a restatement of garbage in, garbage out. If you don't have genuine comparables, you're not going to get much out of the approach.")
404 JX 242, Holthausen \& Zmijewski, Corporate Valuation at 529-30.
405 ld. at 529.
406 JX 2516, Koller, Valuation at 346.
407 JX 2032, Berk \& DeMarzo, Corporate Finance at 296-97 (emphasis supplied). See Trial Tr. 1068:13-15 (Hubbard) ("Given the difficulty of finding comparables for this company in particular, this is a methodology that I used for completeness and for the record for the Court, but it would not be a principal method I would advocate that the Court center on."). See also JX 1826 at \(\mathbb{1} 17\).
408 JX 1816 at \(\boldsymbol{9} 194\); JX 2516, Koller, Valuation at 335 ("Empirical evidence shows that forward-looking multiples are indeed more accurate predictors of value than historical multiples are.").
409 The EBITDA multiples valuation is generally considered more reliable than a revenue multiples approach because the EBITDA approach accounts for firms' operating efficiency and is not affected by leverage differences between firms. JX 2032, Berk \& DeMarzo, Corporate Finance at 710.
410 Id. at 710, 714; JX 2516, Koller, Valuation at 334-36; JX 242, Holthausen \& Zmijewski, Corporate Valuation at 532.
411 JX 2516, Koller, Valuation at 334; Trial Tr. 159:7-14 (Zmijewski) ("Well, value is derived from what's going to happen or what you expect to happen in the future, so looking forward is always better than looks backward.... If historical information doesn't predict the future, it's not useful at all. It's only the forward-looking information that's useful.").
412 Id. at 335-36.
413 Trial Tr. 294:16-20 (Zmijewski); JX 1818 at \(\mathbb{T} 55\) ("I base my set of comparable companies on those companies identified by Jarden's CEO, Mr. Lillie and the comparable companies used by Jarden's financial advisor, Barclays."); JX 1828 at T968-70. I note it is not clear that Dr. Zmijewski drew his peer set from the right Barclays list. The list endorsed by management was prepared by Barclays' equity analyst team while Dr. Zmijewski drew his list from the one prepared by Barclays' investment banking team. Trial Tr. 264:23-268:14 (Zmijewski). Moreover, I find Dr. Zmijewski's narrow focus on the Barclays list as the sole basis for his comparable companies peculiar given the extent to which he is critical of the Barclays Fairness Opinion. See JX 1818 at \(9 \mathbb{1} 1-42 ;\) JX 1826 at \(\mathbb{T} \uparrow 46-47\).
414 JX 1826 at 917 ; JX 2516, Koller, Valuation at 346; JX 242, Holthausen \& Zmijewski, Corporate Valuation at 511 ("The key issues in valuing companies using market multiples are choosing appropriate comparable companies that would be priced similar to the company being valued and the making adjustments to the financial numbers used so that distortions to the valuation do not arise from accounting differences or certain events that can affect the financial statements in ways that render the numbers less useful for a market multiple valuation."). Dr. Zmijewski's decision apparently to ignore Barclays' qualification that its peer set would have to be adjusted to account for qualitative differences between Jarden and the peer set was never adequately explained. Trial Tr. 294:24-296:24 (Zmijewski); JX 1565 at 127-28; JX 1205 at 11, 17.
415 JX 1816 at \(\mathbb{T} \mathbb{1} 194-96\).
416 JX 1818 at \(\mathbb{\$ 5 7}\).
417 JX 242, Holthausen \& Zmijewski, Corporate Valuation at 525 . Given his willingness to defer to peer sets prepared by others, it is surprising that Dr. Zmijewski failed to reconcile his exclusion of Kimberly-Clark and Colgate-Palmolive from his peer set with the fact that those companies were included in the peer sets developed by several of the analysts who followed Jarden. JX 1826 at \(\mathbb{T} \uparrow 43-45\).
418 Dr. Hubbard flagged Dr. Zmijewski's size discrepancy in his rebuttal report. As Dr. Hubbard noted, although the market capitalization of Kimberly-Clark and Colgate-Palmolive were, respectively, 4.6 and 6.0 times larger relative to Jarden, three of Dr. Zmijewski's selected peers were correspondingly smallerthan Jarden. JX 1826 at \(9 \uparrow 40-43\). WD-40 Company, Energizer Holdings and Helen of Troy were 7.3, 3.9 and 3.7 times smaller than Jarden, respectively, yet each of these firms remained in Dr. Zmijewski's peer set. Id. Dr. Zmijewski provided no credible justification for the disparate, asymmetrical treatment of large and small companies in his peer set. Id. See also Trial Tr. 935:6-936:17 (Zenner); JX

1827 at \(\mathbb{T} \$ 45-47\) (credibly addressing the fallacy created by Dr. Zmijewski's inconsistent approach to exclusion and inclusion of comparables based on size).
419 JX 1826 at 9 Iq15-17.
420 Trial Tr. 1103:21-24 (Hubbard).
421 JX 1816 at \(\mathrm{I}_{195}\).
422 JX 1826 at \(\uparrow \uparrow \mid 38-35\). Dr. Hubbard's peer set included firms with core business lines comparable to Jarden's core business, namely housewares, household appliances, consumer durables, apparel and personal products industry actors. JX 1816 at \(\mathbb{T} 195\).
423 JX 1826 at \(\mathbb{1} 17\).
424 JX 1818 at \(9 \uparrow 55-57\). As noted, Dr. Zmijewski offered no empirical analysis of Jarden's growth, risk, or value drivers as compared to any of the firms in his peer group. Id. But see JX 242, Holthausen \& Zmijewski, Corporate Valuation at 529-30 ("... simply selecting close competitors is not sufficient to ensure the companies are comparable .... Once we identify competitors, we analyze both the company being valued and the competitors with respect to characteristics that determine the variation in market multiples-such as future growth prospects, risk future profitability, and future expected investment requirements.").
425 The party sponsoring a comparable companies valuation has the burden of proving that the target has validly assessed peers. See In re Appraisal of SWS Gp., Inc., 2017 WL 2334852, at *10 (Del. Ch. May 30, 2017). Petitioners have not met that burden. In reaching this conclusion, I am mindful that Jarden, itself, employed a comparable companies analysis, among other approaches, when it performed internal valuations. But Petitioners have not proffered those valuations as evidence of Jarden's fair value. Instead, they have presented Dr. Zmijewski's version of a comparable companies analysis, which differed substantially from the Company's valuations. Accordingly, they had the burden of proving that the Zmijewski comparable companies valuation was a reliable indicator of fair value. For reasons I have explained, I have determined they have not carried that burden. In other words, the fact the Company employed comparable companies analyses in the past to value Jarden might be evidence that the methodology can work for Jarden, but the appraiser still has to apply the methodology in a principled way. That principled application of the methodology is what is lacking here. As a final note, for what it's worth, I did find Dr. Zmijewski's approach to selecting a proper multiple for Jarden to be more credible than Dr. Hubbard's approach, particularly given that he focused his multiples analysis on Jarden's 2016 and 2017 projected earnings, as prescribed in the valuation texts, while Dr. Hubbard based his multiples analysis on Jarden's historical EBITDA and revenue data. Compare JX 1818 at \(9 \$ 7446\) (Zmijewski) with JX 1816 at \(\mathbb{T} 9194-\) 200. See JX 2032, Berk \& DeMarzo, Corporate Finance at 710, 714; JX 2516, Koller, Valuation at 334-36; JX 242, Holthausen \& Zmijewski, Corporate Valuation at 532 (expressing preference for using forward-looking projections over a firm's historical earnings data when determining a proper multiple). Of course, this observation is worth little given the lack of credible evidence that Dr. Zmijewski created a proper peer set.
426 Gonsalves v. Straight Arrow Publ'rs, Inc., 701 A.2d 357, 361 (Del. 1997). See also M.G. Bancorp., Inc. v. Le Beau, 737 A.2d 513, 525-26 (Del. 1999) (reiterating the Chancellor's role "as an independent appraiser" and observing that "[i]n discharging its statutory mandate, the Court of Chancery has the discretion to select one of the parties' valuation models as its general framework or to fashion its own").
427 Dr. Zmijewski made two DCF calculations: an industry-specific DCF, which incorporated his comparable companies analyses ("Composite DCF"), and a Jarden-specific DCF ("Jarden-Specific DCF"). JX 1818 at \(9970-72\).
428 JX 1816 at 9149 ; JX 1831 at 93.
429 Pet'rs' Pre-Trial Br. at 33 .
430 JX 2514 at 14. Indeed, as Jarden points out, "over \(83 \%\) of value in each of [Dr.] Zmijewski's DCFs is from the terminal period." Resp't Jarden Corp.'s Answering Post-Trial Br. at 60.
431 JX 1565 at 143.
432 JX 1816 at \(\uparrow 975-78\), Ex. 9; JX 1818 at 951 , Ex. VI-7A.
433 I adopt Dr. Zmijewski's \(35.0 \%\) marginal tax rate for Jarden because Dr. Hubbard made no effort to support his effective tax rate of \(36.3 \%\). JX 1816 at \(9 \uparrow 96-97\); JX 1828 at \(9 \uparrow 9-11\). A \(35 \%\) marginal tax rate comports with the tax rates applied by Barclays, Centerview, Goldman Sachs and Jarden management-all of which set Jarden's marginal tax rate between \(33 \%\) and \(35 \%\). JX 1828 at \(9 \uparrow 9-10,24\).
434 JX 1816 at \(\uparrow \uparrow 75-78\), Ex. 9; JX 1818 at 951 , Ex. VI-7A.

435 JX 1816 at \(9 \uparrow 75-78\), Ex. 9. I track Dr. Zmijewski's free cash flows analysis with respect to the tax rate because I agree with him that Dr. Hubbard's approach to estimating Jarden's tax rate in the projected years is not adequately supported. JX 1828 at \(9 \uparrow 9-11\).
436 JX 2032, Berk \& DeMarzo, Corporate Finance at 256.
437 Id. ("[W]e estimate the value of the remaining free cash flow beyond the forecast horizon by including a[ ] ... one-time cash flow at the end of the forecast horizon .... [The terminal value] represents the market value (as of the last forecast period) of the free cash flow ... at all future dates.").
438 Trial Tr. 300:17-24 (Zmijewski) ("I paired the comparable companies risk assessment with a lower growth rate because the comparable companies ... were expected to perform at a lower growth rate. And for the Jarden-specific risk assessment, I used the midpoint of the expected inflation and expected GDP growth.")
439 JX 1816 at \(9 \Phi 84-85\).
440 ld.
441 ld.
442 JX 2515, Damodaran, Investment Valuation at 308.
443 Trial Tr. 930:2-9 (Zenner) ("So it's a little bit like saying I baked gluten-free bread for you, but I added some wheat because the consistency is going to be better. So it's kind of saying I'm providing organic growth, but I'm adding some tuck-in transactions.").
444 For Jarden, "tuck-ins" were defined as an acquisition where the target company's last twelve months ("LTM") of revenue was less than \(1.0 \%\) of Jarden's LTM revenue. JX 1828 at \(9 \$ 46-47\).
445 JX 2515, Damodaran, Investment Valuation at 306-07 ("no firm can grow forever at a rate higher than the growth rate of the economy in which it operates"); JX 2516, Koller, Valuation at 122.
446 JX 1816 at \(9 \uparrow 87-92\); JX 1818 at \(\uparrow \uparrow 52-53\).
447 JX 1818 at \(9 \uparrow 52-53\).
448 Id. at \(9 \uparrow 553-54\).
449 JX 1828 at \(9 \uparrow 46-47\).
450 JX 1818 at \(\uparrow \uparrow \uparrow 52-54\), Ex. VI-2. Polk estimated Jarden would grow at \(3.0 \%\) (mirroring U.S. GDP growth), while Bain forecasted Jarden's growth to be between \(2.0 \%\) and \(4.0 \%\). Id.
451 Id. at \(9 \uparrow 167-69\).
452 ld.
453 ld. at \(9 \uparrow 70-72\).
454 JX 1816 at \(9 \uparrow 86-92\).
455 Id. at \(\mathbb{T} \| 89-90\), Figure 20.
456 ld. at \(9 \uparrow 89-92\), Ex. 5A.
457 JX 1826 at \(9 \llbracket 32-34\), Figure 6. Dr. Hubbard maintains that the Company's \(3.0 \%\) to \(5.0 \%\) growth projections in the years following 2015 do not agree with its \(2.2 \%\) historic organic growth because management incorrectly failed to account for "tuck-in" acquisitions. Id.; JX 1816 at \(9 \uparrow 90-92\).
458 JX 1816 at \(\uparrow \uparrow 90-92\), Ex. 5A; JX 1826 at \(\uparrow \uparrow \mid 32-34\), Figure 6.
459 JX 1828 at \(9 \uparrow 46-48\).
460 Trial Tr. at 1116-18 (Hubbard); JX 1831 at 98.
461 JX 1831 at 98.
462 JX 1826 at \(\mathbb{\$} 32\) ("[l]n recent history, tuck-ins contributed approximately 1.8 percentage points to the "organic" growth reported by management, indicating that Jarden would need to continue tuck-in acquisitions in order to achieve the five percent growth in the Proxy Projections.").
463 Trial Tr. at 1116-18 (Hubbard); JX 1831 at 98.
464 JX 1816 at \(9 \uparrow 86-90\).
465 JX 1828 at \(\uparrow \uparrow 46-48\).
466 JX 1818 at \(9 \uparrow 52-53\).
467 I note that the literature cautions against relying on comparable companies when estimating terminal value because inconsistencies in projected growth rates between the target company and those of the peer group can either overvalue or undervalue the target business. JX 242, Holthausen \& Zmijewski, Corporate Valuation at 212.
468 Trial Tr. 215:20-216:17 (Zmijewski); JX 242, Holthausen \& Zmijewski, Corporate Valuation at 216-17.

469 JX 1818 at \(9\{52-53\).

471 Trial Tr. 195:18-20 (Zmijewski) ("He's using accounting data as if it were economic concepts. That doesn't work. And so that's my major disagreement with him."); Trial Tr. 197:14-17 (Zmijewski) ("These are all economic concepts. They're not -you can't sort of say here's an accounting number and it matches this. These are economic concepts, not accounting concepts").
472 JX 63; JX 242, Holthausen \& Zmijewski, Corporate Valuation at 235-37.
473 Id.; JX 1828 at \(9 \uparrow 137-38\).
474 JX 1828 at \(9 \| 34-35,45\). Dr. Zmijewski never expressly sets his TIR at \(4.9 \%\), but implicitly determines that net investment in 2021 and onward will equal \(\$ 60\) million, or approximately \(4.9 \%\) of operating profits. JX 1826 at \(9 \uparrow 54-55,62,66-67\), Figure 14. Dr. Zmijewski also assumed that depreciation will equal capital expenditures in the Terminal Period, and that Jarden's cash investment required to drive terminal growth will grow coequally with Jarden's other financial metrics. JX 1818, Ex. VI-6A (Dr. Zmijewski made some adjustments to the historical financial data such that normalized depreciation is equal to normalized capital expenditures of \(\$ 308\) million).
475 Trial Tr. 1045:21-1046:2 (Hubbard).
476 JX 1816 at 994.
477 Trial Tr. 1055:16-18 (Hubbard).
\(478 \quad I R=g / R O N I C\), where \(g\) is the terminal growth rate and RONIC is the return on new invested capital. JX 1816 at 994 ; JX 2516, Koller, Valuation at 31; JX 2515, Damodaran, Investment Valuation at 312-14.
479 JX 1816 at 994 . As discussed in more detail below, Dr. Hubbard calculates WACC as follows: Jarden's capital structure weights \(36.1 \%\) debt and \(63.9 \%\) equity, coupled with a cost of debt (after tax) of \(3.20 \%\) and a cost of equity of \(9.74 \%\), results in a WACC of \(7.38 \%\). JX 1816 at 9128 , Ex. 15.
480 Trial Tr. 196:9 (Zmijewski) ("Well, I have four issues.").
481 Trial Tr. 196:11-16 (Zmijewski).
482 Trial Tr. 197:19-198:17 (Zmijewski).
483 Trial Tr. 198:7-15 (Zmijewski).
484 Trial Tr. 198:18-199:6 (Zmijewski).
485 Trial Tr. 199:7-11 (Zmijewski).
486 Trial Tr. 1046:11-1049:23 (Hubbard); JX 2516, Koller, Valuation at 102, 250-56; JX 2515, Damodaran, Investment Valuation at 291, 299-300.
487 JX 1816 at \(\mathbb{1} 993-95\), Ex. 10A; JX 1826 at TIT54-61.
488 JX 1816, Exs. 5A-5D (compare Ex. 10A starting at FY10 with Exs. 5A, C, D starting at FY11).
489 Trial Tr. 1055:14-18 (Hubbard) ("I just don't know of firms and industries that have both high and rising forever returns on invested capital."); Trial Tr. 1051:12-16 (Hubbard) ("you can't simply change your growth, particularly your real growth, which is what is being done in this experiment, and not have any additional investment"); JX 2514 at 21 (a graph depicting the dramatically outsized ROIC implicated by Dr. Zmijewski's TIR); JX 2516, Koller, Valuation at 19; JX 2515, Damodaran, Investment Valuation at 302; JX 2032, Berk \& DeMarzo, Corporate Finance at 711.
490 This sets the TIR at the midpoint between Dr. Hubbard's TIR of \(33.9 \%\) and Jarden's historic average investment rate of \(21.6 \%\). It also assumes a ROIC for Jarden of \(11.2 \%\), which is reasonable given Jarden's innovative and highly acquisitive growth strategy and a WACC of \(6.94 \%\) (as discussed below). JX 1828 at \(\uparrow 39\).
491 Trial Tr. 1066:21-23 (Hubbard) ("Q. And if we could, did you estimate the weighted average cost of capital for purposes of your DCF analysis? A. I did. Both Professor Zmijewski and I tendered estimates of the weighted average cost of capital."); JX 1816 at \(9998-129\); JX 1818 at \(9965-66\).
492 JX 1816 at \(\mathbb{T} 998-99\).
493 Id.; JX 1818 at \(9 \uparrow 46-49\); Trial Tr. 190:1-3 (Zmijewski) ("[WACC] is a standard calculation. You calculate the equity costs of capital, the after-tax debt cost of capital. You weight those two.").
494 Id.; JX 2516, Koller, Valuation at 295-97.
495 Trial Tr. 244:2-6 (Zmijewski) ("[W]e have the same risk-free rate. We have a different equity risk premium, a slightly different beta. He doesn't use a size premium. I do. So we have some differences in our calculations here.").
496 JX 1818 at 968 ; JX 1816 at 998 ; JX 2516, Koller, Valuation at 269.
497 JX 1818 at 949 ; JX 2516, Koller, Valuation at 269-72.
498 JX 1816 at 999 ; JX 2516, Koller, Valuation at 215-19.

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500 JX 1816 at \(99100-03\); JX 1818 at \(\uparrow 63\).
501 ld.
502 JX 1818 at 964.
503 ld.
504 JX 1816 at 998.
505 ld . at \(\mathbf{T} \uparrow 100-04\), Figure 21.
506 ld.
507 ld.
508 Id. at \(\uparrow \uparrow 1100-07\), Figure 21; JX 1777 (Lillie Dep.) at 86-87.
509 JX 1816 at \(\uparrow \uparrow 98-99\).
510 Id. at \(9 \uparrow 1104-05\).
511 ld.
512 JX 2516, Koller, Valuation at 217.
513 JX 1816 at \(\mathbb{T} \uparrow 100-07\), Figure 21; JX 1818 at 963 . See also Trial Tr. 161 (Zmijewski) (explaining how he accounted for convertible securities).
514 JX 1818 at \(\uparrow 64\).
515 JX 1816 at \(9 \uparrow 103-07\), Figure 21.
516 JX 1816 at \(\mathbb{1} 105\); JX 2516, Koller, Valuation at 295-97.
517 JX 2516, Koller, Valuation at 295-97.
518 Id. at 295; JX 1816.
519 JX 1816.
520 Id. at \(\mathbb{T} 1100-07\), Figure 21; JX 1777 (Lillie Dep.) at 86-87.
521 JX 1816 at \(9 \mathbb{1} 103-07\), Figure 21.
522 Id. at \(\mathbb{1} 105\).
523 Id., Ex. 11A.
524 JX 2515, Damodaran, Investment Valuation at 211. See also JX 1816 at \(\mathbb{1} 106\); JX 1818 at 963.
525 ld.
526 JX 1818, Ex. VI-5.
527 Id. at 964.
528 JX 1816 at \(9 \mathbb{I} 108-09\). Trial Tr. 1218:11-13 (Hubbard) (Q. "You measured Jarden's cost of debt by using yield to maturity. Correct? A. I did.").
529 ld.
530 JX 1828 at \(\mathbb{2} 20\); JX 2032, Berk \& DeMarzo, Corporate Finance at 412 ("When the firm's debt is risky, however, the debt yield will overestimate the debt cost of capital, with the magnitude of the error increasing with the riskiness of the debt.").
531 Trial Tr. 1213:16-18 (Hubbard).
532 JX 1818 at \(964 ;\) JX 1816 at \(\mathbb{T 1 1 0 .}\)
533 Id.
534 JX 1816 at 9110 ; JX 2516, Koller, Valuation at 278-87; JX 2032, Berk \& DeMarzo, Corporate Finance at 385-92.
535 JX 1818 at 964 ; JX 2516, Koller, Valuation at 279; JX 2515, Damodaran, Investment Valuation at 208; JX 2032, Berk \& DeMarzo, Corporate Finance at 387.
536 JX 1816 at \(\mathbb{4} 111\); JX 1818 at \(\mathbb{T} 64\).
537 ld
538 JX 2515, Damodaran, Investment Valuation at 155; JX 2516, Koller, Valuation at 275-76; JX 2032, Berk \& DeMarzo, Corporate Finance at 411-12.
539 JX 1818 at 958 ; JX 1816 at 9112 ; JX 2516, Koller, Valuation at 279; JX 1345, Duff \& Phelps, Valuation Handbook at 2-14; JX 2515, Damodaran, Investment Valuation at 183; JX 2032, Berk \& DeMarzo, Corporate Finance at 413. See Trial Tr. 187:10-13 (Zmijewski) ("beta is a measure of risk of a company or an asset that you-that you can measure statistically using a statistical model.").
540 JX 2515, Damodaran, Investment Valuation at 183. See also JX 1816 at \(\mathbb{T} \mid 113-20\).

541 ld
542 ld .
543 ld .
544 JX 2516, Koller, Valuation at 283-84. See JX 1816 at \(\mathbb{1} 114\).
545 JX 2515, Damodaran, Investment Valuation at 188.
546 Id.; JX 2032, Berk \& DeMarzo, Corporate Finance at 413. See JX 1816 at \(\mathbb{1} 115\).

548 JX 1818 at 9 T \(98-61\).
549 Id. at TM60-61, Ex. VI-4.
550 Id. at Tף59-61, Ex. VI-5; JX 1828 at 916 . Dr. Zmijewski explained that the Jarden-Specific Beta was higher due to a "lack of precision relative to the precision [of] using a set of comparable companies" and because of Jarden's higher long-term growth relative to that of his comparable companies. JX 1818 at \(\mathbb{1} \mathbb{1} 60-61\).
551 JX 1816 at T9114-16.
552 Id. at IIf117-20.
553 ld.
554 Id. at IT114-16. Dr. Hubbard noted that the single year daily beta of 1.18 was "not substantially different" from his twoyear weekly beta of 1.22. Id. at Iq117-20.
555 Id. at ब 1 I114-16.
556 JX 2516, Koller, Valuation at 286.
557 Id. at 283-85; JX 242, Holthausen \& Zmijewski, Corporate Valuation at 306 ("... if we have a set of truly comparable companies, we feel we can gain precision in our estimate of the cost of capital by using multiple companies.") (emphasis supplied).
558 JX 1828 at T T \(912-16\).
559 Trial Tr. 1068:13-1069:15 (Hubbard); JX 1826 at If772-75.
560 JX 1818 at \(\mathbb{T} 29\) ("More specifically, I discuss ... complexity of Jarden's information and holding company (or platform) business model strategy").
561 Trial Tr. 104:7-105:18 (Lillie), 262:19-263:23 (Zmijewski) ("None of those companies is an apple-to-apple comparison to Jarden or each other. Comparable Companies-there just isn't any such thing as a twin company. It doesn't exist.").
562 JX 1816 at Iq45-50. In addition, both experts' beta estimates are positive, which indicates a parallel correlation with changes in the overall market.
563 JX 1816 at \(9 \uparrow 112-20\).
564 Id.; JX 2516, Koller, Valuation at 284; JX 2515, Damodaran, Investment Valuation 183, 187-95.
565 ld.
566 JX 1818 at ๆ \(958-61\).
567 JX 2515, Damodaran, Investment Valuation at 192-95; JX 1816, Ex. 22F; JX 1818 at T960-61.
568 JX 2516, Koller, Valuation at 286; JX 2515, Damodaran, Investment Valuation at 192-93.
569 JX 2516, Koller, Valuation at 281; JX 2032, Berk \& DeMarzo, Corporate Finance at 413; JX 241, Holthausen \& Zmijewski, Corporate Valuation at 295.
570 JX 2515, Damodaran, Investment Valuation at 187.
571 JX 1816 at \(\uparrow 121\).
572 See Trial Tr. 1072:2-4 (Hubbard) ("So the question is, what is the equity risk premium. And this is one where economists have a range of views.").
573 JX 1816 at \(\mathbb{1} \uparrow 122-24\). See Trial Tr. 1072:5-8 (Hubbard) ("My own view in my own work and in the work I'm tendering here is that the so-called historical risk premium is the best measure of the equity risk premium."). See also JX 2515, Damodaran, Investment Valuation at 161 ("In practice, we usually estimate the risk premium by looking at the historical premium earned by stocks over default-free securities over long time periods.").
574 JX 1828 at \(\mathbb{1} 18\). See Trial Tr. 1072:8-15 (Hubbard) ("There is an alternative view ... a so-called supply-side risk premium. I'm not quite sure why that word, because it's not about supply and demand, it's really about whether you include price earnings multiples expansion. That number is lower.") See also JX 1345, Duff \& Phelps, Valuation Handbook at 11.
575 JX 1828 at 917.

576 JX 1816 at 9126 . Dr. Hubbard took the mid-point of the Long-Term Historical ERP at \(6.9 \%\) and Supply-Side ERP at \(6.03 \%\) to produce his 6.47\% ERP estimate for Jarden. Trial Tr. 1072:16-19 (Hubbard) ("I prefer the historical risk premium. I'm cognizant of the fact Delaware courts have also paid attention to the supply-side risk premium. So I picked the midpoint of the two.").
577 JX 1345, Duff \& Phelps, Valuation Handbook at 5.
578 JX 1828 at \({ }^{\text {I } 18 . ~ T h e ~ l o w e r ~ S u p p l y-S i d e ~ E R P ~ i s ~ s u p p o r t e d ~ b y ~ D u f f ~ \& ~ P h e l p s ' ~ l a t e r ~ r e c o m m e n d e d ~ e s t i m a t e s ~ o f ~ a d j u s t e d ~}\) Long-Term ERP of \(5.0 \%\) as of March 31, 2018. See Trial Tr. 1073:1-4 (Hubbard) ("But if one's view is your interest in supply side is governed by Duff \& Phelps' recommendation, Duff \& Phelps has, indeed, changed its recommended approach.").
579 JX 1818 at 964.
580 JX 1826 at 978 ; Trial Tr. at 1078:4-9 (Hubbard) ("I don't have a size premium. He does. My quibble is more the way he's estimated it, given the data source he has. But, again, for the Court's consideration in the interest of the Court's time, I don't think these are super important.").
581 JX 242, Holthausen \& Zmijewski, Corporate Valuation at 320-21 (discussing the "empirical evidence that the CAPM overstates the returns to large firms and understates the returns to small firms").
582 JX 1818, Ex. VI-5.
583 JX 1816 at \(\mathbb{1} 127\).
584 JX 1818 at 966
585 JX 1816 at 911.
586 I note that this WACC is within the range calculated by Centerview but below the WACC calculated by Goldman Sachs, Deutsche Bank, RBC and Barclays.
587 JX 2516, Koller, Valuation at 295-97.
588 JX 1816 at 995 ; JX 2515, Damodaran, Investment Valuation at 313.
589 See JX 1818 at \(\mathbb{1} 51\).
590 I took the average of the revenue growth rates for the provided fiscal years of 2017-20 to determine the percentage increase.
591 I took the average of the capital expenditure growth rates for the provided fiscal years of 2017-20 to determine the percentage increase
592 JX 2515, Damodaran, Investment Valuation at 585. See JX 1818 at 960.
593 In other words, I added the discounted cash flows from each time period in the FY16-FY21 range-\$558 million, \$646 million, \(\$ 675\) million, \(\$ 687\) million, \(\$ 698\) million, \(\$ 13.3\) billion respectively-to arrive at the total enterprise value.
594 JX 1818 at \(\mathbb{9} \uparrow 69-72 ;\) JX 1816 at \(\mathbf{T} \uparrow 130-47\).
595 JX 1816 at \(9 \mathbb{T} 143-47\).
596 See Trial Tr. 1079:17-21 (Hubbard) ("Maybe I should start with the bottom line. If you were to look at all of these [enterprise value adjustments], they're a little over a dollar a share, and I think \(\$ 1.06\) altogether, because they go in different directions.").
597 JX 1816 at 9139.
598 Trial Tr. 1081:17-20 (Hubbard) ("EE]ssentially you want to add back excess cash that the company has. And we both agree on that, and we both agree on what the total cash was. It was \(\$ 799\) million.").

JX 1816 at \({ }^{\text {@ }} 140\).
Id.
Id. at \(\mathbb{1} 141\).
Id.; JX 2516, Koller, Valuation at 309; JX 2515, Damodaran, Investment Valuation at 440.
JX 1816 at \(\mathbb{9} 142\).
Id., Ex. 18C.
ld., Ex. 18A.
ld.
JX 1818 at 970 . Dr. Hubbard adjusted his final share count number to align with Dr. Zmijewski's number after double counting Jarden's restricted stock. JX 1831.
608

609 As explained above, the DCF Analysis makes the following assumptions: WACC equals \(6.9 \%\); Terminal Growth equals 3.1\%; ROIC equals 11.2\%; FY21 Revenue Growth equals 5\%; FY21 Capital Expenditure as a percent of Revenue equals \(2.6 \%\); Fully Diluted Share Count equals 219.9 million.
610 Drs. Hubbard and Zmijewski both agree on Jarden's Revenue numbers for FY16-FY20 reported in Standard and Poor's Capital IQ. See JX 1816, Ex. 9; JX 1818, Ex. VI-7A.
611 Drs. Hubbard and Zmijewski both agree on Jarden's Capital Expenditure numbers for FY16-FY20 as derived from Standard and Poor's Capital IQ and Jarden's FY10-15 10K. See JX 1816, Ex. 9; JX 1818, Ex. VI-1.
612 Time Period is calculated based on the mid-year convention used by Dr. Hubbard. JX 1816, Ex. 16. I note, for 2016, the mid-point uses the period from April 15, 2016 to December 31, 2016. Id.

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\section*{UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.}

Court of Chancery of Delaware.

\section*{IN RE APPRAISAL OF SOLERA HOLDINGS, INC.}

\author{
CONSOLIDATED C.A. No. 12080-CB \\ | \\ Date Submitted: April 6, 2018 \\  \\ Date Decided: July 30, 2018
}

\section*{Attorneys and Law Firms}

Stuart M. Grant, Christine M. Mackintosh, and Vivek Upadhya of GRANT \& EISENHOFER P.A., Wilmington, Delaware; Daniel L. Berger of GRANT \& EISENHOFER P.A., New York, New York; Lawrence M. Rolnick, Steven M. Hecht, and Jonathan M. Kass of LOWENSTEIN \& SANDLER LLP, New York, New York; Attorneys for Petitioners.

David E. Ross and S. Michael Sirkin of ROSS ARONSTAM \& MORITZ LLP, Wilmington, Delaware; Yosef J. Riemer, Devora W. Allon, Elliot C. Harvey Schatmeier, Richard Nicholson, and Madelyn A. Morris of KIRKLAND \& ELLIS LLP, New York, New York; Attorneys for Respondent.

\section*{MEMORANDUM OPINION}

\section*{BOUCHARD, C.}
*1 In this appraisal action, the court must determine the fair value of petitioners' shares of Solera Holdings, Inc. as of March 3, 2016, when Vista Equity Partners acquired Solera for \(\$ 55.85\) per share, or approximately \(\$ 3.85\) billion in total equity value, in a merger transaction. Unsurprisingly, the parties have widely divergent views on this question.

Relying solely on a discounted cash flow analysis, petitioners contend that the fair value of their shares is \(\$ 84.65\) per share -approximately \(51.6 \%\) over the deal price. Until recently, respondent consistently argued that the "best evidence" of the
fair value of Solera shares is the deal price less estimated synergies, equating to \(\$ 53.95\) per share. After an appraisal decision in another case recently used the "unaffected market price" of a company's stock to determine fair value, however, respondent changed its position to argue for the same measure of value here, which respondent contends is \(\$ 36.39\) per share -about \(35 \%\) below the deal price.

Over the past year, our Supreme Court twice has heavily endorsed the application of market efficiency principles in appraisal actions. With that guidance in mind, and after carefully considering all relevant factors, my independent determination is that the fair value of petitioners' shares is the deal price less estimated synergies-i.e., \(\$ 53.95\) per share.

As discussed below, the record reflects that Solera was sold in an open process that, although not perfect, was characterized by many objective indicia of reliability. The merger was the product of a two-month outreach to large private equity firms followed by a six-week auction conducted by an independent and fully authorized special committee of the board, which contacted eleven financial and seven strategic firms. Public disclosures made clear to the market that the company was for sale. The special committee had competent legal and financial advisors and the power to say no to an underpriced bid, which it did twice, without the safety net of another bid. The merger price of \(\$ 55.85\) proved to be a market-clearing price through a 28 -day go-shop that the special committee secured as a condition of the deal with Vista, one which afforded favorable terms to allow a key strategic competitor of Solera to continue to bid for the company.

The record further suggests that the sales process was conducted against the backdrop of an efficient and wellfunctioning market for Solera's stock. Before the merger, for example, Solera had a deep base of public stockholders, its shares were actively traded on the New York Stock Exchange and were covered by numerous analysts, and its debt was closely monitored by ratings agencies.

In short, the sales process delivered for Solera stockholders the value obtainable in a bona fide arm's-length transaction and provides the most reliable evidence of fair value. Accordingly, I give the deal price, after adjusting for synergies in accordance with longstanding precedent, sole and dispositive weight in determining the fair value of petitioners' shares as of the date of the merger.

\section*{I. BACKGROUND}
*2 The facts recited in this opinion are my findings based on the testimony and documentary evidence submitted during a five-day trial. The record includes over 400 stipulations of fact in the Stipulated Joint Pre-Trial Order ("PTO"), \({ }^{1}\) over 1,000 trial exhibits, including fourteen deposition transcripts, and the live testimony of four fact witnesses and three expert witnesses. I accord the evidence the weight and credibility I find it deserves.

\section*{A. The Parties}

Respondent Solera Holdings, Inc. ("Solera" or the "Company") is a Delaware corporation with headquarters in Westlake, Texas. \({ }^{2}\) Solera was founded in 2005 and was publicly traded on the New York Stock Exchange from May 2007 until March 3, 2016, when it was acquired by an affiliate of Vista Equity Partners ("Vista") in a merger transaction (the "Merger"). \({ }^{3}\)

From Solera's inception through the Merger, Tony Aquila served as Chairman of the Board of Directors (the "Board"), Chief Executive Officer, and President of Solera. \({ }^{4}\) Over this time period, Aquila made all top-level decisions about product innovation, corporate marketing, and investor relation efforts. \({ }^{5}\) After the Merger, Aquila remained the CEO of Solera. \({ }^{6}\)

Petitioners consist of seven funds that were stockholders of Solera at the time of the Merger: Muirfield Value Partners LP, Fir Tree Value Master Fund, L.P., Fir Tree Capital Opportunity Master Fund, L.P., BlueMountain Credit Alternatives Master Fund L.P., BlueMountain Summit Trading L.P., BlueMountain Foinaven Master Fund L.P., and BlueMountain Logan Opportunities Master Fund L.P. Petitioners collectively hold 3,987,021 shares of Solera common stock that are eligible for appraisal. \({ }^{7}\)

\section*{B. Solera's Business}

In early 2005, Aquila founded Solera with aspirations to bring about a digital evolution of the insurance industry, starting with the processing of automotive insurance claims. \({ }^{8}\) Aquila viewed Solera as a potential disruptor, akin to Amazon.com, Inc., in its specific industry. \({ }^{9}\)

Solera, in its current form, is a global leader in data and software for automotive, home ownership, and digital
identity management. \({ }^{10}\) At the time of the Merger, Solera's business consisted of three main platforms: (i) Risk Management Solutions; (ii) Service, Maintenance, and Repair; and (iii) Customer Retention Management. \({ }^{11}\) The Risk Management Solutions platform helps insurers digitize and streamline the claims process with respect to automotive and property content claims. \({ }^{12}\) The Service, Maintenance, and Repair platform digitally assists car technicians and auto service centers to diagnose and repair vehicles efficiently, accurately, and profitably, and to identify and source original equipment manufacturer and aftermarket automotive parts. \({ }^{13}\) The Customer Retention Management platform provides consumer-centric and data-driven digital marketing solutions for businesses that serve the auto ownership lifecycle, including property and casualty insurers, vehicle manufacturers, car dealerships, and financing providers. \({ }^{14}\) Solera was operating in 78 countries at the time of the Merger. \({ }^{15}\)

\section*{C. Solera Expands Aggressively Through Acquisitions}
*3 Solera's business was not always so diverse. During the Company's early years, the vast majority of Solera's revenues was derived from claims processing. \({ }^{16}\) But the claims business was facing pressure \({ }^{17}\) as a result of maturation, \({ }^{18}\) advances in automotive technology like collision avoidance and self-driving cars, \({ }^{19}\) and competition. \({ }^{20}\)

In August 2012, Aquila implemented a plan called "Mission 2020" to increase Solera's revenue and EBITDA through acquisitions and diversification. \({ }^{21}\) Solera aspired to become a "cognitive data and software and services company" that would address the entire lifecycle of a car. \({ }^{22}\)

The Mission 2020 goals included growing revenue from \(\$ 790\) million in fiscal year 2012 to \(\$ 2\) billion by fiscal year 2020, and increasing adjusted EBITDA from \(\$ 345\) million to \(\$ 800\) million over that same period. \({ }^{23}\) To meet these benchmarks, Solera implemented its "Leverage. Diversify. Disrupt." ("LDD") business strategy. \({ }^{24}\)

LDD was a three-pronged strategy. First, Solera sought to "leverage" its claims processing revenue in a given geographic area to gain a foothold in that area. Second, Solera sought to "diversify" its service offerings in the given geographic area. Third, Solera's longer-term objective
was to "disrupt" the market by integrating its service offerings such that vehicle owners and homeowners could use Solera's software to manage their purchases, maintenance, and insurance claims all in one place. \({ }^{25}\)

\section*{D. The Market's Reaction to LDD}

Between the formulation of Mission 2020 and the Merger, Solera invested approximately \(\$ 2.1\) billion in acquisitions. \({ }^{26}\) These acquisitions often were "scarcity value transactions" that involved Solera paying a premium for unique assets. \({ }^{27}\) The multiples Solera paid in these acquisitions not only were relatively high but were increasing over time, generating lower returns on invested capital. \({ }^{28}\) As a result, Solera's leverage increased while its EPS essentially remained flat and its EBITDA margins shrank. \({ }^{29}\)

Some analysts were skeptical of Solera's evolution-throughacquisitions strategy, taking a "show me" approach to the Company. \({ }^{30}\) These analysts struggled to understand Solera's diversification plan \({ }^{31}\) and complained that management's lack of transparency about the Company's strategy impeded their ability to value Solera appropriately. \({ }^{32}\) Aquila, the Board, and other analysts believed that the market misunderstood Solera's value proposition and that its stock traded at a substantial discount to fair value. \({ }^{33}\)

Compounding the challenges Solera was facing in the equity markets, Solera was encountering difficulties in the debt markets. Solera needed to have access to debt financing to execute its acquisition strategy, but by the time of the Merger, Solera was unable to find lenders willing to finance its deals due to its highly-levered balance sheet. For example, upon the announcement that Solera planned to issue tackon notes in November 2014, "the proceeds of which, along with balance sheet cash, [were] expected to effect a strategic acquisition," Moody's Investors Service downgraded Solera's credit rating from Ba 2 to \(\mathrm{Ba} 3 .{ }^{34}\) Moody's noted that "the company has been actively pursuing acquisitions, often at very high purchase multiples," and warned that "[r]atings could be downgraded [further] if the company undertakes acquisitions that, after integration, fail to realize targeted margins.,"35
*4 In late May 2015, management began discussing an \(\$ 850\) million notes offering with Goldman Sachs, the proceeds of which the Company planned to use to fund acquisitions and
refinance outstanding debt. \({ }^{36}\) The offering fell approximately \(\$ 11.5\) million short, and Goldman was forced to absorb the notes that it could not sell into the market. \({ }^{37}\) In July 2015, Moody's downgraded Solera again, \({ }^{38}\) commenting " \([t] h e\) ongoing, cumulative impacts of debt assumed for acquisitions and for the buyout of its joint venture partner's \(50 \%\) share ... plus ramped up share buybacks and dividends, have pushed Moody's expectations for [Solera's] intermediate-term leverage to approximately 7.0 times, a level high even for a B1-rated credit.," \({ }^{39}\) As Aquila testified, Solera was "out of runway" shortly before the Merger to execute the rest of its acquisition strategy because creditors were unwilling to loan funds to Solera at tolerable interest rates. \({ }^{40}\)

\section*{E. Aquila Expresses Displeasure with his Compensation at Solera}

Solera's stock price affected Aquila personally. His compensation was tied to "total shareholder return," and the majority of his stock options were underwater. \({ }^{41}\) Aquila did not receive a performance bonus in 2011, 2012, or \(2013 .{ }^{42}\) In February 2015, he emailed Thomas Dattilo, Chair of the Compensation Committee, saying "I've poured a great deal of time, inventions and sacrifice during this time in the company's transition and I really need to get something meaningful for it." \({ }^{, 43}\) At one point, Aquila threatened to leave Solera if his compensation was not reconfigured. \({ }^{44}\)

The Board recognized Aquila's value to the Company and took his request and threat to leave seriously. Dattilo commented "the way [S]olera is structured, we would probably need three people to replace him, and even that would not really fulfill the Solera requirements because of the pervasive founder[']s culture found there. ... Solera possibly couldn't exist without Tony." \({ }^{45}\) Although the Compensation Committee was looking for a solution to address Aquila's underwater stock options, they ultimately "didn't get it done., \({ }^{46}\)

\section*{F. Aquila Privately Explores a Sale of Solera}

Around the time that Aquila complained to the Board about his compensation, he began to engage in informal discussions with private equity firms regarding a potential transaction to take the Company private. In December 2014, Aquila was introduced to David Baron, an investment banker at Rothschild Inc. ("Rothschild"). \({ }^{47}\) Aquila and Baron met again
in January 2015, when they "talked through a bunch of buy-side ideas" and Aquila expressed his frustration at the disconnect between Solera's stock price performance relative to its peers and his own views on the Company's growth opportunities. \({ }^{48}\)

In March 2015, Aquila was introduced to Orlando Bravo, a founder of the private equity firm Thoma Bravo LLC ("Thoma Bravo"), and Robert Smith, the founder of Vista. \({ }^{49}\) Before these two meetings, Aquila was aware that both Thoma Bravo and Vista recently had launched new multibillion dollar funds. \({ }^{50}\)

On April 29, 2015, Baron contacted Brett Watson, the head of Koch Equity, to tell him, without identifying Solera as the target, about an opportunity to invest in preferred equity. \({ }^{51}\) Baron wrote in an email to Watson: "I'd like you to speak for as much of pref[erred stock] as possible - Ceo objective is to try to get control back[.] I'm going to clear it w[ith] chairman/ ceo next week., 52
*5 On May 4, 2015, Baron travelled to Aquila's ranch in Jackson Hole, Wyoming, bringing with him a presentation book that included leverage buyout ("LBO") analyses that the two had previously discussed. \({ }^{53}\) Two days later, during an earnings call on May 6, Aquila raised the possibility of taking Solera private as a means of returning money to its stockholders while still pursuing its growth strategy:

Q (Analyst): And just if I can bring that around to [the Solera CFO's] comment about being opportunistic in share repurchases when you think the stock is detached from intrinsic value, you haven't bought a lot of stock. So how do we square that circle in terms of what you think the Company is worth today?

A (Aquila): Look, you're bringing up a great point. So, look, it is a chicken-or-egg story. We're going to make some of you happy, which we're trying to go down-we're trying to keep the ball down the middle of the fairway. We definitely like to hit the long ball as much as we can. But in reality, we have to do what we're doing, and we have to thread the needle the way we are. Our only other alternative is either to take up leverage, buy stock right now. That's going to cause a ratings issue. That's going to cause some dislocation. We want to buy content because we want double-digit businesses in the emerging content world as apps take a different role on your phone to manage your
risks and your asset. So when you think of that, we've done a decent job. We bought, I don't know, \(\$ 300\) million worth of stock back since we did the stock buying program, and our average price is, like, \(\$ 52, \$ 53\).

So we're kind of dealing with all the factors-we got the short game playing out there. And we've got to thread the needle. And the only other option to that is to go private and take all the shares out. \({ }^{54}\)
Aquila testified that this comment was "not preplanned," and he was not "trying to suggest that [going private] was a decision that had been made., 55

A few days later, on May 11, 2015, Aquila met with Smith from Vista and his partner Christian Sowul in Austin, Texas. \({ }^{56}\) After the meeting, Sowul followed up with Baron, saying "we are very interested. [T]ony sounded like now is the time. [N]ext 4-6 weeks." \({ }^{57}\)

Also on May 11, the Board commenced a series of meetings and dinners in Dallas, Texas. \({ }^{58}\) Before these meetings, Aquila discussed with every Board member the possibility of pursuing strategic alternatives, given that Solera was "out of runway" to execute its growth-by-acquisition strategy. \({ }^{59}\) Company director Stuart Yarbrough encouraged Aquila to have these conversations with the other directors, and explained that the Board felt Solera was "being criticized in the market" and knew that the Company was paying higher multiples for larger acquisitions. \({ }^{60}\)

On May 12, 2015, Company director Michael Lehman emailed Yarbrough and Larry Sonsini of the law firm Wilson Sonsini Goodrich \& Rosati about the possibility of retaining his firm to assist in reviewing strategic alternatives. Lehman stated in the email: "Tony and the board have just begun conversations about 'evaluating strategic alternatives,'" of which "[o]ne of the more attractive conceptual alternatives is a 'going private,' which would likely mean that the CEO would have significant stake in that entity [ ] (think Dell computer type transaction).," \({ }^{61}\)
*6 In an executive session on May 13, the Board unanimously agreed that Aquila should "test the waters" with financial sponsors. \({ }^{62}\) In doing so, the Board recognized that Aquila would probably have a significant equity stake in a private Solera, posing an "inherent" conflict in his outreach to private equity firms. \({ }^{63}\) The Board authorized Aquila to "put
together a target list" of large private equity firms and to "go have discussions and see what the interest was. \({ }^{,{ }^{64}}\) The Board decided to start with private equity firms and add strategic firms later in the process because it believed that strategic firms presented a greater risk of leaks \({ }^{65}\) and an interested strategic bidder could get up to speed quickly. \({ }^{66}\) The Board also wanted to focus on larger private equity firms to avoid the complexity of firms having to partner with each other. \({ }^{67}\) At this stage, the Board prohibited "any use of nonpublic information." \({ }^{68}\)

\section*{G. A Special Committee is Formed after Aquila "Tests the Waters"}

Between May 13 and June 1, 2015, Aquila, with assistance from Rothschild, contacted nine private equity firms: Pamplona, Silver Lake, Apax, Access Industries, Hellman \& Friedman, Vista, Blackstone, CVC Capital Partners, and Thoma Bravo. \({ }^{69}\) Aquila and Rothschild had follow-up contact with at least Silver Lake, \({ }^{70}\) Blackstone, \({ }^{71}\) and Thoma Bravo \({ }^{72}\) between June 1 and July 14, 2015. After his meeting with Aquila, Orlando Bravo emailed Baron, saying "Unreal meeting. I love Tony man. We want to do this deal. \({ }^{, 73}\) On July 18, 2015, Aquila reported back to the Board that Thoma Bravo was going to make an offer for Solera. \({ }^{74}\)

On July 19, 2015, Thoma Bravo submitted an indication of interest to purchase Solera at a price between \(\$ 56\) - \(\$ 58\) per share. In the letter submitting their bid, Thoma Bravo stated that they "are contemplating this deal solely in the context of being able to partner with Tony Aquila and his management team.,"75

On July 20, 2015, the Board discussed the indication of interest received from Thoma Bravo and formed a special committee of independent directors to review the Company's strategic alternatives (the "Special Committee"). \({ }^{76}\) The Special Committee consisted of Yarbrough (Chairman), Dattilo, and Patrick Campbell, each of whom had served on multiple boards and had extensive M \& A experience. \({ }^{77}\) The Special Committee was granted the "full power and authority of the Board" to review, evaluate, negotiate, recommend, or reject any proposed transaction or strategic alternatives. \({ }^{78}\) The Board resolution establishing the Special Committee further provided that "the Board shall not recommend a Possible Transaction or alternative thereto for approval by
the Company's stockholders or otherwise approve a Possible Transaction or alternative thereto without a prior favorable recommendation of such Possible Transaction or alternative thereto by the Special Committee.,79

\section*{H. The Special Committee Begins its Work}

On July 30, 2015, the Special Committee met with its legal advisors, Sullivan \& Cromwell LLP and Richards, Layton \& Finger P.A., and financial advisor Centerview Partners LLC ("Centerview"). \({ }^{80}\) Rothschild remained active in the sales process and was formally engaged to represent the Company, \({ }^{81}\) but, in reality, it also continued to represent Aquila personally. \({ }^{82}\)
*7 At its July 30 meeting, the Special Committee approved a list of potential buyers to approach, including six strategic companies that were selected based on their business initiatives and stated future plans, and six financial sponsors (including Vista) that were selected based on their experience and interest in the technology and information services industry and their capability to execute and finance a transaction of this size. \({ }^{83}\) The Special Committee also distributed to management a short document that Sullivan \& Cromwell prepared concerning senior management contacts with prospective bidders, which, aptly for a company focused on the automotive industry, was referred to as the "Rules of the Road." \({ }^{84}\) The document stated, among other things, that "senior management must treat potential Bidders equally" and refrain from "any discussions with any Bidder representatives relating to any future compensation, retention or investment arrangements, without approval by the independent directors." \({ }^{\circ 5}\)

Between July 30 and August 4, 2015, Centerview contacted 11 private equity firms and 6 potential strategic bidders, including Google and Yahoo!, the two that Special Committee Chair Yarbrough believed were most likely to bid. \({ }^{86}\) Aquila already had "tested the waters" with some of the private equity firms that the Special Committee contacted. All six strategic firms contacted declined to explore a transaction involving Solera. \({ }^{87}\) At this time, the Special Committee did not contact IHS Inc. ("IHS"), another possible strategic acquirer, because IHS was one of Solera's key competitors and the Special Committee had "a low level of confidence" in IHS's ability to finance a transaction. \({ }^{88}\)

From time to time, Aquila, through Rothschild and his legal counsel, Kirkland \& Ellis LLP, \({ }^{89}\) apprised the Special Committee on his thoughts about the sales process. On July 30, 2015, Baron told the Special Committee's legal and financial advisors in an email that Aquila did not want IHS included in the sales process, stating "fishing expedition, too competitive, need \(50 \%\) stock ..." \({ }^{\prime}\)

On August 3, 2015, Aquila's counsel sent the Special Committee a proposed "Management Retention Program." \({ }^{91}\) This proposal stated that "an incremental \(\$ 75\) million cash retention pool" should be created to align management and shareholder incentives, and to "enhance impartiality of management among all potential buyers." \({ }^{22}\) The proposal warned that under the current compensation plan, "the program inadequately aligns management's interests with those of stockholders and exposes the Company to risks of losing key managers through closing" of a transaction. \({ }^{93}\) Solera did not implement this proposed "Management Retention Program," but the Compensation Committee did award Aquila a \(\$ 15\) million bonus in August 2015. \({ }^{94}\)

\section*{I. The Special Committee Solicits First-Round Bids and News of the Sales Process Leaks}

By August 11, 2015, Yarbrough viewed "the state of the world to be one where if there's going to be a deal, it's going to be with a private equity firm." \({ }^{\prime 95}\) On August 10, 2015, at the direction of the Special Committee, Centerview sent a letter to the five remaining parties inviting them to submit first-round bids by August 17, 2015. \({ }^{96}\) These parties had signed confidentiality agreements and were provided Boardapproved five-year projections for the Company, which were based on projections created in the normal course of business but then modified in connection with the sales process (the "Hybrid Case Projections"). \({ }^{97}\) Before the August 17 bid deadline, Baron spoke to certain potential bidders directly without involving Centerview. \({ }^{98}\)
*8 By August 17, 2015, two potential bidders had dropped out of the sales process, believing "that they would not be able to submit competitive bids." \({ }^{99}\) The remaining three financial sponsors provided indications of interest: Vista offered \$63 per share, Thoma Bravo offered \(\$ 60\) per share, and Pamplona offered \(\$ 60-\$ 62\) per share. \({ }^{100}\) Each made clear that they wanted Aquila's participation in the deal. \({ }^{101}\)

On August 19, 2015, news of the sales process leaked when Bloomberg reported that Solera was "exploring a sale that has attracted interest from private equity firms." \({ }^{102}\) The next day, the Company issued a press release announcing that it had formed the Special Committee and that it was contemplating a sale. \({ }^{103}\) Also on August 20, the Financial Times reported that Vista was "considering a bid of \(\$ 63\) per share" and that Thoma Bravo and Pamplona were "considering separate bids for \(\$ 62\) per share." 104

In a further development on August 20, Advent International Corporation, a private equity firm, reached out to Centerview and Rothschild separately to express interest in the Company. \({ }^{105}\) Centerview confirmed to Baron that it planned to ignore the inquiry, \({ }^{106}\) about which the members of the Special Committee were never informed. \({ }^{107}\) The Special Committee also was not made aware of interest that Providence Equity Partners, L.L.C., \({ }^{108}\) another private equity firm, expressed to Centerview on August 26. \({ }^{109}\) When Centerview made Baron aware of this inquiry, he responded: "Too late obv[iously] but Tony not a fan ..." 110 Neither Advent nor Providence gave any indication as to the price they would be willing to pay for Solera or the amount of time they would need to get up to speed. \({ }^{111}\)

During the August 22-23, 2015 weekend, Smith traveled to Aquila's ranch en route to his own ranch in Colorado. \({ }^{112}\) Before the meeting, Smith's team at Vista researched the size of the option pools that Vista had offered management in its "recent take privates" so that Smith would "know the comps before his meeting with [T] ony." \({ }^{113}\) Aquila did not have authorization from the Special Committee to discuss his post-transaction compensation at this time. \({ }^{114}\) Shortly after the meeting, Vista began to model a \(9 \%\) option pool with a \(1 \%\) long-term incentive plan (LTIP), up from the \(5 \%\) option pool with a \(1 \%\) LTIP that Vista had modeled before Aquila's meeting with Smith. \({ }^{115}\)

\section*{J. IHS Expresses Interest in a Potential Transaction}

On August 21, 2015, IHS contacted Centerview to express its interest in a potential acquisition of Solera at an unspecified valuation and financing structure. \({ }^{116}\) By August 23, IHS suggested that it would be able to submit a bid in excess of \(\$ 63\) per share, and it indicated that it could complete due
diligence and execute definitive transaction documents within ten calendar days despite not yet having received nonpublic information. \({ }^{117}\) The parties entered into a confidentiality agreement on August 24. \({ }^{118}\)
*9 On August 26, 2015, senior representatives of IHS, including its CFO, attended a meeting with the Company's management, before which Aquila had a one-on-one conversation with IHS's CFO for 90 minutes. \({ }^{119}\) Centerview requested numerous times that IHS's CEO Jerre Stead attend the management meeting, but he declined even though the acquisition would have been the largest in IHS's history. \({ }^{120}\) By August 27, Solera had provided IHS with non-public Company information, including the Hybrid Case Projections. \({ }^{121}\)

On September 1, IHS submitted a bid of \$55-\$58 per share, comprised of \(75 \%\) cash and \(25 \%\) stock, and included "highly confident" letters from financing sources. \({ }^{122}\) On September 2, Aquila travelled separately to meet with Stead personally, who commented that IHS was "looking at another big deal as well." \({ }^{123}\) The next day, IHS submitted a revised bid of \(\$ 60\) per share, but did not specify the mix of consideration and did not include any indication of financing commitments. \({ }^{124}\) IHS said it could complete diligence "within a matter of days."125

\section*{K. The Special Committee Negotiates with Potential Buyers}

On September 4, 2015, Vista and Thoma Bravo submitted revised bids. \({ }^{126}\) Pamplona had dropped out of the sales process by this point, \({ }^{127}\) and the Special Committee felt like it was "moving backwards" in its negotiations with IHS. \({ }^{128}\)

Both of the active bidders lowered their offers. Thoma Bravo lowered its bid to \(\$ 56\) per share, attributing the drop to "challenges in availability and terms of financing (both debt and equity) due in part to turbulence in global financial markets." \({ }^{129}\) Vista lowered its bid to \(\$ 55\) per share, but subsequently indicated that it could increase its price to \(\$ 56\) per share. \({ }^{130}\) Vista explained that it dropped its bid because of changes to Solera's balance sheet, increased financing costs, and a decline in Vista's forecasted EBITDA for Solera. \({ }^{131}\) Unbeknownst to Solera, one of the reasons Vista lowered its bid is that it had made a spreadsheet error in its financial model before submitting its first-round bid,
resulting in the model overstating Solera's future equity value by approximately \(\$ 1.9\) billion. \({ }^{132}\) If this error had been noticed and corrected, Vista's first-round bid would have been closer to \(\$ 55\) per share, rather than \(\$ 63\) per share. \({ }^{133}\)

On September 5, 2015, Aquila signaled that he was willing to roll over \(\$ 15\) million of his Solera shares in a transaction with any bidder. \({ }^{134}\) That day, the Special Committee met \({ }^{135}\) and decided to press for more from the bidders, proposing to Vista that it either raise its price to \(\$ 58\) per share, or agree to a go-shop and reduced termination fee to enable Solera to continue discussions with IHS. \({ }^{136}\) Vista agreed to the go-shop and the termination fee reduction on September 7, but also told Centerview that day that one of its anticipated sources of equity financing had withdrawn its commitment and that it would need additional time to obtain replacement financing to support its bid. \({ }^{137}\)
*10 On September 8, Vista lowered its bid to \(\$ 53\) per share. \({ }^{138}\) Vista told Solera that its bid would expire at midnight, and that "[a]fter midnight, we will not be spending any more time on" Solera. \({ }^{139}\) The Special Committee rejected Vista's bid as inadequate that same day, \({ }^{140}\) and decided "to let the process play out." \({ }^{141}\) The Special Committee set September 11, 2015 as a deadline for Vista and Thoma Bravo to make final bids. \({ }^{142}\) On September 9, Bloomberg reported that Solera had received bids from Vista and Thoma Bravo, and that the Company was "nearing a deal to sell itself for about \(\$ 53\) a share." 143

When September 11 arrived, Thoma Bravo offered \$54 per share, expiring at midnight and contingent on Solera "shutting off dividends" and reducing advisory fees. \({ }^{144}\) The Special Committee said "no." \({ }^{145}\) The press again reported in real time, with Reuters writing that Vista and Thoma Bravo had "made offers that failed to meet Solera's valuation expectations," and that Solera was "trying to sell itself to another company"-IHS-"rather than an investment firm." \({ }^{146}\)

The next morning, on September 12, Vista submitted an allcash, fully financed revised bid of \(\$ 55.85\) per share that also included the go-shop and termination fee provisions the Special Committee had requested. \({ }^{147}\) The Special Committee tried to push Vista up to \(\$ 56\) per share, but Vista refused,
saying \(\$ 55.85\) was its best and final offer. \({ }^{148}\) Centerview opined that \(\$ 55.85\) per share was fair, from a financial point of view, to Solera stockholders. \({ }^{149}\) Later in the day on September 12, the Special Committee accepted Vista's offer after receiving Centerview's fairness opinion, and the Board approved the transaction. \({ }^{150}\) On September 13, the Company and Vista entered into a definitive merger agreement (the "Merger Agreement"). \({ }^{151}\)

\section*{L. The Go-Shop Period Expires and the Merger Closes}

On September 13, 2015, Solera announced the proposed Merger. \({ }^{152}\) The press release stated that the purchase price valued Solera at approximately \(\$ 6.5\) billion, including net debt, "represent[ing] an unaffected premium of \(53 \%\) over Solera's closing share price of \(\$ 36.39\) on August 3, 2015.,153

In advance of the press release, Baron sent a celebratory email to his colleagues, in which he noted "we were the architects with the CEO from the beginning as to how to engineer the process from start to finish., \({ }^{154}\) The next morning, an internal email of the Fir Tree petitioners praised the transaction as yielding a "Good price!" \({ }^{155}\)

The Merger Agreement provided for a 28-day go-shop period during which the termination fee would be \(1 \%\) of the equity value for any offer made by IHS, a reduction from the \(3 \%\) termination fee applicable to any other potential buyer. \({ }^{156}\) The Special Committee reached out to IHS the day after signing the Merger Agreement and gave IHS nearly full access to the approximately 12,000 -document data room that the private equity firms had been given access to during the pre-signing sales process. \({ }^{157}\)
*11 On September 29, 2015, with two weeks left in the go-shop, IHS informed Solera that it would not pursue an acquisition of the Company. IHS noted that it "was appreciative of the go-shop provisions negotiated in the merger agreement ... and the fact that [Solera] had provided equal access to information in order for IHS to consider a bid." \({ }^{158}\) On October 5, 2015, Solera issued its preliminary proxy statement, which disclosed a summary of the Hybrid Case Projections. \({ }^{159}\) The go-shop expired on October 11, without Solera receiving any alternative proposals. \({ }^{160}\)

On October 15, 2015, Vista sent Aquila a proposed compensation package, offering Aquila the opportunity to obtain up to \(6 \%\) of Solera's fully-diluted equity. \({ }^{161}\) This amount was later revised up, with Vista offering Aquila up to \(10 \%\) of the fully-diluted equity. Under the revised plan, Aquila would invest \(\$ 45\) million in the deal- \(\$ 15\) million worth of his shares of Solera and \(\$ 30\) million borrowed from Vista. \({ }^{162}\) Vista's proposal positioned Aquila to earn up to \(\$ 969.6\) million over a seven-year period if Vista achieved a four-times cash-on-cash return. \({ }^{163}\)

On October 30, 2015, Solera issued its definitive proxy statement concerning the proposed Merger, which also included a summary of the Hybrid Case Projections. \({ }^{164}\) On December 8, Solera's stockholders voted to approve the Merger. Of the Company's outstanding shares, approximately \(65.4 \%\) voted in favor, approximately \(10.9 \%\) voted against, and approximately \(3.4 \%\) abstained. \({ }^{165}\) The Merger closed on March 3, 2016. \({ }^{166}\) The next day, Aquila signed a new employment agreement with Solera. \({ }^{167}\)

\section*{II. PROCEDURAL POSTURE}

On March 7 and March 10, 2016, petitioners filed their petitions for appraisal. The court consolidated the petitions on March 30, 2016. A five-day trial was held in June 2017, and post-trial argument was held on December 4, 2017.

At the conclusion of the post-trial argument, the court asked the parties to confer to see if they could agree on an expert the court might appoint to opine on a significant issue of disagreement concerning the methods the parties' experts used to determine the terminal period investment rate in their discounted cash flow analyses. On December 19, 2017, the parties advised the court that they were unable to reach agreement on a suggested expert and each submitted two candidates for the court's consideration.

On February 22, 2018, Solera filed a motion requesting the opportunity to submit supplemental briefs to address the implications of certain appraisal decisions issued after the post-trial argument. The court granted this motion on February 26, 2018, noting in its order that it had "made no decision about whether to proceed with an independent expert" and would "revisit the issue after reviewing the supplemental submissions." \({ }^{168}\) Supplemental briefing was completed on April 6, 2018. \({ }^{169}\)

\section*{III. ANALYSIS}

\section*{A. Legal Standard}

Petitioners request appraisal of their shares of Solera under 8 Del. C. § 262. "An action seeking appraisal is intended to provide shareholders who dissent from a merger, on the basis of the inadequacy of the offering price, with a judicial determination of the fair value of their shares." \({ }^{170}\) Respondent has not disputed petitioners' eligibility for an appraisal of their shares.
*12 In an appraisal action, the court has a statutory mandate to:
[D]etermine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation, together with interest, if any, to be paid upon the amount determined to be the fair value. In determining such fair value, the Court shall take into account all relevant factors. \({ }^{171}\)
Appraisal excludes any value resulting from the merger, including synergies that may arise, \({ }^{172}\) because " \([\mathrm{t}]\) he basic concept of value under the appraisal statute is that the stockholder is entitled to be paid for that which has been taken from him, viz., his proportionate interest in a going concern." \({ }^{173}\) In valuing a company as a "going concern" at the time of a merger, the court must take into consideration the "operative reality" \({ }^{174}\) of the company, viewing the company as "occupying a particular market position in the light of future prospects." \({ }^{" 175}\) A dissenting stockholder is then entitled to his proportionate interest in the going concern. \({ }^{176}\)

In using "all relevant factors" to determine fair value, the court has significant discretion to use the valuation methods it deems appropriate, including the parties' proposed valuation frameworks, or one of the court's own fashioning. \({ }^{177}\) This court has relied on a number of different approaches to determine fair value, including comparable company and precedent transaction analyses, a discounted cash flow model, and the merger price. \({ }^{178}\) "This Court may not adopt at the outset an 'either-or' approach, thereby accepting uncritically the valuation of one party, as it is the Court's duty to determine the core issue of fair value on the appraisal date." 179 "In an appraisal proceeding, the burden to establish fair value by a
preponderance of the evidence rests on both the petitioner and the respondent." 180

\section*{B. DFC, Dell, and Recent Court of Chancery Appraisal} Decisions
*13 Over the past year, the Delaware Supreme Court has issued two decisions providing important guidance for the Court of Chancery in appraisal proceedings: DFC Global Corporation v. Muirfield Value Partners, L.P. \({ }^{181}\) and Dell, Inc. v. Magnetar Global Event Driven Master Fund Ltd. \({ }^{182}\) Given their importance, a brief discussion of each case is appropriate at the outset.

In \(D F C\), petitioners sought appraisal of shares they held in a publicly traded payday lending firm, DFC, that was purchased by a private equity firm. \({ }^{183}\) This court attempted to determine the fair value of DFC's shares by equally weighting three measures of value: a discounted cash flow model, a comparable company analysis, and the transaction price. \({ }^{184}\) The court gave equal weight to these three measures of value because it found that each similarly suffered from limitations arising from the tumultuous regulatory environment that was swirling around DFC during the period leading up to its sale. \({ }^{185}\) The court's analysis resulted in a fair value of DFC at approximately \(8 \%\) above the transaction price. \({ }^{186}\)

The Delaware Supreme Court reversed and remanded to the trial court. \({ }^{187}\) Based on its own review of the trial record, the Supreme Court held that the Court of Chancery's decision to afford only one-third weight to the transaction price was "not rationally supported by the record,,"188 explaining:

Although there is no presumption in favor of the deal price ... economic principles suggest that the best evidence of fair value was the deal price, as it resulted from an open process, informed by robust public information, and easy access to deeper, non-public information, in which many parties with an incentive to make a profit had a chance to bid. \({ }^{189}\)
The Supreme Court further explained that the purpose of appraisal "is not to make sure that the petitioners get the highest conceivable value," but rather "to make sure that they receive fair compensation for their shares in the sense that it reflects what they deserve to receive based on what would fairly be given to them in an arm's-length transaction."190
*14 According to the Supreme Court, "[m]arket prices are typically viewed superior to other valuation techniques because, unlike, e.g., a single person's discounted cash flow model, the market price should distill the collective judgment of the many based on all the publicly available information about a given company and the value of its shares."191 The "collective judgment of the many" may include that of "equity analysts, equity buyers, debt analysts, [and] debt providers." \({ }^{192}\) The Supreme Court cautioned that " \([t]\) his, of course, is not to say that the market price is always right, but that one should have little confidence she can be the special one able to outwit the larger universe of equally avid capitalists with an incentive to reap rewards by buying the asset if it is too cheaply priced." \({ }^{193}\)

Several months after deciding \(D F C\), the Supreme Court reiterated the same appraisal thesis in Dell, where the trial court had reached a determination of fair value at approximately \(28 \%\) above the transaction price. \({ }^{194}\) In Dell, the Supreme Court found that the Court of Chancery erred by relying completely on a discounted cash flow analysis and affording zero weight to market data, i.e., the stock price and the deal price, because "the evidence suggests that the market for Dell's shares was actually efficient and, therefore, likely a possible proxy for fair value." \({ }^{195}\) With respect to the company's stock price, the Supreme Court explained:

Dell's stock traded on the NASDAQ under the ticker symbol DELL. The Company's market capitalization of more than \(\$ 20\) billion ranked it in the top third of the S \& P 500. Dell had a deep public float and was actively traded as more than \(5 \%\) of Dell's shares were traded each week. The stock had a bid-ask spread of approximately \(0.08 \%\). It was also widely covered by equity analysts, and its share price quickly reflected the market's view on breaking developments. \({ }^{196}\)
The Supreme Court thus held that "the record does not adequately support the Court of Chancery's conclusion that the market for Dell's stock was inefficient and that a valuation gap in the Company's market trading price existed in advance of the lengthy market check, an error that contributed to the trial court's decision to disregard the deal price.,"197

With respect to the deal price, the Supreme Court said that "it is clear that Dell's sale process bore many of the same objective indicia of reliability" as the one in \(D F C\), which "included that 'every logical buyer' was canvassed, and all but the buyer refused to pursue the company when given
the opportunity; concerns about the company's long-term viability (and its long-term debt's placement on negative credit watch) prevented lenders from extending debt; and the company repeatedly underperformed its projections."198 Given leaks in the press that Dell was exploring a sale, moreover, the world was put on notice of the possibility of a transaction so that "any interested parties would have approached the Company before the go-shop if serious about pursuing a deal." \({ }^{199}\)

Dell's bankers canvassed the interest of 67 parties, including 20 possible strategic acquirers during the go-shop, and the go-shop's overall design was relatively open and flexible. \({ }^{200}\) The special committee had the power to say "no," and it convinced the eventual buyer to raise its bid six times. \({ }^{201}\) The Supreme Court thus found that " \([n]\) othing in the record suggests that increased competition would have produced a better result. [The financial advisor] also reasoned that any other financial sponsor would have bid in the same ballpark as [the buyer]." \({ }^{202}\) Significantly, the Court did not view a dearth of strategic buyer interest as negatively impacting the reliability of the deal price, explaining:
*15 Fair value entails at minimum a price some buyer is willing to pay-not a price at which no class of buyers in the market would pay. The Court of Chancery ignored an important reality: if a company is one that no strategic buyer is interested in buying, it does not suggest a higher value, but a lower one. \({ }^{203}\)

In sum, the Supreme Court held that "[o]verall, the weight of evidence shows that Dell's deal price has heavy, if not overriding, probative value., \({ }^{204}\) It summarized its decision as follows:

In so holding, we are not saying that the market is always the best indicator of value, or that it should always be granted some weight. We only note that, when the evidence of market efficiency, fair play, low barriers to entry, outreach to all logical buyers, and the chance for any topping bidder to have the support of Mr. Dell's own votes is so compelling, then failure to give the resulting price heavy weight because the trial judge believes there was mispricing missed by all the Dell stockholders, analysts, and potential buyers abuses even the wide discretion afforded the Court of Chancery in these difficult cases. \({ }^{205}\)

Shortly after Dell was decided, the Court of Chancery rendered appraisal decisions in Verition Partners Master Fund Ltd. v. Aruba Networks, Inc. \({ }^{206}\) and In re Appraisal of AOL Inc. \({ }^{207}\)

In Aruba, the court observed that the Supreme Court's decisions in DFC and Dell "endorse using the deal price in a third-party, arm's-length transaction as evidence of fair value" and "caution against relying on discounted cash flow analyses prepared by adversarial experts when reliable market indicators are available., \({ }^{208}\) The court further observed that DFC and Dell "recognize that a deal price may include synergies, and they endorse deriving an indication of fair value by deducting synergies from the deal price. \({ }^{209}\) Rather than hold that the deal price less synergies represented fair value, however, the Aruba court determined that fair value was "the unaffected market price" of petitioners' shares, which was more than \(30 \%\) below the transaction price. \({ }^{210}\) The court identified "two major shortcomings" of its "deal-price-less-synergies figure" that supported this conclusion and explained its rationale for using the "unaffected market price" as follows:

First, my deal-price-less-synergies figure is likely tainted by human error. Estimating synergies requires exercises of human judgment analogous to those involved in crafting a discounted cash flow valuation. The Delaware Supreme Court's preference for market indications over discounted cash flow valuations counsels in favor of preferring market indications over the similarly judgment-laden exercise of backing out synergies.

Second, my deal-price-less-synergies figure continues to incorporate an element of value derived from the merger itself: the value that the acquirer creates by reducing agency costs. A buyer's willingness to pay a premium over the market price of a widely held firm reflects not only the value of anticipated synergies but also the value created by reducing agency costs. The petitioners are not entitled to share in either element of value, because both arise from the accomplishment or expectation of the merger. The synergy deduction compensates for the one element of value arising from the merger, but a further downward adjustment would be necessary to address the other.
*16 Fortunately for a trial judge, once Delaware law has embraced a traditional formulation of the efficient capital markets hypothesis, the unaffected market price provides a direct route to the same endpoint, at least for a company
that is widely traded and lacks a controlling stockholder. Adjusting down from the deal price reaches, indirectly, the result that the market price already provides. \({ }^{211}\)

In \(A O L\), the court similarly construed \(D F C\) and Dell to mean that where "transaction price represents an unhindered, informed, and competitive market valuation, the trial judge must give particular and serious consideration to transaction price as evidence of fair value" and that where "a transaction price is used to determine fair value, synergies transferred to the sellers must be deducted. \({ }^{, 212}\) In doing so, the court coined the phrase "Dell Compliant" to mean a transaction "where (i) information was sufficiently disseminated to potential bidders, so that (ii) an informed sale could take place, (iii) without undue impediments imposed by the deal structure itself." \({ }^{213}\) The court found that the sales process did not satisfy this standard and ultimately determined the fair value of petitioners' shares based on its own discounted cash flow analysis ( \(\$ 48.70\) per share), which was about \(2.6 \%\) less than the deal price ( \(\$ 50\) per share). \({ }^{214}\)

\section*{C. The Parties' Contentions}

Petitioners contend that the fair value of their shares is \(\$ 84.65\) per share-approximately \(51.6 \%\) over the deal price. Their sole support for this valuation is a discounted cash flow model prepared by their expert, Bradford Cornell, Visiting Professor of Financial Economics at the California Institute of Technology. \({ }^{215}\) Cornell also performed a multiples-based comparable company analysis "as a reasonableness check" but gave it no weight in his valuation. 216

Respondent's expert was Glenn Hubbard, the Dean and Russell L. Carson Professor in Finance and Economics at the Graduate School of Business of Columbia University, as well as Professor of Economics at Columbia University. He concluded that the "best evidence of Solera's value is the market-generated Merger price [\$55.85], adjusted for synergies [ \(\$ 1.90\) ] to \(\$ 53.95 .{ }^{, 217}\) Hubbard also conducted a valuation based on a discounted cash flow model, which resulted in a valuation of \(\$ 53.15\) per share, but found the methodology to be less reliable in this instance. \({ }^{218}\) Hubbard further considered, as a "check," Solera's historical valuation multiples, analysts' stock price targets, and valuation multiples from comparable companies and precedent transactions. \({ }^{219}\)

This sharp divide of \(\$ 31.50\) per share between the experts' DCF models is the result of a number of disagreements regarding the proper inputs and methods to use in the analysis. The most significant disagreements are explained later.
*17 Throughout trial and post-trial briefing, respondent consistently maintained that the best evidence of Solera's value at the time of the Merger was the deal price minus synergies. Seizing on the Aruba decision, respondent changed course during supplemental briefing, arguing that "[i]n light of recent cases, the best evidence of Solera's fair value is its unaffected stock price of \(\$ 36.39\) per share., 220

\section*{D. Determination of Solera's Fair Value}

I now turn to my own independent determination of the fair value of Solera's shares with the guidance from \(D F C\) and Dell in mind. Those decisions teach that deal price is "the best evidence of fair value" \({ }^{221}\) when there was an "open process,, \({ }^{, 222}\) meaning that the process is characterized by "objective indicia of reliability." \({ }^{223}\) Such "indicia" include but, consistent with the mandate of the appraisal statute to consider "all relevant factors,, \({ }^{224}\) are not limited to:
- " \([\mathrm{R}]\) obust public information,, \({ }^{225}\) comprised of the stock price of a company with "a deep base of public shareholders, and highly active trading,, \({ }^{226}\) and the views of "equity analysts, equity buyers, debt analysts, debt providers and others.,"227
- "[E]asy access to deeper, non-public information," 228 where there is no discrimination between potential buyers and cooperation from management helps address any information asymmetries between potential buyers. \({ }^{229}\)
- " \([\mathrm{M}]\) any parties with an incentive to make a profit had a chance to bid, \({ }^{230}\) meaning that there was a "robust market check",231 with "outreach to all logical buyers",232 and a go-shop characterized by "low barriers to entry" \({ }^{233}\) such that there is a realistic possibility of a topping bid.
- A special committee, "composed of independent, experienced directors and armed with that power to say 'no,',"234 which is advised by competent legal and financial advisors.
- "[N]o conflicts related to the transaction,,"235 with the company purchased by a third party in an arm's length sale \({ }^{236}\) and "no hint of self-interest." 237

If the process was open, then "the deal price deserve[s] heavy, if not dispositive, weight." \({ }^{238}\) This is not to say that the market is always correct: "In some cases, it may be that a single valuation metric is the most reliable evidence of fair value and that giving weight to another factor will do nothing but distort that best estimate. In other cases, it may be necessary to consider two or more factors., \({ }^{239}\) Whichever route it takes, however, the Court of Chancery is required to "justify its methodology (or methodologies) according to the facts of the case and relevant, accepted financial principles., 240

\section*{1. The Deal Price Less Synergies Deserves Dispositive Weight}
*18 For the reasons explained below, I find that the Merger was the product of an open process that, although not perfect, has the requisite objective indicia of reliability emphasized in \(D F C\) and Dell. Thus, I conclude that the deal price, minus synergies, is the best evidence of fair value and deserves dispositive weight in this case. My consideration of the evidence supporting this conclusion follows in three parts focusing on (i) the opportunity many potential buyers had to bid, (ii) the Special Committee's role in actively negotiating an arm's-length transaction, and (iii) the evidence that the market for Solera's stock was efficient and well-functioning.

\section*{a. Many Heterogeneous Potential Buyers Had a Meaningful Opportunity to Bid}

Appraisal decisions have placed weight on the deal price when the process "involved a reasonable number of participants and created credible competition" among bidders. \({ }^{241}\) Here, Solera reached out to nine large private equity funds in May and June 2015 during the "test the waters" period. \({ }^{242}\) Then, after Thoma Bravo submitted an indication of interest on July 19, 2015, \({ }^{243}\) the Special Committee engaged with 18 potential bidders, 11 financial and 7 strategic firms. \({ }^{244}\) As Hubbard testified, a "broad range of sophisticated buyers," both financial and strategic, had the
chance to bid for Solera. \({ }^{245}\) Petitioners' own expert offered no opinion "that more bidders should have been contacted.,"246

Not only were the 18 potential bidders directly contacted and aware that Solera could be acquired at the right price, but "the whole universe of potential bidders was put on notice,,"247 with increasing specificity over time, that the Company was considering strategic alternatives. \({ }^{248}\) Aquila publicly presaged the sales process during the Company's earnings call on the May \(6,2015,{ }^{249}\) and the Company confirmed it had formed a Special Committee and was contemplating a sale on August 20, 2015, \({ }^{250}\) the day after Bloomberg reported that Solera was "exploring a sale that has attracted interest from private equity firms." \({ }^{251}\)

The press revealed not only the identities of potential buyers, but also the approximate amounts of their bids. On August 20, 2015, for example, the Financial Times reported that Vista was "considering a bid of \(\$ 63\) per share," with Thoma Bravo and Pamplona "considering separate bids for \(\$ 62\) per share.,252 On September 9, 2015, Bloomberg reported that Solera had received bids from Vista and Thoma Bravo, and that the Company was "nearing a deal to sell itself for about \(\$ 53\) a share., \({ }^{253}\) Two days later, Reuters wrote that Vista and Thoma Bravo "had made offers that failed to meet Solera's valuation expectations," and that the Company was "trying to sell itself to another company"-IHS-"rather than an investment firm." \({ }^{254}\) The visible threat of other buyers made the sales process more competitive. \({ }^{255}\) Given these public disclosures, any potential bidder knew in essentially real time that Solera was exploring a sale and the approximate price levels of the offers. \({ }^{256}\) Yet no one else ever seriously showed up to make a topping bid.
*19 Petitioners point out that Advent and Providence were excluded from the sales process, but whether either would have bid competitively is unknown. Notably, when Advent and Providence expressed interest to Solera's bankers, neither provided any indication as to their ability to pay or their sources of financing; rather, their introductory emails were perfunctory, suggesting to me that they were just "kicking the tires., \({ }^{257}\) There also is no evidence that either of them followed up to express any further interest in Solera, either before or during the go-shop period. \({ }^{258}\)

The fact that only one potential strategic bidder-IHS-made a bid does not undermine the reliability of the sales process as a price discovery tool. That six potential strategic acquirers declined to explore a transaction involving Solera shows that six sophisticated, profit-motivated actors were offered the opportunity to participate in a sales process to acquire the Company, yet none was interested enough to even sign a nondisclosure agreement. \({ }^{259}\) As noted above, our Supreme Court forcefully made this point in Dell:

The Court of Chancery stressed its view that the lack of competition from a strategic buyer lowered the relevance of the deal price. But its assessment that more biddersboth strategic and financial-should have been involved assumes there was some party interested in proceeding. Nothing in the record indicates that was the case. Fair value entails at a minimum a price some buyer is willing to paynot a price at which no class of buyers in the market would pay. The Court of Chancery ignored an important reality: if a company is one that no strategic buyer is interested in buying, it does not suggest a higher value, but a lower one. \({ }^{260}\)
The record shows, furthermore, that the mere presence in the sales process of IHS, as a strategic bidder that was one of Solera's key competitors, incentivized the financial sponsors to put forth more competitive bids. \({ }^{261}\)

The record also reflects that the Company provided all seriously interested bidders access to deeper, non-public information after they signed non-disclosure agreements. Although the Special Committee initially excluded IHS from the process due to competitive concerns and doubts about its ability to finance a deal, \({ }^{262}\) once news of the sales process leaked out, the Special Committee worked promptly to accommodate IHS. After IHS contacted Centerview on August 21, 2015 to express interest, \({ }^{263}\) representatives of Solera and IHS held a management meeting by August 26, \({ }^{264}\) and Solera provided IHS with the Hybrid Case Projections by August 27. \({ }^{265}\) And, after IHS's CEO failed to attend the management meeting on August 26, Aquila traveled separately to meet him. \({ }^{266}\) IHS ultimately declined to make a topping bid during the go-shop period, but it was not for lack of access to information. Solera gave IHS nearly full access to the approximately 12,000 -document data room, \({ }^{267}\) and IHS specifically commented that it "was appreciative of ... the fact that [Solera] had provided equal access to information in order for IHS to consider a bid."268
*20 Finally, I am not persuaded by petitioners' argument that "[t]he sale of Solera took place against the backdrop of extraordinary market volatility," such that it "was not the product of a well-functioning market. \({ }^{, 269}\) According to petitioners, the court should not rely on the Merger price as evidence of fair value because there was macroeconomic volatility, "evidenced by the VIX spiking to an [sic] historic high [on August 24, 2015] and sharp declines in global equity markets, \({ }^{, 270}\) which constrained potential bidders' ability to finance and willingness to enter a deal. \({ }^{271}\) In support of this theory, petitioners called Dr. Elaine Buckberg as an expert on market volatility. \({ }^{272}\)

Buckberg testified that "investors are less willing to proceed with investments in the face of substantial uncertainty and volatility," and that when investors "do decide to proceed with an investment in the face of such uncertainty, they would expect to be compensated for the additional risk with a lower price., \({ }^{273}\) In that vein, Yarbrough, the Chairman of the Special Committee, candidly acknowledged that market volatility impacted "the financing side, [it] was making it more difficult on the debt financing side, and I think it also trickled over into the equity piece, too., 274

As an initial factual matter, it is questionable whether the level of market volatility during the sales process was as extraordinary as petitioners suggest. On August 24, 2015, the VIX closed at 40.74. \({ }^{275}\) Although petitioners describe this as the VIX's "highest point since January 2009" and "a level exceeded only six times in the VIX's twenty-seven year history, \({ }^{, 276}\) that assertion appears to be an exaggeration. As Hubbard testified, the August 24 closing VIX has been exceeded on 157 days in the VIX's history. \({ }^{277}\) The August 24 spike also was relatively short-lived. By August 28, just four days after closing at 40.74 , the VIX had fallen back to "about 26," and had fallen further by September 11, the last trading day before the Special Committee accepted Vista's \(\$ 55.85\) bid. \({ }^{278}\) Including the spike on August 24, the "average VIX was 19.4 in August 2015 and 24.4 in September, as compared to an average of 19.7 since 1990.,279

Even accepting that market volatility impacted the sales process by increasing financing costs and decreasing the price that financial sponsors were willing to pay, petitioners' argument is unavailing in my opinion for two reasons. First, Buckberg made no attempt to quantify the impact of volatility
on the Merger price. \({ }^{280}\) Second, and more importantly, petitioners' position ignores that they are only entitled to the fair value of Solera's stock at the time of the Merger, not to the best price theoretically attainable had market conditions been the most seller-friendly. \({ }^{281}\) As the Supreme Court pointedly explained in \(D F C\) :

Capitalism is rough and ready, and the purpose of an appraisal is not to make sure that the petitioners get the highest conceivable value that might have been procured had every domino fallen out of the company's way; rather, it is to make sure that they receive fair compensation for their shares in the sense that it reflects what they deserve to receive based on what would fairly be given to them in an arm's-length transaction. \({ }^{282}\)
*21 The record demonstrates that the Merger price "resulted from an open process, informed by robust public information, and easy access to deeper, non-public information, in which many parties with an incentive to make a profit had a chance to bid." \({ }^{283}\) Thus, consistent with our high court's recent teachings, economic principles suggest that the Merger price is what petitioners "deserve to receive" for their shares.

\section*{b. A Fully-Empowered Special Committee Actively Negotiated the Merger}

Reliance on the deal price as evidence of fair value is strengthened when independent representatives of a target company actively negotiate with potential buyers and demonstrate a real willingness to reject inadequate bids. \({ }^{284}\) Here, the record indicates that Solera's Special Committee was both competent and effective.

On July 20, 2015, the day after receiving an indication of interest from Thoma Bravo, the Board delegated to the Special Committee the "full power and authority of the Board" to review, evaluate, negotiate, recommend, or reject any proposed transaction or strategic alternative. \({ }^{285}\) The authorizing resolution further provided that Solera could not do a deal without the Special Committee's approval. \({ }^{286}\) All three directors on the Special Committee were independent and experienced. \({ }^{287}\) Yarbrough, the Chairman of the Special Committee, testified knowledgeably and forthrightly at trial about the process undertaken by the Special Committee, which was aided by reputable legal and financial advisors. \({ }^{288}\)

Petitioners tellingly make no effort to impugn the motives of any of the members of the Special Committee.

The record also demonstrates that the Special Committee actively engaged with the bidders, did not favor any one in particular, and expressed a willingness to walk away from bids that it did not find satisfactory. The Special Committee twice rejected bids that it considered inadequate -Vista's bid at \(\$ 53\) per share \({ }^{289}\) and Thoma Bravo's bid at \(\$ 54\) per share \({ }^{290}\)-each time without the safety net of another offer. \({ }^{291}\) The Special Committee's initial decision to defer inviting IHS into the sales process was reasonable, given its concerns about protecting Solera's competitively sensitive information and about IHS's ability to finance a transaction. \({ }^{292}\) In any event, that decision became academic after news of the sales process leaked in the press, at which point the Company promptly engaged with IHS for over two weeks before signing a deal with Vista. Critically, as a condition of that deal, the Special Committee extracted the right to conduct a go-shop and for a reduced \(1 \%\) termination fee for IHS (as opposed to \(3 \%\) for other bidders) to facilitate continued discussions with IHS. \({ }^{293}\) And, for reasons explained below, the negotiations with all bidders were not skewed by an artificially low stock price, since the market for Solera's stock before the Merger appears to have been efficient. \({ }^{294}\)
*22 Finally, the evidence shows that the Special Committee made a thoughtful, reasoned decision to accept Vista's "last and final" offer at \(\$ 55.85\) after countering with \(\$ 56\) and being rejected. \({ }^{295}\) Before the Special Committee did so, Centerview counseled the Special Committee that "[i]t is uncertain whether extending the process will result in higher and fully financed offers, or will lead to further deterioration in Vista's bid" and that the "Vista bid can act as a pricing floor while IHS is given a further opportunity to bid at a reduced termination fee pursuant to the go-shop negotiated by the Committee., \({ }^{296}\) As Yarbrough testified, with that advice in mind, the Special Committee unanimously decided to accept Vista's offer after comparing it to the Company's stand-alone prospects:

We then asked for Centerview to go through a presentation analysis of [Vista's bid], with the preliminary steps to their fairness opinion. And then we ultimately had a vote on it, discussed stand-alone, decided that we preferred the 55.85 and moving forward with an all-cash, riskless deal. And so we had a unanimous vote on the special
committee, and then we had a board meeting shortly thereafter where Centerview again presented to the board. We made our recommendation to the board and then the board unanimously accepted the recommendation. \({ }^{297}\)

In response to this evidence, petitioners advance essentially two arguments challenging the integrity and quality of the sales process. I address each in turn.

Petitioners' primary challenge is that Aquila's conflicts of interest tainted the sales process through meetings he (with Baron's assistance) held with private equity firms before, and on one notable occasion after, the Special Committee was formed. Although Solera's Board could have done a better job of monitoring Aquila and his interactions with potential buyers, particularly after the Special Committee was in place, those interactions did not compromise the integrity or effectiveness of the sales process in my opinion.

The reality is that Aquila's participation in a transaction was a prerequisite for a financial sponsor to do a deal. As petitioners put it, "Aquila is Solera., \({ }^{298}\) Consistent with that reality, all of the private equity firms that later submitted bids made clear that those bids depended on Aquila continuing to lead the Company. \({ }^{299}\) In other words, a go-private transaction never would have been a possibility without buyers becoming personally acquainted and comfortable with Aquila. Thus, Aquila engaging in one-on-one conversations with private equity firms before the Special Committee was formed had the utility of gauging interest in the Company to see if undertaking a formal sales process made sense. Critically, there is no indication in the record that any of those contacts predetermined or undermined the process when the Special Committee took charge.

That said, once the Company had received an indication of interest and put the Special Committee in place, the Special Committee should have monitored Aquila's contacts with potential bidders more carefully. Petitioners justifiably criticize Aquila's private two-hour meeting with Vista in August, shortly after which Vista began to model a larger option pool for post-Merger Solera executives. \({ }^{300}\) Although Aquila and Sowul (a principal at Vista) both testified that compensation was not discussed during that meeting or at any time before the deal with Vista was signed \({ }^{301}\) —and there is no direct evidence that it was-the timing is certainly suspicious and casts doubt on whether Aquila abided by the "Rules of the Road" advice the Special Committee's counsel provided,
i.e., to refrain from discussing post-Merger employment and compensation during the sales process. \({ }^{302}\) If best practices had been followed, a representative of the Special Committee would have accompanied Aquila to the August meeting with Vista as a precaution. \({ }^{303}\)
*23 Even if it is assumed that compensation discussions did occur during this meeting, nothing in the record indicates that any of Aquila's (or Baron's) actions before or during the sales process compromised or undermined the Special Committee's ability to negotiate a deal. \({ }^{304}\) The record is devoid of any evidence, for example, that Aquila participated in price discussions with any of the bidders or influenced the outcome of a competitive sales process. Indeed, petitioners do not contend that Aquila ever discussed price with the Special Committee or any bidder, nor do they contend that he played any role in the deliberations or decision-making process of the Special Committee more generally.

Further, the record does not show that structural issues inhibited the effectiveness of the go-shop. \({ }^{305}\) To the contrary, IHS indicated that it appreciated that the Company was transparent and facilitated its diligence. There also was a lower termination fee if IHS submitted a topping bid. In short, IHS had a realistic pathway to success, \({ }^{306}\) but it ultimately decided not to submit a topping bid.

As a secondary matter, petitioners advance a one-paragraph argument that the Merger was a de facto MBO (management buyout) because the Special Committee "knew" that if Solera was to be sold, it was going to be sold to a private equity firm, and all the private equity firms made clear that they "only wanted Solera if Aquila was part of the deal."307 Petitioners thus contend that the Merger warrants "heightened scrutiny." \({ }^{308}\) This argument fails for essentially two reasons.

First, contrary to petitioners' characterization of the transaction, the Merger did not have the requisite characteristics of an MBO. Petitioners' own expert (Cornell) agreed that the common definition of an MBO is a transaction "where, when it was negotiated, senior management was a participant in the transaction as an acquirer," but then conceded that the Merger was not an MBO because "it was not a joint purchase between management and another party. \({ }^{, 309}\) During the sales process, Aquila did not have an agreement with Vista or any other bidder to participate as a buyer in a particular transaction. \({ }^{310}\) To the contrary, he
expressed a willingness to invest \(\$ 15\) million in a transaction with any of the potential buyers, not just Vista. \({ }^{311}\) Further, Aquila was a not an "acquirer" in the Merger \({ }^{312}\) because, before the transaction, Aquila's holdings at the \(\$ 55.85\) per share were worth approximately \(\$ 55\) million, \({ }^{313}\) and after the Merger, Aquila invested \(\$ 45\) million into the post-Merger company. \({ }^{314}\) In short, as Cornell admitted, the Merger was not even "similar to an MBO.,315
*24 Second, petitioners contend that MBOs should be subject to "heightened scrutiny" but fail to explain why. As the Supreme Court stated in Dell, even though there may be "theoretical characteristics" of an MBO that could "detract[ ] from the reliability of the deal price,, \({ }^{316}\) the deal price that results from an MBO is not inherently suspect or unreliable per se. \({ }^{317}\) Here, to repeat, the Special Committee had the full authority to control the sales process, and exercised that authority by deciding which bidders to contact, how to respond to bids, and ultimately whether to approve the Merger.

\section*{c. The Equity and Debt Markets Corroborate that the Best Evidence of Solera's Fair Value was the Merger Price}

In \(D F C\), the Supreme Court endorsed the economic proposition that the "price at which [a company's] shares trade is informative of fair value" in an appraisal action when "the company had no conflicts related to the transaction, a deep base of public shareholders, and highly active trading," because "that value reflects the judgments of many stockholders about the company's future prospects, based on public filings, industry information, and research conducted by equity analysts." \({ }^{318}\) The Court in Dell reiterated the same point, explaining that in an efficient market "a mass of investors quickly digests all publicly available information about a company, and in trading the company's stock, recalibrates its price to reflect the market's adjusted, consensus valuation of the company." \({ }^{319}\) My inference from DFC and Dell is that the Supreme Court has emphasized this point because the price of a widely dispersed stock traded in an efficient market may provide an informative lower bound in negotiations between parties in a potential sale of control. \({ }^{320}\)

Here, the record supports the conclusion that the market for Solera's stock was efficient and well-functioning, since: (i)

Solera's market capitalization of about \(\$ 3.5\) billion placed it in the middle of firms in the S \& P MidCap 400 index; \({ }^{321}\) (ii) the stock was actively traded on the New York Stock Exchange, as indicated by weekly trading volume of \(4 \%\) of shares outstanding, \({ }^{322}\) (iii) the stock had a relative bidask spread of approximately \(0.06 \%\), in line with a number of S \& P MidCap 400 and S \& P 500 companies; \({ }^{323}\) (iv) the Company's short interest ratio indicated that, on average, investors who had sold the stock short would be able to cover their positions in about two days, which was faster than about three-quarters of S \& P 400 MidCap companies and about half of S \& P 500 companies; \({ }^{324}\) (v) at least eleven equity analysts covered Solera during the year before the Merger; \({ }^{325}\) and (vi) Solera's stock price moved sharply as rumor of the sales process leaked into the market. \({ }^{326}\)
*25 The proxy statement for the Merger identified August 3, 2015 as the unaffected date for purposes of calculating a premium. \({ }^{327}\) As of that date, a well-informed, liquid trading market determined, before news of a potential transaction leaked into the market, that the Company's stock was worth \(\$ 36.39 .{ }^{328}\) Significantly, research analysts' price targets had been declining in the months before news of a potential transaction, and these targets remained below the deal price through announcement of the Merger. \({ }^{329}\) As Hubbard put it, the takeaway from these two objective indications of value is that "market participants playing with real money, looking at the information that they have, don't think that the stock is worth \(\$ 55.85\) during that period., \({ }^{330}\)

Despite these market realities, petitioners contend that Solera was worth \(\$ 84.65\) per share-more than double its unaffected stock price of \(\$ 36.39\) per share as of August 3. \({ }^{331}\) Although one would expect a control block to trade at a higher price than a minority block, \({ }^{332}\) petitioners are unable to explain such a gaping disconnect between Solera's unaffected market price and the Merger price.

Petitioners argue that the pre-Merger stock price was artificially low because the market for Solera was not efficient due to asymmetric information. More specifically, petitioners contend that Solera was "poised to 'harvest returns, "333 from acquisitions it made between 2012 and 2015, but management struggled to disclose sufficient information, due to competitive concerns, to allow the market to value the Company properly. \({ }^{334}\) This argument ignores
evidence that many equity investors and analysts actually did understand Solera's long-term plans, with some approving of management's strategy but others not buying the story. \({ }^{335}\) Consider the following varied perspectives that analysts (and one of the petitioners) expressed within just a few months before news of the sales process leaked to the press:
\begin{tabular}{|c|c|}
\hline Positive & Negative \\
\hline "After years of M\&A, [Solera] is confident the various pieces it has been putting together are finally starting to make more sense. More financial disclosures (started); a renewed IR push and new branding efforts . . are all efforts to help investors better understand Tony's vision." (Barclays, April 13, 2015) \({ }^{336}\) & "Solera's story remains more complicated than most investors would like, we see more downside risk to estimates in the short term, and there are some valid concerns and criticisms of the story presently." (William Blair, July 13, \(2015)^{339}\) \\
\hline \begin{tabular}{l}
"While we acknowledge some shareholder angst over share price performance relative to the market and the group, we believe there is inherent franchise value in this collection of assets and businesses. Tony Aquila, Solera's CEO, should be instrumental in optimizing its competitive position and generating shareholder value. As a result, [Solera] remains an attractive risk/reward, in our view, for patient investors whose risk profile can tolerate elevated financial leverage." (SunTrust Robinson Humphrey, July 17, 2015) \({ }^{337}\) \\
"We appreciate Solera's strategy of moving into tangential markets that align with the company's core business while still providing diversification away from auto claims. Recent acquisitions and investments show progress on
\end{tabular} & \begin{tabular}{l}
"Since hitting a peak equity value in early calendar year 2014 at \(\$ 4.8\) billion, the negative effect of sub-par returns from acquisitions, increased leverage and growth in interest expense has reduced shareholder value by over \(\$ 2.2\) billion to \(\$ 2.6\) billion. . . . A frequent complaint from investors regarding a potential investment in [Solera] is a lack of confidence in both management and the Board of Directors." (Barrington Research, July 20, 2015) \({ }^{340}\) \\
"With significantly higher leverage, down earnings over the next 12 months, and recent inconsistent performance, we are stepping to the sidelines until we get increased clarity into either accelerating revenue growth or a return to sustainable earnings growth." (Piper Jaffray, July 20, 2015) \({ }^{34}\)
\end{tabular} \\
\hline
\end{tabular}
[Editor's Note: The preceding image contains the reference for footnotes \({ }^{336,337,338,339,340,341,342}\) ]
*26 These reviews suggest that there was disagreement in the financial community over Solera's strategy, not that the market as a whole did not understand it. Given the many factors indicating that the market for the Company's stock was efficient, the market presumably would have digested all of these sentiments and incorporated them into Solera's stock price. Yet Solera's pre-Merger unaffected stock price as of August 3 was still only \(\$ 36.39\).

The debt market further corroborates that, given its operative reality, Solera was not as valuable as petitioners contend. Petitioners do not dispute that the debt market had run dry for Solera as a public company as of the Merger. With its leverage already rising, the Company made an acquisition in November 2014, financing the deal with a \(\$ 400\) million notes offering. \({ }^{343}\) Moody's promptly downgraded the Company's credit rating from Ba2 to Ba3. \({ }^{344}\) In July 2015, after Solera issued \(\$ 850\) million of senior unsecured notes to finance another acquisition and retire outstanding debt, Moody's downgraded Solera again, from Ba 3 to \(\mathrm{B} 1 .{ }^{345}\) Further exemplifying Solera's challenges in taking on additional debt
to finance acquisitions, the July 2015 debt offering fell short, and Goldman Sachs had to absorb \(\$ 11.5\) million of notes that it was unable to syndicate into the market. \({ }^{346}\)

By July 2015, "despite the lucrative fees that investment bankers make from refinancing a large tranche of public company debt and syndicating a new issue, \({ }^{, 347}\) Solera had run "out of runway" in the debt market. \({ }^{348}\) "In other words, participants in the public bond markets weren't convinced they would get their money back if they gave it to [Solera], and [Solera] was not offering enough interest to compensate investors for the risk they saw in the company." \({ }^{" 349}\) Petitioners' own expert admitted that the acquisition debt market for Solera was tight at equity values greater than the Merger price. \({ }^{350}\) In short, the debt market, like many equity market participants, viewed Solera skeptically and perceived its growth-by-acquisition strategy as laden with risk. \({ }^{351}\)

\section*{*27 *****}

To summarize, the Merger was the product of a two-month outreach to large private equity firms in May and June, a six-week auction by an independent Special Committee that solicited eleven private equity and seven strategic firms, and public announcements that put a "For Sale" sign on the Company. The Special Committee had competent advisors and the power to say no to an underpriced bid, which it did twice. The Merger price of \(\$ 55.85\) proved to be a marketclearing price through a 28 -day go-shop and a three-month window-shop. No one was willing to pay more. Thus, as this court once put it, the "logical explanation ... is self-evident": Solera "was not worth more" than \(\$ 55.85\) per share. \({ }^{352}\)

\section*{2. Merger Fees Should not be Added to the Deal Price}

Petitioners argue that, "if deal price is an indicator of fair value," the court should add nearly \(\$ 450\) million-or \(\$ 6.51\) per share-to the Merger price. According to petitioners, this is the amount of transaction costs Vista incurred in connection with the Merger for buyer fees and expenses, seller fees, debt fees, and an "early participation premium" to retire debt in connection with the transaction. \({ }^{353}\) Petitioners offer no precedent or other legal support for this request. They simply contend that these costs should be added because the court's "focus should be on what Vista was actually willing to
spend to buy the Company."354 This argument fails for two independent reasons.

First, petitioners' argument cannot be squared with the definition of "fair value" in the appraisal context that our Supreme Court recently articulated in \(D F C\) when explaining the purpose of appraisal:
[F]air value is just that, "fair." It does not mean the highest possible price that a company might have sold for had Warren Buffet negotiated for it on his best day and the Lenape who sold Manhattan on their worst. ...
[T]he purpose of appraisal is not to make sure that the petitioners get the highest conceivable value that might have been procured had every domino fallen out of the company's way; rather, it is to make sure that they receive fair compensation for their shares in the sense that it reflects what they deserve to receive based on what would fairly be given to them in an arm's-length transaction. \({ }^{355}\) The Merger price was the result of arm's-length bargaining between the Special Committee and Vista. Perhaps Vista would have been willing to pay more than \(\$ 55.85\) for the Company, but that is irrelevant to the court's independent determination of fair value as that term was explained in DFC. \({ }^{356}\)
*28 Second, policy concerns counsel against adding transaction fees to the deal price in determining Solera's fair value. If stockholders received payment for transaction fees in appraisal proceedings, then it would compel rational stockholders in even the most pristine deal processes to seek appraisal to capture their share of the transaction costs (plus interest) that otherwise would be unavailable to them in any non-litigated arm's-length merger. This incentive would undermine the underlying purpose of appraisal proceedings as explained in \(D F C\).

\section*{3. Deduction for Merger Synergies}

The appraisal statute provides that "the Court shall determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger."357 Thus, the "appraisal award excludes synergies in accordance with the mandate of Delaware jurisprudence that the subject company in an appraisal proceeding be valued as a going concern." \({ }^{358}\)

Synergies do not only arise in the strategic-buyer context. It is recognized that synergies may exist when a financial sponsor is an acquirer. \({ }^{359}\) As of trial, Vista owned 40 software businesses, three of which (EagleView, Omnitracs, and DealerSocket) Vista believed had significant "touch points" with Solera from which synergies could be realized. \({ }^{360}\)

Vista modeled out four different categories of synergies in its financial analysis of the Company during the bidding process. \({ }^{361}\) Respondent's expert presented evidence at trial concerning three of those categories: portfolio company revenue synergies, private company cost savings, and the tax benefits of incremental leverage. \({ }^{362}\) In total, he calculated total expected synergies of \(\$ 6.12\) per share. \({ }^{363}\) From there, respondent's expert made a "conservative" estimate that \(31 \%\) of the value of the synergies-equating to \(\$ 1.90\) per share -remained with the seller by using the lowest percentage identified in one of three empirical studies. \({ }^{364}\)

I find this evidence, which petitioners made no effort to rebut, convincing. \({ }^{365}\) Deducting \(\$ 1.90\) from the Merger price of \(\$ 55.85\) leads to a value of \(\$ 53.95\) per share. For all the reasons discussed above, and based on my lack of confidence in the DCF models advanced by the parties (as discussed next), I conclude that this amount ( \(\$ 53.95\) per share) is the best evidence of the fair value of petitioners' shares of Solera at the time of the Merger.

\section*{4. The Dueling Discounted Cash Flow Models}
*29 Consistent with the court's duty to consider "all relevant factors" in determining Solera's fair value, \({ }^{366}\) I consider next the DCF models the parties' experts prepared. Compared with a market-generated transaction price, "the use of alternative valuation techniques like a DCF analysis is necessarily a second-best method to derive value., 367

In this action, both parties' experts created "three-stage" DCF models consisting of (i) the five-year Hybrid Case Projections (fiscal years 2016 through 2020), (ii) a five-year transition period (fiscal years 2021 through 2025), and (iii) a terminal period beginning in fiscal year 2026. \({ }^{368}\) The outcome of these models nonetheless resulted in widely divergent DCF valuations- \(\$ 84.65\) per share for petitioners, and \(\$ 53.15\) per share for respondent.

As a preliminary matter, I find comfort that respondent's DCF analysis is in the same ballpark as the deal price less estimated synergies. \({ }^{369}\) On the other side of the ledger, given my conclusions about the quality of the sales process for Solera, petitioners' DCF analysis strikes me as facially unbelievable as it suggests that, in a transaction with an equity value of approximately \(\$ 3.85\) billion at the deal price, \({ }^{370}\) potential buyers left almost \(\$ 2\) billion on the table by not outbidding Vista. Our Supreme Court has acknowledged that a DCF that results in a valuation so substantially below the transaction price may indeed lack "credibility on its face." \({ }^{, 371}\)
*30 "Delaware courts must remain mindful that 'the DCF method is [ ] subject to manipulation and guesswork [and that] the valuation results that it generates in the setting of a litigation [can be] volatile." 372 "[E]ven slight differences in [a DCF's] inputs can produce large valuation gaps."373 A number of factors explain the gaping difference between petitioners' and respondent's DCF analyses, and, notably, many of these disagreements relate to how to value Solera into perpetuity. Such assumptions about Solera's business in the terminal period, i.e., ten-plus years into the future, are unavoidably tinged with a heavy dose of speculation.

I highlight below some of the major areas of disagreement between the parties. This discussion is meant to be illustrative and not exhaustive. All of these disagreements predictably result in a higher asserted valuation by petitioners and a lower asserted valuation by respondent.

The most significant point of contention in the DCF models concerns the estimated amount of cash that Solera would need to reinvest over the terminal period. \({ }^{374}\) This "plowback" rate is the percentage of after-tax operating profits that the Company would need to invest to grow at a specified rate into perpetuity. \({ }^{375}\) Using the method identified in "many leading valuation texts including Damodaran (2012) and Koller, Goedhart and Wessels (2015)," which petitioners' expert has called the "traditional model," \({ }^{376}\) respondent argues that the required reinvestment rate is \(37.1 \% .{ }^{377}\) Petitioners, on the other hand, argue that the inflation plowback formula published in articles written by Bradley and Jarrell should be used, resulting in a required reinvestment rate of only \(16.4 \% .{ }^{378}\) According to petitioners, holding all else constant in respondent's DCF analysis, the difference between using these two reinvestment rates yields a huge \(\$ 23.90\) per share difference in Solera's valuation. \({ }^{379}\)

Another notable area of disagreement in the DCF models is Solera's return on invested capital ("ROIC") in the terminal period. Respondent assumed, consistent with "a theory this court has repeatedly cited with approval,, \({ }^{380}\) that in the long run the present value of Solera's growth opportunities would disappear due to increased competition, so the Company's ROIC would gradually converge with its weighted average costs of capital ("WACC"). \({ }^{381}\) Petitioners disagree with applying the convergence model to Solera. They contend that the Company possesses "moats" around its business, such as barriers to entry, competitive advantages, and market dominance, that will give it perpetual advantages over potential competitors. \({ }^{382}\) Petitioners thus argue that Solera will earn a return of \(4.5 \%\) above its WACC in perpetuity during the terminal period. \({ }^{383}\) When the court asked petitioner's expert how he landed on \(4.5 \%\), his response was candid: "It's a little bit of a finger in the wind." 384
*31 The parties also disagree about how to account for stock-based compensation ("SBC") in their DCF models, both for the discrete period and the terminal period. Respondent applied the "cash basis" method to stock-based compensation expense, using the cash amount that the Company would have to spend to account for SBC as a normalized percentage of revenue. \({ }^{385}\) Petitioners did not independently calculate SBC and instead used the Company's projections. \({ }^{386}\) These projections were calculated on a book basis, benchmarked to Solera's actual stock price, and assumed to grow at \(5 \%\) annually. \({ }^{387}\)

The parties also handled the contingent tax liability attached to Solera's foreign earnings very differently. As of the Merger, the Company had earned approximately \(\$ 1.2\) billion in foreign profits, for which it had only paid taxes where those profits were earned. \({ }^{388}\) Solera historically designated these profits as permanently reinvested earnings ("PRE"). Before these earnings can be repatriated to the United States or paid to stockholders, the Company must pay the residual tax, i.e., the marginal amount between the U.S. tax rate and the amount already paid internationally. \({ }^{389}\) Respondent assumed that \(\$ 350\) million of foreign earnings that had been de-designated as PRE would be repatriated as of the Merger had there not been a deal, and that the rest of Solera's foreign profits, both past and future, would be repatriated on a rolling basis following a five-year deferral period. \({ }^{390}\) This repatriation would cause Solera to pay more in taxes, decreasing the

Company's value. Petitioners, by contrast, assumed that such taxes would never be paid because they contend the timing of repatriation is unknown and thus these tax liabilities are speculative. \({ }^{391}\)

Finally, the parties disagreed about the amount of cash to be added back to Solera's enterprise value in order to convert it to equity value. This court has repeatedly held that only "excess cash" is to be added back. \({ }^{392}\) Solera had approximately \(\$ 480\) million of cash at closing. \({ }^{393}\) During the sales process, the Company's CFO did a country-by-country analysis and determined that Solera needed \(\$ 160\) million to \(\$ 165\) million to fund its operations. \({ }^{394}\) Respondent used that analysis to deduct \(\$ 165\) million from the Company's \(\$ 480\) million of cash at closing and added back the difference, i.e., \(\$ 315\) million. \({ }^{395}\) Petitioners, on the other hand, added back all of the \(\$ 480\) million, reasoning that "with modern computer technology, a good CFO doesn't need any wasting cash," and that "it would require an incompetent corporate treasurer for a big chunk of the cash balance to be wasting cash." \({ }^{396}\)
*****

There are other points of disagreement in the parties' DCF models, but it is not necessary to detail them here. As explained above, the Merger price was the product of "an open process, informed by robust public information, and easy access to deeper, non-public information, in which many parties with an incentive to make a profit had a chance to bid., \({ }^{397}\) Given the huge gap between petitioners' DCF valuation and the Merger price, which I have found to be a reliable indicator of value in accordance with the teachings of \(D F C\) and Dell, I find petitioners' DCF valuation not to be credible on its face and accord it no weight. \({ }^{398}\)
*32 My decision to do so is corroborated by the fact that nearly \(\mathbf{8 8 \%}\) of petitioners' enterprise valuation is attributable to periods after the five-year Hybrid Case Projections. \({ }^{399}\) In other words, petitioners' DCF valuation is largely a prediction about the Company's operations many years into the future. Such predictions, even when informed, are unavoidably speculative, where small variances in a DCF's inputs can lead to wide valuation swings. \({ }^{400}\)

I also give no weight to respondent's DCF valuation, but for a different reason. Although that valuation is close to
my Merger price less synergies calculation, respondent's own expert opined that his DCF valuation is "less reliable" than the Merger price minus synergies valuation "given the uncertainties ... surrounding several inputs to the DCF valuation. \({ }^{, 401}\) I agree, and will accord the value of the Merger price minus synergies dispositive weight in this case. \({ }^{402}\)

\section*{5. Respondent's Unaffected Stock Price Argument is Unavailing}

In the wake of our Supreme Court's decisions in DFC and Dell, the Court of Chancery determined in Aruba that the fair value of petitioners' shares in an appraisal proceeding was the thirty-day average unaffected market price of the company's shares, i.e., \(\$ 17.13\) per share. \({ }^{403}\) In reaching this conclusion, Vice Chancellor Laster declined to adopt his deal price ( \(\$ 24.67\) per share) less synergies figure of \(\$ 18.20\) per share because of his concerns that this figure (i) "likely was tainted by human error," and (ii) "continues to incorporate an element of value derived from the merger itself: the value that the acquirer creates by reducing agency costs., \({ }^{404}\)

In its supplemental brief, respondent argues that, "in light of recent cases, the best evidence of Solera's fair value is its unaffected stock price of \(\$ 36.39\) per share., \({ }^{405}\) This argument, which advocates for a fair value determination about \(35 \%\) below the deal price, reflects a dramatic change of position that I find as facially incredible as petitioners' DCF model. Before, during, and after trial (until Aruba was decided), respondent and its highly credentialed expert-a former chairman of the President's Council of Economic Advisors \({ }^{406}\)-consistently asserted that the "market-generated Merger price, adjusted for synergies" of \(\$ 53.95\) per share is the "best evidence of Solera's value" as of the date the Merger. \({ }^{407}\) For the reasons explained above, the court independently has come to the same conclusion.

Notably, nothing prevented respondent from advancing at trial the "unaffected market price" argument the Aruba court embraced. The scholarship underpinning the notion that both synergies and agency costs are elements of value derived from a merger that should be excluded under Section 262(h) has been in the public domain for many years and was readily available when this case was tried. \({ }^{408}\) Yet respondent made no effort to advance this theory at trial and, thus, petitioners were afforded no opportunity to respond to it. In this respect, I agree
with the sentiment Vice Chancellor Glasscock expressed in a similar situation that "the use of trading price to determine fair value requires a number of assumptions that ... are best made or rejected after being subject to a forensic and adversarial presentation by interested parties., \({ }^{409}\)
*33 As an example, even if one were to accept the legal theory that agency costs represent an element of value derived from the merger itself, little exists in the record to give the court any comfort about Solera's true unaffected market price. The \(\$ 36.39\) per share figure on which the Company relies represents the closing price on a single day, August 3, 2015. \({ }^{410}\) Although the Company used that date in its proxy statement as the unaffected date for purposes of calculating a premium, \({ }^{411}\) and I have referenced it in this opinion a number of times for context, the parties never litigated the issue of Solera's unaffected market price and the court is in no position based on the trial record to reliably make such a determination.

With respect to the merits of the theory that agency costs represent an element of value derived from the merger itself, the Aruba court explained that the "concept of reduced agency costs is the flipside of the benefits of control," with the "key point" being that "control creates value distinct from synergy value., \({ }^{412}\) This is because, as Professors Hamermesh and Wachter explain, "the aggregation of the shares is valuecreating because a controller can then exercise the control rights involving directing the strategy and managing the firm.," \({ }^{413}\) They go on to argue that the "normative justification for awarding the value of control to the controller parallels the rationale for awarding the value of synergies to the bidder. Efficiency requires that those who create an efficient transaction-either through creating synergies or eliminating agency costs-should receive the value that they create." \({ }^{414}\)

Significantly, however, a number of this court's appraisal decisions, one of which was affirmed in relevant part on appeal, suggest that the value of control is properly part of the going concern and not an element of value that must be excised under Section 262(h). \({ }^{415}\) In Le Beau v. M.G. Bancorporation., Inc., for example, respondent used a "capital market" approach that "involved deriving various pricing multiples from selected publicly-traded companies, and then applying those multiples to MGB," the target corporation. \({ }^{416}\) Then-Vice Chancellor Jacobs rejected the methodology because it "results in a minority valuation." 417

The Supreme Court affirmed this determination, explaining that the trial court's conclusion that the "capital market approach contained an inherent minority discount that made its use legally impermissible in a statutory appraisal proceeding [was] fully supported by the record evidence that was before the Court of Chancery and the prior holdings of this Court construing Section 262.,"418

Similarly, in Borruso v. Communications Telesystems International, Vice Chancellor Lamb held that "a control premium should be added to adjust the market value of the equity derived from the comparable company method., 419 The court explained it reasoning as follows:
*34 [T]he comparable company method of analysis produces an equity valuation that inherently reflects a minority discount, as the data used for purposes of comparison is all derived from minority trading values of the comparable companies. Because that value is not fully reflective of the intrinsic worth of the corporation on a going concern basis, this court has applied an explicit control premium in calculating the fair value of the equity in an appraisal proceeding. \({ }^{420}\)

More recently, then-Vice Chancellor Strine took the same approach in Andaloro v. PFPC Worldwide, Inc. \({ }^{421}\) There, the court approved adjusting a comparable companies analysis by adding a control premium where " \([\mathrm{w}]\) hat is being corrected for is the difference between the trading price of a minority share and the trading price if all the shares were sold.,"422

Our Supreme Court held long ago that the going concern value of a company must be determined in an appraisal case "irrespective of the synergies involved in a merger." \({ }^{423}\) \(D F C\) and Dell both make the same point. \({ }^{424}\) Although DFC and Dell are transformative decisions in my view in their full-throated endorsement of applying market
efficiency principles in appraisal actions, \({ }^{425}\) I do not read those decisions-both of which unmistakably emphasize the probative value of deal price \({ }^{426}\)-to suggest that agency costs represent an element of value attributable to a merger separate from synergies that must be excluded under Section 262(h). Had that been the Supreme Court's intention, I believe it would have said so explicitly.

Accordingly, I reject respondent's newly-minted argument that Solera's closing price on August 3, 2015 of \(\$ 36.39\) is the best evidence of Solera's fair value as of the date of the Merger.

\section*{IV. CONCLUSION}

For the reasons explained above, petitioners are entitled to \(\$ 53.95\) per share as the fair value of their shares of Solera, plus interest accruing from the date the Merger closed, March 3, 2016, at the rate of \(5 \%\) percent over the Federal Reserve discount rate from time to time, compounded quarterly. \({ }^{427}\)

The parties should confer and submit a form of implementing order for the entry of final judgment consistent with this opinion within ten business days. It is the court's intention to unseal the expert reports in this case in their entirety upon entry of a final judgment. If, however, a party believes good cause exists to maintain any portion of any of the expert reports under seal, that party must file a motion within ten business days identifying the specific part that warrants further confidential treatment and explaining the basis for continuing such treatment.

\section*{*35 IT IS SO ORDERED.}

\section*{All Citations}

Not Reported in Atl. Rptr., 2018 WL 3625644

\section*{Footnotes}

1 The court appreciates the parties' efforts in reaching agreement on a thorough set of factual stipulations.
2 PTO ๆ 75.
3 Id. \(\boldsymbol{\| T 1} 1,77\) \& Ex. A.
4 ld. \(\uparrow 181\).
5 Id. \(\uparrow 182\).
6 Id. \(\uparrow 83\).
7 Id. \(\boldsymbol{T \Pi I 1 2 , 2 2 - 2 4 , 3 0 - 3 2 , 3 9 .}\)
\(8 \quad \operatorname{ld.} \uparrow \llbracket 76,80\).
\begin{tabular}{|c|c|}
\hline 9 & Tr. 369-70, 375 (Aquila). \\
\hline 10 & PTO 1117. \\
\hline 11 & Id. \(\mathbb{I} 118\). \\
\hline 12 & Id. 1120. \\
\hline 13 & ld. \(\uparrow 1125\). \\
\hline 14 & Id. \(\mathbb{T} 128\). \\
\hline 15 & Tr. 659-60 (Giger). \\
\hline 16 & PTO \T¢ 134-138. \\
\hline 17 & Id. 11163. \\
\hline 18 & Tr. 23-24 (Cornell); JX0121.0007. \\
\hline 19 & Tr. 32 (Cornell); JX0092.0012-13. \\
\hline 20 & Tr. 207-08 (Cornell); 758-60 (Yarbrough); JX0092.0014-15. \\
\hline 21 & PTO IT 159-61, 163. \\
\hline 22 & Tr. 372-73, 381 (Aquila). \\
\hline 23 & PTO ¢ 160. \\
\hline 24 & Id. 1132. \\
\hline 25 & Id. \(\mathbb{T} 133\). \\
\hline 26 & Id. 1165. \\
\hline 27 & Tr. 386-88 (Aquila). \\
\hline 28 & Id. at 387 (Aquila), 1063 (Hubbard); JX0899.0050-51. \\
\hline 29 & JX1101.0056, 151-52, 175-76. \\
\hline 30 & JX1101.0030. \\
\hline 31 & PTO \| 241; Tr. 478-79 (Aquila). \\
\hline 32 & PTO \IT 244-46. \\
\hline 33 & Tr. 464-67 (Aquila), 861 (Yarbrough); JX0175.0108 (William Blair \& Company); JX0301.0001 (Goldman Sachs); JX0325.0001 (Goldman Sachs). \\
\hline 34 & JX0140.0003. "Ba" obligations are those "judged to be speculative and are subject to substantial credit risk." Rating Symbols and Definitions, Moody's Inv'r Serv. 6 (June 2018), https://www.moodys.com/ researchdocumentcontentpage.aspx?docid=PBC_79004. \\
\hline 35 & JX0140.0003. \\
\hline 36 & Tr. 409-11 (Aquila); JX0258.004. \\
\hline 37 & Tr. 412-14 (Aquila); JX0318.001. \\
\hline 38 & Tr. 416-17 (Aquila); JX0310.0004. \\
\hline 39 & JX0310.0004. "B" obligations are those "considered speculative and are subject to high credit risk." Rating Symbols and Definitions, Moody's Inv'r Serv. 6 (June 2018), https://www.moodys.com/researchdocumentcontentpage.aspx? docid=PBC_79004. \\
\hline 40 & Tr. 414 (Aquila). \\
\hline 41 & Id. at 460, 485 (Aquila); JX0088.0002. \\
\hline 42 & Tr. 461 (Aquila). \\
\hline 43 & PTO ๆ 222. \\
\hline 44 & Id. \1 224; JX0174.0002-03. \\
\hline 45 & JX0174.0002. \\
\hline 46 & Tr. 464 (Aquila). \\
\hline 47 & PTO \1251. \\
\hline 48 & Id. \(\mathbb{1} 1252\). \\
\hline 49 & Tr. 480 (Aquila); PTO \Tl| 258-60. \\
\hline 50 & Tr. 481-84 (Aquila). \\
\hline 51 & PTO ¢ 262. \\
\hline 52 & JX0208.0002. \\
\hline 53 & Tr. 500-01 (Aquila); JX1120.0004, 17. \\
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\end{tabular}
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54 JX0214.0014-15 (emphasis added).
55 Tr. 424-25 (Aquila).
56 JX0251.0001.
5 7 ~ J X 0 2 3 4 . 0 0 0 1 .
58 Tr. 762-63 (Yarbrough).
59 Id. at 425-27 (Aquila), 760-62 (Yarbrough).
60 Id. at 862-64 (Yarbrough).
61 JX0250.0003.
62 Tr. 428-29 (Aquila), 762-63, 816 (Yarbrough).
63 Tr. 829-31 (Yarbrough); JX0250.0003.
64 Tr. }865\mathrm{ (Yarbrough).
65 Id. at }764\mathrm{ (Yarbrough).
66 Id. at 764-65 (Yarbrough).
67 ld. at }865\mathrm{ (Yarbrough).
68 Id. at }764\mathrm{ (Yarbrough).
69 PTO <br>l 268, 271-78.
70 ld. \ 279.
71 Id. \T| 277, 280, 282.
72 Id. \T| 278, 283-84.
7 3 ~ J X 0 3 1 5 . 0 0 0 1 .
74 Tr. 526-27 (Aquila).
75 PTO | 285.
76 Id. \T 286-87. The written consent establishing the Special Committee is dated July 23, 2015 (see JX0359), but it is
stipulated that it was formed on July 20, 2015. PTO \ 287.
PTO | 287; Tr. 754-56, 771-772 (Yarbrough).
JX0359.0002.
ld.
Tr. 776-78 (Yarbrough); PTO | 289.
81 JX0625; JX0673.0020; JX1161.0001. Both Centerview and Rothschild each were paid approximately \$25 million in
advisory fees. JX0673.0020.
Tr. }568\mathrm{ (Aquila); JX1170.
PTO | 289.
Tr. 782-83 (Yarbrough); JX0380.0003-05.
JX0380.0005.
PTO | 295; Tr. 870-71 (Yarbrough).
PTO | 298.
Tr. 780-82 (Yarbrough).
JX1170.
JX0378.0001.
Tr. }546\mathrm{ (Aquila); JX0402.
JX0402.0003, 07.
JX0402.0003.
Tr. 558, }589\mathrm{ (Aquila).
Id. at }854\mathrm{ (Yarbrough).
PTO | 299; JX0756.0044.
PTO ๆ 388; JX0445.0005.
See JX0467.0001 (Silver Lake); JX0456.0001 (Pamplona).
JX0465.0001.
100 PTO \ \$ 302.
101 JX0340.0003; JX0464.0005, 08.

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PTO | 305.
103 ld. \ \$06.
104 JX0499.0002.
105 JX0497.0001-02 (August 20, 2015 email from Advent to Centerview); JX0517.0001 (August 21, 2015 email referencing
Advent call to UK head of Rothschild).
106 JX0497.0001.
107 Tr. 844-45 (Yarbrough).
108 ld. at 845-46 (Yarbrough).
109 JX0556.0001.
110 ld.
111 JX0497; JX0556.
112 Tr. 597-98 (Aquila); JX0523; JX0525.
113 JX0525.0002.
114 Tr. }833\mathrm{ (Yarbrough).
115 JX0525.0001; JX0541.0001.
116 PTO | %07.
117 Id. | \$08.
118 Id. | 309.
119 Id. \ 312.
120 Id. \ 312; Tr. }441\mathrm{ (Aquila), 793 (Yarbrough).
121 PTO | 313.
122 Id. | | 317.
123 Tr. 442-44 (Aquila).
124 PTO | 321.
125 JX0611.0002.
126 PTO <br> 322, 324.
127 ld. | 311.
128 Tr. 796-97 (Yarbrough).
1 2 9 ~ P T O ~ \ T \ ~ 3 2 2 - 2 3 .
130 ld. | \$24.
131 JX0620.0001-02; JX0626.0001.
132 Tr. 934-35, 964-67 (Sowul). Petitioners question the veracity of this explanation, but I found Sowul's testimony on the
point to be credible and one of petitioners' own experts confirmed the spreadsheet error. Id. at 301-04 (Buckberg).
Id. at 934-35 (Sowul).
PTO \^T 382-84; Tr. 589 (Aquila); JX0623.
JX0628.
PTO | 325.
ld. \{ 329-31.
Id. \ \$32.
JX0638.0001.
PTO | 334.
Tr. 969-70 (Sowul).
Id. at }806\mathrm{ (Yarbrough).
JX0644.0001.
PTO | 338; Tr. }806\mathrm{ (Yarbrough).
Tr. }807\mathrm{ (Yarbrough).
JX0651.0001.
PTO \ 339; JX0756.0052; Tr. 807-08 (Yarbrough).
PTO | 339.
Id. \ 341; Tr. 807-08 (Yarbrough); JX0661.0001-04.

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151 ld. | 348.
152 JX0681.
153 JX0681.0001.
154 JX0670.0002.
155 JX0683.0001.
156 PTO | 350.
157 Id. | 351; Tr. }811\mathrm{ (Yarbrough). Solera withheld six documents. Four of the six documents concerned Digital Garage, a
strategically sensitive new smartphone application, and the other two concerned personnel matters. Tr. }811\mathrm{ (Yarbrough);
PTO \ 139-44.
158 PTO \ 354.
159 Id. | \$55.
160 Id. | \$ 356.
161 JX0744.0001, 03; Tr. 611-614 (Aquila).
162 PTO \T| 382-387; JX0760.0004.
163 JX0760.0004, 09-10.
164 PTO | 5; JX0756.0069.
165 PTO <br>f 6-7.
166 Id. |1. 1.
167 JX0855.0001.
168 Dkt. }122
169 Dkt. }125
170 Cavalier Oil Corp. v. Harnett, 564 A.2d 1137, 1142 (Del. 1989) (citation omitted).
171 8 Del. C. § 262(h).
172 See M.P.M. Enters., Inc. v. Gilbert, 731 A.2d 790, }797\mathrm{ (Del. 1999).
173 Tri-Cont'l Corp. v. Battye, 74 A.2d 71, }72\mathrm{ (Del. 1950).
174 M.G. Bancorporation, Inc. v. Le Beau, }737\mathrm{ A.2d 513, }525\mathrm{ (Del. 1999).
175 Matter of Shell Oil Co., }607\mathrm{ A.2d 1213, }1218\mathrm{ (Del. 1992).
176 Cavalier Oil, 564 A.2d at 1144.
177 In re Appraisal of Ancestry.com, Inc., 2015 WL 399726, at *15 (Del. Ch. Jan. 30, 2015) (citing Glob. GT LP v. Golden
Telecom, Inc. 11 A.3d 214, }218\mathrm{ (Del. 2010) ).
178 See Laidler v. Hesco Bastion Envtl., Inc., 2014 WL 1877536, at *6 (Del. Ch. May 12, 2014) (compiling authorities); see also In re Lane v. Cancer Treatment Ctrs. of Am., Inc., 1994 WL 263558, at *2 (Del. Ch. May 25, 1994) ("[R]elevant factors to be considered include 'assets, market value, earnings, future prospects, and any other elements that affect the intrinsic or inherent value of a company's stock.' ") (quoting Weinberger, at 711).
179 In re Appraisal of Metromedia Int'I Gp., Inc., 971 A.2d 893, 899-900 (Del. Ch. 2009) (citation omitted).
180 Laidler, 2014 WL 1877536, at *6 (citing M.G. Bancorporation., Inc., v. Le Beau, 737 A.2d at 520).
181172 A.3d 346 (Del. 2017).
182177 A.3d 1 (Del. 2017).
183 DFC, 172 A.3d at 348.
184 In re Appraisal of DFC Glob. Corp., 2016 WL 3753123, at *1 (Del. Ch. July 8, 2016), rev'd, DFC, 172 A.3d 346.
185 See id. at *21 ("Each of these valuation methods suffers from different limitations that arise out of the same source: the tumultuous environment in the time period leading up to DFC's sale. As described above, at the time of its sale, DFC was navigating turbulent regulatory waters that imposed considerable uncertainty on the company's future profitability, even its viability. Some of its competitors faced similar challenges. The potential outcome could have been dire, leaving DFC unable to operate its fundamental businesses, or could have been very positive, leaving DFC's competitors crippled and allowing DFC to gain market dominance. Importantly, DFC was unable to chart its own course; its fate rested largely in the hands of the multiple regulatory bodies that governed it. Even by the time the transaction closed in June 2014, DFC's regulatory circumstances were still fluid.").
186 DFC, 172 A.3d at 360-61.

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187
ld. at 351.
188 Id. at 349.
189 ld.
190 Id. at 370-71.
191 Id. at 369-70.
192 Id. at 373.
193 Id. at 367.
194 In re Appraisal of Dell Inc., 2016 WL 3186538, at *1, 18 (Del. Ch. May 31, 2016), rev'd, Dell, 177 A.3d 1.
195 Dell, 117 A.3d at 6.
196 Id. at 7.
197 Id. at 27.
198 Id. at 28 (citing DFC, 172 A.3d at 374-77); see also id. ("TThe financial advisor] did not initially solicit the interest of strategic bidders because its analysis suggested none was likely to make an offer.").
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211 Id. at *2-4 (internal citations, quotations, and alterations omitted).
2122018 WL 1037450, at *1.
213 ld. at *8.
214 Id. at *21. Just last week, the Court of Chancery similarly found in another case that flaws in a sales process leading to a merger undermined the reliability of the merger price as an indicator of fair value. Blueblade Capital Opportunities LLC v. Norcraft Cos., Inc., 2018 WL 3602940, at *1-2 (Del. Ch. July 27, 2018).

215 JX0898.0094-95, 200.
216 JX0898.0098.
217 Resp't's Post-Trial Opening Br. 1 (Dkt. 106); see also JX0894.0125-26.
218 JX0894.0126.
219 ld.
220 Resp't's Suppl. Post-Trial Br. 5 (Dkt. 123).
221 DFC, 172 A.3d at 349.
222 ld
223 Dell, 177 A.3d at 28.
2248 Del. C. § 262(h) ("In determining such fair value, the Court shall take into account all relevant factors."); see also DFC, 172 A.3d at 364 (affirming Golden Telecom and restating that "§262(h) gives broad discretion to the Court of Chancery to determine the fair value of the company's shares, considering 'all relevant factors' ").
225 DFC, 172 A.3d at 349.
226 ld. at 373.
227 Id.
228 ld. at 349.
229 Dell, 177 A.3d at 32-34.
230 DFC, 172 A.3d at 349.

231
232 Dell, 177 A.3d at 35.
233 ld.
234 ld. at 28.
235 DFC, 172 A.3d at 373.
236 Id. at 349.
237 Id.
238 Dell, 177 A.3d at 23.
239 DFC, 172 A.3d at 388.
240 Dell, 177 A.3d at 22 (citation omitted).
241 Merion Capital L.P. v. Lender Processing, 2016 WL 7324170, at \({ }^{\star 18}\) (Del. Ch. Dec. 16, 2016).
242 PTO \(\uparrow \uparrow\) 268, 271-78.
243 Id. \(\uparrow 1285\).
244 Id. \(\boldsymbol{\text { If }}\) 295, 307-09.
245 Tr. 1029-31, 1036-37 (Hubbard).
246 Id. at 132 (Cornell).
247 In re Appraisal of PetSmart, Inc., 2017 WL 2303599, at *28 (Del. Ch. May 26, 2017); see also Tr. 1036 (Hubbard) ("Once a sales process became public in the Bloomberg story, anyone who wished to bid on this asset could certainly have jumped in."); Dell, 177 A.3d at 28 ("[G]iven leaks that Dell was exploring strategic alternatives, record testimony suggests that [Dell's banker] presumed that any interested parties would have approached the Company before the go-shop if serious about pursuing a deal.").
248 Tr. 789 (Yarbrough) ("And then an upside of that is that everybody in the world knew that we were looking at strategic alternatives at that point.").
249 JX0214.0014-15.
250 PTO \(\mathbb{1} 306\).
251 Id. \(\mathbb{1} 305\).
252 JX0499.0002.
253 JX0644.0001.
254 JX0651.0001.
255 Lender Processing, 2016 WL 7324170, at *18 ("Importantly, however, if bidders perceive a sale process to be relatively open, then a credible threat of competition can be as effective as actual competition.").
256 Leaks of the amounts of the bids theoretically could have functioned to anchor the bidding process, but Solera never publicly confirmed the validity of these reports and petitioners have never argued that these leaks had any impact on the competitive dynamic among bidders.
257 See JX0497; JX0556.
258 As petitioners acknowledge, it also is doubtful whether including more financial sponsors in the sales process (beyond the eleven that the Special Committee contacted) would have meaningfully increased competition between the bidders. Pet'rs' Post-Trial Opening Br. 27-28 (Dkt. 105). See also Lender Processing, 2016 WL 7324170 , at \({ }^{* 17}\) (citation omitted) ("Financial sponsors ... predominately use the same pricing models, the same inputs, and the same value-creating techniques.").
259 See DFC, 172 A.3d at 349 ("Any rational purchaser of a business should have a targeted rate of return that justifies the substantial risks and costs of buying a business. That is true for both strategic and financial buyers.").
260177 A. 3 d at 29 (citing DFC, 172 A. 3 d at 375 n .154 ("TT]he absence of synergistic buyers for a company is itself relevant to its value.") ).
261 See Tr. 973-74 (Sowul) ("And so that party, that IHS, that strategic, could, in theory, pay a lot more than we could. And we knew they were interested.... So we would have to pay as little as we can to maximize our returns but pay as much as we can so that we can be competitive against a strategic."); see also PetSmart, 2017 WL 2303599, at *29 (citation omitted) ("Importantly, the evidence reveals that the private equity bidders did not know who they were bidding against and whether or not they were competing with strategic bidders. They had every incentive to put their best offer on the table.").
262 Tr. 780-82 (Yarbrough).
263 PTO ॥ 307.

280 See Tr. 295-96 (Buckberg); see also DFC, 172 A.3d at 350 ("'TT]he fact that a financial buyer may demand a certain rate of return on its investment in exchange for undertaking the risk of an acquisition does not mean that the price it is willing to pay is not a meaningful indication of fair value.").
281 DFC, 172 A.3d at 370.
282 ld. at 370-71.
283 Id. at 349.
284 See Dell, 177 A.3d at 28 ("The Committee, composed of independent, experienced directors and armed with the power to say 'no,' persuaded [the bidder] to raise its bid six times. Nothing in the record suggests that increased competition would have produced a better result."); PetSmart, 2017 WL 2303599, at *30 ("Had the auction not generated an offer that the Board deemed too good to pass up, I am satisfied that the Board was ready to pursue other initiatives as a standalone company."); Lender Processing, 2016 WL 7324170, at *19 ("Reinforcing the threat of competition from other parties was the realistic possibility that the Company would reject the [ ] bid and pursue a different alternative.").
JX0359.0002.
ld.
Tr. 754-56, 771-72 (Yarbrough).
Id. at 776-78 (Yarbrough).
PTO \(\mathbb{1} 334\).
Id. \(\mathbb{1} 338\).
Tr. 806-07 (Yarbrough).
292 See PetSmart, 2017 WL 2303599, at *28 (emphasis in original) ("I note that the Board considered inviting the most likely strategic partner ... into the process, but made the reasoned decision that, without a firm indication of interest from [the competitor], the risks of providing [the company's] most direct competitor with unfettered access to [the company's] wellstocked data room outweighed any potential reward. Nevertheless, the evidence revealed that the Board held the door open for [the competitor] to join the auction ifit expressed serious interest in making a bid.").
293 PTO \(\mathbb{1} \uparrow 325,339,350\).
294 See infra Section III.D.1.c.
295 Tr. 807-08 (Yarbrough).
296 JX0633.0013.
297 Tr. 807-08 (Yarbrough).
298 Pet'rs' Post-Trial Opening Br. 4 (emphasis in original).
299 JX0340.0003 ("We are contemplating this deal solely in the context of being able to partner with Tony Aquila and his management team.") (Thoma Bravo); JX0464.0005 ("We have been impressed by the high caliber of the management team we have met, and look forward to forming a successful and productive partnership with them and the other members
of the Solera management team.") (Vista); JX0464.0008 ("Our team is ecstatic about the opportunity to partner with Tony and other members of senior management.") (Pamplona).
JX0525; JX0541.
301 Tr. 452 (Aquila), 971-73 (Sowul).
302 Tr. 782-83 (Yarbrough); JX0380.0003-05.
303 See In re Lear Corp. S'holder Litig., 926 A.2d 94, 117 (Del. Ch. 2007) (Strine, V.C.) ("I believe it would have been preferable for the Special Committee to have had its chairman or, at the very least, its banker participate with [the CEO] in negotiations with [the buyer]. By that means, there would be more assurance that [the CEO] would take a tough line and avoid inappropriate discussions that would taint the process.").
I view Baron's statement in an email to his colleagues at Rothschild that "we were the architects with the CEO from the beginning as to how to engineer the process from start to finish" to be puffery. The email completely ignores Centerview's role in the sales process, and Baron's statement that he is "excited to ... market the heck out of this for future business" betrays his motivation for exaggerating his involvement in the transaction. Notably, three recipients of Baron's email were his superiors at Rothschild. JX0670.0002.

312 Tr. 1034 (Hubbard) ("Q. Was Mr. Aquila a net buyer in this transaction? A. Not the way economists would use that term, no. Q. And how do you understand that term? A. Actually, the economic definition is pretty much as the plain English. It would mean contributing new cash as a net buyer. That did not happen.").

317 seata
317 See id. at 6 (noting that the features of an MBO transaction that may render the deal price unreliable "were largely absent" in the Dell MBO).
318 DFC, 172 A.3d at 373.
319 Dell, 177 A.3d at 25 (citation omitted); see also JX0894.0034 (Hubbard expert report) ("In a well-functioning stock market, a company's market price quickly reflects publicly available information. A market price balances investors' willingness to buy and sell the shares in light of this information, and thus represents their consensus view as to the value of the equity of the company. As a result, finance academics view market prices as an important indicator of intrinsic value absent evidence of frictions that impede market efficiency.").
320 See Dell, 177 A. \(3 d\) at 27 n. 131 ("This is evident as the court observed that the stock price anchors negotiations and, if the stock price is low, the deal price necessarily might be low.").
321 JX0894.0035. The S \& P MidCap 400 contains 400 firms that are generally smaller than those in the S \& P 500 but "capture a period in the typical enterprise life cycle in which firms have successfully navigated the challenges inherent to small companies, such as raising initial capital and managing early growth." Mid Cap: A Sweet Spot for Performance, S \& P Dow Jones Indices 1 (September 2015), https://us.spindices.com/documents/education/practice-essentials-mid-cap-a-sweet-spot-for-performance.pdf.
322 JX0894.0035, 137.
Id.
ld.
JX0894.0035.
326 See JX0842-43 (observing that Solera's stock rose more than ten percent on multiple times its normal daily trading volume on August 4 and 5,2015 , and concluding that "this trading activity is consistent with trading on rumors of a transaction"). PTO \(\mathbb{1} 363\).
1d. \(\mathbb{I} 364\) \& Ex. A.

329 Tr. 1052-53 (Hubbard); JX0894.0047-48.
330 Tr. 1053 (Hubbard). See also DFC, 172 A.3d at 369 (quoting Applebaum v. Avaya, Inc., 812 A.2d 880, 889-90 (Del. 2002) ) (" \([A]\) well-informed, liquid trading market will provide a measure of fair value superior to any estimate the court could impose.").
331 Pet'rs' Post-Trial Opening Br. 4.
332 See, e.g., DFC, 172 A.3d at 369 n .117 ("One of the reasons, of course, why a control block trades at a different price than a minority block is because a controller can determine key issues like dividend policy."); IRA Tr. v. Crane, 2017 WL 7053964 , at *7 n. 54 (Del. Ch. Dec. 11, 2017) ("That control of a corporation has value is well-accepted.").
333 Pet'rs' Post-Trial Opening Br. 6.
334 See, e.g., PTO ๆף 243-44.
335 Dell, 177 A.3d at 26-27; see also id. at 24 ("[A]nalysts scrutinized [the company's] long-range outlook when evaluating the Company and setting price targets, and the market was capable of accounting for [the company's] recent mergers and acquisitions and their prospects in its valuation of the Company.").
JX0202.0001.
337 JX0328.0001.
338 JX0350.0002.
339 JX0312.0002.
340 JX0348.0002.
341 JX0344.0002.
342 JX0319.0001.
343 Tr. 393-96 (Aquila).
344 JX0140.0003.
345 JX0310.0004.
346 Tr. 413-14 (Aquila); JX0318.0001.
347 DFC, 172 A.3d at 355.
348 Tr. 399-401 (Aquila).
349 DFC, 172 A.3d at 374.
350 See Tr. 114 (Cornell) ("[l]n this market condition, for whatever reason, there wasn't a lot of cheap debt available, and that limited what a private equity firm's going to be able to pay and satisfy itself and its shareholders."); see also DFC, 172 A.3d at 375 ("As is the case with refinancings, so too do banks like to lend and syndicate the acquisition debt for an \(M \& A\) transaction if they can get it done. That is how they make big profits. That lenders would not finance a buyout of DFC at a higher valuation logically signals weakness in its future prospects, not that debt providers and equity buyers were all mistaken. So did the fact that DFC's already non-investment grade debt suffered a downgrade in 2013 and then was put on a negative credit watch in 2014.").
351 See DFC, 172 A.3d at 349 ("Like any factor relevant to a company's future performance, the market's collective judgment of the effect of ... risk may turn out to be wrong, but established corporate finance theories suggest that the collective judgment of the many is more likely to be accurate than any individual's guess. When the collective judgment involved, as it did here, not just the views of the company stockholders, but also those of potential buyers of the entire company and those of the company's debtholders with a self-interest in evaluating the regulatory risks facing the company, there is more, not less, reason to give weight to the market's view of an important factor.").
352 Highfields Capital. Ltd. v. AXA Fin., Inc., 939 A.2d 34, 60 (Del. Ch. 2007).
353 Pet'rs' Post-Trial Opening Br. 34-35.
354 ld. at 35.
355 DFC, 172 A.3d at 370-71 (emphasis added).
356 The Supreme Court also made clear that a deal price arrived at by using an LBO model can be the most reliable evidence of fair value of a target company. See DFC, 172 A.3d at 350 ("[T]he fact that a financial buyer may demand a certain rate of return on its investment in exchange for undertaking the risk of an acquisition does not mean that the price it is willing to pay is not a meaningful indication of fair value.").
3578 Del. C. § 262(h).
358 Union III. 1995 Inv. Ltd. P'ship v. Union Fin. Gp., Ltd., 847 A.2d, 340, 343 (Del. Ch. 2004) (Strine, V.C).

359 See, e.g., PetSmart, 2017 WL 2303599, at *31 n. 364 (citation omitted) (noting "synergies financial buyers may have with target firms arising from other companies in their portfolio"); Lender Processing, 2016 WL 7324170, at *17 n. 14 (noting that "a source of private value" to a financial buyer is "a synergistic portfolio company").
360 Tr. 908-16 (Sowul); JX0613.0033.
361 Id. at 908-09 (Sowul).
362 Id. at 1045-48 (Hubbard); JX0894.0066-71.
363 Id. at 1045-46 (Hubbard); JX0894.0070-71.
364 Tr. 1047-48 (Hubbard); JX0894.0070-71. This 31\% figure is the "median portion of synergies shared with the seller" as determined by a 2013 Boston Consulting Group study of 365 deals. JX0894.0070-71. Although the appraisal statute mandates excision of synergies specific to the merger at issue, this court has used general estimates of the percentage of synergies shared, as provided by experts, to derive appraisal value from deal price. See Union III., 847 A.2d at 353 \& n. 26 (relying on a "reasonable synergy discount" propounded by a party's expert).

365 See DFC, 172 A.3d at 371 ("Part of why the synergy excision issue can be important is that it is widely assumed that the sales price in many M \& A deals includes a portion of the buyer's expected synergy gains, which is part of the premium the winning buyer must pay to prevail and obtain control.").
366 See 8 Del. C. § 262(h) ("In determining such fair value, the Court shall take into account all relevant factors."); DFC, 172 A.3d at 388 ("But, in keeping with our refusal to establish a 'presumption' in favor of the deal price because of the statute's broad mandate, we also conclude that the Court of Chancery must exercise its considerable discretion while also explaining, with reference to the economic facts before it and corporate finance principles, why it is according a certain weight to a certain indicator of value.").
367 Union III., 847 A.2d at 359.
368 JX0894.0075 (Hubbard); JX0898.0098, 0124 (Cornell).
369 See S. Muio \& Co. LLC v. Hallmark Entm't Invs. Co., 2011 WL 863007, at *20 (Del. Ch. Mar. 9, 2011) (quoting Hanover Direct, Inc. S'holders Litig., 2010 WL 3959399, at *2-3 (Del. Ch. Sept. 24, 2010) ) (noting that the court "gives more credit and weight to experts who apply 'multiple valuation techniques that support one another's conclusions' and that 'serve to cross-check one another's results.' "), aff'd, 35 A.3d 419 (Del. 2011).
370 JX0835.
371 See Dell, 177 A.3d at 36 (citations omitted) ("As is common in appraisal proceedings, each party-petitioners and the Company-enlisted highly paid, well-credentialed experts to produce DCF valuations. But their valuation landed galaxies apart-diverging by approximately \(\$ 28\) billion, or \(126 \%\).... The Court of Chancery recognized that '[t]his is a recurring problem,' and even believed the 'market data is sufficient to exclude the possibility, advocated by the petitioners' expert, that the Merger undervalued the Company by \(\$ 23\) billion.' Thus, the trial court found petitioners' valuation lacks credibility on its face. We agree."); PetSmart, Inc., 2017 WL 2303599, at *2 ("Moreover, the evidence does not reveal any confounding factors that would have caused the massive market failure, to the tune of \(\$ 4.5\) billion (a \(45 \%\) discrepancy)."); Highfields, 939 A.2d at 52 (citation omitted) (disregarding analysis that was "markedly disparate from market price data for [the company's] stock and other independent indicia of value").
372 PetSmart, 2017 WL 2303599, at *40 n. 439 (quoting William T. Allen, Securities Markets as Social Products: The Pretty Efficient Capital Market Hypothesis, 28 J. CORP. L. 551, 560 (2003) ).
373 Dell, 177 A.3d at 38.
374 JX0899.0004.
375 JX0899.0045.
376 JX1419.0002, 0007.
377 JX0894.0082; Tr. 1067-68, 1189 (Hubbard).
378 JX0900.0027; Tr. 64-66, 77-81 (Cornell). Respondent not only argues that it is incorrect to apply Bradley/Jarrell, but that petitioners also misapplied the formula. Specifically, respondent argues that petitioners erred by applying their Bradley/ Jarrell-derived investment rate to net operating profit after tax (NOPAT) instead of net cash flow (NCF). According to respondent, this mistake resulted in improperly assuming away Solera's required maintenance investment into perpetuity. Resp't's Post-Trial Opening Br. 47, 51-52.
379 Tr. 103; JX0900.0007-08.
380 PetSmart, 2017 WL 2303599, at *39; see also In re John Q. Hammons Hotels Inc. S'holder Litig., 2011 WL 227634, at *4 n. 16 (Del. Ch. Jan. 14, 2011) (stating that the convergence model is "a reflection of the widely-accepted assumption that for companies in highly competitive industries with no competitive advantages, value-creating investment opportunities
will be exhausted over a discrete forecast period, and beyond that point, any additional growth will be value-neutral," leading to "return on new investment in perpetuity [that] converge[s] to the company's cost of capital"); Cede \& Co. v. Technicolor, Inc., 1990 WL 161084, at *26 (Del. Ch. Oct. 19, 1990) (discussing that "profits above the cost of capital in an industry will attract competitors, who will over some time period drive returns down to the point at which returns equal the cost of capital"), aff'd in part and rev'd in part on other grounds, 634 A.2d 345 (Del. 1993).
381 Tr. 1085-87 (Hubbard).
382 JX0900.0028, 32.
383 JX0900.0031.
384 Tr. 242-43 (Cornell).
385 Id. at 1059-60 (Hubbard); JX0899.0043-44.
386 ld. at 57 (Cornell).
387 Id. at 1060 (Hubbard).
388 Id. at 692-93 (Giger).
389 Id. at 1094-97 (Hubbard).
390 Id. at 1094-98 (Hubbard).
391 Id. at 70-75 (Cornell); JX0900.0040-42.
392 See, e.g., In re Appraisal of SWS Grp., Inc., 2017 WL 2334852, at *15 (Del. Ch. May 30, 2017) (citation omitted) ("It is true as a matter of valuation methodology that non-operating assets-including cash in excess of that needed to fund the operations of the entity-are to be added to a DCF analysis.").
393 Tr. 229 (Cornell).
394 Id. at 695 (Giger).
395 JX0894.0103; Tr. 1092-94 (Hubbard).
396 Tr. 67-68 (Cornell).
397 DFC, 172 A.3d at 349.
398 See Dell, 177 A.3d at 35 ("When ... an appraisal is brought in cases like this where a robust sale process [involving willing buyers with thorough information and the time to make a bid] in fact occurred, the Court of Chancery should be chary about imposing the hazards that always come when a law-trained judge is forced to make a point estimate of fair value based on widely divergent partisan expert testimony."); DFC, 172 A.3d at 379 ("Simply given the Court of Chancery's own findings about the extensive market check, the value gap already reflected in the court's original discounted cash flow estimate of \(\$ 13.07\) should have given the Court doubts about the reliability of its discounted cash flow analysis.").
399 JX0898.0124.
400 See Dell, 177 A.3d at 37-38 ("Although widely considered the best tool for valuing companies when there is no credible market information and no market check, DFC valuations involve many inputs-all subject to disagreement by wellcompensated and highly credentialed experts-and even slight differences in these inputs can produce large valuation gaps.").
401 JX0894.0126.
402 Given my conclusion to accord no weight to either side's DCF model, there is no need to retain a court-appointed expert to resolve the parties' disagreement concerning the appropriate method to determine the investment rate for the terminal period.
403 Aruba, 2018 WL 922139, at *1, 4.
404 ld. at *2-3.
405 Resp't's Suppl. Post-Trial Br. 5.
406 Tr. 1023 (Hubbard).
407 Resp't's Post-Trial Opening Br. 1 (emphasis added).
408 Aruba, 2018 WL 922139, at *3 n. 16 (citing William J. Carney \& Mark Heimendinger, Appraising the Nonexistent: The Delaware Court's Struggle with Control Premiums, 152 U. Pa. L. Rev. 845, 847-48, 857-58, 861-66 (2003); Lawrence A. Hamermesh \& Michael L. Wachter, Rationalizing Appraisal Standards in Compulsory Buyouts, 50 B.C. L. Rev. 1021, 1023-24, 1034-35, 1044, 1046-54, 1067 (2009); Lawrence A. Hamermesh \& Michael L. Wachter, The Short and Puzzling Life of the "Implicit Minority Discount" in Delaware Appraisal Law, 156 U. Pa. L. Rev. 1, 30-36, 49, 52, 60 (2007); Lawrence A. Hamermesh \& Michael L. Wachter, The Fair Value of Cornfields in Delaware Appraisal Law, 31 J. Corp. L. 119, 128, 132-33, 139-42 (2005) ).

409 AOL, 2018 WL 1037450, at *10 n. 118.
410 PTO \(\mathbb{1} 79\) \& Ex. A.
411 Id. ๆ| 363.
412 Aruba, 2018 WL 922139, at *3 n. 17 (citations omitted).
413 Lawrence A. Hamermesh \& Michael L. Wachter, Rationalizing Appraisal Standards in Compulsory Buyouts, 50 B.C. L. REV. 1021, 1052 (2009).
414 ld.
415 See id. ("Finally, do minority shareholders receive the value of control that is created by the aggregation of the shares and the creation of a new controller? ... Embracing the concept of an 'implicit minority discount,' the courts would award the dissenters [the value of control], on the theory that fair value should not be reduced for lack of control.").
4161998 WL 44993, at *7 (Del. Ch. Jan. 29, 1998), aff'd in part and remanded in part, 737 A.2d 513.
417 Id. at *8.
418 M.G. Bancorporation., Inc., v. Le Beau, 737 A.2d at 523 (citation omitted).
419753 A.2d 451, 452 (Del. Ch. 1999).
420 Id. at 458.
4212005 WL 2045640 (Del. Ch. Aug. 19, 2005).
422 Id. at *18 (citing Borruso, 753 A.2d 451).
423 See Gilbert, 731 A.2d at 797 ("[S]ection 262(h) requires that the Court of Chancery discern the going concern value of the company irrespective of the synergies involved in a merger.").
424 Dell, 177 A.3d at 21; DFC, 172 A.3d at 371.
425 See Aruba., 2018 WL 2315943, at *8 \& n. 61 (reargument decision) (comparing DFC and Dell to how past "Supreme Court decisions had treated the unaffected trading price as a valuation indicator").
426 Dell, 177 A.3d at 30 ("Overall, the weight of evidence shows that Dell's deal price has heavy, if not overriding, probative value."); DFC, 172 A.3d at 349 ("[E]conomic principles suggest that the best evidence of fair value was the deal price.").
4278 Del. C. § 262(h).

2017 WL 2334852
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\section*{UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.}

\section*{Court of Chancery of Delaware.}

\section*{IN RE Appraisal OF SWS GROUP, INC.}

\author{
C.A. No. 10554-VCG \\ | \\ Date Submitted: February 27, 2017 \\ | \\ Date Decided: May 30, 2017
}

\section*{Attorneys and Law Firms}

Marcus E. Montejo, Kevin H. Davenport, Eric J. Juray, Chaz L. Enerio, of PRICKETT, JONES \& ELLIOTT, P.A., Wilmington, Delaware, Attorneys for Petitioners Merlin Partners, LP and AAMAF, LP.

Kurt M. Heyman, Patricia L. Enerio, Melissa N. Donimirski, of HEYMAN ENERIO GATTUSO \& HIRZEL LLP, Wilmington, Delaware, Attorneys for Petitioners Lone Star Value Investors, LP and Lone Star Value Co-Invest II, LP.

Garrett B. Moritz, Eric D. Selden, Nicholas D. Mozal, of ROSS ARONSTAM \& MORITZ LLP, Wilmington, Delaware; OF COUNSEL: William Savitt, Andrew J.H. Cheung, Noah B. Yavitz, of WACHTELL, LIPTON, ROSEN \& KATZ, New York, New York, Attorneys for Respondents SWS Group, Inc. and Hilltop Securities Holdings LLC.

\section*{MEMORANDUM OPINION}

\section*{GLASSCOCK, Vice Chancellor}
*1 The Petitioners here are former stockholders of SWS Group Inc. ("SWS" or the "Company"), a Delaware corporation. They are seeking a statutory appraisal of their shares. The Company was exposed to the market in a sales process. As this Court has noted, most recently in In Re Appraisal of Petsmart, Inc., \({ }^{1}\) a public sales process that develops market value is often the best evidence of statutory "fair value" as well. As noted below, however, the sale of SWS was undertaken in conditions that make the price thus derived unreliable as evidence of fair value, in my opinion.

Methods of valuation derived from comparable companies are similarly unreliable here. I rely, therefore, on a discounted cash flow ("DCF") analysis to determine the fair value of SWS, assisted by the learned but divergent opinions of the parties' experts. My rationale for rejecting sale price, and my resolution of the disputed issues involved in the competing DCFs, follows.

This action arises from the Petitioners' statutory right to receive a judicial determination of the fair value of their shares of SWS. On January 1, 2015, SWS merged into a whollyowned subsidiary of Hilltop Holdings, Inc. ("Hilltop"), itself a substantial creditor of SWS. SWS shareholders received a mix of cash and stock worth \(\$ 6.92\). The Petitioners are a series of funds holding appraisal-eligible shares of SWS. The Petitioners bring this action challenging the merger consideration as unfair. It is my statutory duty to determine the fair value of the Petitioners' shares as of the date of the merger.

This case presents two divergent narratives. The first is that the Company was on the brink of a turnaround before the sale, and had only been suffering due to unique and unprecedented market conditions. The second is that the Company had fundamental structural problems making it difficult to compete at its size. The reality is somewhere in the middle, in my view. The Company was a struggling bank which had a chance to modestly improve its outlook around the time of sale. It still faced a long climb, however.

Similarly, this case presents two divergent expert valuations. Neither party attempts to invoke the deal price, but for different reasons. The Petitioners argue that the sales process was so hopelessly flawed that the deal price is irrelevant. The Respondents argue that the deal price is improper here because it includes large synergies inappropriate to statutory fair value. Accordingly, neither party relies on price-though the Respondents argue any valuation should be reconciled or checked against the deal price. Each side instead relies on traditional valuation methods. Those traditional valuation methodologies result in almost mirror image valuations of \(50 \%\) above and \(50 \%\) below the deal price.

Upon review, I find the fair value of SWS as of the merger date to be \(\$ 6.38\) per share.

\section*{I. FACTS}

The following are the facts as I find them after a four-day trial. I accord the evidence presented the weight and credibility I find it deserves. Because I do not find the merger price reliable on the unique facts here, I decline to focus extensively on the record as it relates to the sales process. In sum, as recited below, I find that Petitioners' critiques of the sales process, and Hilltop's influence on the process, are generally supported. However, Petitioners' narrative that SWS was a company on the verge of a turnaround lacks credible factual support. Instead SWS consistently underperformed management projections and there is minimal record support that a turnaround was probable given its structural problems.
Entity

\section*{Merlin Partners, LP}

AAMAF, LP Birchwald Partners, LP 1,425,423 Lone Star Value Investors, LP 1,400,000 Lone Star Value Co-Invest II, LP 2,850,000 Blueblade Capital Opportunities, LLC

Hay Harbor Capital Partners, LLC
*2 There are several Petitioners in this action; each itself an entity. There is no dispute that the remaining Petitioners' shares are eligible for appraisal. A collective 7,438,453 SWS common shares held by the Petitioners are at issue in this action. \({ }^{2}\) The share allocation of each remaining Petitioner is set out below: \({ }^{3}\)

696,578

157,789
Dissenting Shares 478,860

429,803

SWS was a relatively small bank holding company. SWS entered a merger agreement with Hilltop on March 31, 2014 whereby SWS would merge into a subsidiary of Hilltop. \({ }^{4}\) That merger was consummated on January 1, 2015. \({ }^{5}\)

Hilltop itself became a bank holding company following its acquisition of PlainsCapital in 2012. \({ }^{6}\) As discussed below, Hilltop, together with Oak Hill Capital Partners ("Oak Hill"), provided a substantial loan to SWS in 2011 that SWS needed to maintain proper capital and liquidity levels. \({ }^{7}\) Pursuant to the terms of the loan Hilltop's Chairman, Gerald J. Ford ("Jerry Ford"), was appointed to SWS's board in 2011 and remained a SWS director at all relevant times. \({ }^{8}\) Jerry Ford has approximately forty years of experience in the bank consolidation business, including certain successful sales. \({ }^{9}\) Jerry Ford's son, Jeremy Ford, is the President and co-CEO of Hilltop. \({ }^{10}\) In 2011 Jeremy Ford was named as Hilltop's designated "observer" on SWS's board, in connection with the loan, which permitted him to attend meetings, and review
financial and operational reports "to oversee and protect Hilltop's investment in SWS. \({ }^{11}\)

Oak Hill is a Texas based private equity firm which also participated in the 2011 loan to SWS. \({ }^{12}\) In connection with the loan, Oak Hill was also given a board seat and an "observer" on SWS's board. \({ }^{13}\)

\section*{B. The SWS Story}

\section*{1. SWS's Background}

SWS was a Delaware corporation, incorporated in 1972, that traded on the New York Stock Exchange. \({ }^{14}\) SWS was a bank holding company with two general business segments: traditional banking (the "Bank") and brokerage services (the "Broker-Dealer"). \({ }^{15}\) Under the brokerage services umbrella there were certain general sub-groups including retail brokerage, institutional brokerage, and clearing. \({ }^{16}\) The banking segment operated eight offices throughout the
southwest. \({ }^{17}\) SWS had significantly more locations and resources dedicated to the brokerage business. \({ }^{18}\) In contrast to a traditional bank, SWS had minimal retail deposits-instead nearly \(90 \%\) of SWS's deposits were derived from overnight "sweep" accounts held by SWS's Broker-Dealer clients. \({ }^{19}\) That is, SWS's banking business lacked a "stand-alone deposit base., \({ }^{20}\) On an employee, asset, and revenue basis the Bank was smaller than the Broker-Dealer. \({ }^{21}\) SWS's CFO explained at trial that his view of the Company was that "really we were a broker-dealer with a bank attached., \({ }^{22}\)

\section*{2. SWS Faces Difficulty}
*3 SWS had a number of loans, backed by real estate in North Texas, that became impaired following the Great Recession. \({ }^{23}\) From 2007 to 2011 the Bank's non-performing assets spiked from \(2 \%\) of total assets to \(6.6 \%{ }^{24}\) Federal regulators reacted to the impairment of the Bank's assets. First, in July 2010 the Bank entered into a Memorandum of Understanding ("MOU") with federal regulators. \({ }^{25}\) The MOU subjected the Bank to additional regulation limiting certain business and requiring higher capital ratios. \({ }^{26}\) Second, the MOU was followed by a formal Cease and Desist order in February 2011, similarly restricting the Bank's activities and setting out heightened capital requirements. \({ }^{27}\)

In light of this additional oversight and the need to improve the Bank's capital position, SWS began seeking ways to prop up the Bank. Initially, SWS attempted to transfer capital from the Broker-Dealer to the Bank which included a "fire sale" of assets, however, this failed to solve the capital issue. \({ }^{28}\) In fact the transfer from the Broker-Dealer to the Bank caused the Broker-Dealer business to drop below threshold capital levels acceptable to counterparties and threatened to impair the Broker-Dealer business line. \({ }^{29}\) SWS had preliminary discussions with Hilltop in the "early fall of 2010 and entered into a non-disclosure agreement with Hilltop," which began due diligence review of SWS. \({ }^{30}\) SWS, however, upon advice of counsel and advisors elected to pursue a public debt offering. \({ }^{31}\) In December 2010, SWS attempted to raise capital through a public offering of convertible unsecured debt, which failed due to lack of investor demand. \({ }^{32}\) Thereafter, SWS returned to the private
market and finalized an arrangement with Oak Hill and Hilltop (the "Credit Agreement").

\section*{a. The Credit Agreement}

The terms of the Credit Agreement were finalized in March 2011, \({ }^{33}\) and later approved by stockholders, before the transaction closed on July 29, 2011. \({ }^{34}\) Pursuant to the Credit Agreement, Oak Hill and Hilltop made a \(\$ 100\) million senior unsecured loan to SWS at an interest rate of 8\%. \({ }^{35}\) The Credit Agreement provided that SWS would issue a warrant to purchase \(8,695,652\) shares of SWS common stock to both Oak Hill and Hilltop exercisable at \(\$ 5.75\) a share. \({ }^{36}\) As a frame of reference, when SWS pulled its public offering in December 2010, SWS's trading price dropped to slightly below \(\$ 4.00\) a share. \({ }^{37}\) Absent exercise of the warrants, which would eliminate the debt, or a permissible prepayment the loan would mature in five years. \({ }^{38}\) Upon exercise of the warrants, Oak Hill and Hilltop would own substantial positions in the Company. \({ }^{39}\)

The same day the Credit Agreement was finalized, SWS entered into an Investor Rights Agreement with Oak Hill and Hilltop that provided each company the right to appoint a board member and a board "observer" to SWS's board. \({ }^{40}\) The Credit Agreement itself provided several protections to Oak Hill and Hilltop. This included, for example, certain anti-takeover clauses which would place the loan in default if the board ceased to consist of a majority of "Continuing Directors" or if any other stockholder acquired more than \(24.9 \%\) of SWS stock. \({ }^{41}\) Importantly, a separate portion of the Credit Agreement included a "covenant prohibiting SWS from undergoing a 'Fundamental Change' " which was defined to include the sale of SWS (the "Merger Covenant"). \({ }^{42}\) Hilltop was not willing to waive the Merger Covenant during SWS's sales process. \({ }^{43}\) However, SWS was permitted to prepay the loan under certain conditions \({ }^{44}\) including if the stock price of SWS exceeded \(\$ 8.625\) for twenty out of any thirty consecutive trading days. \({ }^{45}\) That is, if the stock price reached such a point an acquirer could essentially prepay the loan, and the Merger Covenant would fall away.
*4 Around the time the Credit Agreement was being negotiated and finalized, Sterne Agee Group, Inc. ("Sterne

Agee") approached SWS about a potential acquisition. \({ }^{46}\) On March 26, 2011, Sterne Agee made an unsolicited conditional offer to acquire SWS at \(\$ 6.25\) a share, which the board rejected after attempts to "obtain further information about the offer, including the source of funding and ability to obtain bank regulatory approval ...., \({ }^{47}\) In rejecting the \(\$ 6.25\) proposal, the board framed the offer as "highly conditional" and concluded that it "substantially undervalues the future potential of SWS Group ...., \({ }^{48}\) SWS implemented defensive measures in response to the offer. \({ }^{49}\) Stern Agee followed up with a \(\$ 7.50\) per share cash offer on April 28, 2011. \({ }^{50}\) SWS rejected that follow-up offer on May 3, 2011 in favor of the Credit Agreement with Hilltop and Oak Hill. \({ }^{51}\) In rejecting the offer SWS's board "unanimously determined that the Sterne Agee proposal is speculative, illusory, subject to numerous contingencies and uncertainties, and is clearly not in the best interests of SWS Group Stockholders." \({ }^{\text {. }}\) The board cited numerous regulatory and financial barriers that Sterne Agee would face that created serious questions as to "Sterne Agee's ability to complete a transaction on a timely basis." \({ }^{\text {" }}\) Notably, Sterne Agee was not a bank holding company and would need to secure unlikely regulatory approval to facilitate an acquisition of SWS's Bank. \({ }^{54}\) The SWS board found that the \(\$ 7.50\) bid would "deprive[ ] stockholders of the long term value of their shares" pointing out that the offer was at a substantial discount to SWS's book value. \({ }^{55}\) Testimony at trial clarified that Sterne Agee was an unlikely acquirer and never made an "actionable" offer. \({ }^{56}\)

\section*{b. SWS after the Credit Agreement}

Following the Credit Agreement, and the regulatory interventions SWS implemented a plan to turn the business around. The success of the "turnaround" was the subject of substantial litigation effort.

From 2011 through 2014 SWS management prepared annual budgets. The budgets were formulated by going to individual business sector heads, collecting their projections, and then aggregating them. \({ }^{57}\) Frequently, management would ask the business heads for more "aspirational" goals or projections to get numbers they were comfortable taking to the full board. \({ }^{58}\) Single year projections were then extrapolated out into three year "strategic plans" which assumed each individual year's budget would be met. \({ }^{59}\) SWS, however, never met its budget
between 2011 and 2014. \({ }^{60}\) In that vein, management forecasts anticipated straight-line growth in revenue and profits, but SWS failed to hit the targets and continued to lose money on declining revenues. \({ }^{61}\)

Robert Chereck became CEO of SWS in 2012, after being recruited by Jerry Ford. \({ }^{62}\) Chereck helped to implement changes at the Bank which ultimately led to the termination of the Cease and Desist order in 2013, presumably because the Bank had reached adequate capital levels and returned to prudent lending. \({ }^{63}\) SWS was able to reduce its volume of problem loans, \({ }^{64}\) but the Bank, overall, produced "very disappointing results." \({ }^{\circ} 65\) The Broker-Dealer business line essentially remained stagnant. \({ }^{66}\) SWS was accruing "a deferred tax asset" in the form of a net operating loss. \({ }^{67}\) In June 2013, the Company made an accounting decision to write down, in the form of a valuation allowance, approximately \(\$ 30\) million of its net operating losses, because after several years of losses in a row, the Company did not believe it would be able to generate "enough income in the future to use up that operating loss in the requisite time frame. \({ }^{, 68}\) This decision was made in the context of an audited accounting determination. I find that the decision-to provide for a valuation allowance because it was more likely than not that such losses could not be offset by income during the requisite period \({ }^{69}\)-implies that managements' straight-line growth and profitability projections were optimistic. \({ }^{70}\)
*5 The Respondents identify two "structural impediments" to growth which they assert were demonstrated by the trial record. \({ }^{71}\) First, the Respondents point to trial testimony regarding SWS's size. For example, Tyree Miller of SWS's board, testified that SWS "was subscale in every area" and such lack of scale impeded growth. \({ }^{72}\) Both regulatory requirements, \({ }^{73}\) and technology and back office costs, \({ }^{74}\) burdened the Bank at its scale, as it had a smaller base to spread those costs across. Second, the Respondents point to testimony that SWS was a "people business," and that its best assets were its people. \({ }^{75}\) This was particularly true of the Broker-Dealer business and SWS's scale problems along with its publicized regulatory and capital problems made it difficult to retain client advisors. From 2009 to 2012 the BrokerDealer lost approximately one third of its client advisors. \({ }^{76}\) The Bank business at SWS also struggled to retain and recruit loan officers in light of SWS's well-publicized woes. \({ }^{77}\) The

Petitioners narrative is that following termination of the Cease and Desist order and the changes implemented prompting the termination, SWS was on the brink of a turnaround. All parties agree that certain improvements were made to SWS's problem assets \({ }^{78}\) and balance sheet. I find that the Company's recent history and the record at trial supports the Respondents' witnesses testimony that the Company would continue to face an uphill climb to compete at its size going forward. \({ }^{79}\)

By August 2013, the board was becoming frustrated by the Company's performance and directed SWS's CEO to take action-specifically to cut costs by \(10 \%\) within thirty days. \({ }^{80}\) The purpose of these cuts was not to stimulate growth, but rather to bring down the expense base in "an attempt to get margins up., \({ }^{81}\) By the end of the year, nearly all of the cuts had been implemented. The savings expected were upwards of \(\$ 18\) million \({ }^{82}\)-which included eliminating over 100 jobs, including thirty-two revenue-producing employees. \({ }^{83}\) Around this time federal bank regulators were conducting their annual review, which for the most part noted that SWS's condition had improved, however, they raised a concern about SWS's ability to repay the \(\$ 100\) million note. \({ }^{84}\) The board remained concerned about the Company's condition and the ability of SWS to pay off its loan to Hilltop, and return to profitability and growth. \({ }^{85}\)

\section*{3. The Sales Process}

Prior to SWS launching a sales process there was noise by analysts in the market that SWS was an acquisition target, \({ }^{86}\) and that Hilltop, since it had recently become a bank holding company via its acquisition of PlainsCapital, was a likely fit for a synergies-driven transaction. \({ }^{87}\) SWS stock traded higher upon this speculation. The analysts were correct-prior to SWS launching a sales process Hilltop was actively considering a purchase of SWS-and by October 2013 Jeremy Ford, Hilltop's board observer, had drafted an analysis to present to Hilltop's directors in support of an SWS acquisition. \({ }^{88}\) SWS was not aware of Hilltop's interest at this time, however. \({ }^{89}\) In preparing his analysis Jeremy Ford had access to information via his position as a board observer that others in the market would not have had access to, including, for example, loan tapes, \({ }^{90}\) SWS board meeting materials, \({ }^{91}\) and access to SWS management. At no time did Jeremy Ford inform SWS of Hilltop's interest, that it was analyzing SWS
as a target, or that Hilltop was considering a tender offer. \({ }^{92}\) Hilltop's internal projections reveal that following integration of PlainsCapital, an SWS acquisition would derive much of its benefits from cost-savings in reduction of overhead rather than SWS's stand-alone performance. \({ }^{93}\) Thus, Hilltop's acquisition thesis was synergies-driven. \({ }^{94}\)
*6 On January 9, 2014, Hilltop made an offer to acquire SWS for \(\$ 7.00\) per share, payable in \(50 \%\) cash and \(50 \%\) Hilltop stock. \({ }^{95}\) SWS's trading price on January 9, 2014 with some merger speculation in the market but prior to the announcement of the offer-was \(\$ 6.06\), and the oneyear average of SWS in the previous year was \$5.92. SWS responded by creating a Special Committee to consider the offer on January 15, 2014. \({ }^{96}\) The Special Committee "knew there were very, very strong synergy values already partly reflected ..." in the initial offer but wanted to "convince Hilltop" to share more of the synergies with SWS shareholders. \({ }^{97}\)

The process the Special Committee ran, and whether it was independent or "straightjacketed," was also the subject of substantial litigation effort. As I do not rely on the deal price, I need only briefly address the matter here. The Committee was represented by legal and financial advisors. \({ }^{98}\) The financial advisor retained by the Special Committee asked management to update its most recent three year projections, which at the time ended in June 2016, to run through the end of calendar year 2017. \({ }^{99}\) While management dialed back some of the growth assumptions, due to the failure to meet priorperiod projections, \({ }^{100}\) management projections were still "optimistic" and projected growth and "net additions to the business." \({ }^{101}\) That is, the revised management projections still relied on a number of favorable assumptions. \({ }^{102} \mathrm{~A}\) visual representation of those projections are set out in Figure 1 below.

Figure \(1{ }^{103}\)


Following Hilltop's bid, the Special Committee's financial advisor contacted seventeen potential merger partners for SWS in early February 2014. \({ }^{104}\) Besides Hilltop, two other entities expressed interest, as discussed below.

\section*{a. Esposito}

Esposito is a small Dallas, Texas broker-dealer. \({ }^{105}\) Esposito had approximately \(\$ 10\) million in capital. \({ }^{106}\) Esposito made an expression of interest in SWS at \(\$ 8.00\) per share on February 12, 2014, subject to a slew of conditions, including securing financing. \({ }^{107}\) Shortly thereafter Esposito released a press release publicizing its \(\$ 8.00\) expression of interest. \({ }^{108}\) Esposito was unknown to the entire Special Committee despite their decades of experience in the area. \({ }^{109}\) Nonetheless the Special Committee engaged with Esposito to try to obtain additional information regarding its plans to finance the transaction and secure regulatory approval. \({ }^{110}\) This revealed that Esposito would need the assistance of another small regional bank-Triumph Bancorp, who together with Esposito, would seek out \(\$ 300\) million from three private equity firms to finance the deal. \({ }^{111}\) Certain communications indicate that SWS "stiff-armed" Esposito. \({ }^{112}\) Stiff-armed, or otherwise, Esposito was not able to pull together the requisite financing and secure a path towards regulatory approval; thus, neither Esposito nor Triumph made a formal offer. \({ }^{113}\)

\section*{b. Stifel}
*7 In February 2014, Stifel emerged as a second interested acquirer. The parties heavily dispute whether Stifel was truly interested and capable of consummating a transaction
with SWS. The Petitioners argue that Stifel was improperly shut out of the sales process despite having the means and the interest to submit a topping bid to Hilltop's proposal. The Respondents' narrative is that Stifel had a "reputation" and "history" of pursuing sales processes, backing out, and poaching key employees. \({ }^{114}\) Nonetheless the Special Committee instructed its financial advisor to solicit interest from Stifel, \({ }^{115}\) and Stifel expressed interest at \(\$ 8.15\) a share. The Respondents assert that Stifel was then "difficult" in carrying out due-diligence, arguing that Stifel insisted on "unusually personalized diligence." \({ }^{116}\) SWS and Stifel engaged in robust negotiation over a non-disclosure agreement ("NDA"). \({ }^{117}\) The process of consummating a NDA was protracted; Stifel finally signed it on March 18, 2014. \({ }^{118}\) The Special Committee, apparently dragging its feet, did not countersign the NDA immediately, \({ }^{119}\) and by March 21, Stifel had withdrawn its signature. \({ }^{120}\)

As discussed below, an initial handshake deal was reached between Hilltop and SWS on approximately March 20, 2014. Stifel, unaware of this, continued its expression of interest, at a price above Hilltop's offer. \({ }^{121}\) This information was taken to the Special Committee at a March 24, 2014 meeting, which initially favored signing a NDA. \({ }^{122}\) However, when this information was relayed to Jerry Ford he "blew his top," and demanded that the deal be signed with Hilltop by March 31, 2014 or he was withdrawing his offer and resigning from the board. \({ }^{123}\) Further Jerry Ford indicated that Hilltop would not waive the Merger Covenant. \({ }^{124} \mathrm{~A}\) NDA was eventually executed with Stifel, and by March 27, 2014 Stifel made a proposal at \(\$ 8.65\) a share. \({ }^{125}\) According to Stifel's March 27 letter to SWS, the proposal was nonbinding and subject to due diligence, and Stifel stated that it believed its proposal "would not be subject to blocking" by the Merger Covenant. \({ }^{126}\) Stifel proposed to finish diligence by March 31, \({ }^{127}\) and internal Stifel documents demonstrate that its price was driven significantly by synergies. \({ }^{128}\) Stifel's access to SWS's building and the diligence data room in the days leading up to the March 31 deadline is in dispute. The same is true for whether SWS and the committee were adequately cooperating with Stifel, and whether Stifel's interest at its announced price-point was genuine. Shortly before the deadline the Special Committee asked Stifel if it would raise its offer to \(\$ 9.00\) per share. \({ }^{129}\) Stifel was not able to complete its diligence to its satisfaction and
asked for an extension via letter of March 31, 2014. \({ }^{130}\) The extension request also suggested that the Merger Covenant now presented a problem for Stifel. \({ }^{131}\) No extension was granted.

\section*{c. Hilltop and the Committee Recommendation}

Hilltop's initial \(\$ 7.00\) per share offer was rejected by the committee as "inadequate" and "undervalued" SWS per the Special Committee's meeting minutes. \({ }^{132}\) As mentioned above, however, at trial members of the Special Committee testified to their belief that the initial offer significantly shared synergies, and that going forward the object of bargaining would be to extract additional synergy value for SWS shareholders. \({ }^{133}\) On March 19, 2014 Hilltop raised its offer to \(\$ 7.50\) a share with a ratio of \(25 \%\) cash and \(75 \%\) Hilltop stock. \({ }^{134}\) The Special Committee countered at \(\$ 8.00 .{ }^{135}\) On March 20, while Stifel's NDA was still pending the Special Committee met and instructed the financial advisor to ask Hilltop to increase its offer to \(\$ 7.75 .{ }^{136}\) Hilltop believed it had a "handshake" deal at \$7.75. \({ }^{137}\) As discussed above Hilltop become upset at the prospect of another bidder entering the picture, which it viewed as a "retrade" or suspected negotiation tactic, and made clear that \(\$ 7.75\) was best and final. \({ }^{138}\) Thus, Hilltop set the March 31, 2014 deadline to accept or reject its offer. \({ }^{139}\)
*8 The Special Committee met on March 31, 2014 to consider Hilltop's offer and review the sales process. \({ }^{140}\) The Committee's financial advisor provided a fairness opinion which opined the proposed transaction was fair to SWS's stockholders. \({ }^{141}\) The financial advisor did, however, recognize that the Company informed it that the Credit Agreement may place "significant constraints on the Company's ability to sell itself ...." \({ }^{142}\) As of the self-imposed March 31 deadline Hilltop was the only acquirer that had made a firm offer. \({ }^{143}\) The Committee viewed the offer as "a very solid offer" that they knew could actually close and determined that accepting it was the appropriate course of action in light of the Company's "precarious financial position." \({ }^{144}\) Further, in light of the financial advisor's opinion that the offer was fair, the committee recommended it to the full board. \({ }^{145}\) The SWS board approved the merger
later that day on the terms described above: \(\$ 7.75\) a share with \(75 \%\) Hilltop stock and \(25 \%\) cash. \({ }^{146}\)

\section*{4. Post-Deal Developments}

Shortly after the deal was announced, certain Petitioners started accumulating shares for appraisal investment funds. The world of appraisal arbitrage does not lack for irony: Included in these Petitioners' solicitations of investments was the disclosure that a prime investment risk to their business strategy of dissent from the merger was that a majority of stockholders would do the same. \({ }^{147}\) In that case, the deal would not close and they would remain investors in SWS as a going concern. \({ }^{148}\) Prior to the record date for the merger, Oak Hill exercised the majority of its warrants on September 26, 2014, acquiring 6.5 million SWS shares thereby eliminating \(\$ 37.5\) million in debt. \({ }^{149}\) On October 2, 2014, Hilltop exercised its warrants in full and received approximately 8.7 million SWS shares, and as a result \(\$ 50\) million in SWS debt was eliminated. \({ }^{150}\) A proxy advisory service noted that SWS's viability as a stand-alone entity was harmed by both market conditions and its poor performance over the past five years. \({ }^{151}\) However, this same proxy advisor, although it supported the merger, also indicated that the "merger consideration is clearly not the optimal outcome of the 2014 sales process, but it may, cumulatively, be an acceptable outcome when considering the entire 2011-2014 process." \({ }^{" 152}\) SWS continued to struggle to turn a profit. Financial results for fiscal year 2014, released on September 26, 2014 revealed a decline in net revenue from \(\$ 271\) million to \(\$ 266\) million. \({ }^{153}\) While some sectors of SWS's business improved, management forecasts were not met and SWS recorded a net loss of \(\$ 15.6\) million. \({ }^{154}\) The merger was approved by a special stockholder meeting on November 21, 2014 and closed on January 1, 2015. In the several months between the announcement of the merger agreement and the stockholder vote, no other bidder emerged. Due to fluctuation in Hilltop's stock, the value of the merger consideration had decreased to \(\$ 6.92\) per share.

\section*{C. The Experts}

As is typical in these proceedings, the experts present vastly divergent valuations. In sum, neither expert attempts to invoke the deal price in light of the unique relationship between the buyer and seller and the sales process outlined
above. The Petitioners' expert, David Clarke, is a wellseasoned valuation expert with over thirty-five years of providing valuation opinions and expert testimony in various types of valuation litigation. \({ }^{155}\) Clarke employed a valuation which places \(80 \%\) weight on his DCF analysis and \(20 \%\) on a comparable companies analysis. Clarke arrives at a fair value of \(\$ 9.61\) per share, for a total value of SWS of \(\$ 483.4\) million. \({ }^{156}\) The Petitioners offer several purported explanations for the divergence from the deal price, including flaws in the sales process, and the failure to account for SWS being on the verge of a turnaround. The Respondents' expert, Richard Ruback, a Corporate Finance Professor with substantial experience in expert testimony, places \(100 \%\) weight on his DCF analysis. \({ }^{157}\) His analysis results in a \(\$ 5.17\) per share valuation. The Respondents' explanation for its expert's valuation falling below the merger price is that certain "shared synergies" are included in the merger price, but not properly considered fair value in an appraisal action. The experts' positions are discussed in more detail in the analysis portion of this Memorandum Opinion.

\section*{D. Procedural History}
*9 Several separate appraisal petitions were initially filed in January 2015, and the petitions were later consolidated. A four-day trial was held in September 2016, followed by extensive post-trial briefing. After the conclusion of post-trial briefing, closing argument was held on December 14, 2016. At the conclusion of closing argument I requested that the parties submit essentially a stipulated list of issues arising from the evidence of value. \({ }^{158}\) That exercise proved helpful in highlighting the differences between the parties. However, it failed to result in a stipulated list of issues, and led to further motion practice. \({ }^{159}\) What follows is my decision on the fair value of SWS.

\section*{II. ANALYSIS}

This is a statutory proceeding pursuant to 8 Del. C. § 262 (the "Appraisal Statute"). Once the procedural strictures are met and entitlement to appraisal is perfected, the Appraisal Statute provides shareholders who did not vote in favor of certain transactions a statutory right to have this Court value their shares. \({ }^{160}\) The only issue before me here is the value of the Petitioners' shares.

The Appraisal Statute provides that "the Court shall determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger ...., \({ }^{161}\) Unlike traditional adversarial legal proceedings, the burden of proof is not specifically allocated to a party-rather the Court, via statute, has the duty to determine the fair value of the shares. \({ }^{162}\) Therefore, "[u]ltimately, both parties bear the burden of establishing fair value by a preponderance of the evidence." \({ }^{163}\) The corporation is to be valued as a going concern, \({ }^{164}\) taking "into account all relevant factors," \({ }^{165}\) including the " 'operative reality' of the company as of the time of the merger." \({ }^{166}\) That is, the fair value calculation focuses on "the value of the company as a going concern, rather than its value to a third party as an acquisition." \({ }^{167}\)

Despite the burden of articulating fair value ultimately falling on the Court, I am, as a practical matter, generally guided in my valuation by the adversarial presentations of the parties. After evaluating those presentations and the trial record, the Court may "select one of the parties' valuation models as its general framework, or fashion its own, to determine fair value in [an] appraisal proceeding." \({ }^{168}\) The Court has "significant discretion to use the valuation methods it deems appropriate ...." \({ }^{169}\) That is, "appraisal is, by design, a flexible process" and "vests the [Court] with significant discretion to consider 'all relevant factors' and determine the going concern value of the underlying company." 170

\section*{A. The Appropriate Valuation Methodology Here}
*10 A line of decisions in this Court have invoked the merger price as the best indication of fair value. \({ }^{171}\) Certain common threads run through these decisions making the merger price, in those circumstances, the best indicator available-including a sales process which exposed the company sufficiently to the market such that if the market valued the asset at a higher price, it is likely that a bidder would have emerged. \({ }^{172}\) Similarly, cases invoking the merger price generally involve a relatively clean sales process. However, when the merger price represents a transfer to the sellers of value arising solely from a merger, these additions to deal price are properly removed from the calculation of fair value. \({ }^{173}\)

In this case, in light of the facts recounted in the background section of this Memorandum Opinion, certain structural limitations unique to SWS make the application of the merger price not the most reliable indicia of fair value. Neither party relied on deal price to demonstrate fair value. Here, because of the problematic process, including the probable effect on deal price of the existence of the Credit Agreement under which the acquirer exercised a partial veto power over competing offers, I find it inappropriate to rely on deal price and instead perform my statutory duty by employing traditional valuation methodologies.

The parties have presented two valuation methodologies: a comparable companies valuation by the Petitioners, and dueling DCF analyses by both the Petitioners and the Respondents. The selection of valuation methodologies is fact specific and necessarily dependent on the support in the trial record. A comparable companies analysis is appropriate only where the companies selected are truly comparable. \({ }^{174}\) The burden of establishing that companies used in the analysis are actually comparable rests upon the party seeking to employ the comparables method. \({ }^{175}\) The selected companies need not be a perfect match; however, to be useful the methodology must employ "a good sample of actual comparables." 176

Here the companies selected by Clarke in his comparable company analysis diverge in significant ways from SWS in terms of size, business lines, and performance. The record reflects that SWS, because of its unique structure, size and business model had few, if any, peers. Thus, finding comparables is difficult. Clarke compounded this challenge by selecting companies in both the Banking and BrokerDealer lines of business that were dissimilar in size to SWS, \({ }^{177}\) some of which also had other characteristics making them not truly comparable. \({ }^{178}\) On the facts of this case, I do not find Clarke's comparable-companies analysis sufficiently supported by the record to be reliable; thus, I employ the DCF methodology exclusively here.

\section*{B. The Court's DCF}
*11 Below I review the experts' positions on contested inputs to the DCF valuation, and then decide the appropriate value of each input in light of the record established at trial and the law of this State. The DCF valuation, although complex in practice, is rooted around a simple principle: the value of the company at the time of the merger is simply the sum of its future cash flows discounted back to present value.

The calculation, however, is only as reliable as the inputs relied upon and the assumptions underlying those inputs. Below, I select the inputs I find best supported by the factual record.

\section*{1. The Appropriate Cash Flow Projections}

This Court has long expressed its strong preference for management projections. Naturally, prior appraisal decisions have recognized that it is proper to be skeptical of "post hoc, litigation-driven forecasts" by experts. \({ }^{179}\) Similarly, the cash flow projections have been described by this Court as the "most important input" in performing a DCF, and that absent reliable projections "a DCF analysis is simply a guess." \({ }^{180}\) Reliable management projections of cash flows in advance of the merger are favored over litigation-facing expert derived projections. \({ }^{181}\)

As described earlier, management routinely prepared threeyear projections which, in connection with the sales process, management extended at the request of the Company's financial advisor to run through December 2017. \({ }^{182}\) All parties rely on these projections, \({ }^{183}\) with reservations. The Petitioners refer to the management projections as "Downside" projections because they had been adjusted downward from previous projections. \({ }^{184}\) The Respondents characterize the projections as overly optimistic, as SWS's actual performance "never came close to Management Projections." \({ }^{185}\) The Respondents' expert, Ruback, takes the management projections as they are, without adjustment. \({ }^{186}\) The Petitioners' expert, Clarke, made several major adjustments to the management's projections of cash flows. Clarke also chose to extend the projections by two years. \({ }^{187}\)

As do the parties, I adopt the management projections as my starting point. I review each proposed alteration in light of the record.
a. The 2018 and 2019 Extension

The first major alteration advanced by the Petitioners is Clarke's extension of management projections for two additional years. The Petitioners frame this issue as whether SWS reached a "steady state" by the end of the management
projections. They assert that a second-stage period of two years, covering calendar years 2018 and 2019, is necessary to "normalize SWS's financial performance before calculating a terminal value., \({ }^{188}\) The Petitioners' primary contention is that as a matter of valuation methodology the Company had not reached a "steady state" by the end of management projections, thus it is necessary to extend the projection until they reached such a state before performing the terminal value calculation. \({ }^{189}\) The basis for the Petitioners' conclusion that a steady state was not reached is that SWS's profit margin at the end of management projections "was well below projected comparable company margins ..." and that ROAA (return on average assets) was not in line with peers. \({ }^{190}\)
*12 There are a number of subsidiary assumptions necessary to allow the Petitioners' premises to stand, and the extensions to be factually supported. Those include that the so-called peer firms are actually comparable, \({ }^{191}\) and that SWS, in light of its scale problems, could ever have performance similar to or greater than larger entities. \({ }^{192}\) Further, adopting Clarke's specific projection extensions would require me to find that SWS would continue an additional two years of unprecedented straight-line growth, reaching a profit margin far exceeding any management projections, despite the Company's structural issues and performance problems. \({ }^{193}\) I note that the Respondents' expert concluded that SWS had reached a steady state, and did so based on SWS's ability to perform against similar firms. \({ }^{194}\)

I find the premises underlying the rationale for the extension unsupported, \({ }^{195}\) and that Clarke's post hoc extensions to management's projections are not proper here. On the eve of the merger SWS was continuing to lose money on declining revenues. \({ }^{196}\) Similarly, the record, on balance, supports a finding that at the end of three years the Company would reach a steady state. \({ }^{197}\) On the record before me, there is inadequate evidence to support the extension of straightline unprecedented growth and I employ the three-year management projections as the starting point. \({ }^{198}\)

Ruback's DCF model uses management's three year projections, as I have found supported here. Therefore, I begin with Ruback's general model subject to the adjustments set out below. \({ }^{199}\) That is, management's projections of net income for calendar years 2015 through 2017 of \(\$ 37,075,000\),
\(\$ 35,465,000\) and \(\$ 28,283,000\), respectively serve as the starting point for my calculation. \({ }^{200}\)
b. The 2014 warrant exercise and SWS's Capital Level
*13 The next major adjustment advocated by the Petitioners intertwines two issues: should the warrant exercise be considered in valuing SWS, \({ }^{201}\) and what, if any, excess regulatory capital SWS held should be distributed in the valuation model. That is, if the warrant exercise is considered part of the Company's operative reality as of the merger date, in the Petitioners' view the Company will have less debt and thus greater excess regulatory capital. The parties present me with binary and divergent positions. They differ as to whether the warrant exercise should be part of the operative reality of the company as of the merger date. Partly as a result, the Respondents and the Petitioners advocate that fair value should include \(\$ 0\) and \(\$ 117.5\) million, respectively, as the amount of excess regulatory capital distributable. I consider their positions, below.
i. The Warrant Exercise was Part of SWS's Operative Reality

In an appraisal proceeding the Court is to exclude speculative elements of value that arise from the "accomplishment or expectation" of a merger. \({ }^{202}\) However, the "accomplishment or expectation" of the merger exception is "narrow" and is designed to eliminate speculative projections relating to the completion of a merger. \({ }^{203}\) Further, the "narrow exclusion does not encompass known elements of value, including those which exist on the date of the merger ...., 204 Here, it is undisputed that the warrant exercises were known well in advance of the merger closing: in fact, the record indicates that the warrants were exercised to enable the holders "to vote for the merger." \({ }^{205}\) The shares issued in the warrant exercise, totaling approximately \(15,217,391\), were all voted in favor of the merger. The Respondents argue the warrant exercise should be excluded and the changes it worked to SWS's capital structure should not be considered. \({ }^{206}\) They essentially advance a "but for" test; but for the merger these warrants would not have been exercised when they were, and therefore they are an element of value arising solely out of the merger. Thus, they assert that I should use "the expected capital structure of the target company as a going concern.,207 The Petitioners point out that the warrants had, in fact, been
exercised prior to the date of the merger; the exercise was not contingent or directly tethered to the merger itself, and the resulting shares were voted in favor of the merger. Logic, equity, and precedent, they argue, require the exercise of the warrants to be considered part of the operative reality of SWS.

The exclusion of changes in value resulting from the "accomplishment or expectation" of the merger is applied narrowly. It is applied properly where the change in the company is directly tied to merger. \({ }^{208}\) Here, two creditors made the economic decision to exercise warrants in advance of the merger, and prior to the record date, in order to vote those shares in favor of the merger. That is, this case is unlike certain other decisions of this Court which look to actions taken by the subject company, with an eye towards the merger, that changed the company's balance sheet. \({ }^{209}\) Here, I note, the warrant shares are included in both parties' calculations of the total number of shares outstanding over which to divide SWS's total value in the per-share value calculation. \({ }^{210}\) I find the operative reality as of the date of the merger was that the warrants were exercised three months prior to close, by third parties acting in their own self-interest, and that the exercise was part of the Company's operative reality as of the merger date.

\section*{ii. Excess Regulatory Capital}
*14 The Petitioners argue that "excess capital must be valued separately as a matter of law" and accounted for in a valuation. \({ }^{211}\) It is true that excess cash not being redeployed into the business must be added to the result of the DCF valuation. \({ }^{212}\) The Petitioners argue the same is true for excess regulatory capital in the context of a bank holding company. \({ }^{213}\) The Respondents counter that the Petitioners are improperly conflating regulatory capital with freely distributable cash, and improperly assuming that a massive distribution would have no effect on the company meeting management projections, which do not envisage any such bulk distributions. \({ }^{214}\)

Here, the warrant exercise created some additional excess regulatory capital. By regulatory capital I mean generally the ratio which federal regulators require banks and bank holding companies to maintain between their capital and their assets. \({ }^{215}\) Capital in this context is roughly equivalent to stockholder's equity. \({ }^{216}\) The exercise of the warrants did
not directly put a single cent into the company-that money had already been received and deployed by the Company upon execution of the Credit Agreement in 2011. Rather, exercise of the warrants worked a capitalization change, cancelling \(\$ 87.5\) million in debt owed in exchange for issuing over 15 million shares in consideration for cancelling the debt. That change increased regulatory capital. It did not, necessarily, create excess capital in the sense of "excess cash" or marketable securities beyond what was needed to run the business to meet management projections. \({ }^{217}\)

Clarke alters management projections by distributing to shareholders \(\$ 87.5\) million in year one of his projections (the year of the warrant conversion), and then \(\$ 30\) million more in year three. \({ }^{218}\) Clarke's valuation model, which distributes over \(\$ 117\) million in three years, while assuming no impact on SWS's ability to generate cash flow, is hard to accept on its face: it assumes that SWS would distribute to shareholders over half of its pre-merger market capitalization of \(\$ 198\) million with no effect on the Company or its income. I also find Ruback's approach, making no alterations to distribute excess regulatory capital in light of the structural changes resulting from exercise of the warrants, somewhat problematic. However, on the record here, I am persuaded that his approach is correct given the treatment of cash flows in the management projections. Importantly, management assumed a warrant exercise in 2016, but they do not project excess cash distributable as a result. \({ }^{219}\)
*15 I have no way to judge, on the record, how much capital, if any, would actually be distributable as of the merger date, January 1, 2015, without altering downward management's projections of cash flow as a result. \({ }^{220}\) Clarke's \(\$ 87.5\) million immediate distribution is linked to the warrant exercise. \({ }^{221}\) Management projections were made on an assumption of a warrant exercise in July 2016. \({ }^{222}\) Thus management's projections included that transaction, yet declined to assume a bulk distribution in projecting the Company's cash flows. The record does not reflect any persuasive reason to secondguess management's implied judgment. Further, I find it facially unreasonable to assume, as does Clarke, that such a distribution could be made without effect on the Company's ability to generate cash flow consistent with the projections. In addition, the record makes me doubtful, in light of SWS's recent emergence from major regulatory intervention, and its continuing business line in a highly regulated industry, that such a massive distribution would be possible from a regulatory prospective. \({ }^{223}\)

It is true as a matter of valuation methodology that nonoperating assets-including cash in excess of that needed to fund the operations of the entity-are to be added to a DCF analysis. \({ }^{224}\) The Petitioners seem to conflate distributable cash or assets with a balance sheet increase in regulatory capital as the result of the conversion of debt to equity in the form of Hilltop and Oak Hill's new shares. The Petitioners rely on In re PNB Holding Co. Shareholders Litigation \({ }^{225}\) for the proposition that excess regulatory capital must be accounted for in valuing a bank holding company. I note that \(P N B\) rejected a lump-sum distribution as proposed by Clarke's valuation, however. \({ }^{226}\) Rather, the Court explained that there was "no basis in equity" to add to the DCF calculation a onetime dividend of excess regulatory capital. \({ }^{227}\)

For the reasons above, I defer to management projections, which assume a warrant exercise in July 2016. In light of the fact that the operative reality here is that the warrants were exercised earlier than implied in those projections, however, other adjustments are proper, as discussed directly below.

\section*{c. Interest Expense Adjustments}
*16 Because the warrant exercise occurred earlier than management expected in its projections, I do find it appropriate to reduce the interest expense accordingly to reflect the Company's operative reality. That is, management projections assumed a warrant exercise in July 2016, implying interest payable through that date. Interest expense for the gap between actual and projected exercise must be backed out accordingly.

The warrant exercise removed \(\$ 87.5\) million in debt which was owed at an \(8 \%\) interest rate. This adjustment results in the removal of \(\$ 7\) million in interest expense for 2015, and \(\$ 4.027\) million for \(2016 .{ }^{228}\) Given the assumed tax rate of \(35 \%\), \({ }^{229}\) this reduction in interest expense has the effect of increasing net income by \(\$ 4.6\) million in 2015 and \(\$ 2.6\) million in \(2016 .{ }^{230}\) Accordingly, I add these to the management projections of net income in those two years. \({ }^{231}\)

Clarke employed a \(3.00 \%\) terminal growth rate after performing his recommended adjustments to management projections. Ruback set his terminal growth rate slightly higher, at \(3.35 \%\), which he derived from the midpoint of the long term-expected inflation rate of \(2.3 \%\) and the long-term expected economic growth rate of the economy at large of \(4.4 \% .{ }^{232}\) Ruback's rate was set without the major adjustments to Company cash flows performed by Clarke. In his rebuttal report Clarke accepts Ruback's growth rate as reasonable. \({ }^{233}\) On the facts here, I adopt \(3.35 \%\) as the proper terminal growth rate.

\section*{3. The Proper Discount Rate}

Both parties and their experts rely on the Capital Asset Pricing Model ("CAPM") to calculate the cost of equity. The basic CAPM formula employed here is the risk free rate, plus the product of beta times the equity risk premium, plus the size premium. \({ }^{234}\) The parties and their experts agree that the risk free rate of return is \(2.47 \%\), but disagree as to the three other inputs: the equity risk premium ("ERP"), equity beta, and size premium

\section*{a. Equity Risk Premium}

The skirmish over this input is whether historical ERP or supply-side ERP is the proper method for calculating ERP. The Respondents concede that recent decisions of this Court have adopted supply-side ERP, but observe that ERP must be decided on the facts of each case. \({ }^{235}\) Here, Ruback used an ERP of \(7.0 \%\) which represents the applicable historical ERP. Clarke, in contrast used the supply-side ERP of \(6.21 \%\). While there was vigorous debate on this issue, I find that the supply-side ERP provided by Clarke is proper here. \({ }^{236}\) While it is true that a case-by-case determination of ERP remains appropriate, here there is no basis in the factual record to deviate from what this Court has recently recognized as essentially the default method in these actions. \({ }^{237}\) Therefore the proper ERP here is \(6.21 \%\).
b. Beta

\section*{2. The Terminal Value Growth Rate}
*17 The experts also disagree as to the appropriate beta. Clarke employs a beta of 1.10 , whereas Ruback uses a beta of 1.18 .

Ruback derived his beta from SWS's performance rather than peer returns, which Clarke employed. The Respondents argue that the "peers" are not actually peers. \({ }^{238}\) Thus, the Respondents argue that a more targeted, company-specific beta, as employed by Ruback, is appropriate. \({ }^{239}\) Ruback used two years of SWS weekly stock returns ending on January 3, 2014, that is, data from the two years preceding the announcement of Hilltop's initial offer. \({ }^{240}\) I cannot accept Ruback's beta on this record. Ruback's measurement period covered times where a "merger froth" and corresponding volatility were likely reflected in SWS's trading and price. \({ }^{241}\) Conveniently for the Respondents, Ruback's weekly two-year lookback period reflects this; it yields a beta of 1.18 , which is higher than the five-year monthly lookback of 0.81 and the five-year weekly lookback of 1.09. \({ }^{242}\)

The Respondents argue that Clarke "supplied no explanation for his beta." \({ }^{243}\) Clarke, however, used multiple data points: \({ }^{244}\) he surveyed possible betas and concluded a blended median was proper. \({ }^{245}\) Clarke's beta was derived in part, however, with reference to companies that were not closely comparable. \({ }^{246}\)

Clarke's beta has drawbacks, then, including the extent of comparability to SWS of the entities from which he derived it. Nonetheless, under the facts here I find it best comports with the record. Therefore, I adopt Clarke's beta of 1.10 .

\section*{c. Size Premium}

The experts agree that a size premium is appropriate here and that Duff \& Phelps is the appropriate source to employ to estimate the size premium. However, they disagree as to which size premium should be used. Clarke uses a size premium of \(2.69 \%\), whereas Ruback uses a size premium of 4.22\%.

The divergence arises from the overall valuation of the company. Each expert took a different approach to derive the appropriate "decile" which thereby provides the size premium. Ruback selected the size premium based on the market capitalization of SWS prior to Hilltop's offer, which
was approximately \(\$ 198.5\) million. \({ }^{247}\) Clarke performed calculations to arrive at a preliminary valuation based on his DCF and other metrics, and used that value of \(\$ 464\) million to select the size premium for the decile in that range. \({ }^{248}\) Ruback's approach places SWS in a decile that runs from approximately \(\$ 190\) million to \(\$ 301\) million, \({ }^{249}\) whereas Clarke's approach places SWS in a decile that runs from \$301 million to \(\$ 549\) million. \({ }^{250}\)
*18 The Respondents point out that Clarke's approach is "circular," and that his approach is only "occasionally used" for computing size premiums for private companies where market capitalization is not easily derived or reliable. \({ }^{251}\) Recent cases in this Court, I note, are consistent with the criticism of Clarke's approach in selecting a size premium in valuing this public company. \({ }^{252}\) The Petitioners counter that while using market capitalization is generally appropriate for public companies, the "capital structure" here (including the large amount of outstanding warrants-17,391,304where the total shares outstanding were only \(32,747,990\) ) makes the market capitalization approach imperfect and inappropriate. \({ }^{253}\) They contend that SWS has enough in common with a private company for an iterative calculation to be appropriate. \({ }^{254}\) Both sides have presented some support for their respective size premiums that I find persuasive. SWS was a public company thus making it generally susceptible to Ruback's market capitalization approach. However, it had a substantial amount of in-the-money warrants and significant influence by certain major creditors-making it in some ways more analogous to a private company. I find it appropriate in these circumstances to use the midpoint of these approaches, and I find the applicable size premium is \(3.46 \%\).

\section*{III. CONCLUSION}

For the reasons stated above, and using the valuation inputs I have described, I find the "fair value" of the Petitioners shares of SWS as of the date of the merger was \(\$ 6.38\). The Petitioners are entitled to the fair value of their shares together with interest at the statutory rate. I note that the fact that my DCF analysis resulted in a value below the merger price is not surprising: the record suggests that this was a synergiesdriven transaction whereby the acquirer shared value arising from the merger with SWS.

The parties should confer and provide a form of order consistent with this Memorandum Opinion.

\section*{All Citations}

Not Reported in A.3d, 2017 WL 2334852

\section*{Footnotes}
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1 In Re Appraisal of Petsmart, Inc., 2017 WL 2303599 (Del. Ch. May 26, 2017).
2 Pretrial Order and Stipulation at 5.
ld. at 5-6.
ld. at 2.
ld.
6 See JX049 at 33.
7 See JX015.
S See id. at 3; JX039 at 77.
9 See JX015 at 3; JX039 at 77.
10 Trial Tr. 327:23-328:2 (Jeremy Ford).
11 Id. at 330:23-331:11 (Jeremy Ford); JX039 at 98.
12 See JX015 at 2.
13 JX008 at 2.
14 JX039 at 7.
15 See id.
16 See JX043 at 44.
17 See JX039 at 32.
18 See id.
19 Trial Tr. 116:18-117:12 (Miller).
20 Id. at 221:5-6 (Edge).
21 See JX038 at 19; JX759 at SWS_APP002395467.
22 See Trial Tr. 219:11-22 (Edge) (explaining that the banking line of business was acquired in 2000 and that the "roots"
of the company were its broker-dealer operations).
23 See id. at 226:3-21 (Edge); JX011 at 12.
24 JX017 at 52.
25 See Trial Tr. 197:14-20 (Chereck).
26 Id. at 226:16-227:6 (Edge).
27 See JX009.
28 Trial Tr. 227:7-21 (Edge).
29 See id. at 252:14-253:15 (Edge).
3 0 ~ J X 0 1 1 ~ a t ~ 1 3 . ~
31 ld.
32 Trial Tr. 227:22-228:21 (Edge).
33 See JX011 at 7.
34 JX015 at 2.
35 See JX011 at 1.
36 JX011 at 7, 17. The warrants covered the value of each of Oak Hill and Hilltop's respective loan principal of \$50 million. Id.
37 See Trial Tr. 228:12-17 (Edge).
38 See JX011 at 22.
39 When Hilltop's original ownership of approximately 4% of SWS was combined with its later exercise of warrants for
8,695,652 shares, it eventually owned 10,171,039 shares or approximately 21% of the company. See JX042 at ix.
40 JX008 at 2. Oak Hill appointed J. Taylor Crandall to the SWS board and selected Scott Kauffman as its board observer. Id.
41 See JX016 at 38.

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42 See JX042 at xii-xiii.
43 See id.
44 See JX016 at 10, 14-15.
45 See id.; JX042 at xiii
46 See JX800.
47 Id. at 2.
48 Id. at Ex. 99.2. A corresponding press release by SWS indicated the offer would be reviewed, and disclosed that previous transaction proposals by Sterne Agee "were not in the best interests of SWS ...." Id. at Ex. 99.1.
49 JX801 at 2-3.
50 See JX014.
51 See JX013.
52 Id. at 1-2.
53 Id. at 2.
54 Id. See also Trial Tr. 10:18-12:6 (Sterling).
55 JX013 at 2.
56 Trial Tr. 10:18-12:6 (Sterling).
57 Id. at 256:4-257:2 (Edge).
58 ld.
59 Id. at 257:8-258:7 (Edge).
60 Id. at 258:8-10 (Edge).
61 See, e.g., JX028 at F-3; JX020 at F-3.
62 Trial Tr. 196:7-23 (Chereck).
63 See id. at 210:7-211:10 (Chereck).
64 See, e.g., JX043 at 47; JX017 at 35.
65 Trial Tr. 106:23-107:11 (Miller).
66 See JX028 at F-46.
67 See Trial Tr. 237:2-21 (Edge); JX028 at 24.
68 Trial Tr. 237:2-21 (Edge).
69 See id. at 237:2-238:2 (Edge).
70 See id. I note that the company appears to have kept the tax deferred assets on the books, but placed a \(\$ 30\) million valuation allowance against it. See id.; JX028 at 24. See also JX503 at SWS_APP00094172-73.
71 Respondents' Post-Trial Opening Br. 11.
72 Trial Tr. 108:23-24 (Miller); id. at 106:23-107:11 (Miller)
73 See id. at 198:15-22 (Chereck).
74 See id. at 300:3-302:14 (Roth). For example, compliance, online banking, and cyber security costs were spread over a much smaller number of clients than at larger banks. See id.
75 Id. at 232:6-233:8 (Edge).
76 Id. at 232:20-233:15 (Edge).
77 Id. at 201:18-203:8 (Edge).
78 See, e.g., JX820.
79 See, e.g., Trial Tr. 36:6-7 (Sterling) (describing the company as "a melting ice cube for many years ..."). See also id. at 244:5-10 (Edge).
80 See id. at 244:14-245:1 (Edge).
81 Id. at 109:12-17 (Miller).
82 See JX089 at SWS_APP00002583.
83 See JX102 at SWS_APP00235079-82.
84 See Trial Tr. 248:4-15 (Edge).
85 See id. at 107:24-109:2 (Miller).
86 See, e.g., JX049 at 33

87 Id. See Trial Tr. 429:16-432:10 (Eberwein). CEO of Petitioner Lone Star, Jeff Eberwein, invested on this thesis accumulating a position in SWS. See, e.g., id.; id. at 433:20-437:22 (Eberwein).
88 Id. at 365:14-366:2 (Jeremy Ford).
89 See id.
90 See, e.g., JX090; JX095.
91 See, e.g., JX089; JX091.
92 Trial Tr. 387:1-388:7 (Jeremy Ford)
93 See, e.g., JX906 at HTH00020915-17.
94 See id. at HTH00020921; Trial Tr. 340:4-341:11 (Jeremy Ford). See also JX002 at Ex. 15 (calculating Hilltop's expected savings per share).
95 JX153.
96 See JX177.
97 Trial Tr. 114:15-115:10 (Miller).
98 JX187. I note, however, the Petitioners attack the selection of the financial advisor and suggest that the advisor was conflicted. See, e.g., Petitioners' Post-Trial Opening Br. 9-10.
99 See Trial Tr. 15:6-16:14 (Sterling).
100 See id. at 258:11-259:9 (Edge).
101 Id. at 259:10-20 (Edge).
102 See id. at 20:6-15 (Sterling); id. at 205:9-16 (Chereck); id. at 116:3-13 (Miller).
103 This demonstrative is for ease of explanation and condenses a number of factual sources from the record. It can be found in the Respondents' expert report. See JX002 at 8.
104 JX042 at 240.
105 See Trial Tr. 118:6-119:2 (Miller).
106 Id.
107 JX222. I note this indication of interest appears to have been made, at least in part, at the suggestion of the CEO of one of the Petitioners here-Lone Star. See JX212; JX195.
108 JX236.
109 Trial Tr. 118:6-16 (Miller).
110 See JX261; Trial Tr. 118:10-119:24 (Miller).
111 See Trial Tr. 118:10-119:24 (Miller); JX292. As of March 15, 2014 Triumph's CEO still had "no idea whether this deal makes sense at \(\$ 8.00\) per share (or any price for that matter)." JX335.
112 JX232. Specifically, the Special Committee's financial advisor indicated on February 14, 2014 that he was going "to stiff arm [Esposito] shortly." Id. Esposito also felt "stiff-armed." See JX212 (indicating that Esposito received "a clear stiff arm" from the financial advisor).
113 See Trial Tr. 120:1-3 (Miller).
114 See, e.g., id. at 38:16-40:11 (Sterling).
115 ld. at 38:4-7 (Sterling).
116 Respondents' Post-Trial Opening Br. 25.
117 See, e.g., Trial Tr. 121:18-122:16 (Miller).
118 JX355; Trial Tr. 70:8-10 (Sterling).
119 See e.g., JX368; Trial Tr. 74:15-79:16 (Sterling).
120 See JX380.
121 Trial Tr. 79:17-21 (Sterling).
122 JX388 at 2.
123 See Trial Tr. 80:11-81:4 (Sterling); JX388 at 2.
124 See id.
125 See Trial Tr. 81:9-82:5 (Sterling).
126 JX421.
127 See JX426.
128 See JX482 at STIFEL0000082 (indicating Stifel expected to save or cut costs by approximately 35\%).

129
130 See JX509.
131 See id.
132 JX269.
133 See Trial Tr. 114:15-115:10 (Miller).
134 JX367.
135 Trial Tr. 343:1-344:17 (Jeremy Ford).
136 See id. at 76:12-78:10 (Sterling).
137 Id. at 343:1-344:10 (Jeremy Ford).
138 Id. at 343:20-344:17 (Jeremy Ford).
139 See id.
140 JX516.
141 See id.; JX500.
142 JX530 at SANDLER00014168.
143 See Trial Tr. 140:21-141:21 (Miller).
144 See id.; JX516.
145 See Trial Tr. 140:21-141:21 (Miller); JX516.
146 See JX524.
147 See, e.g, JX600 at LSV0002117, LSV0002121.
148 See id. This same investment group also threatened a proxy contest in 2014 to replace certain directors. See JX616.
149 JX656.
150 JX670.
151 See JX705 at SWS_APP00193843.
152 Id. at SWS_APP00193835.
153 JX039 at 36.
154 JX759 at SWS_APP00239432-33.
155 See JX001 at Appendix B.
156 See id. at 53 ; JX004 at 34 (correcting initial per share valuation for the proper number of shares outstanding).
157 See JX002 at 27, 29, 38-40.
158 See Dec. 14, 2016 Oral Argument Tr. 122, 124.
159 See Dkt. No. 222.
160 See 8 Del. C. § 262.
1618 Del. C. § 262(h) (emphasis added).
162 See, e.g., Laidler v. Hesco Bastion Envtl., 2014 WL 1877536, at *6 (Del. Ch. May 12, 2014) (explaining that "[i]n an appraisal proceeding, the burden to establish fair value by a preponderance of the evidence rests on both the petitioner and the respondent") (citation omitted).
163 Merion Capital LP v. BMC Software, Inc., 2015 WL 6164771, at *11 (Del. Ch. Oct. 21, 2015).
164 See M.G. Bancorporation, Inc. v. Le Beau, 737 A.2d 513, 525 (Del. 1999) (citation omitted).
1658 Del. C. § 262(h).
166 Le Beau, 737 A. 2 d at 525 (citation omitted).
167 In Re Appraisal of Petsmart, Inc., 2017 WL 2303599, at *27 (quoting M.P.M. Enters., Inc. v. Gilbert, 731 A.2d 790, 795 (Del. 1999)).
168 Cede \& Co. v. Technicolor, Inc., 684 A.2d 289, 299 (Del. 1996) (citation omitted).
169 See In re Appraisal of DFC Glob. Corp., 2016 WL 3753123, at *5 (Del. Ch. July 8, 2016) (citation omitted).
170 Golden Telecom, Inc. v. Glob. GT LP, 11 A.3d 214, 217-18 (Del. 2010).
171 See Merion Capital L.P. v. Lender Processing Servs., Inc., 2016 WL 7324170, at *30-31 (Del. Ch. Dec. 16, 2016) (collecting recent cases relying on the deal price).
172 See, e.g., LongPath Capital, LLC v. Ramtron Int'I Corp., 2015 WL 4540443, at *24 (Del. Ch. June 30, 2015) (relying on the deal price and concluding that "[t]his lengthy, publicized [sales] process was thorough and gives me confidence that, if Ramtron could have commanded a higher value, it would have"). See also In Re Appraisal of Petsmart, Inc., 2017 WL

2303599, at *2 (adopting the deal price where "the evidence does not reveal any confounding factors that would have caused the massive market failure, to the tune of \(\$ 4.5\) billion ...").
173 Ramtron Int'I Corp., 2015 WL 4540443, at *25-26 (relying on the deal price and excluding proven synergies arising from the specific transaction).
174 See, e.g., Laidler, 2014 WL 1877536, at *8 (rejecting a comparable companies analysis where the proponent failed to demonstrate the companies were "truly comparable").
175 See ONTI, Inc. v. Integra Bank, 751 A.2d 904, 916 (Del. Ch. 1999) ("The burden of proof on the question whether the comparables are truly comparable lies with the party making that assertion ....").
176 In re Orchard Enterprises, Inc., 2012 WL 2923305, at *10 (Del. Ch. July 18, 2012).
177 See JX005 Exs. 9.2, 10.
178 See, e.g., id. at 21-22 (explaining that a banking comparable used by Clarke, Green Bancorp, was a new public company pursuing a high growth rate via strategic acquisitions); id. at 20-21 (explaining how other comparables had undergone mergers during the relevant time).
179 See Owen v. Cannon, 2015 WL 3819204, at *21-22 (Del. Ch. June 17, 2015).
180 Delaware Open MRI Radiology Assocs., P.A. v. Kessler, 898 A.2d 290, 332 (Del. Ch. 2006). With reliable inputs, a DCF valuation may be considered an educated guess.
181 See id. See also Cede \& Co. v. JRC Acquisition Corp., 2004 WL 286963, at *2 (Del. Ch. Feb. 10, 2004) (providing that this "Court prefers valuations based on management projections available as of the date of the merger and holds a healthy skepticism for post-merger adjustments to management projections or the creation of new projections entirely").
182 See supra notes 99-103 and accompanying text.
183 See Petitioners' Post-Trial Opening Br. 41 (stating "both experts relied on Management Projections").
184 ld. at 39.
185 Respondents' Post-Trial Answering Br. 23.
186 See Dkt. No. 221, Ex. at 1.
187 See Petitioners' Post-Trial Opening Br. 41.
188 Dkt. No. 230 at 2 (Petitioners' List of DCF Disputes).
189 Petitioners' Post-Trial Opening Br. 41-42.
190 See id. at 42, 48-49.
191 Most of the "comparables" were significantly larger—and therefore less likely to face SWS's persistent scale problems. See, e.g., JX005 at Ex. 10.
192 For example, the Petitioners argue ROAA needed to reach \(1 \%\) before a steady state was reached. See Petitioners' PostTrial Opening Br. 48-49. However, SWS had averaged a ROAA of \(0.22 \%\) since the year 2000. See JX005 at Ex. 2. Further, the Broker-Dealer operation provided lower ROAA than the Bank, thus the Bank would have to significantly exceed 1\% ROAA in order for SWS to have an overall ROAA of 1\%. See Trial Tr. 223:6-224:12 (Edge); Trial Tr. 670:1223 (Clarke).
193 See, e.g., Trial Tr. 264:2-13 (Edge).
194 See JX005 at 5-6.
195 See Trial Tr. 264:2-13 (Edge) (testifying that management would not have signed off on Clarke's extensions as the profit margin Clarke argued SWS needed to reach a steady state "would not be reasonable").
196 See, e.g., JX036 at 36.
197 See JX005 at 6. See also Trial Tr. 261:8-12 (Edge) ("And then we thought it was appropriate to have obviously one full year of kind of steady state, stand-alone, didn't have the noise of the transaction or anything. And that's how we settled it going through the end of 2017.").
198 See also Trial Tr. 708:1-710:5 (Ruback) (testifying that the appropriate measure for a steady state here is when SWS was "as good relative to [its] peers as [it] c[ould] be"). Ruback concluded that 2017 was a reasonable time at which to stop the projections as SWS's turnaround would have slowed or been complete. See id. at 713:19-22 (Ruback). I find that conclusion reasonable on the facts here. See also id. at 15:18-16:4 (Sterling) (explaining that management thought extending projections beyond 2017 presented "too much uncertainty").
199 That is, my calculations below are made using the described adjustments to Ruback's model supplied to the Court. That framework is located in Ruback's Expert Report. See JX002 at Exs. 6, 7.
200 See JX001 at 25; JX002 at 8.

201 Neither party disputes that the warrant exercise caused an increase in regulatory capital; the Respondents argue, however that this increase should not be considered here, because it arose from the merger, and it introduced no additional cash to SWS but instead simply canceled SWS debt. See Respondents' Post-Trial Opening Br. 60 n. 245.
2028 Del C. § \(262(\mathrm{~h})\); Weinberger v. UOP, Inc., 457 A.2d 701, 713 (Del. 1983)
203 See Cede \& Co. v. Technicolor, Inc., 684 A.2d 289, 299 (Del. 1996).
204 ld. (emphasis added) (citation omitted).
205 See Respondents' Post-Trial Opening Br. 66. Similarly, and unlike the facts in certain cases relied on by the Respondent, here the warrant exercise was not conditioned in any way on the merger: here those exercising the warrants simply made the independent decision to exercise in-the-money warrants before the record date to vote for the merger.
206 See Respondents' Post-Trial Answering Br. 38.
207 ld. at 40.
208 See, e.g., Cede \& Co. v. JRC Acq. Corp., 2004 WL 286963, at *7-8. (Del. Ch. Feb. 10, 2004) (excluding debt incurred to finance a merger, and distinguishing a case that included transactions with some relation to a merger as part of the "operative reality" where those transactions were in place at the time of the merger).
209 See BMC Software, Inc., 2015 WL 6164771, at *13 (excluding excess cash the company conserved in contemplation of the merger); Gearreald v. Just Care, Inc., 2012 WL 1569818, at *8 (Del. Ch. Apr. 30, 2012) (employing the theoretical capital structure the company would have maintained as a going concern where the company paid off all of its debt only "as a condition of the Merger Agreement").
210 See JX002 at Ex. 8; JX004 at 34.
211 Petitioners' Post-Trial Answering Br. 28 (relying, in part, on Gholl v. Emachines, Inc., 2004 WL 2847865, at *13 (Del. Ch. Nov. 24, 2004)).
212 See Gholl, 2004 WL 2847865, at *13 (observing that "in determining the fair value of a corporation, excess cash must be added to the result of the DCF valuation").
213 See Petitioners' Post-Trial Answering Br. 28 (arguing that "in the context of a bank holding company, Delaware law treats excess capital the same way" as excess cash).
214 See Respondents' Post-Trial Answering Br. 31-37.
215 See, e.g., JX005 at 13 (explaining that "[r]egulatory capital is a book-value-based measurement that is specified by government regulators" and that it "is not the same as excess cash readily available for distribution").
216 See Trial Tr. 736:11-737:11 (Ruback) (explaining that what "excess capital means is that you have more equity than required by regulators"); id. at 408:20-409:13 (Jeremy Ford) (explaining that "excess capital is really the equity component, and it relates for these regulated businesses ...").
217 See, e.g., id. at 205:17-206:19 (Chereck) (testifying to the impracticability of a dividend in 2014, and that the Company "needed that capital to support the growth that we were projecting ...").
218 JX001 at Schedule 2-A.
219 See Trial Tr. 261:20-262:11 (Edge); id. at 16:19-17:9 (Sterling). See also Respondents' Post-Trial Opening Br. 20 (arguing that management projections rested on the "favorable assumption" that "Oak Hill and Hilltop would exercise their warrants in July 2016").
220 See, e.g., Tr. 252:14-253:15 (Edge) (testifying to the de-facto requirement in the Broker-Dealer business of having \$100 million in excess capital for counterparties to transact business with SWS, and that counterparties would cut SWS off when they dropped below \(\$ 100\) million in excess capital).
221 JX001 at 30.
222 See supra note 219.
223 See, e.g., Trial Tr. 205:17-206:11 (Chereck) (testifying that in 2014 it would have been "very difficult" to get permission from federal regulators to dividend bank capital up to the holding company level).
224 See Gholl, 2004 WL 2847865, at *13 (explaining that non-operating assets should be added to the valuation and that "excess cash must be added to the result of the DCF valuation").
225 In re PNB Holding Co. Shareholders Litig., 2006 WL 2403999 (Del. Ch. Aug. 18, 2006).
226 Id. at *26-28 (Del. Ch. Aug. 18, 2006) ("Despite its high Tier-1 Ratio as of the Merger date, though, there is no basis in equity to assume that [the bank] was required to premise the Merger price on a reduction of its starting Tier-1 Ratio."). The other case relied upon by the Petitioners, in support of the major lump sum distribution advanced here, involved a discounted net income analysis of a small community bank where both experts agreed it was proper to distribute certain
excess capital, and only disagreed as to the amount. See Petitioners' Post-Trial Answering Br. 28 n .133 (citing Dunmire v. Farmers \& Merchants Bancorp of W. Pa., Inc., 2016 WL 6651411, at *16 (Del. Ch. Nov. 10, 2016)).

227 In re PNB, 2006 WL 2403999, at *26-27. I note the PNB Court observed, in rejecting a large lump-sum distribution, that "it also is inappropriate to assume that PNB would retain cash simply to remain well above the well-capitalized threshold." Id. The PNB Court handled the excess regulatory capital issue by distributing income in the future, and only retaining the amount required to remain at what the Court set as a reasonable capitalization level. \(l d\). The evidence on which to perform a similar calculation here is lacking on this record.
228 See JX001 at Schedule 2-D.
229 ld. See also JX005 at 16 n. 51.
230 JX005 at 16 n .51 . See also JX004 at 20 (indicating alterations to the interest expense result in an additional few cents per share). I note that there is some apparent confusion or disagreement as to the proper tax treatment of this reduction in interest expense. See JX004 at 9-C (adjusting net income by \(\$ 7\) million in 2015, but only \(\$ 2.618\) million in 2016, and including a \(\$ 6.791\) million tax expense in 2016). I find the approach I employed above the line reasonable here, and adopt it.
231 That is, I add 4.6 million and 2.6 million into cells A1 and B1, respectively, of Ruback's model. JX002 at Ex. 7.
232 ld. at 12.
233 JX004 at 23.
234 That is: Risk Free Rate + (Beta * Equity Risk Premium) + Size Premium = Cost of Equity.
235 See Respondents' Post-Trial Answering Br. 41.
236 See Glob. GT LP v. Golden Telecom, Inc., 993 A.2d 497, 517-18 (Del. Ch. 2010). See also In re Orchard Enterprises, Inc., 2012 WL 2923305, at *19 (citing Golden Telecom and finding that the party advancing a historical risk-premium did "not provide[ ] me with a persuasive reason to revisit the supply-side versus historical equity risk premium debate").
237 See id. See also Gearreald, 2012 WL 1569818, at *10.
238 Respondents' Post-Trial Answering Br. 44.
239 ld.
240 JX002 at 16-17.
241 See, e.g., Respondents' Post-Trial Answering Br. 60 (arguing that "Petitioners are therefore wrong to say that the merger froth in SWS's stock is speculative, because the uncontroverted evidence demonstrates that the market anticipated a synergies-driven deal for SWS, and likely one involving Hilltop").
242 JX001 at Schedule 3-B. See also In re Appraisal of DFC Glob. Corp., 2016 WL 3753123, at * 10 (observing that "[a] fiveyear period is the most common for measuring beta and generally results in a more accurate measurement, although two-year periods are used in certain circumstances").
243 Respondents' Post-Trial Answering Br. 46.
244 See JX001 at 33.
245 Trial Tr. 541:21-543:22 (Clarke) (testifying to how he derived his beta and explaining that "I think it's appropriate, when looking at beta, to get as many measurements as you can, to try to triangulate something that is supportable both by the company itself and by peers"). See also JX001 at Schedule 3-B.
246 See JX001 at Schedule 3-B.
247 JX002 at 17; JX005 at 19. I note this market capitalization figure excludes the warrant exercise which I have found was part of the Company's operative reality.
248 See JX001 at 34.
249 JX002 at 17
250 JX001 at 34
251 Respondents' Post-Trial Answering Br. 47-48.
252 See, e.g., Merion Capital, L.P. v. 3M Cogent, Inc., 2013 WL 3793896, at *19 (Del. Ch. July 8, 2013) (observing that the "Court of Chancery consistently has used market capitalization as the benchmark for selecting the equity size premium"). See also In re Appraisal of DFC Glob. Corp., 2016 WL 3753123, at *14 (observing that "the size premium itself is calculated using market value, when available, as it is here").
253 Petitioners' Post-Trial Answering Br. 50.
254 ld. at 50-51.

Only the Westlaw citation is currently available.

\section*{UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.}

\section*{Court of Chancery of Delaware.}

\section*{IN RE Appraisal of PETSMART, INC.}


\section*{Attorneys and Law Firms}

Stuart M. Grant, Esquire, Nathan A. Cook, Esquire, Kimberly A. Evans, Esquire, and Joseph L. Christensen, Esquire of Grant \& Eisenhofer P.A., Wilmington, Delaware, Attorneys for Petitioners.

Gregory P. Williams, Esquire, Brock E. Czeschin, Esquire, John D. Hendershot, Esquire, Robert L. Burns, Esquire, Sarah A. Clark, Esquire, and Matthew D. Perri, Esquire of Richards, Layton \& Finger, P.A., Wilmington, Delaware, and Theodore N. Mirvis, Esquire, Rachelle Silverberg, Esquire, Adam M. Gogolak, Esquire, Adam D. Gold, Esquire, and Joshua J. Card, Esquire of Wachtell, Lipton, Rosen \& Katz, New York, New York, Attorneys for Respondent PetSmart, Inc.

\section*{MEMORANDUM OPINION}

\section*{SLIGHTS, Vice Chancellor}
*1 I would not be the first to observe that the trial of an appraisal case under the Delaware General Corporation Law presents unique challenges to the judicial factfinder. \({ }^{1}\) The petitioner bears a burden of proving the "fair value" of his shares; the respondent bears a burden of proving the "fair value" of the petitioner's shares; and then the judge, as factfinder, assumes, in effect, a third burden to assign a particular value "as the most reasonable [ ] in light of all of the relevant evidence and based on considerations of fairness." \({ }^{2}\) The role assigned to the trial judge in this process independently to review "all relevant factors" that may inform the determination of fair value, if not unique, is certainly
unusual. \({ }^{3}\) It is unusual in the sense that the judge is not bound by the positions on fair value espoused by either of the parties. Indeed, the trial court commits error if it simply chooses one party's position over the other without first assessing the relevant factors on its own. \({ }^{4}\)

Yet it cannot be overlooked that the judge's decision in an appraisal case follows a trial-an honest-to-goodness, adversarial trial-where the parties are incented to present their best case, grounded in competent evidence, and to subject their adversary's evidence to the discerning filter of cross-examination. The trial court then reviews the evidence the parties have placed in the trial record and does its best to
"distill the truth." \({ }^{5}\) In this regard, at least, the appraisal trial is no different from any other trial. The court's determination of "fair value," while based on "all relevant factors," must still be tethered to the evidence presented at trial. The appraisal statute is not a license for judicial freestyling beyond the trial record.
*2 This appraisal action follows a going-private merger in which the public stockholders of PetSmart, Inc. ("PetSmart," the "Company" or the "Respondent") received \(\$ 83\) per share in cash from a private equity acquiror, BC Partners, Inc. (the "Merger"). The Merger closed on March 11, 2015. Petitioners declined the Merger consideration and demanded appraisal.

The battle lines staked here rest on positions that are wellknown to Delaware courts, the academy and those who otherwise follow the evolving state of Delaware appraisal litigation. The Respondent would have me determine fair value by deferring to the price paid by a third-party purchaser in an arm's-length transaction after an allegedly robust presigning auction process. The Petitioners insist that "deal price" is unreliable in this case for a variety of reasons and urge me to determine fair value by employing a tried and true valuation methodology, discounted cash flow ("DCF"). The experts engaged by the parties, both well credentialed, sponsor these differing views with unwavering commitment. Indeed, the parties are so certain of their respective positions on the fair value of PetSmart at the time of the Merger that they insist I disregard the other's proffered methodology entirely. The result: Respondent values PetSmart at \(\$ 83\) per share; Petitioners value the same firm at \(\$ 128.78\) per share.

In this post-trial opinion, I conclude that the evidence presented during trial points in only one directionPetitioners have failed to carry their burden of persuasion that a DCF analysis provides a reliable measure of fair
value in this case. The management projections upon which Petitioners rely as the bedrock for their DCF analysis are, at best, fanciful and I find no basis in the evidence to conclude that a DCF analysis based on other projections of expected cash flows would yield a result more reliable than the Merger consideration. Nor is there a foundation in the evidence for concluding that some other valuation methodology might lead to a reliable determination of fair value. On the other hand, I am satisfied Respondent has carried its burden of demonstrating that the process leading to the Merger was reasonably designed and properly implemented to attain the fair value of the Company. Moreover, the evidence does not reveal any confounding factors that would have caused the massive market failure, to the tune of \(\$ 4.5\) billion (a \(45 \%\) discrepancy), that Petitioners allege occurred here. Based on my review of all relevant factors, as found in the evidence, I am satisfied that the deal price of \(\$ 83\) per share, "forged in the crucible of objective market reality," \({ }^{6}\) is the best indicator of the fair value of PetSmart as of the closing of the Merger. \({ }^{7}\)

\section*{I. BACKGROUND}
*3 I recite the facts as I find them by a preponderance of the evidence after a four-day trial beginning in October 2016. That evidence consisted of testimony from seventeen witnesses (thirteen fact witnesses, some presented live and some by deposition, and four live expert witnesses) along with over 2300 exhibits. To the extent I have relied upon evidence to which an objection was raised but not resolved at trial, I will explain the bases for my decision to admit the evidence at the time I first discuss it.

\section*{A. Parties and Relevant Non-Parties}

Respondent, PetSmart, Inc., is a Delaware corporation with headquarters in Phoenix, Arizona. \({ }^{8}\) It is one of the largest retailers of pet products and services in North America. \({ }^{9}\) Prior to the Merger, PetSmart's stock traded on NASDAQ. \({ }^{10}\) On March 11, 2015, PetSmart was acquired by a consortium of funds advised by BC Partners, Inc. and certain other investment firms for \(\$ 83.00\) cash per share (the "Merger Price") in a merger. \({ }^{11}\) In connection with this transaction, PetSmart merged into Argos Merger Sub Inc., with PetSmart surviving as a wholly owned subsidiary of Argos Holdings Inc. \({ }^{12}\)

Petitioners are CF Skylos I LLC, CF Skylos II LLC, Third Point Reinsurance (USA) Ltd., Third Point Reinsurance Company Ltd., Third Point Partners Qualified L.P., Third Point Offshore Master Fund L.P., Third Point Partners L.P., Third Point Ultra Master Fund L.P., Farallon Capital Partners, L.P., Farallon Capital AA Investors, L.P., Farallon Capital (AM) Investors, L.P., Farallon Capital Institutional Partners, L.P., Farallon Capital Institutional Partners II, L.P., Farallon Capital Institutional Partners III, L.P., Farallon Capital Offshore Investors II, L.P., Noonday Offshore, Inc., Muirfield Value Partners LP, HCN L.P., CAZ Halcyon Strategic Opportunities Fund L.P., Halcyon Mount Bonnell Fund L.P., Merlin Partners, LP, and AAMAF, LP (collectively, "Petitioners"). \({ }^{13}\) Petitioners were stockholders of PetSmart as of the Merger date and collectively held \(10,713,225\) shares of PetSmart common stock. \({ }^{14}\)

\section*{B. The Company}

Founded in 1987, PetSmart is a pet specialty retailer. \({ }^{15}\) Its business consists of providing pet products, including consumables and hardgoods, \({ }^{16}\) as well as pet services such as pet grooming and boarding. \({ }^{17}\) At the time of the Merger, PetSmart operated 1,404 stores in the United States, Canada, and Puerto Rico and had annual revenues of approximately \(\$ 7\) billion. \({ }^{18}\) The only other company in North America that does what PetSmart does on the same scale is Petco Animal Supplies, Inc. ("Petco"). \({ }^{19}\) PetSmart also faces competition from big box stores like Target and WalMart, grocery stores like Kroger, smaller chain and independent pet stores and online retailers like Amazon. \({ }^{20}\)

\section*{C. PetSmart Experiences Strong Growth from 20002012}
*4 PetSmart experienced significant positive growth each year from 2000 to \(2012 .{ }^{21}\) From 2000 to the onset of the financial crisis in 2007, PetSmart achieved annual revenue growth of \(8-13 \%\), significantly outperforming the retail industry as a whole. \({ }^{22}\) PetSmart's annual revenue growth rate declined in 2008 and 2009 (falling to \(5 \%\) in 2009) during the peak of the financial crisis but soon rebounded, reaching \(11 \%\) in 2012. \({ }^{23}\)

PetSmart's growth was driven in significant part by favorable dynamics in the pet industry from 2000 to 2008 coupled with PetSmart's rapid increase in new store openings. \({ }^{24}\) From 2000
to 2008 , the pet industry benefitted from the convergence of two industry-favorable trends: an increasing pet population in North America and increasing spending per pet by North American pet owners due to the trend described as pet "humanization." 25 The period from 2000 to 2008 also saw PetSmart more than double the number of its stores, from 484 stores in 2000 to 1,004 stores at the start of 2008. \({ }^{26}\) PetSmart's store expansion was particularly rapid from 2004 to 2008, when PetSmart opened 518 new stores. \({ }^{27}\) As these new stores grew to their full sales potential, PetSmart experienced a strong increase in its comparable store sales growth from 2009 to 2012 . \(^{28}\)

\section*{D. PetSmart's Performance Declines}

PetSmart's growth began to stall in 2012. \({ }^{29}\) Between Q1 2012 and Q4 2013, PetSmart's comparable store sales growth declined from 7.4\% (in Q1 2012) to \(1.4 \%\) (in Q4 2013), and PetSmart's overall sales growth exhibited a general downward trend. \({ }^{30}\) During this same period, PetSmart found itself facing increasing competition and other headwinds on multiple fronts. \({ }^{31}\) Along with this decline, PetSmart struggled accurately to project its future performance, even quarter-byquarter. Indeed, management's forecasts were often off by large margins. \({ }^{32}\)
*5 PetSmart also experienced substantial management turnover in 2013 and early 2014. In June 2013, PetSmart's CEO and CFO both resigned. \({ }^{33}\) David Lenhardt, who had previously served as PetSmart's President and COO, became PetSmart's new CEO, and Carrie Teffner joined PetSmart as its new CFO. \({ }^{34}\) PetSmart's then-President and COO, Joseph O'Leary, left the Company in April 2014. \({ }^{35}\)

New management pushed initiatives that precipitated additional difficulties for PetSmart. In particular, under Lenhardt's direction, PetSmart implemented a major "consumables reset" in early 2014 through which it increased store space for exclusively distributed premium pet foods while reducing space for widely distributed value pet foods. \({ }^{36}\) This consumables reset was intended to drive growth in PetSmart's sales and margins. \({ }^{37}\) As reflected in PetSmart's disappointing Q1 2014 results, announced on May 21, 2014, the consumables reset failed. \({ }^{38}\) PetSmart's comparable store sales growth for Q1 2014 had declined to \(-0.6 \%\), and its Q1 2014 net sales growth was only \(1.1 \% .{ }^{39}\)

Following PetSmart's announcement of its Q1 2014 results, PetSmart's stock price dropped \(8 \%\) to \(\$ 57.02 .{ }^{40}\) PetSmart's Q1 2014 results, combined with the sharp decline in its stock price, drew the ire of shareholders, including Longview Asset Management LLC ("Longview"), then PetSmart's largest stockholder. Longview was not bashful in communicating its frustration with PetSmart's lackluster performance to both members of management and PetSmart's board of directors (the "Board"). \({ }^{41}\)

\section*{E. PetSmart's Board Begins to Explore Strategic Alternatives}
*6 At a meeting on June 18, 2014, the Board received reports on Longview's most recent communications and PetSmart's poor results in Q1 2014. \({ }^{42}\) Morgan Stanley had been engaged to advise the Board regarding its options in the wake of recent events and, at the June 18 meeting, it gave a presentation on PetSmart's valuation, capital structure and potential strategic alternatives. \({ }^{43}\)

In anticipation of the June 2014 meeting, PetSmart had provided Morgan Stanley with PetSmart's strategic plan and a set of financial projections prepared by PetSmart's management (the "June 2014 Projections"). The June 2014 Projections were "very high level," \({ }^{44}\) created "specifically for Morgan Stanley," 45 and prepared in "[r]elatively short order, in a matter of maybe not even a week", \({ }^{46}\) using management's general financial planning framework (the "fishbone" or "financial framework"). \({ }^{47}\) These projections had not been approved by PetSmart's Board and were not intended to inform PetSmart's business operations going forward. \({ }^{48}\) Rather, the June 2014 Projections were prepared "to be in line with what the board would have expected from the financial framework, but [also] to give them directional guidance in terms of what the impact of leveraging up to do a significant share buyback would do., \({ }^{49}\)

Having reviewed PetSmart's strategic plan and the June 2014 Projections, Morgan Stanley presented the following "preliminary conclusions" to PetSmart's Board at the June 2014 meeting: (1) "Based on management's forecasts and [PetSmart's] recent share price decline, [PetSmart's] stock appeared to be undervalued"; \({ }^{50}\) (2) "PetSmart could optimize its capital structure and lower its cost of capital by raising debt to accelerate its return of
capital while still maintaining strategic flexibility"; \({ }^{51}\) and (3) "Given [PetSmart's] compelling cash flow and return characteristics ..., Morgan Stanley expected financial sponsors to be interested in a take-private transaction [i.e., a leveraged buyout ("LBO") ]."52 Morgan Stanley's presentation to the Board also included a preliminary assessment of PetSmart's value based on a DCF analysis, which yielded a range of valuations for PetSmart of \$100 per share (upside), \(\$ 88\) per share (base), and \(\$ 77\) per share (downside). \({ }^{53}\)

Following Morgan Stanley's presentation, the Board discussed a range of possible strategic options, including: (1) adhering to management's current strategic and operating plans; (2) engaging in a significant leveraged recapitalization (as described by Morgan Stanley); (3) pursuing an acquisition of Pet360, Inc. ("Pet360"), an online pet business; (4) pursuing a strategic combination with Petco; or (5) pursuing a sale of the Company to a financial buyer. \({ }^{54}\) At the end of the June 2014 meeting, the Board established an Ad Hoc Advisory Committee of non-executive, independent directors: Gregory Josefowicz, Rakesh Gangwal, and Thomas Stemberg. \({ }^{55}\) The Board established the Ad Hoc Committee to work with management and PetSmart's advisors to evaluate options that would increase shareholder value (including a leveraged recapitalization) and to develop one or more related proposals for consideration by the Board. \({ }^{56}\) One of the goals in forming the Ad Hoc Committee was to relieve some of the pressure from PetSmart's "young management team" during the Company's exploration of strategic alternatives since management "was already under a lot of pressure to perform." \({ }^{57}\)

\section*{F. Activist Investor JANA Partners Discloses Stake in the Company and Urges Sale}
*7 On July 3, 2014, JANA Partners LLC ("JANA"), an activist hedge fund, disclosed in a Schedule 13D filing that it had acquired a \(9.9 \%\) stake in PetSmart. \({ }^{58}\) JANA stated its view that PetSmart's stock was undervalued and disclosed its intention to push PetSmart to pursue strategic alternatives including a possible sale. \({ }^{59}\) Four days later, on July 7, 2014, Longview publicly disclosed a letter it had sent to the Board in response to JANA's filing that also encouraged the Board to pursue a possible sale of the Company in addition to examining other strategic alternatives. \({ }^{60}\)

On July 10, 2014, JANA representatives met in person with Lenhardt, Teffner, and Josefowicz. \({ }^{61}\) At that meeting, JANA's representatives criticized PetSmart's Board and management for pricing missteps, ineffective cost management, failure to capitalize on growth opportunities and failure to respond adequately to competitors. \({ }^{62}\) In light of these failures, JANA's view was that PetSmart's only solution was to sell the Company. \({ }^{63}\) That same day, Longview reiterated to PetSmart its support for a possible sale of the Company. \({ }^{64}\)

On July 11, 2014, the Board held a special meeting via telephone. \({ }^{65}\) During the meeting, the Board received a report on recent shareholder communications from JANA and Longview and, with management's recommendation, authorized the retention of J.P. Morgan Securities LLC ("JPM") as PetSmart's new financial advisor. \({ }^{66}\) A team from JPM led by Anu Aiyengar presented JPM's preliminary analysis of PetSmart's current situation and possible strategic alternatives. \({ }^{67}\) This presentation included an overview of preliminary valuation perspectives, selected capital alternatives and selected strategic alternatives such as a possible going-private transaction or the acquisition of Petco. \({ }^{68}\) JPM also discussed certain steps that it would undertake to assist the Board in evaluating alternatives and making a decision, which included: (1) reviewing and performing due diligence on PetSmart's business plan, which management had provided to JPM; (2) assessing trends in the pet sector; (3) asking strategic questions about possible changes to PetSmart's business plan; (4) evaluating capital and structural changes that could be considered in connection with that plan, as alternatives to a sale of the business; (5) considering acquisition scenarios; (6) comparing the potential value to shareholders of executing PetSmart's business plan (including recommending possible modifications and capital and structural changes) with the potential value to stockholders of a sale of PetSmart, and (7) assessing which of these or other alternatives was more likely to maximize shareholder value. \({ }^{69}\) While JANA had threatened a proxy fight if PetSmart decided not to sell, the Board indicated to JPM that it was prepared to take on that fight if it decided that a sale was not in the best interests of the Company. \({ }^{70}\)

\section*{G. PetSmart's Management Prepares Long-Term Projections}
*8 Following the July 11 meeting, PetSmart's management began to prepare a set of long-term projections at the direction
of the Board (the "Base Case"). \({ }^{71}\) This project was led principally by PetSmart CFO Carrie Teffner, Christina Vance, PetSmart's director of financial planning, and Kim Smith, PetSmart's director of treasury operations-with input from Lenhardt and several other executives. \({ }^{72}\)

PetSmart did not prepare long-term projections in the ordinary course to operate its business. \({ }^{73}\) Instead, PetSmart's management would create a one-year budget (or operating plan) which forecasted PetSmart's quarterly performance for the upcoming year. \({ }^{74}\) The budget formulation process began each summer with a series of meetings over several days referred to within the Company as "Summer Strategy." \({ }^{75}\) During these meetings, PetSmart's management discussed financial and strategic priorities for the next fiscal year. \({ }^{76}\) Prior to each Summer Strategy, the leaders of PetSmart's different business segments would identify potential initiatives for the upcoming fiscal year and, working with members of PetSmart's finance department, develop "business cases" around those initiatives. \({ }^{77}\) Each business case for a proposed initiative would include certain financial forecasts. \({ }^{78}\) The business segment leaders would then present their proposed business initiatives (and business cases) to the Company's senior management during the Summer Strategy meetings. \({ }^{79}\) Management, in turn, would select (and approve) specific initiatives for advancement in the upcoming fiscal year. \({ }^{80}\)

Following Summer Strategy, PetSmart's management would continue to evaluate the approved initiatives through the fall and early winter to determine their expected impact on PetSmart's revenue and expenses. \({ }^{81}\) Typically, management would then complete the one-year budget in February of the following calendar year, present it to the Board in March of that year and the Board would approve it that same month. \({ }^{82}\) Thereafter, before Q2, Q3 and Q4 of the fiscal year, management would prepare reforecasts of PetSmart's projected performance for the remaining quarters. \({ }^{83}\) PetSmart used the one-year budgets and reforecasts "to run the business and incentivize management." 84
*9 Over time, Vance had developed a model to extrapolate the business cases presented at Summer Strategy. \({ }^{85}\) She used her model to evaluate whether PetSmart "would stay within [its] financial framework." \({ }^{86}\) The model was not,
however, "presented to the board for approval ... [and was not] considered a multiyear projection that the business relied upon." \({ }^{87}\) Rather, it "was more of an inherent working tool for the planning department ...." 88

PetSmart management confronted several challenges when the Board tasked them with developing the long-term projections to be used by JPM and the Board in their evaluation of strategic alternatives. First and foremost, they had never prepared long-term projections and the process of doing so was vastly different than the process employed to prepare budgets for Summer Strategy. \({ }^{89}\) The business units were unable to provide much input because they had never prepared and had never been accountable for longterm projections. \({ }^{90}\) And then there was the time pressure. The Board rushed management to prepare the Base Case "in the span of a few days" after the Board meeting on July 11, 2014, so that the results could be presented at the next Board meeting in August. \({ }^{91}\)

During PetSmart's 2014 Summer Strategy, management had "identified a variety of initiatives that [management] thought would be go-forward initiatives to help drive growth going forward." \({ }^{" 92}\) Thus, in creating the Base Case, management first sought "to build a base of what [they] believe[d] the comp would be for the existing business before layering in [those] initiatives." \({ }^{93}\) The finance team then "layered onto [the "base" comp projections] what it thought the value of each of the[ ] initiatives would be." 94 As part of this "layering" process, the finance team sent its value assumptions to the relevant business segment leaders "to get an affirmation that yes, that looks right ...." \({ }^{\prime 25}\) And, as Teffner explained, "that's essentially what drove the top line."96

The Base Case forecast estimated revenues using three primary yardsticks: (1) new store openings; (2) comparable stores sales growth; and (3) four initiatives selected from the Summer Strategy. \({ }^{97}\) The Base Case is summarized below: \(:^{98}\)
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline \multicolumn{8}{|l|}{\$mm} \\
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\] & 14.40E \\
\hline Select tincome stitementitems: & & & & & & & \\
\hline Revenue & \$5,046 & 5,303 & 5,960 & sf,079 & 5,507 & st, 3 S 4 & 10\% \\
\hline \$ grout & 1.98 & \({ }^{265}\) & \({ }^{52 \%}\) & \({ }_{5}^{52 \%}\) & 53\% & \({ }^{535}\) & \\
\hline \% semp & (02\%) & 1.35 & 2\% & 3.3\% & 23\% & 33 & \\
\hline ors reagn & \({ }^{52135}\) & 52279 & 52332 & 52.444 & \$2594 & \({ }^{52.887}\) & 47\% \\
\hline 8 magin & 30.3\% & 30.5 & 30.45 & 302\% & 301\% & 3005 & \\
\hline oom & 51.62 & 51.469 & \$1,512 & 51.558 & 31,013 & 51,009 & 33\% \\
\hline \% sales & 20.85 & 20.5 & 19.75 & 19.38 & 1903 & 1885 & \\
\hline mita & 594 & 5981 & \$1,084 & 51,127 & \$1,201 & \$1,280 & 8,2\% \\
\hline s meron & \({ }^{135}\) & \({ }^{1204}\) & 12.78 & \({ }^{14.0 \%}\) &  & \({ }^{1438}\) & \\
\hline \% grout & 2\% & 10\% & 10\% & 7.0\% & 65\% & 665 & \\
\hline mitaur & \$1.287 & \$1,391 & \$1,422 & \$1,514 & 51,008 & \$1,700 & 588 \\
\hline smavin & 10.5 & 12\% & 12.5\% & 1:7\% & 109\% & 18.15 & \\
\hline 田 & 5713 & 575 & 5820 & 5885 & 5952 & \$1,017 & 1.4\% \\
\hline smaspon & 10.5 & 10.35 & 10.7\% & \(11.0 \%\) & 112\% & 11.5 & \\
\hline Netreare &  & 542 & S40s & 5524 & \$505 & socs & 72\% \\
\hline \% grome & 103 & 3.4 & 276 & \(8.2 \%\) & 17\% & 7.15 & \\
\hline Ps & 433 & 347 & 58.45 & 36.19 & 36.09 & 87.88 & 12.\% \\
\hline \% growh & 2\% & 278 & 1505 & 13.6 & 130\% & 122\% & \\
\hline
\end{tabular}

The comparable store sales forecasts were ambitious and well above the performance management had projected at
Summer Strategy, including comparable store sales growth. \({ }^{99}\) Specifically, the Base Case assumed the success of each of the new revenue initiatives developed at Summer Strategy and projected comparable store sales growth of \(1.3 \%\) in 2015, \(3.2 \%\) in 2016 and \(3.3 \%\) increases each year thereafter. \({ }^{100}\)
*10 The Base Case was not well received by the Board. Specifically, "when [management] reviewed the base case comp assumptions with the ad hoc committee of the board, [the committee], specifically ... Stemberg, indicated that the comp assumptions that [management] had put in the plan were not aggressive enough and [management] needed to be far more aggressive, recognizing that potential buyers looking at [PetSmart would] discount [management's] plans themselves." \({ }^{101}\) Accordingly, management went back to the drawing board and prepared the Base-Plus Case, which is summarized below: \({ }^{102}\)


The Base-Plus Case "assumed more aggressive delivery of performance against the exact same initiatives that [management] had looked at in the Base Case., \({ }^{103}\) These projections also assumed comparable store sales growth that exceeded similar projections in the Base Case. \({ }^{104}\) The take away from the Base-Plus Case was that it depicted an even sharper turnaround of PetSmart's recent downward-trends than had been forecast previously. \({ }^{105}\)

As with the Base Case, management prepared the BasePlus Case "extremely quickly." \({ }^{106}\) During this same time frame, PetSmart's management also prepared a third set of projections-the "Growth Case." \({ }^{107}\) The Growth Case started with the Base-Plus Case projections and "assumed yet even [better] performance of the exact same initiatives." \({ }^{" 108}\) Unlike the Base Case and Base Plus Case, however, the Growth Case was not prepared at the request of the Ad Hoc Committee. \({ }^{109}\) Rather, PetSmart management prepared the Growth Case on its own initiative because it was not "sure how far the ad hoc committee wanted [them] to go in terms of comp assumptions." \({ }^{110}\) Management kept the Growth Case in their "back pocket" in case the Ad Hoc Committee once again was displeased with their work on the Base Plus Case. \({ }^{111}\)

\section*{H. The PetSmart Board Decides to Commence a Public Sale Process}

PetSmart's Board next met on August 13, 2014. \({ }^{112}\) At this meeting, JPM presented a preliminary valuation summary for PetSmart and reviewed several strategic alternatives for the Company, including (1) continuing on a standalone basis while engaging in a significant leveraged recapitalization; (2) exploring a sale of the Company; and (3) exploring a strategic merger with another industry participant. \({ }^{113}\) In connection with the third alternative, the Board focused on the potential benefits and risks associated with inviting Petco to participate in an exploratory sales process. \({ }^{114}\) The Board identified two "overwhelming, overriding" \({ }^{115}\) risks associated with such an overture: (1) that Petco would not be serious about acquiring PetSmart, but would feign interest in order to gain access to confidential information about PetSmart's business model, strengths and weaknesses; \({ }^{116}\) and (2) that a Petco-PetSmart merger "would face pretty strong [antitrust] headwinds ... [so that] approval of th[e] transaction would be quite difficult., \({ }^{117}\) Given these concerns, the Board "was not very keen on engaging with Petco" at that time. \({ }^{118}\)
*11 During the August 2014 meeting, PetSmart management and JPM provided the Board with an overview of management's standalone plan and the Base Case and Base-Plus Case financial projections. \({ }^{119}\) The Board admonished management that that Base Case and the BasePlus Case were not aggressive enough because PetSmart "needed to put [its] best foot forward in terms of the projections [it was] putting forward to ... potential buyers."120

Teffner's "take-away from the [August 2014 Meeting] was very much one that [management] needed to put [their] best foot forward because potential buyers were going to discount [management's] assumptions and assume that [the Company was] putting more aggressive assumptions forward."121

At the conclusion of the August meeting, the Board determined that it would publicly announce that PetSmart was exploring strategic alternatives including a possible sale of the Company. \({ }^{122}\) Accordingly, on August 19, 2014, PetSmart issued a press release to that effect, announcing that, based on a thorough, year-long business review, the Board had determined to explore strategic alternatives for the Company to maximize value for shareholders, including a possible sale of the Company. \({ }^{123}\)

Also on August 19, 2014, PetSmart issued a second press release announcing PetSmart's Q2 2014 results. \({ }^{124}\) Here, PetSmart announced that its comparable store sales for Q2 2014 had declined to \(-0.5 \%\), with comparable transactions declining to \(2.6 \%\). \({ }^{125}\) This press release also announced that the Company had entered into a definitive merger agreement to acquire online retailer Pet 360 for \(\$ 130\) million and that the Company would be launching a broad cost reduction program and certain other growth initiatives. \({ }^{126}\)

\section*{I. PetSmart Management Formulates the Profit Improvement Plan and Finalizes its Projections}

Prior to the August 13, 2014 Board meeting, PetSmart had engaged two consulting firms to analyze certain aspects of PetSmart's business and identify cost-savings opportunities. \({ }^{127}\) In May 2014, PetSmart engaged The Hackett Group to identify cost cutting initiatives with respect to PetSmart's Selling, General, and Administrative expenses (specifically, a headcount reduction). \({ }^{128}\) And in May/June 2014, PetSmart engaged A.T. Kearny, Inc. to focus on cost cutting initiatives with respect to certain of PetSmart's indirect expenses. \({ }^{129}\)

Shortly after the August 2014 Board meeting, with the assistance of its consultants, PetSmart's management undertook to formulate a large-scale cost-savings plan at the Board's direction. \({ }^{130}\) This plan came to be known as the "Profit Improvement Plan" (or "PIP"). \({ }^{131}\) The PIP consisted of: (1) implementing a headcount reduction; \({ }^{132}\) (2) engaging A.T. Kearny to develop a cost-savings plan
with respect to PetSmart's cost of goods sold ("COGS") expenses and certain of PetSmart's other indirect expenses such as spending on transportation, marketing, supplies, real estate, packaging, and real estate services; \({ }^{133}\) and (3) engaging the Peppers \& Rogers Group to develop a costsavings plan with respect to PetSmart's enterprise costs. \({ }^{134}\) Two weeks after the August 2014 Board meeting, Teffner sent an email to the Board stating that management's target for PIP cost savings was "[approximately] \$160M-\$200M+ EBITDA improvement." \({ }^{135}\) The final PIP savings developed by the consultants, together with management, and presented to the Board showed an expected range of \$183-\$283 million in EBITDA savings annually. \({ }^{136}\)
*12 While management worked on developing the PIP, they also worked to prepare an updated set of financial projections that would integrate the PIP savings. \({ }^{137}\) Specifically, between August and October 2014, PetSmart management prepared what would be their final revised set of financial projections for presentation to the Board (the "Management Projections"). \({ }^{138}\) The Management Projections started with the Base-Plus Case projections and layered on (1) greater sales growth assumptions for the same proposed business initiatives, (2) new sales growth expected from the Pet360 acquisition, and (3) cost savings associated with the PIP. \({ }^{139}\) The forecasts for comparable store sales growth were significantly higher than those set forth in both the Base and Base-Plus Cases. These new projections also included more aggressive Net Sales, EBITDA, Earnings Per Share and Capex numbers. \({ }^{140}\) They estimated that, through the PIP, PetSmart would achieve cost savings totaling \(\$ 120\) million in 2015 and then \(\$ 200\) million for each of the subsequent years laid out in the forecast. \({ }^{141}\) The Management Projections are summarized below: \({ }^{142}\)
\begin{tabular}{|l|c|c|c|c|c|c|}
\hline \multicolumn{7}{|c|}{ Management Projections (FY 2014-2019) } \\
\hline (\$ in millions) & \begin{tabular}{c}
\(\mathbf{2 0 1 4 E}\) \\
Jan-15
\end{tabular} & \begin{tabular}{c}
\(\mathbf{2 0 1 5 E}\) \\
Jan-16
\end{tabular} & \begin{tabular}{c}
\(\mathbf{2 0 1 6 E}\) \\
Jan-17
\end{tabular} & \begin{tabular}{c}
\(\mathbf{2 0 1 7 E}\) \\
Jan-18
\end{tabular} & \begin{tabular}{c}
\(\mathbf{2 0 1 8 E}\) \\
Jan-19
\end{tabular} & \begin{tabular}{l}
\(\mathbf{2 0 1 9 E}\) \\
Jan-20
\end{tabular} \\
\hline Revenue & \(\$ 7,088\) & \(\$ 7,456\) & \(\$ 7,869\) & \(\$ 8,331\) & \(\$ 8,822\) & \(\$ 9,329\) \\
\hline EBITDA & \(\$ 958\) & \(\$ 1,060\) & \(\$ 1,223\) & \(\$ 1,326\) & \(\$ 1,422\) & \(\$ 1,515\) \\
\hline Net Income & \(\$ 432\) & \(\$ 490\) & \(\$ 588\) & \(\$ 646\) & \(\$ 700\) & \(\$ 748\) \\
\hline \begin{tabular}{l} 
Capital \\
Expenditure
\end{tabular} & \(\$ 152\) & \(\$ 150\) & \(\$ 157\) & \(\$ 167\) & \(\$ 176\) & \(\$ 187\) \\
\hline \begin{tabular}{l} 
FCF Before \\
Distributions
\end{tabular} & \(\$ 465\) & \(\$ 571\) & \(\$ 667\) & \(\$ 684\) & \(\$ 736\) & \(\$ 786\) \\
\hline
\end{tabular}

Once again, management designed its latest projections to be aggressive-"bordering on being too aggressive."143

Indeed, Vance went so far as to characterize the Management Projections as approaching "insan[ity]." 144 With that said, these projections reflected an inexperienced management team's best effort at estimating how PetSmart would perform in the future if all of its performance and cost initiatives paid off. \({ }^{145}\) And management made a point of "being very clear with respect to the assumptions that they were making." \({ }^{146}\)

The record is clear that the Board exerted substantial pressure upon management to prepare increasingly more aggressive and ultimately unrealistic long-term projections. In this regard, Lenhardt and Teffner were told that their jobs "depended" on it. \({ }^{147}\) And management heard the Board "loud and clear." \({ }^{" 148}\) For its part, JPM told PetSmart management that prospective buyers would likely view the overly aggressive Management Projections skeptically, \({ }^{149}\) and that management best be prepared to defend them when the sales process got underway. \({ }^{150}\)

\section*{J. The Auction for PetSmart}

While PetSmart management continued the back-and-forth with the Board over its projections, JPM opened the auction process for PetSmart in earnest. JPM spoke with 27 potential bidders following the announcement that PetSmart was exploring a sale in August through early October. \({ }^{151}\) As among the potential bidders, three were potential strategic partners that had been targeted by JPM and the Board-WalMart, Target, and Tractor Supply - and the rest were financial sponsors. \({ }^{152}\) Ultimately, none of the strategics elected to participate in the process. \({ }^{153}\) Of the 24 private equity funds with whom JPM spoke, 15 signed nondisclosure agreements and moved forward with the bidding process. \({ }^{154}\)

The Board held additional meetings with JPM on October 2 and 3, 2014, to discuss, among other things, the risks and benefits of formally inviting Petco to bid for the Company. \({ }^{155}\) Citing the risks it and JPM had previously identified, the Board again decided that it was not in the Company's best interests to pursue a transaction with Petco. \({ }^{156}\) Of course, the Board was open to engaging with Petco if Petco expressed a serious indication of interest. \({ }^{157}\)
*13 During the Board meetings on October 2 and 3, PetSmart's management updated the Board on their progress with the PIP, including their expectation that the Company
would achieve cost savings of \(\$ 120\) million in 2015 and \(\$ 200\) million in 2016. \({ }^{158}\) Management also presented the Management Projections to the Board. \({ }^{159}\) JPM's reaction to this presentation was to reiterate that buyers would likely be skeptical of PetSmart's ability to achieve those results as potential bidders had expressed concerns to JPM that welldocumented trends in PetSmart's performance did not bode well for the future. \({ }^{160}\) Even so, the Board decided to use the Management Projections for the auction process, \({ }^{161}\) with the expectation that bidders would give a "haircut" to the projections in any event. \({ }^{162}\)

PetSmart's electronic data room was opened to bidders after the October 3 Board meeting. It was wellstocked with comprehensive, nonpublic information about PetSmart, including information about PetSmart's financials, performance and the PIP. \({ }^{163}\) PetSmart's management also made presentations to the various potential bidders who had signed nondisclosure agreements. \({ }^{164}\) Around this time, JPM informed potential bidders that Longview would consider rolling over up to 7.5 million of its approximately 9 million shares in a sale of the Company. \({ }^{165}\)

PetSmart received five preliminary bids by October 31, 2014: (1) \(\$ 80-\$ 85\) per share from Clayton, Dubilier \& Rice ("CD \& R"); (2) \$81-\$84 per share from Apollo Global Management L.P. ("Apollo"); (3) \$81-\$83 per share from BC Partners; (4) \(\$ 70-\$ 75\) per share from KKR \& Co. L.P. ("KKR"); and (5) \(\$ 65\) per share from Ares Management, L.P. and Canada Pension Plan Investment Board. \({ }^{166}\) The stock price as of October 31 was \(\$ 72.35\), while the unaffected price, which JPM set as of July 2, 2014, was \(\$ 59.81 .{ }^{167}\) Some members of the Board were "surprised that the numbers had come in that high." \({ }^{168}\)

As the auction progressed, the Board continued to consider alternatives to a sale. \({ }^{169}\) In this regard, the Board pressed management to create a stronger standalone plan for the Company. \({ }^{170}\) And the Ad Hoc Committee asked JPM to report on the financing that would be available for a leveraged recapitalization of the Company should the Board decide against a sale. \({ }^{171}\)

The Board next reviewed the progress of the auction for PetSmart with its advisors at a meeting on November 3. \({ }^{172}\) JPM reported on the initial indications of interest it had
received as well as feedback from parties who chose not bid. This feedback largely reflected a view that PetSmart's business had "significant execution risk" and that there was inadequate potential for upside growth. \({ }^{173}\) The Board decided to allow the four bidders who bid \(\$ 80\) per share or higher ( \(\mathrm{CD} \& \mathrm{R}\), Apollo, BC Partners and KKR) to continue in the process. \({ }^{174}\) These remaining bidders performed further due diligence, which included access to more detailed information about PetSmart's financials, the Management Projections and the PIP, and additional meetings with management. \({ }^{175}\)
*14 PetSmart released its Q3 results on November 18, 2014. \({ }^{176}\) Comparable store sales growth was stagnant and comparable transactions were down \(2.4 \% .{ }^{177}\) PetSmart also announced its progress on the PIP and its expectation that the plan would be fully implemented by the end of fiscal year 2015, and reiterated its expectation that the plan would result in a pre-tax cost savings of \(\$ 120\) million in 2015 and \(\$ 200\) million per year starting in 2016. \({ }^{178}\)

The Board met again on December 2 and 3 to consider whether to sell the Company, remain independent or pursue a leveraged recapitalization. \({ }^{179}\) The Board also reexamined the Management Projections, noting that it believed the PIP savings were achievable but that it was skeptical about the Company's ability to achieve the projected top-line revenue and comparable store sales growth. \({ }^{180}\) The feedback delivered to management was that the Board had a low level of confidence in PetSmart's ability to achieve the results forecasted in the Management Projections. \({ }^{181}\)

The Board's skepticism centered largely around the projections of comparable stores sales growth; "many in the board really did not believe" that these projections were realistic. \({ }^{182}\) To understand PetSmart's standalone value better, the Board determined that it needed to "see additional sensitivity analyses, particularly around top-line and samestore sales growth." \({ }^{183}\) Accordingly, the Board directed JPM to prepare sensitivities assuming a \(2 \%\) comparable store sales growth. \({ }^{184}\) The requested sensitivities were set at \(2 \%\) because the Board had "a great amount of discomfort ... [about whether the \(4 \%\) comparable store sales used in the Management Projections] would be achievable, attainable or not." \({ }^{185}\) Instead, the Board believed that " 2 percent looked more reasonable, and something that the management team
more than likely should be able to get to, if they executed a plan." \({ }^{186}\)

In the weeks leading up to the final bids, questions arose about whether the financial sponsors would be able to obtain deal financing based on reports that the Office of the Comptroller of the Currency ("OCC") and Federal Reserve would engage in "increased scrutiny ... over LBO loans." \({ }^{187}\) The OCC and Federal Reserve had implemented restrictions on the amount of leverage that would be allowed in deal financing and, in the days leading up to Thanksgiving 2014 (in the midst of the PetSmart auction), regulators indicated they would begin to enforce these regulations more strictly than before. \({ }^{188}\) This led bidders to perceive that the quantum of debt available to finance an acquisition of PetSmart had tightened. \({ }^{189}\) While there were initial concerns that this increased regulatory scrutiny may affect the bids for PetSmart, the evidence reveals that those concerns abated after Thanksgiving when it became clear that all of the bidders would have no difficulty securing debt financing at the levels necessary to fund their bids for PetSmart at the values they deemed appropriate. \({ }^{190}\)
*15 On December 10, PetSmart received new offers from the remaining bidders. \({ }^{191} \mathrm{BC}\) Partners made a binding offer of \(\$ 80.70\) per share. \({ }^{192}\) Apollo made a binding offer of \(\$ 80.35\) per share. \({ }^{193} \mathrm{KKR}\) and CD \& R, working together, verbally indicated they would not offer more than PetSmart's current stock price, which was approximately \(\$ 78\) per share. \({ }^{194}\) When JPM presented these offers to the Ad Hoc Committee, the committee directed JPM to engage further with Apollo and BC Partners to see if they would increase their bids. \({ }^{195}\) The Ad Hoc Committee also decided on December 12 that it would allow Longview to join with BC Partners after BC Partners "indicated that they may be able to offer [ ] a higher price with Longview." \({ }^{196}\)

JPM returned to the bidders and directed them to submit their best and final offers because the Board would soon be meeting to make a final decision whether to sell the Company or go in a different direction. Specifically, JPM told bidders "if [they] had anything more in [their] pocket, now [was] the time to put it [in]." \({ }^{197}\) Apollo responded with an offer of \(\$ 81.50\) per share; BC Partners, with its commitment from Longview in hand, offered \(\$ 82.50\) per share. \({ }^{198}\) With some prodding, JPM was able to get BC Partners to increase its offer to \(\$ 83\) per
share. \({ }^{199}\) Both parties made clear that these were their best and final offers. \({ }^{200}\)

\section*{K. The Auction Concludes and the Board Recommends the BC Partners Offer to Shareholders}

The PetSmart Board met on December 13 to discuss the final offers from BC Partners and Apollo and to consider strategic alternatives to a sale of the Company. \({ }^{201}\) JPM made presentations to the Board on each of these alternatives, including the possibility that the Board may have to engage in a proxy contest with JANA. \({ }^{202}\) JPM also presented its valuation analysis under various scenarios including a standalone valuation of PetSmart if the Board determined to terminate the auction. \({ }^{203}\) This standalone valuation focused on a DCF analysis based on the Management Projections that resulted in a valuation for the Company of \$78.25-\$106.25 per share. \({ }^{204}\) Understanding that the Board had little faith in the Management Projections, JPM also presented the Board with the results of the sensitivity analyses the Board had requested which resulted in a valuation range of \$65-\$95.25 per share. \({ }^{205}\)

As a part of its presentation, JPM delivered its fairness opinion with respect to the BC Partners offer concluding that, as of that date, the Merger Price of \(\$ 83\) per share in cash was fair from a financial point of view to the stockholders of the Company. \({ }^{206}\) Petitioners point to several aspects of JPM's fairness opinion they contend reveal that JPM "manipulated [its] financial analysis" in order to get to a place where it could recommend the BC Partners proposal. \({ }^{207}\) At the core of the criticism is the contention that JPM "stretched" to reach a high weighted average cost of capital ("WACC") for PetSmart in order to deflate the DCF results. \({ }^{208}\) In this regard, Petitioners select certain of JPM's internal communications they contend demonstrate that Aiyengar pushed her team to inflate PetSmart's WACC into double digits even though her team had determined that a much lower WACC was appropriate. \({ }^{209}\)
*16 To be sure, there were discussions among the JPM deal team regarding whether a double digit WACC could be defended. \({ }^{210}\) But the evidence also demonstrates that JPM approached its work without preconceptions or designs to reach a desired result. \({ }^{211}\) JPM made no secret of its approach to calculating WACC and walked the Board through that
analysis in detail. \({ }^{212}\) Petitioners may not agree with that approach but there is simply no credible evidence that JPM set out to manipulate its analysis to support a fairness opinion. \({ }^{213}\)

Petitioners also criticize JPM for utilizing the so-called "Barra beta," which Petitioners (and others) describe as a " 'black box' form of forward-looking beta" that is difficult, if not impossible, to verify. \({ }^{214}\) Contrary to Petitioners' characterization of JPM's process, however, the evidence reveals that, in addition to considering Barra's forwardlooking beta, JPM considered "Barra predicted, Barra historical, as well as relevered beta." 215
*17 Petitioners next criticize JPM for "artificially inflat[ing]" the betas it applied by "arbitrarily" selecting PetSmart's peer group and then selecting the betas of companies in the lowest quartile of that group even though PetSmart had historically traded at a premium to its peers. \({ }^{216}\) Here again, Petitioners' criticism recounts only a portion of the evidence. First, the criticism glosses over the fact that PetSmart was a niche retailer with only one true peer (Petco). Moreover, the complete evidentiary picture reveals that, after conducting a "very detailed benchmarking analysis," JPM looked to the betas of companies that had "operating and financial statistics" that it could meaningfully correlate with PetSmart's operations, "numbers and projections."217

While one can debate the results JPM reached, and can speculate whether JPM would have arrived at the same place had it utilized different inputs in its valuation analysis, \({ }^{218}\) there is no credible basis to debate whether JPM skewed its analysis to push the Board to accept the BC Partners offer. The JPM analysis was thorough and the results were objectively rendered. \({ }^{219}\)

Aiyengar shared her view during the December 13 Board meeting that the PetSmart auction had been "a robust auction process, where anybody who had an interest in this company had the opportunity to engage with the company and see whether they wanted to buy the company." \({ }^{220}\) The Board then weighed the \(\$ 83\) per share offered by BC Partners generated by this process against the Company's prospects if it remained standalone. \({ }^{221}\) In its deliberations, the Board considered the aggressiveness of the Management Projections, which it felt were heavily dependent on a number of factors breaking the Company's way all of which were subject to much speculation and volatility. \({ }^{222}\) After weighing all options, the

Board decided to take the \(\$ 83\) per share offered by BC Partners, as this was a "certainty," rather than confront the "risk of trying to get something more than \(\$ 83\) if [PetSmart] were a stand-alone., \({ }^{223}\) This decision reflected the Board's pessimism that management would be able to deliver on their plans and its view that such efforts likely would not yield more than the \(\$ 83\) per share that had been achieved through the sales process. \({ }^{224}\) The Board unanimously voted to approve and recommend the Merger with BC Partners at the conclusion of the December 13 meeting. \({ }^{225}\) It announced the transaction and signed the Merger Agreement the following day. \({ }^{226}\)
*18 The \(\$ 83\) per share was \(\$ 1.50\) higher than what the next highest bidder, Apollo, had offered. Indeed, Apollo told JPM after the process concluded that it "never would have paid that price" for PetSmart. \({ }^{227}\) Several financial analysts also were surprised and impressed by the price achieved in the auction. \({ }^{228}\) While PetSmart was covered by more than a dozen securities analysts, the consensus price target for PetSmart in the year preceding the Merger, even after the PIP was disclosed, never exceeded \(\$ 75\) per share. \({ }^{229}\)

PetSmart's definitive proxy statement, filed with the SEC on February 2, 2015 (the "Proxy"), disclosed the Management Projections as well as the JPM sensitivities. \({ }^{230}\) When introducing the projections, the Proxy disclosed that the Company had not historically prepared long-term projections in the ordinary course of its business and that it was "wary" of doing so. \({ }^{231}\) The Board wanted stockholders to have the Management Projections because they had been utilized by the Board, JPM, and the bidders. \({ }^{232}\) But the Proxy made clear that the Board was cautioning stockholders not to place undue reliance on the projections. \({ }^{233}\) With regard to the JPM sensitivities, the Proxy disclosed that these had been prepared by JPM "to assist the board in assessing the potential downside risks that could arise from reasonable deviations in the assumptions underlying the [Management] Projections."234

After the announcement of the transaction, and the disclosure of the Management Projections in the Proxy, no topping bids emerged and no further inquiries about PetSmart surfaced before the Merger closed. \({ }^{235}\) The stockholder vote on March 6, 2015, overwhelmingly favored the Merger; \(99.3 \%\) of voting shares of PetSmart voted in favor of the transaction,
representing \(77.4 \%\) of the \(99,455,151\) outstanding common shares. \({ }^{236}\) The Merger closed on March 11, 2015. \({ }^{237}\)

\section*{L. BC Partners Creates its Plan for PetSmart}
*19 As one would expect, BC Partners formulated a plan to turnaround PetSmart throughout the auction process so it could hit the ground running should it win the bid. It engaged Michael Massey, the former CEO of Collective Brands, former President of Payless, Inc. and current director of Office Depot, to provide counsel as it pursued its goal (as reported to investors) of making a significant retail acquisition. \({ }^{238}\) When looking at PetSmart, Massey believed the Company lacked a clear strategy or understanding of its customers, meaning it was ripe for a turnaround. \({ }^{239} \mathrm{BC}\) Partners also believed that PetSmart had been "undermanaged," but that these management problems had been masked historically by "the strength of underlying market growth" in the pet specialty industry. \({ }^{240}\) BC Partners' strategic hypothesis was that PetSmart's performance slowed when the underlying growth trends in the pet specialty industry slowed. It posited that PetSmart could be revived with a new management team, headed by Massey, who would implement a series of new revenue and cost initiatives. \({ }^{241}\)

In performing its due diligence, BC Partners engaged Boston Consulting Group to speak to PetSmart's vendors on its behalf. \({ }^{242}\) It also spoke directly to several former PetSmart executives and consultants. \({ }^{243}\) With this information in hand, BC Partners was confident that the Management Projections were not achievable, at least not with PetSmart's current management in place. \({ }^{244}\) Therefore, when evaluating PetSmart, BC Partners developed its own "BCP Case., 245 The BCP Case projected lower total revenues, year-overyear total sales growth and fewer new store openings from 2014 to \(2019 .{ }^{246}\) These projections were included in the equity syndication memo that BC Partners sent to potential investors. \({ }^{247} \mathrm{BC}\) Partners told its potential investors that its case was conservative, with room for significant upside. \({ }^{248}\)

Massey also created his own set of projections based on his plans for running PetSmart (the "Massey Case"), which included the implementation of his proposed cost and revenue initiatives which he hoped would help drive up EBITDA. \({ }^{249}\) Massey told BC Partners' equity investors that these projections were conservative and that he was
very confident they could be achieved. \({ }^{250}\) The projected cash flows from the Massey Case were higher than those in the Management Projections by \(\$ 192\) million. \({ }^{251}\)

BC Partners also prepared the "Bank Case" with the help of PetSmart's management after the signing of the Merger Agreement \({ }^{252}\) in order to solicit debt financing for the transaction \({ }^{253}\) and present to ratings agencies so they could rate the bonds BC Partners would issue in connection with the transaction. \({ }^{254}\) The Bank Case was designed to be conservative; it assumed, for instance, that PetSmart would have no new store openings in later years. \({ }^{255}\)

\section*{M. PetSmart's Performance in the Period Leading Up To The Stockholder Vote and Post-Closing}

Beginning in December of 2014, preliminary estimates suggested that PetSmart was outperforming the forecasts in the Management Projections for items such as comparable store sales, comparable transactions and earnings per share. \({ }^{256}\) When PetSmart released its Q4 2014 results on March 4, 2015-seven days before the close of the transaction -it revealed that its operating income EBIT beat its projections by \(5.4 \%{ }^{257}\) PetSmart also adjusted its non-GAAP adjusted diluted earnings per share estimate up to \(\$ 1.43\), exceeding its guidance and the \(\$ 1.28\) per share achieved for the prior year period. \({ }^{258}\) PetSmart's comparable store sales grew from \(-.05 \%\) in Q2 2014, to flat in Q3 2014, to \(+2.6 \%\) in Q4 2014. \({ }^{259}\) Revenue similarly grew from \(1.4 \%\) in Q2 2014, to \(2.6 \%\) in Q3 2014, to \(6 \%\) in Q4 \(2014 .{ }^{260}\)
*20 The Merger Agreement was signed in the middle of Q4 2014, and Lenhardt, Teffner and Gangwal all testified that PetSmart's favorable Q4 performance did not change their views about the long-term prospects of the Company. \({ }^{261}\) Indeed, in Q1 2015 (the quarter in which the Merger closed), PetSmart's comparable store sales growth dropped to \(1.7 \%,{ }^{262}\) and remained below \(2 \%\) throughout \(2015 .{ }^{263}\)

After the closing of the Merger, Lenhardt resigned and Massey became PetSmart's new President and CEO. \({ }^{264}\) Massey quickly installed a new management team, changed PetSmart's organizational structure and created a new strategy for PetSmart based on his own revenue and cost initiatives. \({ }^{265}\) While Massey used the Management Projections solely for
purposes of management compensation, \({ }^{266}\) his team created a new set of multi-year projections in July 2015. 267

In 2015, PetSmart achieved \(\$ 7.2\) billion in total sales and \(\$ 982.1\) million in EBITDA. \({ }^{268}\) PetSmart's comparable store sales growth, however, came in at \(0.9 \%\), missing the projected \(1.5 \%\) growth forecast in the Management Projections by \(40 \%{ }^{269}\) According to Massey, in 2016 year-to-date, the comparable store sales growth was \(-0.2 \%\), in comparison to the projected growth in the Management Projections. \({ }^{270}\) The Company's EBITDA, however, exceeded the 2015 Management Projections by \(\$ 200\) million by the end of FY 2015. \({ }^{271}\) In February 2016, PetSmart was able to issue a dividend of \(\$ 800\) million which constituted a \(38 \%\) return on invested capital. \({ }^{272}\)

\section*{N. Procedural Posture}

Petitioners seek appraisal for \(10,713,225\) shares of common stock of PetSmart, \(9,541,372\) of which were acquired after the record date of the Merger. \({ }^{273}\) Six appraisal petitions were filed on March 12 and 13, 2015, and all were consolidated by order dated April 30, 2015. \({ }^{274}\) A trial was held October 31 to November 3, 2016. I heard post-trial oral argument on February 28, 2017, following post-trial briefing.
*21 Petitioners and Respondent both presented two experts at trial: one to address the reliability of the Management Projections and the other to address the fair value of PetSmart at the time of the Merger. I summarize their opinions briefly below.

\section*{1. The "Projections" Experts}

Mark A. Cohen served as Petitioners' retail expert. \({ }^{275} \mathrm{He}\) focused on the credibility of the Management Projections and the outlook of PetSmart's business going forward. \({ }^{276}\) Based on his analysis of the pet retail industry and PetSmart's prior performance, Cohen believes that PetSmart hit a "speed bump" just prior to the initiation of the sales process from which the Company would have rebounded. According to Cohen, PetSmart was not facing long-term growth issues. \({ }^{277}\) He also opined that the Management Projections were created in line with industry standards and were reliable estimates of the Company's future cash flows. \({ }^{278}\)

Mark Weinsten was retained by Respondent to provide an expert opinion on the Management Projections and related business plans created by the PetSmart management during the sales process. \({ }^{279}\) Weinstein opined that the Management Projections were overly aggressive, overly optimistic and wholly unreliable. \({ }^{280}\) In support of this opinion, he pointed to the facts that PetSmart's management was newly installed when they were directed to create the projections, they had no experience in creating long-term projections of future cash flows and they could not look to past examples of projections within PetSmart for guidance since PetSmart historically did not create long-term projections. \({ }^{281}\) In those instances where management attempted to forecast future performance, even for quarterly forecasts, the Company regularly would underperform. \({ }^{282}\)
*22 According to Weinsten, the Management Projections were all the more sketchy given that they were prepared largely as top down forecasts, an approach not consistent with industry best practices, and were prepared specifically for a sales process with Board pressure to be more and more aggressive. \({ }^{283} \mathrm{He}\) also found specific areas of concern regarding the achievability of the forecasts, which included the comparable store sales growth projections and the ability of management successfully to execute on its overall business plans. \({ }^{284}\)

\section*{2. The Valuation Experts}

Petitioners' valuation expert was Kevin Dages. \({ }^{285}\) Dages determined that a DCF analysis based on the Management Projections is the most reliable indicator of the fair value of the Company. Based on his DCF analysis, Dages concluded that the fair value of PetSmart's common stock as of the date of the Merger was \(\$ 128.78\) per share. \({ }^{286}\) Dages relied upon the Management Projections in all respects for his DCF analysis based upon Cohen's opinion that the projections "were reasonably and reliably prepared in a manner consistent with industry standards," as well as his own opinion that the Management Projections "represent the most reasonable set of projections [available] as to PetSmart's future performance., \({ }^{287}\) Dages also acknowledged, however, that "once [he] signed onto the opinion of where the fair value is ... based on these projections," he was, "at the end of the day," tied to the projections. \({ }^{288}\) On the other hand, Dages recognized that if the Court finds that the Management Projections are not reliable, then it should not rely on his

DCF valuation because that analysis assumed the accuracy of those projections. \({ }^{289}\) Stated differently, "[g]arbage in, garbage out.,"290
*23 Dages performed a WACC-based DCF analysis in which he discounted the Company's free cash flows back to present value using the Company's weighted average cost of capital and then subtracted the value of the Company's debt to determine the value of its equity. \({ }^{291} \mathrm{He}\) also ran the BCP Case, Massey Case and Bank Case through his DCF model-which, notably, all produced higher values than the DCF based on the Management Projections. \({ }^{292}\) In Petitioners' rebuttal case at trial, Dages presented a new DCF analysis he ran during trial based on the JPM sensitivities. \({ }^{293}\) This exercise yielded a value ranging from \(\$ 102.82\) to \(\$ 112.90\) per share. \({ }^{294}\)

Dages rejected the \(\$ 83\) per share deal price as a reliable indicator of fair value for three main reasons. \({ }^{295}\) First, he believed the Merger Price was stale due to the threemonth lag between the signing and closing of the deal. \({ }^{296}\) Second, he believed "the Board did not receive accurate or reliable valuation advice from J.P. Morgan" because JPM's DCF analysis was "results-driven" and biased. \({ }^{297}\) Finally, he found that the Merger Price was depressed due to the exclusion of Petco, the most logical strategic buyer, from the PetSmart auction, resulting in the participation of only financial bidders. \({ }^{298}\)

Respondent's valuation expert was Andrew Metrick. \({ }^{299}\) According to Metrick, the Merger Price of \(\$ 83\) per share, achieved after a well-run active auction, is the most reliable indicator of PetSmart's fair value at the time of the Merger. \({ }^{300}\) While he acknowledged that DCF is considered by many to be the "gold standard" of valuation tools, Metrick found that DCF was misleading here since the primary data input, the Management Projections, were entirely unreliable. \({ }^{301} \mathrm{He}\) explained that, for the purposes of a DCF analysis, "one must use the 'expected' (as opposed to 'hoped for') future cash flows of the business." \({ }^{302}\) Based on his review of the evidence, Metrick opined that the Management Projections were unreliable because they were prepared specifically for the sale process (not in the ordinary course of business) by inexperienced management who were pushed to be overly optimistic. \({ }^{303}\)

Nevertheless, for the sake of completeness, Metrick did perform a DCF analysis, but not with the Management Projections. Instead, he utilized his own adjustments to the revenue forecasts, starting with the JPM sensitivities. \({ }^{304} \mathrm{He}\) did not believe that PetSmart could achieve the \(\$ 200\) million in cost savings from the PIP indefinitely into the future, as projected by management, so he adjusted the projected PIP savings to decline linearly beginning three years after the savings are assumed to be fully realized, with only \(\$ 59\) million remaining in the terminal period. \({ }^{305}\)
*24 After adjusting the Management Projections, Metrick created an APV-based DCF model that discounts the Company's free cash flows by the Company's unlevered cost of equity, adds the benefits of a tax shield obtained from the Company's debt, and then subtracts the value of the debt to determine the Company's equity value. \({ }^{306}\) Metrick's DCF analysis resulted in a fair value of \(\$ 81.44\) per share. According to Metrick, his DCF valuation simply corroborates the most reliable indicator of PetSmart's fair value - the \(\$ 83\) per share Merger Price that followed a "deal process where (1) the sale [was] well publicized, (2) there [were] multiple bidders and a large number of interested parties, and (3) the incentives of the Board and management [were] aligned with those of the stockholders., 307

Metrick asserts that his opinion regarding the fair value of PetSmart at the Merger Price is bolstered by the following confirmatory analyses: (1) his DCF analysis resulting in a value of \(\$ 81.44\) per share; (2) the fact that "[a]t no point prior to PetSmart's acquisition did its shares trade at or above \(\$ 83\) per share"; (3) the fact that "[a]t no point prior to the consummation of the transaction did analysts' average price target of PetSmart exceed \(\$ 83\) per share"; (4) a "valuation of PetSmart based on the trading multiples of comparable companies ranges from \(\$ 70\) to \(\$ 112\), with a value below \(\$ 91\) (the median) [being] more appropriate based on PetSmart's operating metrics relative to the peers"; (5) a "valuation of PetSmart based on the recent acquisition of Petco is \(\$ 69\) "; and (6) a "valuation of PetSmart based on prior transactions involving retailers ranges from \(\$ 59\) to \(\$ 74\)., 308

After trial, Metrick submitted a supplemental report to respond to Dages's DCF analysis based on the JPM sensitivities. \({ }^{309} \mathrm{He}\) determined that Dages's valuations corresponding to the sensitivities "are inflated significantly due to (i) an assumption that PetSmart has no fixed costs, meaning margins are unchanged as revenue declines in
moving from the [Management Projections] to [the JPM sensitivities], and (ii) [the] failure to adjust the discount rate to reflect the lease treatment embedded in the cash flows., 310 Correcting for these errors, Metrick derived valuations from the JPM sensitivities ranging from \(\$ 82.79\) to \(\$ 86.96\). \(^{311}\)
*25 The driving difference in the valuations produced by Dages and Metrick can be traced most directly to the different projections of expected cash flows on which they rely. \({ }^{312}\) Unlike many appraisal cases litigated in this court, the inputs utilized by the valuation experts involved here are relatively close. But there are differences. Metrick capitalized all of PetSmart's current leases, \({ }^{313}\) while Dages maintained the characterization of the leases from PetSmart's financial statements. \({ }^{314}\) The experts agreed, however, that as long as the leases are treated consistently throughout the valuation analysis, the manner in which the leases are characterized should not affect the valuation substantially. \({ }^{315}\) The other large difference between the two models is the terminal investment required. \({ }^{316}\) Metrick used a model out of a McKinsey \& Co. textbook to calculate the amount of investment necessary at the terminal period to support the projected growth during the terminal period, arriving at an investment rate of \(28.6 \%\) in the terminal period. \({ }^{317}\) This results in a required investment of \(\$ 222\) million. \({ }^{318}\) Dages adopted the required terminal investment found in the Management Projections of \(\$ 47\) million. \({ }^{319}\)

\section*{II. ANALYSIS}

Petitioners and Respondent present two vastly different valuations of PetSmart as of the date of the Merger based on two binary views of the most reliable means by which to determine fair value-deal price versus a discounted cash flow analysis. The vast delta between the valuations generated by the parties' proffered methodologies raises red flags and suggests, perhaps, that neither is truly reflective of PetSmart's fair value. As the Court undertakes to discharge its duty (or burden) independently to determine fair value, therefore, the temptation to strike a balance between the competing positions is undeniable. The \(\$ 4.5\) billion that separates the parties certainly leaves much room for compromise. But the unique structure of the appraisal proceeding should not obscure the reality that the process is adversarial; the parties have presented evidence; and the Court's fact-finding and decision-making must be evidence based. Nor should the

Court jump to the conclusion that both parties' valuations are off the mark simply because their positions on fair value are so incredibly divergent. Rather, the Court's first task, as I see it, is to drill down on the parties' positions to see if they are grounded in the evidence and in sound methodology. That assessment will take the Court a long way down the road of fulfilling its function to appraise the fair value of the shares of PetSmart. Only then can the Court discern the extent to which further valuation analyses may be required.
*26 A proper examination of the parties' competing positions reduces to the following questions: (1) was the transactional process leading to the Merger fair, wellfunctioning and free of structural impediments to achieving fair value for the Company; (2) are the requisite foundations for the proper performance of a DCF analysis sufficiently reliable to produce a trustworthy indicator of fair value; and (3) is there an evidentiary basis in the trial record for the Court to depart from the two proffered methodologies for determining fair value by constructing its own valuation structure? I take up these questions below. But first I address the statutory framework within which the Court must operate.

\section*{A. The Legal Standard for Appraisal}

This action for appraisal is governed by the Delaware appraisal statute, which directs that the Court

Appraise the shares, determining their fair value exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation, together with a fair rate of interest, if any, to be paid upon the amount determined to be the fair value. In determining such fair value, the Court shall take into account all relevant factors. \({ }^{320}\)
The purpose of an appraisal action is to "provide equitable relief for shareholders dissenting from a merger on grounds of inadequacy of the offering price., \({ }^{321}\) The court's prescribed task is to determine the fair value of the dissenters' shareholdings as of the date of the merger. \({ }^{322}\)

Appraisal is not subject to "structured and mechanistic procedure." \({ }^{323}\) It is "by design, a flexible process.",324 Accordingly, there are no presumptions in Delaware appraisal law that favor one valuation approach over another. \({ }^{325}\) Instead, the fair value determination, by statutory design and mandate, must take into account "all relevant factors." \({ }^{326}\) Every company is different; every merger is different. \({ }^{327}\)

These differences are enriched with "relevant factors" that must be accounted for in the search for fair value.

In the unique design of statutory appraisal, "[b]oth parties 'have the burden of proving their respective valuation positions by a preponderance of the evidence.', ,328 If neither party carries this burden, however, "the court must then use its own independent judgment to determine fair value."329

\section*{B. Did the Auction for PetSmart Yield Fair Value?}
*27 "The concept of fair value under Delaware law is not equivalent to the economic concept of fair market value., 330 It is, rather, "a jurisprudential concept that draws more from judicial writings than from the appraisal statute itself., \({ }^{331}\) The focus of the fair value calculation is on "the value of the company as a going concern, rather than its value to a third party as an acquisition., \({ }^{332}\) Even so, in certain cases, based on the evidence presented, the fair market value for a company may be the best and most reliable indicator of fair value. \({ }^{333}\) But this will only be so where the evidence reveals a market value "forged in the crucible of objective market reality,",334 meaning that it was the "the product of not only a fair sales process, but also of a well-functioning market., 335

After years of striving for it, Vince Lombardi finally arrived at the understanding that perfection in human endeavors is not attainable. \({ }^{336}\) Even in the best case, a process to facilitate the sale of a company, constructed as it must be by the humans that manage the company and their human advisors, will not be perfect. \({ }^{337}\) For the reasons I explain below, I am satisfied that the process employed to facilitate the sale of PetSmart, while not perfect, came close enough to perfection to produce a reliable indicator of PetSmart's fair value. \({ }^{338}\)

With guidance from Morgan Stanley, PetSmart's Board began the process of exploring strategic alternatives because the Company's "stock had taken [a] very significant decline from historical levels," the Company "was unhappy," and " \([s]\) hareholders were speaking up.... \({ }^{339}\) When the Board ultimately decided to pursue a sale, it engaged another reputable investment bank, JPM, and created an Ad Hoc Committee of experienced independent directors to oversee the process. From the outset, the Board's orientation was to view a sale of the Company not as an inevitable outcome, but rather as one of several strategic alternatives that also included remaining standalone while pursuing new revenue
and cost saving initiatives or pursuing a significant leveraged recapitalization. \({ }^{340}\) If the price achieved in the auction was unsatisfactory, the Board was prepared to walk away from that process and pursue other alternatives. \({ }^{341}\) And if the more active among the Company's stockholders were unhappy with the decision the Board ultimately made, the Board was ready to deal with the consequences of that reaction, including to take on a proxy fight if necessary. \({ }^{342}\) It was in this environment that the auction for PetSmart was conducted.
*28 In August of 2014, PetSmart announced to the world that it was pursuing strategic alternatives including a sale, so the whole universe of potential bidders was put on notice. \({ }^{343}\) The Board did not rush the sale; it did not receive final bids and make its final decision to sell the Company until December 2014. By the time the gavel fell, JPM had contacted 27 potential bidders, including the three potential strategic partners it considered most likely to be interested in acquiring PetSmart's niche business. In this regard, I note that the Board considered inviting the most likely strategic partner, Petco, into the process, but made the reasoned decision that, without a firm indication of interest from Petco, the risks of providing PetSmart's most direct competitor with unfettered access to PetSmart's well-stocked data room outweighed any potential reward. Nevertheless, the evidence revealed that the Board held the door open for Petco to join the auction if it expressed serious interest in making a bid. It never did.

Fifteen parties signed nondisclosure agreements and engaged in due diligence. PetSmart management made in-person presentations to thirteen suitors. Thereafter, JPM received indications of interest from five bid groups. Two of those bidders joined forces so that three bid groups proceeded into the next round of bidding. Those three bid groups then engaged in further due diligence, receiving constant updates regarding PetSmart's financials and operations (including the progress of the PIP) and further presentations from PetSmart management. \({ }^{344}\) There was no credible evidence presented that management, the Ad Hoc Committee, the Board or JPM colluded with or otherwise favored any bidder during the entirety of the process. \({ }^{345}\)

When JPM directed the final-round bidders to submit "their best and final" offers, KKR/CD \& R advised JPM they could not offer more than PetSmart's then-current trading price of approximately \(\$ 78\) per share. \({ }^{346}\) Apollo then submitted a final bid of \(\$ 81.50\) per share. BC Partners submitted a bid of \(\$ 83\) per share, after JPM prodded it to bid against its own
initial final bid of \(\$ 82.50\) per share. BC Partners' offer of \(\$ 83\) per share was higher than PetSmart stock had ever traded and reflected a premium of \(39 \%\) over its unaffected stock price. With this bid in hand, the Board met on December 13, 2014, and carefully considered its strategic options with the assistance of its financial and legal advisors. Only after engaging in an analysis of all options did the Board conclude that accepting the \(\$ 83\) per share offer provided the best opportunity to maximize value for PetSmart stockholders. \({ }^{347}\)

The Proxy issued by PetSmart in advance of the stockholder vote on the Merger included the Management Projections. Even though the Board cautioned stockholders against relying too heavily upon these projections, \({ }^{348}\) they were there nonetheless for any stockholder to run its own DCF analysis, just as Petitioners have done. \({ }^{349}\) PetSmart also announced its Q4 2014 results which revealed at least some positive recent trends in PetSmart's performance. Despite these disclosures, between the announcement that BC Partners would acquire PetSmart and the closing, no topping bidder stepped forward. When the time came to vote, PetSmart's fully-informed stockholders overwhelmingly approved the Merger.
*29 In the wake of this well-constructed and fairly implemented auction process, Petitioners are left to nitpick at the details and to invent certain prevailing market dynamics that they now claim acted as impediments to PetSmart realizing fair value in the Merger. Specifically, Petitioners point to the following confounders that render deal price unreliable in this case: (1) restrictions on financing impeded the ability of bidders to bid as much as they might have otherwise been willing to pay; (2) the lack of strategic bidders left PetSmart at the mercy of financial sponsors and their "LBO models"; (3) PetSmart was forced into the sales process at a low point in its performance by the agitations of JANA; (4) the Board was ill-informed, (5) JPM was conflicted; and (6) the transaction price was stale by the valuation date. I address each in turn.

First, as for the contention that a seized credit market restricted the bids, the credible evidence says otherwise. While JPM had concerns in the late fall of 2014 that the credit markets may not allow the private equity bidders to attain the financing necessary to fully fund their bids, these concerns abated soon after Thanksgiving and prior to the submission of final bids. The record is devoid of any evidence that unavailable credit actually affected the amount any bidder
was willing to offer for PetSmart. Both Aiyengar and Svider confirmed that in their testimony and I believe them. \({ }^{350}\)

Second, while it is true that only financial sponsors submitted bids for the Company, the evidence is clear that JPM made every effort to entice potential strategic bidders and none were interested. Indeed, the Board would have been receptive to a deal with Petco if only it would have expressed a serious indication of interest. Importantly, the evidence reveals that the private equity bidders did not know who they were bidding against and whether or not they were competing with strategic bidders. \({ }^{351}\) They had every incentive to put their best offer on the table.

Petitioners advance the argument that the "LBO model" will rarely if ever produce fair value because the model is built to allow the funds to realize a certain internal rate of return that will always leave some portion of the company's going concern value unrealized. Taken to its logical conclusion, of course, Petitioners' position would suggest that all private equity bidders employing the same model (assuming they strive for the same IRR as Petitioners contend they do) should have bid the same amount for PetSmart. This, of course, did not happen-as shown by the spread between KKR and CD \& R's final verbal bid at \(\$ 78\) per share and BC Partners' winning bid at \(\$ 83\) per share. And while it is true that private equity firms construct their bids with desired returns in mind, it does not follow that a private equity firm's final offer at the end of a robust and competitive auction cannot ultimately be the best indicator of fair value for the company. \({ }^{352}\)
*30 Third, the notion that the Board was forced to sell after the emergence of an activist shareholder finds no credible support in the evidence. By the time JANA arrived on the scene in July 2014, PetSmart's Board had already begun the process of reviewing strategic alternatives with Morgan Stanley. Thereafter, PetSmart took its time with the sales process, not signing the Merger Agreement with BC Partners until December 2014. Indeed, the evidence reveals that all strategic alternatives were on the table in December 2014 and that the Board did not decide to sell until JPM was able to coax the final offer of \(\$ 83\) per share from BC Partners (actually causing it to bid against itself). Had the auction not generated an offer that the Board deemed too good to pass up, I am satisfied that the Board was ready to pursue other initiatives as a standalone company and to defend itself in a proxy contest against JANA and others if necessary. \({ }^{353}\)

Fourth, Petitioners' argument that the Board was ill-informed is premised largely on the exploitation of director Gangwal's inability to recall at trial (nearly three years after the fact) certain details regarding PetSmart's PIP initiative. It is a stretch to point to a witnesses' lack of recall at trial regarding the details of a cost-savings initiative as evidence that the entire PetSmart Board was ill-informed regarding the sales process. This is especially so given that Gangwal was able to testify extensively regarding the Board's consideration of strategic alternatives, the sales process and the Board's deliberations during this period. \({ }^{354}\) Petitioners also argue that the Board was ill-informed because it did not receive advice regarding the valuation of the Company if it remained standalone, but this is contradicted by the evidence adduced at trial, including (but not limited to) JPM's presentation at the December 13 Board meeting. \({ }^{355}\)

Fifth, as previously noted, the "conflicts" Petitioners rely upon to impugn the results of the sales process are hardly striking and, in any event, were fully disclosed to the Board and the Ad Hoc Committee. For example, Petitioners argue that JPM did not adequately disclose its previous relationships with potential private equity bidders. As Gangwal testified, however, as a large institutional bank, the Board knew and was not at all surprised that JPM naturally had ties to the large private equity funds interested in bidding on the Company. \({ }^{356}\) While Petitioners contend that JPM did not disclose, and was hindered by, conflicts due to its involvement with the initial public offering that Petco pursued in the fall of 2015, the only record evidence on this conflict shows that JPM did not pitch this project, much less get retained to work on it, until months after the PetSmart Merger closed. \({ }^{357}\) Petitioners also point to JPM's prior relationship with Gangwal due to its involvement in taking his airline public, but I can discern no basis to characterize this relationship as a conflict or to conclude that it would have affected the advice JPM rendered to the PetSmart Board or its work in running the PetSmart auction.
*31 Finally, the argument that the Merger Price was stale by the time of closing is at best speculative. Mergers are consummated after the consideration is set. That temporal separation, however, does not in and of itself suggest that the merger consideration does not accurately reflect the company's going concern value as of the closing date. \({ }^{358}\) Here, Petitioners would have me conclude that the Merger Price was stale because, in the gap between signing and closing, PetSmart's fortunes took a miraculous turn for the
better. While the record indicates that the Company did enjoy some favorable results in Q4 2014, such as an uptick in comparable store sales growth, I am not convinced that these short-term improvements were indicative of a long-term trend. In fact, all testimony at trial was to the contrary-the Board, as well as Teffner, believed that the Q4 results were temporary and provided no basis to alter their view of the Company's long-term prospects. \({ }^{359}\) These perceptions were born out in Q1 2015 (when the Merger closed) during which PetSmart's comparable store sales dropped to \(1.7 \%\). \({ }^{360}\) At year end, PetSmart reported comparable store sales growth of \(0.9 \%\), a \(40 \%\) miss from the Management Projections in just the first projection year. \({ }^{361}\)

Respondent has carried its burden of demonstrating that the Merger Price of \(\$ 83\) per share was the result of a "proper transactional process" \({ }^{362}\) comprised of a robust pre-signing auction in which adequately informed bidders were given every incentive to make their best offer in the midst of a "well-functioning market." \({ }^{363}\) Under these circumstances, I am satisfied that the deal price is a reliable indicator of fair value. \({ }^{364}\)

\section*{C. Can a DCF Analysis that Relies Upon the Any of the Projections In the Record Produce a Reliable Indicator of Fair Value?}

My determination that the \(\$ 83\) per share Merger Price is a reliable indicator of fair value does not end the inquiry. To discharge my statutory obligation to consider "all relevant factors," it is necessary that I consider the reliability of the other valuations of PetSmart in the trial record. \({ }^{365}\)

Petitioners peg DCF as the "gold standard" of valuation tools. \({ }^{366}\) To be sure, that is precisely how Metrick has described it. \({ }^{367}\) This court, likewise, has turned to a DCF analysis in the appraisal context to determine fair value and, in certain circumstances, has deemed the results of a DCF analysis to be the only reliable indicator of fair value. \({ }^{368}\) Even though I am confident that the deal price in this case is a reliable indicator of fair value, I have approached the DCF valuations performed by the parties' experts with an open mind. \({ }^{369}\)
*32 A proper DCF analysis follows a well-defined sequence:

First, one estimates the values of future cash flows for a discrete period, based, where possible, on contemporaneous management projections. Then, the value of the entity attributable to cash flows expected after the end of the discrete period must be estimated to produce a so-called terminal value, preferably [by] using a perpetual growth model. Finally, the value of the cash flows for the discrete period and the terminal value must be discounted back using the capital asset pricing model or 'CAPM. \({ }^{370}\) The first key to a reliable DCF analysis is the availability of reliable projections of future expected cash flows, preferably derived from contemporaneous management projections prepared in the ordinary course of business. \({ }^{371}\) As this court has determined time and again, if the "data inputs used in the model are not reliable," then the results of the analysis likewise will lack reliability. \({ }^{372}\) And, as the experts in this case both agree, to be reliable, management's projections should reflect the "expected cash flows" of the company, not merely results that are "hoped for." 373

\section*{1. The Projections}

Petitioners like the Management Projections and maintain they are reliable indicators of PetSmart's future performance. Respondent, on the other hand, finds itself in the presumably uncomfortable position of having to argue that its own projections cannot be trusted as a basis for predicting expected cash flows and, therefore, cannot provide a sound foundation for a DCF analysis. While I appreciate that the parties' disagreement with respect to the reliability of the Management Projections presents a question of fact that must be answered by the evidence in this case, I take guidance from other instances where this court has examined the reliability of projections used for the purposes of appraisal. Specifically, this court has deemed projections unreliable where "the company's use of such projections was unprecedented, where the projections were created in anticipation of litigation, where the projections were created for the purpose of obtaining benefits outside the company's ordinary course of business,, \({ }^{, 374}\) where the projections were inconsistent with a corporation's recent performance, \({ }^{375}\) or where the company had a poor history of meeting its projections. \({ }^{376}\)
*33 The Management Projections upon which Petitioners rely are saddled with nearly all of these telltale indicators of unreliability: (1) PetSmart management did not have a history of creating and, therefore, had virtually no experience with,
long-term projections; (2) even management's short term projections frequently missed the mark; (3) the Management Projections were not created in the ordinary course of business but rather for use in the auction process; and (4) management engaged in the process of creating all of the auction-related projections in the midst of intense pressure from the Board to be aggressive, with the expectation that the projections would be discounted by potential bidders. As explained below, each of these factors undermine the credibility of Dages's DCF results.

First, PetSmart had not historically created five-year projections prior to the creation of the auctionrelated projections (including the Management Projections). PetSmart's forecasting practice was limited to the creation of annual budgets in connection with the Summer Strategy meetings. These budgets were nothing like the five-year projections management was directed to prepare when the Board decided to explore a sale of the Company. The Summer Strategy budgets were one-year forecasts prepared to support particular proposed initiatives with the anticipation that they would be revised throughout the year as events unfolded. \({ }^{377}\) While Vance made her own long-term projections based on the annual budgets created as a part of Summer Strategy, her model was never presented to or relied upon by PetSmart's management or Board. \({ }^{378}\)

The Board's request that management shift from preparing one-year budgets to five-year cash flow projections was made all the more difficult by the fact that PetSmart's senior management were new to their jobs. Teffner, who was leading the effort, had only been in her job for about a year; Lenhardt had only taken on the role of CEO in June 2013. And, of course, the projections were rush jobs; the Board wanted the work product in a matter of weeks to ready the Company for the sales process. \({ }^{379}\)

Second, while management had no history of preparing long-term projections, it did have a history of preparing short-term forecasts that did not accurately predict Company performance. \({ }^{380}\) As demonstrated in the following chart produced in Metrick's opening expert report, even PetSmart's reforecasts were often off by large margins: \({ }^{381}\)
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{FY13} & \multicolumn{2}{|c|}{FY14} \\
\hline & Q1 & Q2 & Q3 & Q4 & FY & Q1 & Q2 \\
\hline F1 & 3.80\% & 3.90\% & 4.10\% & 4.30\% & 4.00\% & 1.50\% & 2.90\% \\
\hline F2 & & 3.70\% & 4.00\% & 4.90\% & 4.10\%\% & & \(0.50 \%\) \\
\hline F3 & & & 4.00\% & 4.90\% & \(4.00 \%\) & & \\
\hline F4 & & & & 3.50\% & & & \\
\hline Actual & 3.50\% & 3.40\% & 2.70\% & 1.20\% & 2.70\% & -0.60\% & -0.50\% \\
\hline Actual - F1 & -0.3096 & -0.50\%\% & \(-1.409 \%\) & -3.10\%\% & \(-1.30 \%\) & -2.109\% & -3.40\% \\
\hline Actual - \(\mathrm{F}^{2}\) & & -0.30\% & -1.30\% & -3.70\% & -1.40\% & & -1.30\% \\
\hline
\end{tabular}
*34 Third, the evidence reveals that management did not believe that the projections they were preparing actually offered reliable predictions of future performance. They were told to "put their best foot forward" and that is precisely what they did. \({ }^{382}\) This, of course, is no surprise since they were told by the Board that their jobs depended on it. \({ }^{383}\)

Finally, the evidence makes clear that the Management Projections were created specifically to aid PetSmart in its pursuit of strategic alternatives, including a sale of the Company. To fulfill this purpose, the projections were created to be aggressive and extra-optimistic about the future of the Company. \({ }^{384}\) In fact, the Management Projections projected a reversal of several downward trends, including with regard to the important metric of comparable store sales growth estimates. \({ }^{385}\) As Teffner, Gangwal and Aiyengar testified at trial, the projections were designed to be aggressive because the Board (and JPM) were convinced that potential bidders would discount whatever projections were put in front of them. This makes perfect sense when projections are being prepared not in the ordinary course but to facilitate a sale of the Company. \({ }^{386}\)

Petitioners argue that management knew where to draw the line between reliable and unreliable projections as evidenced by management's decision not to share the super-aggressive "Growth Case" with the Board. According to Petitioners, the fact that management was willing to provide the Management Projections to the Board reveals that management stood behind them and that they can trusted as a reliable input for a DCF analysis. I disagree. The Management Projections were the product of aggressive prodding by the Board for more optimistic forecasts and everyone involved in their creation knew that. Indeed, when the time came for the Board to look to JPM for valuation guidance, the Board directed JPM to run only downside sensitivities on the Management Projections. \({ }^{387}\)

Petitioners next argue that the reliability of the Management Projections is bolstered by the Company's performance after the Merger Agreement was signed and post-closing. Here again, I disagree. To hear Petitioners tell it, PetSmart's post-
signing performance was nothing short of a turnaround miracle. \({ }^{388}\) The trial record says otherwise. PetSmart's success, both post-signing and post-closing was and has been mixed. It is true that PetSmart's EBITDA exceeded the Management Projections for 2015 and that PetSmart was able to issue a \(\$ 800\) million dividend by year end. It is also true, however, that in both 2015 and 2016 (as of the date of trial), PetSmart's comparable store sales growth was massively underperforming the numbers forecast in the Management Projections. \({ }^{389}\) Hardly a turnaround miracle.
*35 Petitioners point to the PIP and argue that no matter the "aggressiveness" of the Management Projections, they must be considered in the context of the "cushion" provided by the substantial estimated cost savings PetSmart would realize from this initiative. In this regard, Petitioners point out that while PetSmart repeatedly reported that it would achieve \(\$ 200\) million in cost savings annually from the PIP, various internal documents set the actual estimates between \$183-\$283 million. \({ }^{390}\) The suggestion is that the extra \(\$ 83\) million was a cushion to offset any undue optimism in the Management Projections. Petitioners make too much of the range of PIP savings identified at various times by management. When the rubber hit the road, and management was pressed to provide optimistic but arguably achievable forecasts of PIP savings, management determined that, in their best estimate, \(\$ 200\) million was what was actually achievable. \({ }^{391}\) The PIP was layered into the Management Projections and I see no basis in the evidence to conclude that some additional phantom savings were ready to be mined out of PetSmart beyond those already accounted for. \({ }^{392}\)

For all of these reasons, I find that the Management Projections are not reliable statements of PetSmart's expected cash flows. Any DCF analysis that relies upon the Management Projections, therefore, would produce "meaningless" results. \({ }^{393}\)

Even though I have determined that the Management Projections cannot support a meaningful DCF analysis, I must consider the possibility that a reliable valuation of PetSmart nevertheless can be constructed from other evidence in the record. In addition to the Management Projections, Dages has looked to other projections-namely the BCP Case, the Massey Case, and the Bank Case-as foundations for alternative DCF analyses. \({ }^{394}\) And on the final day of trial, Dages presented rebuttal testimony regarding a new DCF analysis he had performed based on the JPM sensitivities.

Metrick initially declined to run of any these projections through his DCF model. Instead, he created his own forecasts for PetSmart by adjusting the Management Projections, based on the \(2 \%\) comparable store sales growth assumption adopted in the JPM sensitivities, and then further adjusting to account for the eventual decline of the PIP savings he believed would be realized further into the forecast. As the last word from the valuation experts, however, Metrick responded posttrial to Dages' last-minute DCF analysis by pointing out its shortcomings and running his own analysis on the unadjusted JPM sensitivities. The questions remain whether any of these projections represent the expected future cash flows of the Company and whether any DCF based on these projections can be trusted as a reliable indicator of PetSmart's fair value at the time of the Merger.
*36 When faced with unreliable contemporaneous management projections, this court has adopted other contemporaneous projections as a basis for a DCF analysis where it is satisfied that those projections provide a reliable estimate of the company's future cash flows. \({ }^{395}\) But the projections must be contemporaneous, meaning they must reflect the "operative reality" of the Company at the time of the Merger. \({ }^{396}\) A DCF analysis does not work in the appraisal context when the projections reflect the "operative reality" of the company in the hands of the acquirer. \({ }^{397}\) With this in mind, it is easy to see why none of the projections prepared outside of PetSmart can produce a reliable DCF result. Each reflect various scenarios of how PetSmart would be run under BC Partners' management with a variety of different assumptions. The BCP Case and the Massey Case both were designed with the idea that PetSmart would be run as a private, rather than a public company, with new management, new initiatives and Massey at the helm. \({ }^{398}\) While BC Partners believed that Massey might be able to turn PetSmart around, it had no such confidence in PetSmart's current management. \({ }^{399}\) Given BC Partners' plan to overhaul PetSmart management and its lack of faith in the current management, it strains credulity to argue that the cases BC Partners created showed expected cash flows if PetSmart were to continue operating as a going concern sans Merger.

The Bank Case prepared by BC Partners fares no better. The assumptions upon which those projections are based resemble nothing of PetSmart's operative reality. To reiterate, the Bank Case was created for BC Partners to present to potential lenders, not in the ordinary course of business, with
the purpose of showing that "if things get tough ... you can run the business for cash." \({ }^{400}\) It assumed that the Company would cut capital expenditures in its efforts to preserve cash with the implicit understanding that this approach would stymie longterm growth. \({ }^{401}\) Simply stated, the Bank Case did not reliably state expected cash flows because that was not its purpose.
*37 Having determined that the Management Projections, the BCP Case, the Massey Case and the Bank Case are not reliable statements of PetSmart's expected future cash flows, it should come as no surprise that I reject outright the DCF analyses Dages performed using those projections as foundation. \({ }^{402}\) They are patently not reliable indicators of fair value.

That leaves the possibility of undertaking some adjustments to the Management Projections to bring them in line with the Company's expected cash flows as a means to supply reliable data for a DCF analysis. Both parties have submitted a DCF analysis based on the JPM sensitivities. \({ }^{403}\) Metrick has gone a step further by making further adjustments to the JPM sensitivities to account for his view that the PIP savings will not be sustainable indefinitely. \({ }^{404}\) Even though Dages appears to have referred to the JPM sensitivities as an afterthought, his DCF based on those projections is in the record and must be addressed.

The Board requested that JPM run sensitivities based on \(2 \%\) comparable store sales growth because it had "a great amount of discomfort" with the \(4 \%\) comparable store sales growth utilized in the Management Projections, and thought that " 2 percent looked more achievable." \({ }^{405}\) Given the pressure the Board had placed upon management to prepare increasingly aggressive projections, it is reasonable that the Board would seek to gain a more realistic understanding of PetSmart's expected cash flows and its going concern value as the hour approached for the Board to make impactful decisions about PetSmart's future. While the evidence is a bit light with respect to the bases for the \(2 \%\) adjustment in comparable store sales growth selected by the Board, I take comfort that the adjustment was conceived by an informed, experienced Board and then analyzed carefully by an informed, experienced banker. It is also not lost on me that the JPM sensitivities are the only projections utilized, in some form at least, by both of the valuation experts engaged by the parties. They bear sufficient indicia of reliability to justify further consideration of the valuations based on the data contained therein.

\section*{2. The Expert Valuations Based on the JPM Sensitivities} Dages performed his rebuttal DCF on the JPM sensitivities to respond to testimony from Aiyengar and Gangwal to the effect that the Board directed JPM to make adjustments to the Management Projections that would cause them to reflect more accurately PetSmart's future performance. \({ }^{406}\) For this analysis, Dages took the cash flows from the JPM sensitivities and ran them through a DCF analysis applying the inputs derived from both his and Metrick's prior DCF analyses-the discount rate (or WACC), the perpetual growth rate and the terminal investment. \({ }^{407}\) First, he applied his perpetual growth rate of \(2.25 \%\), WACC of \(7.75 \%\) and terminal investment of \(\$ 41\) million. \({ }^{408}\) Across the three JPM sensitivities, this resulted in a value ranging from \(\$ 102.82\) to \(\$ 112.90\) per share. \({ }^{409}\)
*38 Dages then ran a DCF analysis using the inputs he attributed to Metrick "based on [the] exhibits" Metrick utilized during his trial testimony-a perpetual growth rate of \(2.0 \%\) and WACC of \(6.35 \% .^{410}\) Dages calculated the terminal investment for each of the sensitivities using the same formula that Metrick had used for each sensitivity during his testimony. \({ }^{411}\) Across the JPM sensitivities, this resulted in a value ranging from \(\$ 108.13\) to \(\$ 118.88\) per share. \({ }^{412}\)

Metrick had already seized on the import of the JPM sensitivities in his initial report. \({ }^{413} \mathrm{He}\) adjusted the Management Projections to reflect the 2\% comparable store sales growth estimate for years after FY15. \({ }^{414} \mathrm{He}\) further adjusted the Management Projections, which assumed that PetSmart would achieve the cost savings envisioned by the PIP infinitely, to account for his view "that the cost savings EBITDA improvements will decline beginning in FY19, three years after the savings are assumed to be fully realized in FY16., \({ }^{415}\) He then incorporated his assumption that "the annual savings will decline linearly to the Base Case Amount ( \(\$ 59\) million) by the terminal period, which begins in FY25., \({ }^{416}\)

The projected decreases in PIP savings represented Metrick's best attempts to estimate how long and to what extent PetSmart would retain the projected benefits. \({ }^{417} \mathrm{He}\) based his opinion that PetSmart would not realize the PIP savings infinitely on "economic theory, market response to the PIP, and industry experience related to cost reduction
programs., \({ }^{418}\) Of particular relevance was a McKinsey \& Co. study that found \(90 \%\) of 230 S \& P 500 firms that had engaged in cost-savings strategies between 1999 and 2003 had failed to sustain the lower cost savings beyond three years. \({ }^{419}\) Additionally, Metrick believed that increasingly strong competition from other pet retailers-i.e., Petcowould cause the cost savings to erode over time. \({ }^{420}\)

Metrick returned to the JPM sensitivities when he responded to Dages's rebuttal DCF valuations. \({ }^{421} \mathrm{He}\) ran his own DCF analysis on the JPM sensitivities (without adjustments) to reveal the errors in Dages's DCF on those same projections. \({ }^{422}\) Metrick found two principal faults with Dages's rebuttal DCF. First, he took Dages to task for using the improper discount rates. In this regard, he began with the premise that " \([t]\) o value the cash flows properly, the discount rate must reflect the assumed capital structure, which in turn depends on how leases are treated in the cash flows." \({ }^{423}\) According to Metrick, the discount rates Dages utilized are not consistent with the capital structure assumed in his analysis. Specifically, Dages treated the leases as operating leases (as reflected in the JPM sensitivities), which results in a capital structure with no debt (and 100\% equity). \({ }^{424}\) And yet the WACC utilized by Dages, pulled from his initial report, is based on a capital structure of \(8 \%\) debt and \(92 \%\) equity. \({ }^{425}\) Similarly, the WACC Dages attributed to Metrick in his rebuttal DCF was based on Metrick's assumption of a capital structure of \(31 \%\) debt and \(69 \%\) equity. \({ }^{426}\) Given the very different capital structure assumed in the JPM sensitivities, Metrick opines that Dages should have used a WACC of \(8.17 \%\) based on his own beta and equity risk premium, not \(7.75 \% .{ }^{427}\) The proper WACC based on Metrick's assumptions should have been \(7.7 \%\), not \(6.35 \%{ }^{428}\)
*39 Metrick's second criticism of Dages focuses on his use of income projections that "assume that all of PetSmart's costs are completely variable, rising or falling in proportion to sales, so profit margins do not change" even though the JPM sensitivities (based on the Management Projections) include specific fixed expense line items that will not vary with declining sales. \({ }^{429}\) To adjust for this, Metrick took the fixed costs he found in the Management Projections and treated "all other costs as variable in implementing the \(2 \%\) comparable store sales growth assumption." \({ }^{430}\)

Metrick then ran a DCF based upon JPM Sensitivity \# 2, which assumes that PetSmart will open new stores according to current management plans through 2019 and will have no new store growth thereafter. \({ }^{431}\) In this DCF model, he used his terminal investment formula to calculate the required investment in the terminal period using a \(2.0 \%\) perpetual growth rate. \({ }^{432}\) Applying his adjusted Dages WACC of \(8.17 \%\) (as adjusted to reflect the capital structure assumed by the cash flows), Metrick then performed a DCF using the cash flows found in Sensitivity \# 2 resulting in a valuation of \(\$ 82.79\) per share. \({ }^{433}\) Using his own adjusted WACC of \(7.77 \%\), Metrick's DCF analysis using Sensitivity \# 2 results in a valuation of \(\$ 86.96\) per share. \({ }^{434}\)

As explained above, I have found the JPM sensitivities to be the most reliable projections in the record before me-the question now is what to do with the various DCF analyses constructed by the experts based upon these projections. While I agree with Metrick's criticism of any projection that extends the PIP cost savings out indefinitely into the future, I find no support in the evidence for the specific adjustments that he makes to the PIP cost savings in his initial report. The theory is sound, and I agree that it is not reasonable to assume that the PIP savings will continue at \(\$ 200\) million annually through the terminal period, but there is insufficient evidence in the record to allow me to assess when the PIP cost savings will begin to fade and at what levels. Therefore, I am not persuaded that Metrick's initial DCF valuation, based on his adjustments to the Management Projections, offers a reliable indicator of fair value. \({ }^{435}\)

This leads me to the experts' competing analyses based on the JPM sensitivities. I agree with Metrick's criticism of the rebuttal DCF analysis Dages presented at trial-the WACC must accurately reflect the capital structure indicated by the cash flows, and the costs should accurately reflect the fixed costs. I am also convinced that Metrick's formula for calculating the required amount of investment to support the terminal growth rate is proper, as it is supported by economic theory, finance literature and even testimony that Dages offered to this court in a prior case. \({ }^{436}\) Metrick's formula demonstrates that PetSmart's return on invested capital will converge towards its cost of capital, a theory this court has repeatedly cited with approval. \({ }^{437}\) In contrast, and in contrast to his past practice, Dages merely adopted the terminal investment from the Management Projections, which would imply that PetSmart would permanently see returns on capital
far above its cost of capital. \({ }^{438}\) That premise is not credible, at least not to me.
*40 I also find Sensitivity \# 2 to be the most reliable of the three JPM sensitivities, as this reflects the current management plan for new store sales growth. Accordingly, I am satisfied that the DCF analysis performed by Metrick in his supplemental report is the most reliable DCF that can be performed with the data available. As noted, this analysis reveals a valuation of PetSmart ranging from \(\$ 82.79\) to \(\$ 86.96\) per share (depending upon whether one applies the adjusted Dages WACC or the adjusted Metrick WACC). Given my lack of confidence in the Management Projections underlying the JPM sensitivities, however, I am not inclined to adjust my view that the fair value of PetSmart at the time of the Merger is best reflected in the \(\$ 83\) per share Merger Price. The DCF analyses performed by Metrick on the JPM Sensitivity \# 2 are, however, confirmatory.

\section*{D. Does the Evidence Provide a Basis for Alternative DCF Analyses?}

As a final step in discharging my duty to consider "all relevant factors," I have looked to the record to determine if there is any basis to make further adjustments to the projections or to alter the inputs used by the experts to arrive at a more reliable DCF analysis. I am satisfied that no such basis exists. The JPM sensitivities provided the most reliable evidence in the record of the actual, expected future cash flows of the Company. And while they are not perfect, I find nothing in the evidence that would allow me credibly to adjust these projections further. Nor do I find a basis to alter the experts' inputs. The DCF models they constructed were not that dissimilar. Where they differed, I found Metrick's
explanations for his approach, in this case, to be credible. I see no reason to alter the work he performed.

I have considered all relevant factors. I state my final decision below.

\section*{III. CONCLUSION}

Accepting Petitioners' contention that the fair value of PetSmart was \(\$ 128.78\) per share would be tantamount to declaring that a massive market failure occurred here that caused PetSmart to leave nearly \(\$ 4.5\) billion on the table. In the wake of a robust pre-signing auction among informed, motivated bidders, and in the absence of any evidence that market conditions impeded the auction, I can find no basis to accept Petitioners' flawed, post-hoc valuation and ignore the deal price. Nor can I find a path in the evidence to reach a fair value somewhere between the values proffered by the parties. And so I "defer" to deal price, not to restore balance after some perceived disruption in the doctrinal Force, but because that is what the evidence presented in this case requires. \({ }^{439}\)
*41 For the foregoing reasons, I have found the fair value of PetSmart shares at the date of the closing of the Merger to be \(\$ 83\) per share. The legal rate of interest, compounded quarterly, shall accrue from the date of closing to the date of payment. The parties should confer and submit an implementing order within ten days.

\section*{All Citations}

Not Reported in A.3d, 2017 WL 2303599

\section*{Footnotes}

1 See In re Appraisal of Ancestry.com, Inc., 2015 WL 399726, at *2 (Del. Ch. Jan. 30, 2015); Albert H. Choi \& Eric L. Talley, Appraising the "Merger Price" Appraisal Rule (Virginia Law and Economics, Working Paper No. 2017-01, Jan. 18, 2017).
2 Cede \& Co. v. Technicolor, Inc., 2003 WL 23700218, at *2 (Del. Ch. July 9, 2004), aff'd in part, rev'd on other grounds, 884 A.2d 26 (Del. 2005).
38 Del. C. § 262(h). See Ancestry.com, 2015 WL 399726, at *1 (noting that the burdens of proof imposed by Section 262 makes the job of the judge "particularly difficult" and that the litigation structure imposed by the statute is "unusual"); Choi \& Eric Talley, supra, at 2 (noting that the appraisal statute presents a "particularly vexing challenge" for the trial judge, inter alia, because it "allocates no explicit burden of proof and requires the court to deliver a single number at the end of the process") (emphasis in original).
4 See Gonsalves v. Straight Arrow Publ'rs, Inc., 701 A.2d 357, 362 (Del. 1997) (holding that the trial court's decision to adopt one of the parties' valuations of the company "hook-line-and-sinker" without considering all relevant factors was "fatally flawed").
5 See Finkelstein v. Liberty Digital, Inc., 2005 WL 1074364, at *24 n. 56 (Del. Ch. Apr. 25, 2005). establishes the right of a petitioner to seek appraisal of shares acquired after the record date by demonstrating that the number of shares held by the record holder and not voted in favor of the merger exceeds the number of shares upon which appraisal is sought. See In re Transkaryotic Ther., Inc., 2007 WL 1378345 (Del. Ch. May 2, 2007). The issue is preserved but I decline to revisit this precedent.
8 Stipulated Joint Pre-Trial Order II 77 ("PTO").

PTO \(\mathbb{1} 79\).
PTO \(\mathbb{I} 1\).
ld.
PTO Iीl 15-16, 19, 24-30, 36-44, 51, 55, 60-62, 64, 69-72. of January 29, 2015. See PTO \(\mathbb{1} \mathbb{I} 18,31,45,53,63,71\).
PTO 『117.
16 Pet "consumables" include "pet food, pet treats and snacks, and pet litter products." JX 2307 (Weinsten-Opening) at 12. Pet "hardgoods" include "pet toys, apparel, collars, leashes, grooming equipment, food bowls and pet beds." Id.
PTO I 78; JX 1336 at 23; JX 1477.
JX 1336 at 23.
PTO ๆ118.
Trial Tr. 181:13-182:24 (Teffner).
JX 1697 (Metrick-Opening) at 15-16, Ex. 1A, Ex. 3; see Trial Tr. 177:1-7 (Teffner).
JX 1697 (Metrick-Opening) at 15-16, Ex. 1A, Ex. 3; see JX 1698 (Dages-Opening) at 3-6; Trial Tr. 177:1-7 (Teffner).
JX 1697 (Metrick-Opening) at 15-16, Ex. 1A, Ex. 3.
JX 1698 (Dages-Opening) at 6-7; see Trial Tr. 177:8-178:11 (Teffner).
25 JX 1697 (Metrick-Opening) at 11-14; JX 1698 (Dages-Opening) at 3-4; Trial Tr. 177:8-178:11 (Teffner); PTO ๆ 121. Pet "humanization" describes owners treating their pets as members of the family. Id. This, in turn, prompts owners to seek out premium pet foods and products of a quality they might buy for themselves or other family members. PTO I 122. JX 1697 (Metrick-Opening) at Ex. 4.
Id.
JX 1697 (Metrick-Opening) at 16, 19; JX 2307 (Weinsten-Opening) at 56, Ex. 18; JX 1698 (Dages-Opening) at 6. "Comparable stores sales growth" (or "comp") is the percentage growth in sales revenue period-over-period (e.g., year-over-year or quarter-over-quarter) for a retailer's existing stores, "excluding new [stores] during their first year, remodeled [stores] and [stores] that have since closed." JX 2307 (Weinsten-Opening) at 15. Comparable store sales growth (as between two different time periods of equal duration) is calculated by multiplying (1) the change period-over-period in the total number of customer purchase transactions for existing stores by (2) the change period-over-period in average dollars per consumer purchase transaction for those existing stores. Id. at 15-16. Comparable store sales growth is a metric that features prominently in the discussion of PetSmart's fair value.
29 JX 1697 (Metrick-Opening) at Ex. 1A.
30 Id. at 20, Fig. 4, Ex. 2.
31 Trial Tr. 183:5-186:17 (Teffner); Trial Tr. 396:23-397:18 (Gangwal).
32 See JX 1697 (Metrick-Opening) at 64-65, Fig. 11. See also Trial Tr. 1172:22-1178:4 (Weinsten) (describing PetSmart's historical difficulties in meeting its near-term forecasts, and how this affected his view of the reliability of the Management Projections because "[ijt's easier to forecast in the near term. It's even easier forecasting in the near term when you have actual results available that factor into the calculation. So projecting out over a five-year period is significantly more difficult").
JX 153 at 2; JX 137 at 4; PTO \(\mathbb{1 9} 101,103\).
PTO \(\ddagger \mathbb{1}\) 99-101, 103.
PTO ๆ169.
PTO ๆ 135.

40 Id.; JX 1623.
41 E.g., Trial Tr. 193:10-195:18 (Teffner); PTO ๆ 170.

47 Trial Tr. 197:21-198:9 (Teffner). Teffner testified that PetSmart's management used the financial framework to outline its expectations with respect to "revenue growth, how much of that was comp, how much of that was new store growth ... margin, profit, CAPX, those type of things." Trial Tr. 198:3-6 (Teffner); Trial Tr. 208:20-22, 209:20-210:12 (Teffner). See also JX 1674 (Vance Dep.) 42:2-12, 43:15-20 ("The format of [the fishbone was] a single piece of paper that has some boxes on it that have little numbers on it that say sales should grow three to four percent, margins should be flat, expenses should grow, you know ... three to four percent, something like that."), 46:1-4 ("The [fishbone] itself is not a plan. It's a piece of paper that says here's what we aspire to achieve, but it's not an individual plan.").
48 Trial Tr. 198:20-199:1 (Teffner).
49 Trial Tr. 199:5-9 (Teffner).
50 PTO § 179(c)(i).
51 PTO 『 179(c)(ii).
52 PTO I 179(c)(iii).
53 PTO ๆ 180.
54 PTO ๆ 178; Trial Tr. 400:12-16 (Gangwal).
55 PTO ๆ 181. The three members of the Ad Hoc Committee were each experienced board members and former CEOs (Josefowicz was the former CEO of Borders, Gangwal was the former CEO of US Airways, and Stemberg was the former CEO of Staples). JX 276 at 15-16.
56 PTO ॥ 182.
57 Trial Tr. 402:16-403:9 (Gangwal).
58 PTO ๆ 188; JX 386.
59 PTO ๆ 188; JX 386 at 2-3.
60 PTO ๆ 190; JX 427; JX 403; Trial Tr. 462:14-15 (Gangwal).
61 PTO I 192.
62 See Trial Tr. 201:24-202:9 (Teffner); Trial Tr. 404:9-19 (Gangwal); JX 427 at 1-2; JX 433.
63 See Trial Tr. 201:24-202:9 (Teffner); JX 427 at 2; JX 433.

64 PTO I 193; JX 427 at 2; Trial Tr. 462:14-15 (Gangwal).
65 PTO ๆ 194.
66 PTO ITI 191, 194-95; JX 427 at 4-5. According to the July 2014 meeting minutes, the Board resolution authorizing JPM's retention as PetSmart's financial advisor provided that the Ad Hoc Committee (1) was to determine the scope and terms of that retention; and (2) then negotiate with JPM to reach the final terms of its engagement. JX 427 at 4-5.
67 JX 427 at PETS_APP00000314-315; Trial Tr. 882:20-22 (Aiyengar).
68 PTO ๆ 196; Trial Tr. 204:17-21 (Teffner).
69 PTO I 197; Trial Tr. 882:20-22 (Aiyengar); JX 372; JX 427 at 3.
70 Trial Tr. 405:8-406:1, 467:5-6 (Gangwal).
71 Trial Tr. 217:10-17, 229:2-6 (Teffner); JX 1674 (Vance Dep.) 105:18-112:8.
72 Trial Tr. 220:1-18, 221:22-222:1 (Teffner).
73 See Trial Tr. 209:4-6 (Teffner) (Q: "Did PetSmart senior management prepare long-term projections to operate its business?" A: "No."); Trial Tr. 211:8-14, 211:21-23 (Teffner).
74 PTO ๆ 433; Trial Tr. 206:21-209:3 (Teffner).
75 Trial Tr. 205:14-209:3 (Teffner); PTO § 424.
76 Id. See also JX 149 (presentation slides from 2013 Summer Strategy "Lead Meeting 4"); JX 150 (presentation slides from 2013 Summer Strategy business case prioritization meeting); JX 156 (presentation slides from 2013 Summer Strategy business case prioritization review meeting).
77 Trial Tr. 205:16-206:5 (Teffner); PTO ๆ 425-27.
78 PTO I 431. "While business cases [used] multiyear looks [i.e., projections] ..., the focus was really on Year 1 and what we were going to wind up putting in the budget for the following year." Trial Tr. 206:12-14 (Teffner).
79 Trial Tr. 206:6-10 (Teffner).
80 Trial Tr. 206:23-207:12 (Teffner).
81 Trial Tr. 206:23-207:17 (Teffner); PTO 『 434. PetSmart's fiscal year runs from February 1 to January 31. PTO ๆ 80.
82 PTO IT 434-35; Trial Tr. 207:18-208:3 (Teffner).
83 PTO ๆ 440.
84 Trial Tr. 211:18-19 (Teffner); PTO \(\mathbb{1 4} 438-42\).
85 Trial Tr. 213:7-19 (Teffner); JX 1674 (Vance Dep.) 38:12-41:24.
86 Trial Tr. 213:12-13 (Teffner). See also JX 1674 (Vance Dep.) 38:12-42:12.
87 Trial Tr. 213:15-19 (Teffner).
88 Trial Tr. 213:16-17 (Teffner).
89 Trial Tr. 220:19-222:1 (Teffner).
90 Trial Tr. 220:22-221:19 (Teffner) (noting that in her past experience before joining PetSmart the business units "really owned their own forecasts" but at PetSmart the management in place did not "have experience putting multiyear projections together" leaving "a small group of [senior management] to "try[ ] to validate with the business instead of the other way around.").
91 Trial Tr. 219:7-22 (Teffner); JX 426; JX 430; JX 448; JX 458; JX 583.
92 Trial Tr. 217:24-218:3 (Teffner).
93 Trial Tr. 218:4-16 (Teffner).
94 Trial Tr. 218:20-22 (Teffner).
95 Trial Tr. 220:1-18 (Teffner).
96 Trial Tr. 218:22-23 (Teffner).
97 JX 586 at 7; JX 598.
98 JX 586 at 8.
99 Trial Tr. 233:22-234:19 (Teffner). Estimates coming out of Summer Strategy had shown that, including the acquisition of Pet360 that was under consideration but excluding any new initiatives, PetSmart's comparable store sales growth for 2015 to 2017 would range from \(0.1 \%\) to \(0.5 \%\). JX 842 at 139 .
100 JX 586 at 6; JX 842.
101 Trial Tr. 234:23-235:6 (Teffner).
102 JX 586 at 9.

105 See JX 1684 （Lenhardt Dep．）275：14－21（describing the projections as＂a hockey stick from negative to slightly positive to much more positive，＂meaning that＂there was a lot of risk going forward to hitting these things＂）．
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112 PTO T؟ 198，204－05．
113 PTO 『 206.
114 Trial Tr．414：12－416：24（Gangwal）．
115 Trial Tr．415：14（Gangwal）．
116 Trial Tr．415：9－10（Gangwal）．
117 Trial Tr．415：15－17，414：21－23（Gangwal）．
118 Trial Tr．415：17－18（Gangwal）．
119 Trial Tr．237：17－238：13（Teffner）．Management did not present the Growth Case at the August 2014 Meeting．See Trial Tr．237：5－12（Teffner）．
120 Trial Tr．241：10－13（Teffner）．
121 Trial Tr．242：22－243：2（Teffner）．
122 Trial Tr．418：12－419：8（Gangwal）．
123 PTO \({ }^{2} 213\).
124 PTO \({ }^{2} 211\).
125 ld
126 PTO I 212．The PetSmart－Pet360 merger closed on September 29，2014，with a purchase price of \(\$ 131.5\) million and a potential earnout of \(\$ 30\) million．PTO \｜ 221.
127 See PTO \(\{\mathbb{1}\) 366－70，378；Trial Tr．247：22－248：23（Teffner）．
128 PTO ๆ 378；Trial Tr．247：22－24（Teffner）．
129 Trial Tr．248：5－7（Teffner）；PTO ๆ 370．PetSmart had previously entered into a Master Provider Agreement with A．T． Kearney in August 2013．Id．
130 Trial Tr．247：14－19（Teffner）；see PTO 『｜ 366.
131 Trial Tr．247：14－19（Teffner）；PTO ๆ 366.
132 Trial Tr．248：14－17（Teffner）．
133 Trial Tr．248：17－23（Teffner）；PTO बף 371－73．
PTO ๆ 375；Trial Tr．248：24－249：7（Teffner）（＂We also brought in Peppers \＆Rogers［，］and their work was［focused］ around a Lean Six Sigma operational efficiency process，．．．to see if［PetSmart］had opportunity to reduce labor costs by operating more efficiently than［it was］currently operating at the time．＂）．PetSmart engaged Peppers \＆Rogers to perform this work on September 12，2014．PTO ๆ 375.
135 JX 668 at 1.
136 JX 2021 at 375；Trial Tr．338：22－339：1（Teffner）；PTO § 232.
137 See Trial Tr．247：22－249：8（Teffner）；PTO \(\mathbb{1}\) I 223， 231.
138 PTO \(\mathbb{1} \mathbb{1} 223,231\).
139 PTO 『 223；Trial Tr．254：16－255：6，259：1－14（Teffner）．
140 Compare JX 807 at PETS＿APP00000694 with JX 586 at PETS＿APP00000438－39．
141 JX 1136 at 8；Trial Tr．339：7－10（Teffner）．
142 PTO II 231.
143 Trial Tr．258：13－14，258：18－20（Teffner）．
144 JX 758.
145 Trial Tr．368：19－369：16（Teffner）．See also JX 1674 （Vance Dep．）136：25－137：3．

146 ld
147 JX 671 at PETS_APP00215455. See also JX 608; JX 668.
148 JX 673.
149 Trial Tr. 256:11-13, 257:10-11 (Tefner).
150 JX 758; JX 753.
151 JX 1336 at 23; Trial Tr. 884:10-885:4, 886:10-18 (Aiyengar).
152 Trial Tr. 919:4-921:21 (Aiyengar).
153 ld .
154 JX 1336 at 23; JX 811 at PETS_APP00000578; Trial Tr. 887:18-888:5 (Aiyengar).
155 JX 803; JX 811.
156 JX 803 at PETS_APP00000557-58.
157 See Trial Tr. 417:13-418:1 (Gangwal); Trial Tr. 923:1-16 (Aiyengar).
158 JX 805 at PETS_APP00000609.
159 ld.
160 JX 803 at PETS_APP00000556.
161 See PTO आף 315-17.
162 See Trial Tr. 234:23-235:8, 242:22-243:2, 256:11-17, 258:8-14 (Teffner); Trial Tr. 421:4-422:3 (Gangwal); Trial Tr. 892:1-20 (Aiyengar).
163 Trial Tr. 263:3-265:13 (Teffner); JX 811 at PETS_ APP00000580; JX 913 at PETS_APP00000748; JX 1054 at PETS_APP00000907.
164 JX 913 at PETS_APP00000747; Trial Tr. 262:1-263:2 (Teffner).
165 JX 861.
166 JX 913 at PETS_APP00000749.
167 ld .
168 Trial Tr. 430:3-4 (Gangwal).
169 See JX 666; JX 915; Trial Tr. 427:22-428:15 (Gangwal).
170 JX 666.
171 JX 915 at PETS_APP00000741-42.
172 JX 913.
173 JX 913 at PETS_APP00000752; Trial Tr. 898:11-899:11 (Aiyengar).
174 JX 1336 at 24. The Board later determined to allow CD \& R and KKR to work together based on the understanding that this would allow them to make a stronger bid. Id.; JX 953.
175 JX 1054 at PETS_APP0000903.
176 JX 984.
177 ld.
178 Id.
179 JX 1336 at 24; JX 1121; JX 1081 at PETS_APP00000759-61.
180 JX 1081 at PETS_APP00000760.
181 Trial Tr. 440:7-9 (Gangwal). See also Trial Tr. 432:13-433:14, 434:1-8, 436:13-19, 440:2-4 (Gangwal).
182 Trial Tr. 433:9-14 (Gangwal). See also Trial Tr. 433:12-13, 434:3, 436:14 (Gangwal).
183 JX 1081 at PETS_APP00000760.
184 Trial Tr. 434:4-8 (Gangwal); Trial Tr. 910:24-911:8 (Aiyengar). I will hereafter refer to these adjustments to the Management Projections as the "JPM sensitivities." This should not be interpreted, however, as a finding that the JPM sensitivities were undertaken on JPM's own initiative. As noted above, I am satisfied that the Board came up with the idea of the \(2 \%\) sensitivities and then directed its financial advisor to run the analysis. The JPM sensitivities began with the Management Projections and then: (1) for Sensitivity \# 1 applied a higher discount rate; (2) for Sensitivity \# 2 made no changes to the new store assumptions through FY19 but eliminated new stores thereafter; (3) for Sensitivity \# 3 assumed half the new stores through FY19 and eliminated new stores thereafter; and (4) for Sensitivity \# 4 assumed no new stores after FY14. See JX 1336 at 35 . Sensitivity \# 1 was the only sensitivity not to make adjustments based on \(2 \%\) comparable
store sales growth. Id. This sensitivity was not featured at trial, not addressed by the experts and will not be included herein when referencing the JPM sensitivities.
185 Trial Tr. 436:14-19 (Gangwal).
186 ld.
187 JX 2044. See also JX 1414; JX 1618.
188 JX 1414 at 3; JX 2044.
189 See Trial Tr. 859:15-860:24 (Svider); JX 1104; JX 1084 (Svider characterizing the financing restrictions as "[w]orse than during Lehman in some ways"). See also JX 1103; JX 1109 at 5-6 (discussing BC Partners' issues with debt financing); Trial Tr. 995:4-6 (Aiyengar) (discussing Apollo's struggles to get its debt financing in order); JX 1296 at 182 (stating that KKR's financing for the PetSmart deal had "apparently" collapsed).
190 See Trial Tr. 861:18-862:3 (Svider) (testifying that BC Partners was able to get all the financing that it needed); Trial Tr. 916:16-918:3, 994:13-995:6 (Aiyengar) (testifying that all other bidders were able to secure deal financing and that none were prevented from reaching the levels needed to bid their desired price). The ability of the bidders to secure adequate financing in spite of the enhanced regulation appears to be attributable, at least in part, to PetSmart's strong cash flow profile. See JX 1109 at BC00146204 (noting that BC Partners was able to get seven "viable" financing proposals notwithstanding the increased regulatory scrutiny due to the "high quality of the credit" of PetSmart); Trial Tr. 917:7-918:10 (Aiyengar) (testifying that she had no reason to believe that any regulation of the U.S. debt market negatively impacted the bidding for PetSmart, likely because of PetSmart's "pretty strong cash flow profile," as she saw U.S. regulated banks participating in diligence calls, whereas U.S. regulated banks typically will not participate in financing when leverage levels are too high).
191 JX 1336 at 25.
192 JX 1144.
193 JX 1134.
194 JX 1336 at 25.
195 ld.
196 JX 1142 at 1. See also PTO IT 288-89. Apollo had indicated that it was not interested in partnering with Longview and that its price would be the same with or without Longview's participation. JX 1142 at 1; JX 1153 at PETS APP00000944.
197 Trial Tr. 907:5-12 (Aiyengar).
198 JX 1336 at 26
199 Id.
200 JX 1153 at PETS_APP00000945; Trial Tr. 906:7-908:9 (Aiyengar).
201 JX 1156; JX 1157; JX 1153 at PETS_APP00000944-45. In fact, the night before this meeting, PetSmart management worked to put together a press release that would announce that the Company had decided to end the sales process. JX 1138.
202 JX 1149; JX 1153; JX 1155; JX 1158.
203 JX 1158 at PETS_APP00001265-73; JX 1156 at PETS_APP00001129-31.
204 Id.

211 See JX 1680 (Gold Dep.) 47:24-48:2, 49:7-50:11; JX 1679 (Aiyengar Dep. Day 1) 327:16-330:6. I note that Aiyengar's deposition testimony, proffered by Respondents, along with the deposition testimony of other witnesses who testified at trial on Respondent's behalf, is admissible over Petitioners' objection under either Court of Chancery Rule 32(a)(4) or DRE 106. Court of Chancery Rule 32(a)(4) provides that "[i]f only part of a deposition is offered in evidence by a party, an adverse party may require the offeror to introduce any other part which ought in fairness to be considered with the part introduced, and any party may introduce any other parts." Delaware Rule of Evidence 106 provides that where a party introduces "a writing or recorded statement or part thereof ..., an adverse party may require him at that time to introduce any other part or any other writing or recorded statement which ought in fairness to be considered contemporaneously
with it." After an analysis of the deposition testimony proffered by the Respondents in response to Petitioners' PostTrial Brief, I find that each instance where Respondent cites to the deposition testimony of Teffner, Svider, Aiyengar and Weinstein fits under the "completeness" doctrine codified in Court of Chancery Rule 32(a)(3)(B) and DRE 106, and is therefore admissible.
212 JX 1086 at JPM00000203; JX 1158 at PETS_APP00001282.
213 JX 605; JX 1086; JX 1158.
214 JX 1679 (Aiyengar Dep. Day 1) 253:5-8; JX 79. "Barra is a company owned by MSCI, Inc., that provides investment decision-making tools, including market indices and a beta service." In re Appraisal of DFC Global Corp., 2016 WL 3753123 , at * 8 n .89 (Del. Ch. July 8, 2016). See JX 1698 (Dages-Opening) 40-42 ("Barra betas are rarely used by academics to justify their beta estimates. I am unaware of any academic evidence that Barra beta estimates are superior predictors of a stock's future beta than are historical estimates such as Bloomberg. Another problem with Barra betas is that they cannot be unlevered and relevered to reflect the appropriate target capital structure. Therefore, a peer-based beta derived from Barra betas can potentially reflect the risk of a capital structure that is different than the operative capital structure of the company being valued.... In addition, a commonly referenced valuation textbook cautions the use of Barra betas because they are not replicable. I understand that, for those same reasons, Barra betas have yet to be accepted by the Delaware Chancery Court.") (citations omitted).
215 See JX 1158 (JPM's slide deck reflecting its WACC analysis relied upon Barra predicted and historical betas); Trial Tr. 947:23-948:1 (Aiyengar).
216 Pet'rs' Post-Trial Br. 72.
217 JX 1682 (Aiyengar Dep. Day 2) at 412:9-413:15. See also JX 1682 (Aiyengar Dep. Day 2) at 122:15-24, 243:8-245:1, 288:7-24, 320:3-10, 341:21-342:21, 673:24-675:10; JX 534; JX 538.
218 Trial Tr. 958:21-959:10 (Aiyengar) (agreeing that had JPM utilized a lower WACC it could not have rendered its fairness opinion).
219 I also find no basis to accept Petitioners' contention that JPM labored under disabling conflicts. Pet'rs' Post-Trial Br. 74. JPM's previous work with Petco was disclosed to the PetSmart Board and, if anything, it was deemed as a benefit not a conflict. Trial Tr. 203:21-204:6 (Teffner). JPM's prior relationships with potential private equity buyers, including those that actively participated in the process, was correctly deemed by the Board to be a "fact of business life." See In re Dollar Thrifty S'holder Litig., 14 A.3d 573, 582 (Del. Ch. 2010) (noting that it is "one of the facts of business life that most of the top, if not all, banks have relationships with the major private equity firms."); Trial Tr. 484:22-23 (Gangwal) (testifying that he "knew that [JPM] would have many, many" relationships with private equity firms). Nor is there a basis in the evidence to find that JPM misled the Board regarding potential conflicts. See Pet'rs' Post-Trial Br. 75. The evidence to which Petitioners refer in support of this contention, JX 1251, upon careful reading, says no such thing.
220 Trial Tr. 925:12-15.
221 See JX 1336 at 27; Trial Tr. 439:4-441:9 (Gangwal).
222 JX 1336 at 27 (In considering the achievability of the Management Projections, the Board considered, inter alia, "the risks associated with executing on [PetSmart's] business plans, including that [PetSmart's] business plans and Profit Improvement Plan [were] based, in part, on projections ... dependent on a number of variables, including economic growth, same-store-sales growth, ability to execute on store expansion plans, and overall business performance that are difficult to project and are subject to a high level of uncertainty and volatility.").
223 Trial Tr. 440:23-441:2 (Gangwal). See also JX 1336 at 26-27 (proxy statement summarizing the Board's reasons for recommending the merger to stockholders).
224 Trial Tr. 439:16-441:9 (Gangwal).
JX 1336 at 26.
226 Id.
227 Trial Tr. \(908: 9\) (Aiyengar). I have considered this hearsay testimony only as evidence of the state of mind of the declarants, not for the truth of the matter asserted. DRE 803(3).
228 JX 1188; JX 1187; JX 1185. In addition to DRE 803(3), these analyst reports are admissible under DRE 703 as they were relied upon by Professor Metrick in formulating his opinion and are "of a type" of information "reasonably relied upon by experts" in the valuation field. They have "help[ed] the [Court] understand [the] expert's thought process and determine what weight to give [the] expert's opinion." Towerview LLC v. Cox Radio, Inc., 2013 WL 3316186, at *2 (Del. Ch. June 28, 2013) (applying DRE 703).
229 See JX 1703 (Metrick-Rebuttal) at 71. See also JX 1697 (Metrick-Opening) at Ex. 8 (providing monthly summary of analyst price targets for PetSmart stock from January 2012 to March 2015).

JX 1336 at 35-36, 38-39.
231 ld. at 37-38.
232 Id. The Proxy "included a summary of [the Management Projections] ... to give stockholders access to certain nonpublic information provided to [the PetSmart Board] and J.P. Morgan for purposes of considering and evaluating the Company's strategic and financial alternatives, including the merger." ld.
233 Id. at 38 ("Readers ... are cautioned not to place undue reliance on the [projections found in the Proxy]."). See also Trial Tr. 324:7-15 (Teffner) ("The proxy had disclaimer statements in there with respect to projections ... to explain that these are projections" and therefore speculative.).
JX 1336 at 39.
235 See Trial Tr. 926:5-7 (Aiyengar) ("[T]here was nobody who called after the deal was announced really, other than to say congratulations for getting such a good price.").
236 PTO \(\mathbb{1} \mathbb{T} 3-4\); JX 1496.
237 РТО 15.
238 See JX 779; JX 931.
239 JX 779; Trial Tr. 1011:6-23 (Massey).
240 JX 1060 at BC00105547.
241 JX 1060 at BC00105547-49, 560, 617-21; Trial Tr. 739:9-742:1 (Svider).
242 Trial. Tr. 833:15-838:16 (Svider).
243 Trial Tr. 827:4-833:4, 838:21-841:2 (Svider).

253 PTO I 311; Trial Tr. 362:9-16 (Teffner).
PTO I 309; Trial Tr. 363:17-20 (Teffner). "Bank Case" is a term of art in the LBO industry to describe projections meant to reflect a company's post-acquisition capacity to service its debt. They are heavy on cash flows and light on growth. Trial Tr. 692:3-15 (Dages).
255 Trial Tr. 639:2-8 (Dages); Trial Tr. 373:14-18 (Teffner).
256 JX 1280; JX 1411 at 17.
257 JX 1350 at 12.
258 JX 1447; Trial Tr. 1385:21-23 (Metrick).
259 JX 630; JX 983; JX 1476.
260 ld.
261 Trial Tr. 272:18-274:19 (Teffner); Trial Tr. 447:4-11 (Gangwal); JX 1684 (Lenhardt Dep.) 63:10-65:19, 331:21-332:25.
262 JX 1598 at PETS_APP00842050.
263 Id.; JX 1619 at PETS_APP00820988; JX 1656 at PETS_APP00821452. See also Trial Tr. 1057:6-9 (Massey).
264 JX 1508.
265 Trial Tr. 741:19-742:19 (Svider); Trial Tr. 1051:15-1055:13 (Massey). These new initiatives were informed by updated reports from PetSmart's consultants who identified for Massey additional savings they believed could be achieved. See Trial Tr. 348:16-350:6 (Teffner); JX 2022 at 5; JX 1286 at 18; PTO \(\mathbb{1}\) 388-393. See also JX 1286 at 7; Trial Tr. 342:24346:16 (Teffner); JX 1684 (Lenhardt Dep.) 324:14-23.
266 Trial Tr. 750:2-5, 750:14-22 (Svider).
267 JX 1590 at PETS_APP00821375.
268 JX 1656 at PETS_APP00821450-51, 57. I appreciate that PetSmart's post-closing performance is not relevant when assessing the Company's operational reality at the point of valuation-the date the merger closed. Cede \& Co. v. Technicolor, Inc., 758 A.2d 485, 499 (Del. 2000). Petitioners argue, however, that PetSmart's post-closing performance
is probative of the reliability of the management projections. I have considered this post-merger evidence for this limited purpose. See id. (holding that a court may consider post-merger evidence to the extent it relates to the validity of projections prepared prior to the merger).

271 Trial Tr. 1119:16-20 (Massey); JX 1643 at 4; JX 1637 at 2.

276 Cohen holds a B.S. in Electrical Engineering as well as a M.B.A. from Columbia University. He has an extensive history working in the retail industry, having worked for Abraham \& Strauss, Gap Stores, Lord \& Taylor, Mervyns Stores, Federated Department Stores, Bradlees Inc. and Sears Roebuck \& Co. He served as Chairman and CEO of Sears Canada Inc. from 2001 to 2004. Since 2005, he has served as the Director of Retail Studies and Adjunct Professor of Retailing at Columbia University's Business School, maintains an independent consulting practice, and serves as a contributor for several news outlets. JX 1692 (Cohen-Opening) at 1-3.
277 See JX 1692 (Cohen-Opening) at 28, 30, 33, 35-37.
278 ld. at 38 ("PetSmart's 5 -year financial projections were reasonably and reliably prepared in a manner consistent with industry standards.").
279 Weinsten holds a B.S. in economics from Carnegie-Mellon University and an M.B.A. from the Wharton School at the University of Pennsylvania. He is a Managing Director in the Corporate Finance Group at Berkeley Research Group, a global strategic advisory firm. His practice focuses on turnarounds and restructurings, and he specializes in serving in interim executive positions during transition phases. Prior to joining Berkeley Research Group, Weinsten served as Senior Managing Director in the Corporate Finance \& Restructuring practice of FTI Consulting, Inc. JX 2307 (WeinstenOpening) at 1-6, App. A.
280 See id. at 6-7.
281 ld.
282 Id. at 42 ("Starting in 2013 through first half of 2014, Management had underperformed its quarterly forecasts-even short-term forecasts). See also id. at 43, Ex. 15.
283 Id. "Top down is driven by management and starts with overarching goals, such as \(3 \%\) revenue growth and \(10 \%\) gross margin expansion, which are then pushed down to targets and quotas that are assigned down to employees. Bottoms up planning starts with teams of employees who develop plans for initiatives to improve the business, which are then passed on to management for review and approval and the aggregate result of all initiatives drives the overall company goals and targets.... [B]ottoms up planning typically yields more realistic and reliable results as it involves detailed planning by the people who will be responsible for executing on the initiatives." Id. at 45.
284 Id. at 53 ("IIt would have been difficult for Management to achieve the turnaround in comparable store sales growth reflected in the [Management Projections.]"); id. at 84 ("The ability to execute a plan hinges upon three critical components -people, processes and tools. At the time of development of the [Management Projections], PetSmart faced challenges with respect to all three components.").
285 Dages is well-known to this Court. He holds a B.B.A. in accounting from the University of Notre Dame and is a Certified Public Accountant. He is an Executive Vice President of Compass Lexecon, a consulting firm specializing in the application of economics to legal and regulatory issues. JX 1698 (Dages-Opening) at 1.
286 In his DCF analysis, Dages used a perpetual growth rate of \(2.25 \%\), a WACC of \(7.75 \%\) and a required investment in the terminal period of \(\$ 47\) million. JX 1698 (Dages-Opening) at 32-33; JX 1704 (Dages-Rebuttal) at Ex. 6D.
287 JX 1698 (Dages-Opening) at 25-26. Dages noted, however, that "I'm not a retail guy so I didn't start with this is absolutely the right set of projections to go with, because I-you know, that's not my expertise." JX 1712 (Dages Dep.) 157:6-11.
288 JX 1712 (Dages Dep.) 155:20-157:22 (Dages further explained that the Management Projections were "the best set of projections for me to start with and to examine sensitivities, and to then ... reach an opinion about fair value, and since the opinion on fair value is based on this set of projections, then yes, I believe I'm wed to [the] answer [that the Management Projections are the best estimate of PetSmart's future performance].... If my opinion was based on the 80 percent PIP scenario, then I think I would be telling you that the 80 percent PIP scenario is the best estimate of performance.").
289 Trial T7r. 624:14-19 (Dages).

Trial Tr. 624:6-13 (Dages).
JX 1697 (Metrick-Opening) at 107. DX1 at 66. With the Massey Case, Dages arrived at a value of \(\$ 138.87\) per share. Id. The Bank Case produced a value of \(\$ 138.04\) per share. Id.

312 See Trial Tr. 1272:2-5 (Metrick) ("In this particular case, Mr. Dages and I approached it in a broadly similar way and ended up with discount rates that were fairly similar."); JX 1704 (Dages-Rebuttal) at 4 ("Assuming the Court agrees that PetSmart's Management Projections are the appropriate basis for a fair value calculation, the range of expert opinions of fair value based on a DCF analysis would be \(\$ 128.78\) to \(\$ 133.94\) per share, with the \(\$ 133.84\) per share DCF value resulting from Professor Metrick's WACC and terminal period growth assumptions and the lower \(\$ 128.78\) per share DCF value coming from [Dages's] analysis."); JX 2028 (Metrick Dep.) 639:11-14 ("Q. But if I put the [Management Projections] through your model and his model, if we use the same models, we are going to come very, very close; correct? A. That is correct."). See also JX 1704 (Dages-Rebuttal) at 23 ("The heart of any free cash flow-based valuation analysiseither a WACC-based DCF or an APV-based DCF model-is the underlying financial forecast."). I note that while Dages uses a WACC-based DCF and Metrick uses an APV-based DCF, if the analyses are performed correctly, both models should yield substantially the same result. Trial Tr. 1274:9-15 (Metrick); JX 1704 (Dages-Rebuttal) at App. A II 1. The two experts are also "in general agreement regarding the appropriate levered beta," though Dages derives his beta estimate from PetSmart's historical data and peer betas while Metrick combined the historical beta for PetSmart with an industry average. JX 1703 (Metrick-Rebuttal) at 34
313 Trial Tr. 1303:8-1304:3 (Metrick); Trial Tr. 636:6-15 (Dages).
314 Trial Tr. 1371:24-1372:5 (Metrick); Trial Tr. 636:6-15 (Dages).
315 See JX 2028 (Metrick Dep.) 639:5-10.
316 See Trial Tr. 1302:16-20 (Metrick) ("But that essentially-this boils down the difference. On the DCF, we have a lot of things that are the same, but ultimately we disagree about what the right model is for this company in the long-run and what will happen to their returns.").
317 Trial Tr. 1305:20-1307:21 (Metrick).
318 Trial Tr. 1367:15-1369:4 (Metrick).

319 Trial Tr. 572:22-574:10 (Dages); JX 1704 (Dages-Rebuttal) at Ex. 6D.
3208 Del. C. § 262(h).
321 Cede \& Co. v. Technicolor, Inc., 684 A.2d 289, 296 (Del. 1996).
322 ld.
323 Weinberger v. UOP, Inc., 457 A.2d 701, 713 (Del. 1983).
324 Golden Telecom, Inc. v. Global GT LP, 11 A.3d 214, 218 (Del. 2010) (declining to adopt a rule requiring this Court to defer to the deal price in appraisal proceedings). See also id. (reiterating that appraisal is designed to be a flexible process and "declin[ing] to adopt a rule that binds public companies to previously prepared company specific data in appraisal proceedings," noting that the statute provides this Court with "significant discretion").
325 See Union III. 1995 Inv. Ltd. P'ship v. Union Fin. Gp., Ltd., 847 A.2d 340, 356-57 (Del. Ch. 2003) ("As I perceive it, I am free to consider all non-speculative elements of value, provided that I honor the fair value definition articulated by the Delaware Supreme Court.... I am empowered to come up with a valuation, drawing on what I reasonably conclude is the most reliable evidence of value in the record.").
3268 Del. C. § 262(h).
327 See Merion Capital L.P. v. Lender Processing Servs., Inc., 2016 WL 7324170, at *16 (Del. Ch. Dec. 16, 2016) (recognizing that " \([t]\) he relevant factors can vary from case to case depending on the nature of the company, the overarching market dynamics, and the areas on which the parties focus.... An argument may carry the day in a particular case if counsel advance it skillfully and present persuasive evidence to support it. The same argument may not prevail in another case if the proponents fail to generate a similarly persuasive level of probative evidence or if the opponents respond effectively.").
328 Highfields Capital, Ltd. v. AXA Fin., Inc., 939 A.2d 34, 42 (Del. Ch. 2007) (quoting M.G. Bancorp., Inc. v. Le Beau, 737 A.2d 513, 520 (Del. 1999)). See also Lender Processing, 2016 WL 7324170, at *12 ("Each party also bears the burden of proving the constituent elements of its valuation position by a preponderance of the evidence, including the propriety of a particular method, modification, discount, or premium. If both parties fail to meet the preponderance standard on the ultimate question of fair value, the Court is required under the statute to make its own determination.") (quoting Jesse A. Finkelstein \& John D. Hendershot, Appraisal Rights in Mergers \& Consolidations, 38-5th C.P.S. §§ IV(H)(3), at A89 to A-90 (BNA)).
329 Taylor v. American Specialty Retailing Gp., Inc., 2003 WL 21753752, at *2 (Del. Ch. July 25, 2003).
330 Lender Processing, 2016 WL 7324170, at *13 (quoting Finkelstein, 2005 WL 1074364, at *12).
331 Del. Open MRI Radiology Assoc., P.A. v. Kessler, 898 A.2d 290, 310 (Del. Ch. 2006).
332 M.P.M. Enters., Inc. v. Gilbert, 731 A.2d 790, 795 (Del. 1999).
333 See, e.g., Lender Processing, 2016 WL 7324170, at *33; Merion Capital LP v. BMC Software, Inc., 2015 WL 6164771, at *18 (Del. Ch. Oct. 21, 2015); LongPath Capital, LLC v. Ramtron Intern. Corp., 2015 WL 4540443, at *24 (Del. Ch. June 30, 2015); Merlin P’rs LP v. Autolnfo, Inc., 2015 WL 2069417, at *11 (Del. Ch. Apr. 30, 2015); Ancestry.com, 2015 WL 399726, at *24; Huff Fund Inv. P'ship v. CKx, Inc., 2013 WL 5878807, at *15 (Del. Ch. Nov. 1, 2013), aff'd, 2015 WL 631586 (Del. Feb. 12, 2015) (TABLE); Union III., 847 A.2d at 364.
334 Unimation, Inc., 1991 WL 29303, at *17.
335 DFC, 2016 WL 3753123, at *21. See also Lender Processing, 2016 WL 7324170, at *16 (collecting cases).
336 Chuck Carlson, Game of My Life: 25 Stories of Packer Football (Sports Pub. 2004) (quoting Coach Lombardi as opening his first Packers team meeting in 1959, after twenty years of coaching, by saying: "Gentleman, we are going to relentlessly chase perfection, knowing full well we will not catch it, because nothing is perfect").
337 See Autolnfo, 2015 WL 2069417, at *14 (observing that no "real-world sales process" will live up to "a perfect, theoretical model").
338 Lender Processing identifies a number of structural factors that may be relevant when determining whether the merger consideration was a reliable indicator of the company's fair value including "meaningful competition among multiple bidders during the pre-signing phase," the availability of "adequate and reliable information" to participants in the auction, the "absence of any explicit or implicit collusion," and "the lack of a topping bid." 2016 WL 7324170, at *16-26. Of course, the court also recognized that the relevant considerations will be deal and company specific and that the court's focus will be sharpened by the arguments offered by counsel. Id. at *16. My analysis of the reliability of deal price as a product of the efficacy of the sales process necessarily has been shaped by the arguments of counsel and the evidence they chose to present at trial.
339 Trial Tr. 398:22-399:7 (Gangwal).
340 JX 337; JX 339; Trial Tr. 400:7-16 (Gangwal). Trial Tr. 907:5-12 (Aiyengar).
347 Trial Tr. 439:11 (Gangwal) (The Board, in determining whether to accept BC Partners' offer of \(\$ 83\) per share "[was] looking at greater value if [it] could [get it]."). See also Trial Tr. 439:4-441:9 (Gangwal).
348 JX 1336 at 38; Trial Tr. 324:7-15 (Teffner).
349 See Pet'rs' Post-Trial Br. 53-54.
350 Trial Tr. 755:6-757:6 (Svider); Trial Tr. 917:4-918:10 (Aiyengar).
351 Cf. Lender Processing, 2016 WL 7324170, at *18 (observing that "if bidders perceive a sale process to be relatively open, then a credible threat of competition can be as effective as actual competition").
352 See, e.g., Lender Processing, 2016 WL 7324170, at *26-29 (relying on the merger price in a sale to a private equity buyer); \(B M C, 2015\) WL 6164771, at \({ }^{*} 18\) (determining that the deal price was the most reliable indicator of fair value in case involving sale to a group of private equity buyers); Autolnfo, 2015 WL 2069417, at *12 (same); Ancestry.com, 2015 WL 399726, at *23-24 (same); CKx, 2013 WL 5878807, at *13 (same). I note that the LBO model and DCF model both rely upon the same expected cash flows. The LBO model, however, is risk adjusted to account for post-transaction leverage. It follows, then, that the higher rate of return sought by bidders employing an LBO model will be offset by the fact that most of the purchase price is financed with debt which, in turn, creates a higher return on equity. Moreover, companies with a history of lagging performance may be valued more by financial bidders with a plan to turn around the company than strategic bidders who might be less inclined to take on that risk. Stated more simply, there are two sides to the "LBO model" argument. JX 1697 (Metrick-Opening) at 49-56; Trial Tr. 1277:4-1281:22 (Metrick). While there may be some intuitive appeal to Petitioners' argument that the requisite IRR embedded in the LBO model will drive lower valuations, the evidence in this trial record did not support that argument or demonstrate that this dynamic was in play during the auction for PetSmart. Accord Alexander S. Gorbenko \& Andrey Malenko, Strategic and Financial Bidders in Takeover Auctions, 69 J. Fin. 2513, 2514-16, 2532 (2014) (conducting an analysis of values paid by strategic and financial bidders and concluding that both, on average, pay more than the company's value under current management and that, in the case of \(22.4 \%\) of the targets within the sample, those targets, all "mature, poorly performing companies," were "valued more by an average financial bidder than by an average strategic bidder").
353 See Trial Tr. 405:8-406:2, 427:7-430:12, 439:11 (Gangwal). Nor does the evidence suggest that PetSmart was sold at a time of market or internal uncertainty. The market trends confronting PetSmart had been in place for some time and the Company's struggles were not of recent origin. See, e.g., Respt's RX-6 (displaying PetSmart's historical comparative store sales growth beginning Q1 2011, showing that comparable store sales growth declined continually from Q1 2012 through Q1 2014 and then continued to slide in 2015 after a minor uptick Q4 2014). See also JX 2307 (WeinstenOpening) at 16-26 (describing the challenges facing PetSmart in the period leading up to the Merger). This is not a case like DFC, where the company was confronting acute regulatory uncertainty at the time it was sold. 2016 WL 3753123, at *22. PetSmart's Board was able to weigh the Company's options on a clear day and make the decision it believed was in the best interest of the Company and its stockholders.
354 See, e.g., Trial Tr. 410:10-20, 418:20-419:8, 437:2-441:9 (Gangwal).
355 See Trial Tr. 908:14-910:23 (Aiyengar) ("VValuation was presented to the board at multiple different times here. I don't remember all the dates. But starting from-from the time the plan was finalized in September, I think most of the other board presentations ... had some sort of valuation discussion."). See also JX 1158.
356 See In re Inergy LP, 2010 WL 4273197, at *14 (Del. Ch. Oct. 29, 2010) (holding that financial advisor's "prior dealings" with counterparty to the proposed transaction "d[id] not show that [the transaction committee's] decision to retain [that advisor] ... was unreasonable"); Emerald P'rs v. Berlin, 2001 WL 115340, at \({ }^{\star 7} 7\) n. 17 (Del. Ch. Feb. 7) (rejecting argument that target banker's work for the buyer created a conflict of interest), vacated on other grounds, 787 A.2d 85 (Del. 2001); Maric Capital Master Fund, Ltd. v. Plato Learning, Inc., C.A. No. 5402-VCS, at *87-88 (Del. Ch. May 13, 2010) (TRANSCRIPT) (noting that the presence of a conflict "doesn't mean that [the advisor] can't be the banker.... I'd rather have some of the best bankers with their conflicts disclosed than some of the worst bankers who don't have any conflicts");

Dollar Thrifty, 14 A.3d at 582 (noting that a company's investment bankers working with private equity bidders prior to a sales process was "one of the facts of business life").
JX 1679 (Aiyengar Dep. Day 1) 29:5-9.
358 See Union III., 847 A.2d at 358.
359 See, e.g., Trial Tr. 447:4-7 (Gangwal) (Q. "And did [PetSmart's] performance in the fourth quarter [of 2014], did that in any way affect your view of the long-term value of the company?" A. "No."); Trial Tr. 273:24-24 (Teffner) (Q. "Did [PetSmart's Q4 2014] results change your view of the long-term prospects of the company?" A. "No." Q. "Why not?" A. "Because it was one quarter."). Petitioners contend that PetSmart's Q4 2014 results were released too close to the closing of the Merger for potential bidders to digest them. This ignores the fact that bidders were constantly updated regarding PetSmart's performance, so they received information about PetSmart's Q4 performance in real time well before the market. See, e.g., JX 1090; Trial Tr. 263:7-20 (Teffner); Trial Tr. 735:17-737:21 (Svider).

360 JX 1598 at PETS_APP00842050.
361 JX 1656 at PETS_APP00821450-51, 57.
362 Ramtron, 2015 WL 4540443, at *21.
363 DFC, 2016 WL 3753123, at *21.
BMC, 2015 WL 6164771, at *11 (observing that the court may rely upon "the merger price itself as evidence of fair value, so long as the process leading to the transaction is reliable indicator of value and any merger-specific value in that price is excluded."). I note that there is no need or basis to adjust the Merger Price in recognition of either positive or negative synergies associated with the combination of PetSmart and BC Partners since the buyer here "was a financial buyer rather than a strategic acquirer," DFC, 2016 WL 3753123, at *20 n.230, and there was no evidence presented that synergies unique to private equity sponsors were present here. See Lawrence A. Hamermesh \& Michael L. Wachter, Rationalizing Appraisal Standards in Compulsory Buyouts, 50 B.C. L. Rev. 1021, 1050 (2009) (discussing synergies financial buyers may have with target firms arising from other companies in their portfolio and reduced agency costs).
365 Gonsalves, 701 A. \(2 d\) at 362.
366 Pet'rs' Post-Trial Br. at 14.
367 JX 1714 (Metrick Dep.) 245:17-19; Trial Tr. 1317:10-21 (Metrick); JX 63 at 14.
368 See, e.g., Owen v. Cannon, 2015 WL 3819204, at *29 (Del. Ch. June 17, 2015); Golden Telecom I, 993 A.2d at 499.
369 I note that both valuation experts agree that no other valuation methodology (e.g., comparable company or comparable transaction analyses) would make sense here, particularly given the rather unique nature of PetSmart's retail business. See JX 1698 (Dages-Opening) at 73; JX 1697 (Metrick-Opening) at 142 . I agree and will not discuss these methodologies further.
370 Andaloro v. PFPC Worldwide, Inc., 2005 WL 2045640, at *9 (Del. Ch. Aug. 19, 2005) (citation omitted).
371 See Merion Capital, L.P. v. 3M Cogent, Inc., 2013 WL 3793896, at *11 (Del. Ch. July 8, 2013); Ramtron, 2015 WL 4540443, at *10. See also JX 1697 (Metrick-Opening) at 106-07; JX 1698 (Dages-Opening) at 23-24.
372 Ramtron, 2015 WL 4540443, at *10. See also id. at *18 (stating that where there are no "reliable five-year projections, any values generated by a DCF analysis are meaningless"); CKx, 2013 WL 5878807, at *11 (noting that "methods of valuation, including a discounted cash flow analysis, are only as good as the inputs to the model"); Andaloro, 2005 WL 2045640, at *9 (noting that this court may give a DCF analysis great weight in an appraisal proceeding "when it may be used responsibly"). Dages agrees. Trial Tr. 624:6-13 (Dages) ("Garbage in; garbage out.").
373 See Trial Tr. 621:2-8 (Dages); Trial Tr. 1240:18-23 (Metrick).
374 CKx, 2013 WL 5878807, at *9.
375 See In re Nine Sys. Corp. S'holders Litig., 2014 WL 4383127, at *41 (Del. Ch. Sept. 4, 2014) (citing Kahn v. Household Acq. Corp., 591 A.2d 166, 175 (Del. 1991)).
376 Nine Sys., 2014 WL 4383127, at *42.
377 Trial Tr. 208:4-209:3 (Teffner). See also Trial Tr. 34:1-23 (Cohen) (Petitioners' retail expert testifying that retail operates on a one-year cycle, so that creating detailed projections beyond one-year made little sense).
378 Trial Tr. 213:7-19 (Teffner) (explaining that Vance's model "was not presented to management, was not presented to the board for approval; [instead it] was more of an inherent working tool for the planning department, but it wasn't considered a multiyear projection that the business relied upon").
379 Trial Tr. 219:9-22, 229:2-13, 236:8-16 (Teffner).
380 See Ramtron, 2015 WL 4540443, at *11 (discounting the reliability of management projections since their ability to be accurate forecasters "more than two quarters out was quite poor" and noting that "management's lack of success in
accurately projecting future revenue in the past provides another reason to doubt the reliability of the Management Projections"); Autolnfo, 2015 WL 2069417, at *8 (finding it significant in its assessment of the reliability of management projections that "[m]anagement itself had no confidence in its ability to forecast").
381 JX 1697 (Metrick-Opening) at 65, Fig. 11.
382 Trial Tr. 368:14-16 (Teffner) ("[The Management Projections were] our best foot forward to potential buyers around the performance of the company, given the initiatives."). See also Trial Tr. 242:10-243:2, 256:7-17, 260:5-261:10, 268:9269:5, 270:1-11, 370:19-23 (Teffner).
383 JX 671 at PETS_APP00215455.
384 JX 1674 (Vance Dep.) 135:5-137:3.
385 JX 1684 (Lenhardt Dep.) 275:14-21. See also JX 2307 (Weinsten-Opening) at Ex. 8 n. 52.
386 It should also be noted that management's projections were "top down" rather than "bottom up" projections, which is contrary to best practices. JX 2307 (Weinsten-Opening) at 6-7.
387 Trial Tr. 434:16-436:19 (Gangwal).
388 Specifically, Petitioners contend, "PetSmart outperformed the projections immediately, with that outperformance accelerating from signing through, and well after, closing." Pet'rs' Post-Trial Br. 44. See also id. at 47 ("PetSmart's postclosing performance ... blew the Management Projections out of the water.").
Petitioners argue that Respondent is unduly "fixated" on the comparable store sales growth. See id. at 48-53. However, the PetSmart financial model was premised largely on this important growth metric. Indeed, management appeased the PetSmart Board's desire to make the projections for the sale process more aggressive by increasing the comparable store sales growth from the Base to the Base-Plus Cases to the final Management Projections. See JX 598 at PETS_APP00611653, 656; JX 798 (Comp_Trend tab). Suffice it to say, I am satisfied that "comp" is an important metric to measure performance and growth. In any event, whether or not the comparable store sales growth is important for the long-term prospects of the Company, as the parties dispute, based upon the evidence adduced at trial, this metric was indisputably central to the creation of the Management Projections and therefore directly indicative of their reliability.
390 Trial Tr. 338:22-339:10 (Teffner).
391 Trial Tr. 339:23-340:11 (Teffner). Petitioners also point to other cost-savings proposals created by consultants estimating even greater savings, arguing that the consultants found an additional \(\$ 473-\$ 685\) million in cost savings. Pet'rs' PostTrial Br. 32. There is no evidence that PetSmart management ever thought these pitches from the paid consultants were actually achievable. For his part, Massey explicitly rejected the consultants' pitches as providing any meaningful input for a valuation of PetSmart because they were nothing more than "ideas." Trial Tr. 1105:1-5, 1106:5-1107:1 (Massey). JX 807 at PETS_APP00000690; JX 728.
393 CKx, 2013 WL 5878807, at *9 ("[W]ithout reliable five-year projections, any values generated by a DCF analysis are meaningless."). See also id. at *11 n. 113 ("If I were to apply a DCF analysis in this matter, by choosing between speculative revenue estimates ... I would simply lend a faux-mathematic precision to a patently speculative enterprise: I would become, to use Twain's memorable locution, no better than a hair-ball oracle."); Ramtron, 2015 WL 4540443, at *18 (determining that there were no reliable five-year projections in the record, and therefore declining to rely upon a DCF analysis); Doft \& Co. v. Travelocity.com Inc., 2004 WL 1152338, at *7 (Del. Ch. May 20, 2004) (declining to use a DCF analysis to value a company where the record did not contain any reasonably reliable contemporaneous projections of the company's future cash flows, rendering "a DCF analysis of marginal utility as a valuation technique").
394 To be clear, Dages performed a DCF analysis with Management Projections and the Bank Case in his initial report. JX 1698 (Dages-Opening) at 59, 65. He prepared his DCF on the BCP Case and the Massey Case in advance of his direct testimony at trial. Trial Tr. 554:7-556:21, 603:1-4 (Dages).
395 See, e.g., Autolnfo, 2015 WL 2069417, at *15.
396 Highfields Capital, 939 A.2d at 42 ("The corporation subject to valuation is viewed as a going concern based upon the operative reality of the company at the time of the merger. This value must be reached regardless of the synergies obtained from the consummation of the merger, and cannot include speculative elements of value arising from the merger's accomplishment or expectation.") (internal quotation marks and citations omitted).
397 Id. See also Cede \& Co. v. JRC Acq. Corp., 2004 WL 286963, at *7 (Del. Ch. Feb. 10, 2004) (rejecting one party's valuation expert's attempt to use the debt incurred in the merger as a justification for his debt-to-equity ratio in his DCF analysis because nothing relating to the merger itself "can be included as an element of value").
Trial Tr. 741:19-742:22 (Svider) (describing the complete management turnover that BC Partners believed was necessary at PetSmart, as "it was our view that in order to turn this business around, you needed to implement very profound changes to the management team" so that once the Merger closed, BC Partners "basically changed not
only the whole top management, but you know, pretty much the whole management of the company"). See also JX 1236 at BC00043779-93 (detailing Massey's loyalty, store associate behavior, product optimization, product expansion, marketing and merchandising, net price, supply chain and freight, consumable vendors negotiations, Asia sourcing, field payroll, overhead, occupancy cost and other operating, general and administrative initiatives); Trial Tr. 1027:711; 1030:8-1045:3 (Massey) (describing his proposed initiatives and how they differed from current management's initiatives); Trial Tr. 1041:23-1042:12 (Massey) (stating that, after a meeting where they discussed current management's progress on its initiatives, "I had a lot of concern. Many of the initiatives didn't seem to have much backing them up. And what was really concerning were the-a number of the senior managers really couldn't articulate how they were going to execute these things. Some could, and some did a very good job. But some of the most important ones in merchandising and marketing, we had walked away with a lot of concerns"); Trial Tr. 1048:3-22 (Massey) (describing his worries about the achievability of his plan leading up to the consummation of the Merger because "I had serious doubts about relying on the people, a number of the people. There were a lot of good people, but there [were] other people I was very concerned about. And I knew I would have to make a tremendous amount of change").
Id. See also JX 1676 (Svider Dep.) 38:6-9, 145:14-23.
Trial Tr. 743:21-746:4 (Svider) (describing the purpose of a bank case).
ld.
Ramtron, 2015 WL 4540443, at *18 (holding that a DCF analysis built on unreliable projections is "meaningless").
Trial Tr. 1411:23-1429:18 (Dages); JX 1697 (Metrick-Opening) at 108-09; JX 2315 (Metrick-Supplemental) at 1.
JX 1697 (Metrick-Opening) at 103.
Trial Tr. 436:13-19 (Gangwal).
Trial Tr. 1412:9-1414:19 (Dages).
Trial Tr. 1415:19-1416:5, 1416:15-21 (Dages).
Pet'rs' DX 2 at 2; Pet'rs' DX 3 at 2; Pet'rs' DX 4 at 2.
ld.
Trial Tr. 1413:19-1414:3 (Dages); Pet'rs' DX 2 at 3; Pet'rs' DX 3 at 3; Pet'rs' DX 4 at 3.
411 Trial Tr. 1417:6-17, 1420:2-12 (Dages); Pet'rs DX 2 at 3; Pet'rs' DX 3 at 3; Pet'rs' DX 4 at 3 . Dages used real rates in this method, whereas Metrick had used nominal rates. Trial Tr. 1413:4-6.
412 Pet'rs' DX 2 at 3; Pet'rs' DX 3 at 3; Pet'rs' DX 4 at 3 .
413 JX 1697 (Metrick-Opening) at 102.
414 Id. at 102-03.
415 Id. at 103.
416 ld.
417 Trial Tr. 1403:4-21 (Metrick).
418 JX 1697 (Metrick-Opening) at 103
419 JX 24 at 108-11. This is also consistent with Weinsten's experiences. Trial Tr. 1206:9-19 (Weinsten).
420 JX 1697 (Metrick-Opening) at 94-95.
421 JX 2315 (Metrick-Supplemental) at 1. I note for clarity that the JPM sensitivities are the cash flows from JPM's valuation model, and therefore distinct from the adjustments that Metrick made to the Management Projections to reflect his view of the expected cash flows for the DCF he performed in his initial report. See id. at 3. Id. at 2 . Metrick focused on Sensitivity \# 2 "for simplicity" because, given the assumptions in Sensitivity \# 3 and Sensitivity \# 4 regarding new store growth, his DCF analysis on Sensitivity \# 2 would result in a higher valuation for PetSmart. Id. at 1 . Since the differences across the sensitivities are assumptions regarding new store growth, Metrick's criticisms of Dages' DCF analysis would apply equally to all three sensitivities he analyzed. Id.
423 ld. at 5.
424 Id. at 6.
425 Id.; JX 1698 (Dages-Opening) at 58, Ex. 21. See also id. at 33 (noting that a company's WACC is "based on the company's expected or target capital structure, that is, the relative proportion of debt and equity ownership").
426 JX 2315 (Metrick-Supplemental) at 6.
427 Id.
428 ld.
429 Id. at 6-7 (citing JX 1723 at row 128 of 'Financial Build’ tab; JX 1697 (Metrick-Opening) at 109).

430 ld. at 7.
431 Id. at 1; JX 1336 at 35.
432 JX 2315 (Metrick-Supplemental) at 7-8, 8 n .18 ; JX 1697 (Metrick-Opening) at 115-117. Both Dages and Metrick chose inflation for the perpetual growth rate; they just chose two different rates of inflation. Trial Tr. 537:4-10 (Dages).
433 JX 2315 (Metrick-Supplemental) at 8 . See also id. at 6 n.14, Ex. 4.
434 ld. at 8 . See also id. at 6 n.15, Ex. 3.
435 To be fair, Metrick performed his DCF as a fallback. His showcase opinion is that the Merger Price of \(\$ 83\) per share reflects fair value and that DCF is not a reliable indicator of value in this case. Trial Tr. 1268:21-1269:8 (Metrick).
436 JX 2315 (Metrick-Supplemental) at 7-8, 8 n.18; JX 1697 (Metrick-Opening) at 115-117; JX 1233 at 29-31; JX 1691; Trial Tr. 714:10-21 (Dages).
437 See, e.g., In re John Q. Hammons Hotels Inc. S'holder Litig., 2011 WL 227634, at *4 n. 16 (Del. Ch. Jan. 14, 2011) (stating that the convergence model is "a reflection of the widely-accepted assumption that for companies in highly competitive industries with no competitive advantages, value-creating investment opportunities will be exhausted over a discrete forecast period, and beyond that point, any additional growth will be value-neutral" leading to the "return on new investment in perpetuity [converging] to the company's cost of capital"); Cede \& Co. v. Technicolor, Inc., 1990 WL 161084, at *26 (Del. Ch. Oct. 19, 1990), consolidated with Cinerama, Inc. v. Technicolor, Inc., 1991 WL 111134 (Del. Ch. June 24, 1991), and aff'd in part and rev'd in part on other grounds, 634 A.2d 345 (Del. 1993) (discussing that "profits above the cost of capital in an industry will attract competitors, who will over some time period drive returns down to the point at which returns equal the cost of capital").
438 Trial Tr. 572:22-574:10 (Dages); Trial Tr. 1299:3-1302:24 (Metrick); JX 1691.
439 I cannot help but observe, however, that reliance upon the deal price as a reliable indicator of fair value in this case, where the paid experts have offered such wildly different opinions on the subject, does project a certain elegance that is very appealing. In an arm's-length transaction like the one here, the buyer and seller are both incented to value the company as accurately as they can knowing that "they [will be] penalized in the marketplace" for failing to do so. See Daniel R. Fischel, Market Evidence in Corporate Law, 69 U. Chi. L. Rev. 941, 943 (2002). "Paid experts in litigation who testify about values derived from analyzing comparables or discounting future cash flows to present value, [on the other hand], have very different incentives." Id. Given this dynamic, Delaware courts must remain mindful that "the DCF method is [ ] subject to manipulation and guesswork [and that] the valuation results that it generates in the setting of a litigation [can be] volatile...." William T. Allen, Securities Markets as Social Products: The Pretty Efficient Capital Market Hypothesis, 28 J. Corp. L. 551, 560 (2003). The Merger Price, negotiated at arm's-length, in real time, after a well-run pre-signing auction that takes place in the midst of a fully functioning market, is not burdened by such litigation-driven confounding influences.

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\section*{UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.}

Court of Chancery of Delaware.

\section*{IN RE Appraisal of STILLWATER MINING COMPANY}

Consol. C.A. No. 2017-0385-JTL
|
Date Submitted: May 23, 2019
|
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\section*{Attorneys and Law Firms}

Samuel T. Hirzel, II, Elizabeth A. DeFelice, HEYMAN ENERIO GATTUSO \& HIRZEL LLP, Wilmington, Delaware; Lawrence M. Rolnick, Steven M. Hecht, Jonathan M. Kass, Glenn McGillivray, LOWENSTEIN SANDLER LLP, New York, New York; Attorneys for Petitioners.
S. Mark Hurd, Lauren Neal Bennett, MORRIS, NICHOLS, ARSHT \& TUNNELL LLP, Wilmington, Delaware; James R. Warnot, Jr., Adam S. Lurie, Brenda D. DiLuigi, Nicole E. Jerry, Elizabeth M. Raulston, LINKLATERS LLP, New York, New York; Attorneys for Respondent.

\section*{MEMORANDUM OPINION}

\section*{LASTER, V.C.}
*1 This post-trial decision determines the fair value of the common stock of Stillwater Mining Company ("Stillwater" or the "Company") as of May 4, 2017, which is when Sibanye Gold Limited completed its acquisition of Stillwater through a reverse-triangular merger (the "Merger"). Pursuant to an agreement and plan of merger dated December 9, 2016 (the "Merger Agreement"), each share of Stillwater common stock was converted at closing into the right to receive \(\$ 18.00\), subject to the right of each holder to eschew the merger consideration and seek appraisal.

The petitioners perfected their appraisal rights and litigated this appraisal proceeding. They contended that Stillwater's
fair value was \(\$ 25.91\) per share. To justify this outcome, they relied on an expert who valued Stillwater using a discounted cash flow ("DCF") model.

The respondent in an appraisal proceeding is technically the surviving corporation, but the real party in interest is the acquirer. The petitioners' true opponent in this proceeding was Sibanye.

Sibanye contended that Stillwater's fair value was \(\$ 17.63\) per share. To justify this outcome, Sibanye relied on a combination of metrics, including the deal price, Stillwater's unaffected trading price with an adjustment for a valuation increase between the unaffected date and closing, and an expert valuation based on a DCF model.

Sibanye proved that the sale process was sufficiently reliable to make the deal price a persuasive indicator of fair value. Although Sibanye argued for a deduction from the deal price to account for value arising from the Merger, Sibanye failed to prove that an adjustment was warranted.

The parties engaged in lengthy debate over whether Stillwater's adjusted trading price could provide a persuasive indicator of fair value. The reliability of the adjusted trading price depended on the reliability of the unaffected trading price, and both sides engaged experts who conducted analyses and offered opinions about the attributes of the market for Stillwater's common stock. The evidence demonstrated that Stillwater's trading price could provide a persuasive indicator of value, but that it was a less persuasive indicator than the deal price. This decision therefore does not use a trading price metric.

Neither side proved that its DCF valuation provided a persuasive indicator of fair value. The experts disagreed over too many inputs, and the resulting valuation swings were too great, for this decision to rely on a model when a markettested indicator is available.

This decision concludes that the deal price is the most persuasive indicator of fair value. Relying on any of the other valuation metrics would introduce error. The fair value of the Stillwater on the valuation date was therefore \(\$ 18.00\) per share.

\section*{I. FACTUAL BACKGROUND}

The parties generated an extensive evidentiary record. They commendably reached agreement on 283 stipulations of fact. During four days of trial, they introduced 909 exhibits and lodged twenty-one depositions in evidence. Three fact witnesses and seven expert witnesses testified live. What follows are the court's findings based on a preponderance of the evidence. \({ }^{1}\)

\section*{A. The Company}
*2 At the time of the Merger, Stillwater was a Delaware corporation engaged in the business of extracting, processing, smelting, and refining minerals from an orebody known as the J-M Reef. Located in in the western United States, the J-M Reef contains deposits of palladium, platinum, and rhodium, which are known in the mining industry as "platinum group metals" or "PGMs." These metals are rare, and the J-M Reef is the only PGM asset in the United States. The other principal sources of PGMs are located in South Africa, Russia, and Zimbabwe, which present significantly greater political risk.

Stillwater was headquartered in Littleton, Colorado, and its common stock traded on the New York Stock Exchange under the symbol "SWC." Stillwater's trading price was heavily influenced by commodity prices for palladium and, to a lesser degree, platinum.

At the time of the Merger, Stillwater's operations consisted of two producing mines in south central Montana: the Stillwater Mine and the East Boulder Mine. Stillwater's other assets were development projects or exploratory properties that were not yet generating revenue.

At the time of the Merger, Stillwater's two development projects were Blitz and Lower East Boulder. Blitz expanded the Stillwater Mine eastward. Lower East Boulder was a contemplated expansion of the East Boulder mine. Stillwater's two exploratory properties in the J-M Reef were Iron Creek and the Boulder Extension. Outside of the J-M Reef, Stillwater owned two other exploratory properties: (i) Altar, a copper-gold-porphyry deposit in the San Juan province of Argentina, and (ii) Marathon, a copper-PGM deposit in Ontario, Canada.

At the time of the Merger, Michael "Mick" McMullen served as Stillwater's President and CEO and as a member of its board of directors (the "Board"). The other six members of the Board were independent, outside directors:
- George Bee was a mining engineer who had held senior management positions or served on the boards of other mining companies.
- Patrice Merrin had served as an executive or director for numerous companies and was a director of Glencore plc, a multi-national mining firm. Merrin chaired the Board's Corporate Governance and Nominating Committee.
- Peter O'Hagan had worked at Goldman Sachs for nearly twenty-three years, including as co-head of its global commodities business.
- Michael Parrett was a Chartered Professional Accountant who had served in senior management positions and as a director for other mining companies.
- Brian Schweitzer had served as Governor of Montana. He was Chairman of the Board.
- Gary Sugar had spent thirty-two years at RBC Capital Markets, where he specialized in the mining sector. He served on the boards of other mining companies.

\section*{B. McMullen Convinces The Board To Build A Mid-Cap Mining Company.}

McMullen was hired in December 2013 as a "turnaround CEO." McMullen Tr. 814-16; see Schweitzer Tr. 170. By early 2015, McMullen had refocused Stillwater's operations, cut costs, and generally turned the Company around. At this point, McMullen believed that market conditions favored the creation of a mid-cap mining company. He thought Stillwater could achieve this outcome either by growing through acquisitions or by combining with another industry player through a merger of equals.

During a meeting of the Board in June 2015, McMullen gave a lengthy presentation on Company strategy that devoted twenty-six slides to various alternatives. See JX 44 at ' 848 to '874. McMullen's presentation discussed means of increasing earnings, increasing the trading multiple, and optimizing the capital structure, and then turned to the pros and cons of selling some or all of the business. The presentation was particularly negative about the prospect of a sale. See id. at ' 866 to '868. In another presentation, McMullen devoted over forty slides to discussing candidates for acquisitions or mergers of equals. See id. at '929 to '970.
*3 In addition to his own presentation, McMullen provided the Board with presentations from three investment banks. McMullen had a close relationship Dan Vujcic, then an investment banker with Jefferies Financial Group, Inc., and the Jefferies presentation was the most detailed. It analyzed an acquisition of another base metals company, focusing on Sandfire Resources NL, Western Areas Ltd., and Panoramic Resources Ltd. It also analyzed the possible acquisition of a downstream company, a possible spinoff of Stillwater's processing and trading business, and the option of maintaining the status quo. See id. at '014 to '080. A presentation from BMO Capital Markets was more of a high-level pitch book, but it identified selected acquisition opportunities. See id. at '081 to '183. A presentation from Nomura Holdings, Inc. discussed alternatives for refinancing Stillwater's convertible bonds. See JX 44 at '164 to '182.

Sibanye has argued that this meeting marked the start of the Board's careful and thoughtful consideration of a sale of the Company, but the purpose of the meeting was not to prepare the Board for a sale. McMullen hoped to convince the Board to back him in creating a mid-cap mining company. \({ }^{2}\) The Board, however, resisted, recalling unsuccessful acquisitions that had necessitated hiring a turnaround CEO in the first place. During the June 2015 meeting, the Board did not provide McMullen with a mandate to pursue any strategic options. See JX 43.

After the June 2015 meeting, McMullen kept looking for opportunities to build a mid-cap mining company. During the second half of 2015, McMullen worked with Jefferies, BMO, and Citigroup to identify acquisition targets and merger-ofequals candidates. \({ }^{3}\) McMullen was focused on an acquisition, particularly "something not in the PGM space to diversify risk." JX 59.

During a meeting of the Board in October 2015, McMullen gave another presentation on the Company's strategy. See JX 61 at '102 to '127. He highlighted the risks Stillwater faced because of its dependence on palladium, which was used principally in catalytic converters. His presentation discussed the disruptive threat posed by electric cars, which could displace gasoline-powered cars and render catalytic converters obsolete. See id. at '105 ("Know Your Enemy -Electric Cars"). He recommended making a diversifying acquisition from which Stillwater would "emerge as a multi mine, multi commodity and multi jurisdiction mid cap miner with a bullet proof balance sheet." Id. at '127. He then reviewed six possible candidates: Sandfire, Western Areas,

Panoramic, Northern Star Resources Ltd., Imperial Metals, and Hecla Mining Co. See id. at '128 to '179. He also circulated a presentation from Jefferies that discussed an acquisition of Sandfire. See id. at ' 249 to '292. During the weeks after the meeting, Jefferies provided McMullen with more detailed analyses of a deal with Northern Star, a large gold producer in Australia. See JX 67; JX 68.
*4 In December 2015, McMullen and a team from Stillwater visited the mining operations of Northern Star, where McMullen had a close relationship with senior management. During the visit, McMullen met with the CEO and CFO of Northern Star and discussed a potential merger of equals. See PTO 『 145; JX 73 at ' 867 ; see also JX 61 at '282 to '286; JX 67. At this point in time, a merger of equals with Northern Star was McMullen's top choice among Stillwater's strategic options.

During meeting of the Board in January 2016, McMullen gave another presentation on the Company's strategy. See JX 86 at '002 to ' 040 . As with the meetings in June and October 2015, his goal was to convince the Board to authorize him to build Stillwater into a mid-cap metals company. See JX 78 (McMullen discussing his desire to "come away from [the January] board meeting with a clear mandate"). McMullen recommended a merger of equals with Northern Star as the best option, telling the Board that the transaction "would make a very strong mid cap precious metals miner." JX 86 at ' 038 . If Northern Star would not engage, then he recommended acquiring Sandfire or Western Areas. See id. at ' 039 . He also identified some smaller acquisitions that "should be pursued independently" and "[r]egardless of whether Stillwater completes one of the larger deals." Id. at '040. Later in the meeting, he provided additional information about the proposed M\&A strategy and further detail about Northern Star, Sandfire, Western Areas, Panoramic, Hecla, and Imperial. See id. at "320 to '367. McMullen also distributed a presentation from Jefferies that analyzed mergers with Northern Star and Western Areas. See id. at '275 to '319

At the conclusion of the January 2016 meeting, the Board gave management a mandate, but it was broad and vague. According to the minutes, " \([t]\) he Board provided management with a sense of the Board for management to continue to pursue the options as discussed, but to return to the Board for any final decision." JX 90 . During this litigation, Sibanye has argued that this mandate authorized management to pursue a sale of the Company, but that is not accurate. \({ }^{4}\) McMullen
put it best when he told a banker at Blackstone that he had "finally convinced the Stillwater board to go off and buy some things." JX 93 at '628; see Schweitzer Tr. 187.

\section*{C. The Company's Stock Price}

While McMullen was trying to convince the Board to let him "buy some things," Stillwater's stock price was falling. The decline began in June 2016 and continued steadily through December. Over the course of this six month period, Stillwater's stock price fell by over \(40 \%\), dropping from \(\$ 14.46\) per share on June 1 to \(\$ 8.57\) per share on December 31 . The market drop did not reflect any problems with Stillwater's operations. Instead, it reflected a decline in the spot price of palladium, which fell by \(27 \%\) from \(\$ 773.70\) per ounce on June 1 to \(\$ 562.98\) per ounce on December 31. PTO Exs. A, B.

During the Board meeting in January 2016, McMullen had told the Board that "[d]espite our stock being down \(40 \%\), we still have options open to us today." JX 86 at '012. But during the weeks following the January 2016 meeting, the stock price fell further. On January 19, it closed at \(\$ 5.29\) per share, down \(38 \%\) from its closing price of \(\$ 8.57\) per share on December 31. The drop corresponded with further declines in the spot price of palladium, which closed on January 19 at \(\$ 494.83\) per ounce, down another \(12 \%\) from its close of \(\$ 562.98\) per ounce on December 31.
*5 The Company's dismal stock performance caused McMullen to conclude that Stillwater did not have a currency that it could use for either an acquisition or a merger of equals. JX 93 at '628 ("[U]nfortunately the stock price has collapsed in the last 2 weeks and I don't think Stillwater has the currency to do anything anymore. Ce [sic] la vie."); see McMullen Tr. 826; JX 97 at '308 to '310, '313. He felt Stillwater had missed its opportunity to expand and was now just an "an option play on the P[alladium] price." JX 93 at ' 628 ; see JX 97 at '313

At this point, McMullen told a banker at Blackstone that " \([\mathrm{s}]\) itting around for one or two years waiting for the price to recover" was "not my idea of a job." McMullen Tr. 828; JX 93 at '628. McMullen did not view himself as an "operational CEO." McMullen Tr. 814-16. He thought he "would become bored." McMullen Tr. 828. With his contract set to expire at the end of the year, McMullen began thinking about what he would do next, including the possibility of building a mining portfolio company for Blackstone. See McMullen Tr. 828; JX 93 at ' 627 to '628.

\section*{D. Sibanye Contacts McMullen.}

On January 30, 2016, Sibanye reached out through BMO to arrange a meeting between McMullen and Sibanye's CEO, Neal Froneman. Without telling the Board, McMullen accepted.

The meeting took place at an industry conference on March 1, 2016. PTO © 161. When Froneman broached the subject of buying Stillwater, McMullen was receptive. He asked Froneman to provide "an informal proposal" in writing that included "an idea of valuation" and "transaction structure." JX 109 at ' 976 ; see PTO § 164. Froneman had the impression that a deal "was doable if we got the valuation right." JX 109 at ' 976 .

After the meeting, Froneman asked McMullen for "specific guidance" about what would be acceptable. JX 110. McMullen indicated that Sibanye's offer should include "a large cash component." JX 113 at '175. He also told Froneman during these early discussions that an acceptable transaction should be priced at a premium of \(30 \%\) over Stillwater's thirtyday volume-weighted average price ("VWAP"). Stewart Dep. 39; see also JX 162 at '283. Froneman agreed in principle to this pricing metric, and he began organizing a team to visit Stillwater's mines. See JX 113 at ' 174 to '175. Froneman asked to enter into a confidentiality agreement to facilitate diligence, but McMullen rejected the request, commenting that he wanted "to see some form of indicative, non-binding and highly confidential terms of a transaction before we go too far down the path." Id. at '174.

McMullen took all of these actions without involving the Board. Indeed, he did not even inform the Board about Sibanye's approach. See Schweitzer Tr. 189-92; Wadman Tr. 657. Instead, on March 25, 2016, he agreed to extend his employment for an additional two years. JX 114 § 4.1. His original employment agreement had been scheduled to terminate on December 31, 2016, and the Board had expected that because McMullen was a short-term, turnaround CEO, he would not stay beyond that date. Wadman Tr. 670-71; see Wadman Dep. at 341; Schweitzer Tr. 170, 193. But with acquisition talks in the offing, McMullen agreed to a new deal. See JX 114.

The new employment agreement permitted McMullen to serve concurrently as a director of Nevada Iron Limited and New Chris Minerals Limited, which later became GT Gold Corp. See JX 114 § 3.1, Ex. A. During 2016, McMullen did more than serve on the boards of these companies. He
became Executive Chairman and CEO of Nevada Iron, and he served as Non-Executive Chairman and President of New Chris. See McMullen Tr. 863-64; McMullen Dep. 45, 553; JX 93 at ' 628 . Both companies were Australian resource firms whose equity comprised a significant portion of McMullen's net worth. JX 157 at '315; see McMullen Tr. 709, 863-64. Over the next year, while McMullen was busy selling the Company, he also caused Nevada Iron and New Chris to engage in transformative transactions. \({ }^{5}\)
*6 In May 2016, the Board held its next regular meeting. In connection with that meeting, McMullen did not inform the Board about Sibanye's approach or his discussions with Sibanye. \({ }^{6}\)

\section*{E. Sibanye Submits An Indication Of Interest.}

During the first week of June 2016, executives from both Sibanye and Northern Star toured the Company's mines. PTO 9 9 171-72. Sibanye toured as part of their exploration of a potential acquisition of the Company. Northern Star toured separately, ostensibly as part of a mutual benchmarking exercise but really in connection with a potential merger of equals. McMullen and the Company's CFO, Christopher Bateman, led Sibanye and Northern Star on separate tours and ensured that neither saw one another. McMullen claimed that despite keeping the two teams separate, each knew that the other was on site because McMullen and Bateman would alternate between the tours and McMullen had them both sign the visitors log. McMullen said he did this as a clever way to create competition between the firms. See McMullen Tr. 726-27.

After the visits, McMullen believed that a deal with Sibanye was more likely than with Northern Star. See JX 140 at '048; JX 142. Toward the end of June 2016, Northern Star reported that they were primarily interested in a joint venture involving Blitz. JX 145 at ' 845 . That possibility did not interest McMullen. Id. Meanwhile, McMullen pushed Sibanye to provide an indication of interest in advance of the Board's next meeting, which was scheduled for July 28, 2016. \({ }^{7}\)

Sibanye began working with Citigroup to develop its bid. Two of the Citigroup bankers had previously advised McMullen and Bateman about the Company's alternatives. As part of its advice, Citigroup had recommended against a sale of the Company because of the limited universe of potential buyers. See JX 32 at '829; cf. JX 42 at '422.

On July 21, 2016, Sibanye provided McMullen with a nonbinding indication of interest to acquire Stillwater at \(\$ 15.75\) per share in cash, which valued the Company at \(\$ 1.9\) billion. PTO © 177; JX 165. The letter described that price as reflecting "a \(30 \%\) premium to Stillwater's volume-weighted average share price [ (VWAP) ] of US\$ 12.12 over the last 20 trading days prior to 20 July 2016." JX 165 at ' 880 ; see PTO - 178.

As suggested by Sibanye's offer, Stillwater's stock price had mostly recovered, reflecting a recovery in the price of palladium. At the beginning of July 2016, the stock closed at \(\$ 12.25\) per share, up \(132 \%\) from its low of \(\$ 5.29\) in January. During that same period, the palladium spot price had increased \(22 \%\) to \(\$ 605.63\) per ounce. PTO Exs. A, B. Despite the stock's performance, McMullen did not revisit potential acquisitions or a merger of equals. He was now focused on selling the Company. See JX 156 (email from Vujcic to McMullen stating, "[W]e'll make sure the company gets sold. Don't worry about that.").

\section*{F. McMullen Presents The Indication Of Interest To The Board.}
*7 On July 27 and 28, 2016, the Board held a regularly scheduled meeting. At the end of the two-day meeting, the directors held a forty-five minute "executive session" with McMullen, who distributed and walked through a presentation titled "Business Development Update." JX 151 at '551; see Schweitzer Tr. 193; JX 526 at '377; Wadman Tr. 657-64. The presentation compared the Company's recent performance to various potential transaction partners, then described the pros and cons of transactions with Northern Star and Sibanye. After summarizing the terms of Sibanye's expression of interest, the presentation described the premium as "within the right range for shareholder value" and "broadly within the range of mining transactions." JX 151 at '568. McMullen gave his "strong recommendation ... to engage with Sibanye and attempt to conclude [due diligence] as quickly as possible (likely to take 2 months) and achieve a higher price." Id. McMullen added that he would "look to engage with other potential bidders on a low key and informal basis to determine if there are alternative bidders." \(I d\). He warned: "The list of other potential bidders is short given the commodity, size of transaction and whether [Stillwater's] shareholders would want their paper. The process of determining if there are alternatives will not be a long process." Id. He also told the directors that " \([\mathrm{t}]\) he market appears to be open for people to carry out \(\mathrm{M}+\mathrm{A}\), and asset
values have risen to a level where you want to be a seller rather than a buyer." Id.

Brent Wadman, the Company's General Counsel, became concerned about what took place during the July meeting. He had not been asked to stay for the executive session and was not given access to McMullen's presentation. See JX 526 at '377; Wadman Tr. 657-64. He suspected that McMullen was running a sale process on his own, without Board oversight, and potentially using it as a means of exiting from the Company. Wadman believed that as General Counsel, he should have been involved. After the July meeting, Wadman asked McMullen to include him in the planning process. McMullen rebuffed him, saying that Wadman would be "brought in at a later date" and "offer[ing] no other information." JX 526 at '377; Wadman Tr. 658.

After the July meeting, McMullen told Sibanye to submit its list of due diligence questions so the Company could start pulling the information together. He told Sibanye to direct all inquiries to himself or Bateman. See PTO 『 181; JX 183.

\section*{G. McMullen Remains Committed To Sibanye.}

On August 9, 2016, Stillwater and Sibanye entered into a confidentiality agreement, and Sibanye gained access to the data room. PTO © 183; JX 525 at 26; see also JX 194. On August 10, the Board met again. See JX 193. McMullen testified that at this meeting, the Board instructed him "to go out and ... to sign the NDAs with the likes of Sibanye, and then, also, ... to get as much interest as possible." McMullen Tr. 835.

Rather than working closely with an investment bank to develop a process designed to generate "as much interest as possible," McMullen pressed forward with Sibanye. He interacted with some investment banks, but in a haphazard and unstructured way. For example, back in July 2016, a Macquarie banker had asked McMullen to meet for a market update. See JX 167. On August 10, the same day that the Board met, Macquarie proposed a formal engagement. Five days later, McMullen told Macquarie that it was "a bit early for us I think to be signing anyone up." JX 196.

One week after the Board meeting, on August 18, 2016, McMullen and Bateman met with Bank of America Merrill Lynch ("BAML"), who had arranged the meeting to pitch Stillwater on possible mergers of equals. See JX 199; see also JX 163; JX 190. The BAML presentation materials did not discuss a sale of the Company or mention Sibanye, and

McMullen and Bateman did not use the meeting to identify other possible acquirers. Instead, the BAML bankers got "the sense ... that a sale was a possibility," and so they decided on their own to "pivot[ ] to focus more, as time went on, on that." Hunt Dep. 35.

Acting on their own, the BAML bankers developed a list of fifteen possible acquirers whom they approached independently, pitching a potential acquisition of Stillwater as "a banker idea." JX 206 at '360. The record does not reveal exactly how many companies BAML contacted, what the BAML bankers said, or how seriously the companies took the pitch. Because BAML did not know that Stillwater was in discussions with Sibanye, they reached out to Sibanye as part of these efforts, ironically describing that a deal for Stillwater would be "[a] little pricey." JX 207 at '093. In the end, five companies expressed interest: Sibanye; Hecla; Coeur Mining, Inc.; CITIC Resources Holdings Limited, and Anemka Resources Ltd. See JX 211; JX 213; JX 214; JX 217 at '588 to '591.
*8 Having made these calls on their own, the BAML bankers held a follow-up meeting with McMullen and Bateman on September 7, 2016. The pitch book identified the parties contacted and expressing interest. It then described three types of sale processes Stillwater could pursue: a "proprietary process" with a single bidder, a targeted auction involving a limited number of likely buyers, or a broad auction involving outreach to many potentially interested parties. JX 217 at '603. BAML recommended against the proprietary process because the absence of competition would minimize Stillwater's negotiating leverage. BAML also recommended against a broad auction, given the existence of a "narrow list of most likely buyers." Id. This left a targeted auction as the recommended route.

The pitch book described an illustrative timeline for a sale process. BAML recommended allocating the rest of September 2016 to contact potential buyers. During October and early November, the Company would enter into confidentiality agreements, respond to diligence requests, and then receive and evaluate initial indications of interest. From mid-November through early January 2017, the Company would host site visits, provide additional diligence, and then solicit and receive final bids. JX 217 at ' 605.

Nothing formal came out of the September 7 meeting. McMullen and Bateman did not instruct BAML to proceed, nor did they take BAML's recommendation to the Board.

Instead, McMullen and Bateman asked BAML and Vujcic, the investment banker who had been with Jefferies and was now working on his own, to arrange meetings with potential suitors at an industry conference during the week of September 20, 2016. BAML arranged a meeting with Coeur, and McMullen arranged a meeting with Hecla. See JX 220 at '609; JX 222; JX 224; PTO 『 190-91. Vujcic set up meetings with Kinross Gold Corporation and Gold Fields Limited, neither of whom had expressed interest. During each meeting, McMullen conducted what he called a "soft sound" regarding potential interest in buying the Company. PTO § 192; see id. |TIT 193-97.

On the last night of the conference, McMullen had dinner with Froneman. McMullen told him that he "remain[ed] committed" to a deal with Sibanye and that "no one else is in the data room," but cautioned that he was "being flooded by investment banks" pitching ideas for deals with gold-mining companies. JX 231 at '711.

After the conference, BAML sent McMullen "a fairly detailed timeline" for a more compressed sale process. JX 225 at ' 629. The new timeline contemplated the process starting during the last week of September and ending during the first week of December. See id. at '632. BAML anticipated site visits taking place during November as part of the due diligence phase, but McMullen told BAML that the site visits needed to take place earlier in the process before parties sent their initial indications of interest: "Unless people get to site, they can't appreciate the scale of it and will not be putting their best foot forward in the indicative, non binding offers." JX 229 at ' 603. BAML revised the timeline, noting that they were "putting [it] together in a vacuum of info on what's taken place." Id. At this point, BAML had not been retained and did not yet know about Sibanye's bid. They only knew about their own, independent efforts to solicit interest.

\section*{H. The Board Decides Not To Form A Special Committee.}

In anticipation of a board meeting on October 3, 2016, Wadman circulated a "list of potential buyers" to the directors. JX 234. The list identified eighteen companies and the status of Stillwater's discussions with each. According to the list, Sibanye had completed its first phase of diligence and was working with Citigroup to secure financing. Hecla and Coeur had expressed interest, entered into non-disclosure agreements ("NDAs"), and scheduled site visits. Northern Star was listed as "interested but very foucssed [sic] on a gold deal." Id. at '630. Six other companies were described
as "[p]otentially interested" or as having "some interest," including Anglo American Platinum Limited ("Amplats"). Id. Six candidates were described as "[u]nlikely" and two as "not interested." Id. The list omitted CITIC and Anemka, even though both had expressed interest when BAML called with its "banker's idea."
*9 The list identified a representative who was responsible for interacting with each company. Evidencing the uncoordinated, unstructured nature of the Company's process, the list identified a hodgepodge of names. Vujcic was the contact for eight companies. BAML was the contact for four companies. Jefferies was the contact for another three. Macquarie was the contact for one company. An executive at New Chris, the company where McMullen served as NonExecutive Chairman and President, was listed as the contact for another company. No one had been formally engaged. Two companies had no contact listed.

During the meeting, McMullen reported on the Company's outreach to the various parties. After his presentation, the directors instructed McMullen to obtain formal proposals from investment banks for a sell-side engagement. The Board also instructed McMullen to create a cash flow model that could be used to value the Company. See JX 246 at '308 to '309.

Ever since the July 2016 meeting, Wadman had been concerned that McMullen was running a sale process to facilitate his exit from the Company. After McMullen rebuffed him, Wadman had shared his concerns privately with Schweitzer and Merrin. See Wadman Tr. 664-65; Schweitzer Tr. 157-58, 194. Neither took action.

During the October meeting, Wadman presented his concerns to the full Board and recommended the formation of a special committee to oversee the sale process. Lucy Stark of Holland \& Hart LLP, the Company's longstanding outside counsel, disagreed and advised the Board that she did not believe any conflict existed that warranted the creation of a special committee. JX 246 at '309; see Schweitzer Tr. 159.

The directors other than McMullen then met in executive session. Schweitzer reported to Wadman that the Board had decided to form a special committee, and Wadman drafted a set of minutes memorializing the decision. See JX 238 at '245; Wadman Dep. 134-35; see also Schweitzer Tr. 205-06. But in the meantime, McMullen learned of the decision from
two other directors．McMullen Tr．745－47．The final minutes described the outcome of the executive session as follows：
－No decision was made to pursue or not pursue a potential strategic transaction at this time．The Board further discussed the potential for a committee and agreed that，should the need arise，the committee would consist of the entire Board with the exception of the CEO．It also discussed timing and the potential engagement of an investment banking firm to assist in the assessment process． JX 246 at＇310．

\section*{I．McMullen Continues To Focus on Sibyane．}

On October 15，2016，almost two weeks after the Board directed McMullen to solicit terms from investment bankers， McMullen finally drafted and sent out an email asking bankers to respond＂by no later than COB Wednesday Oct 19 2016．＂JX 279 at＇867．Other than Macquarie，the record does not reflect what bankers received the email or whom McMullen solicited，but Macquarie，BMO，BAML， and Jefferies submitted proposals．

On October 17，2016，Froneman told McMullen that Sibanye＇s offer of a＂ \(30 \%\) premium to VWAP remained unchanged＂and that Sibanye＇s board of directors unanimously supported the transaction．JX 281 at＇425． McMullen responded that he remained fully supportive of the deal．He also shared that Stillwater did not yet have a banker，telling Froneman that he had started reaching out to investment banks on a no－names basis．Demonstrating his commitment to the deal，McMullen told Froneman that he would be happy to have Stillwater＇s legal advisors start putting together an initial sales agreement．Id．

The Board met again on October 26 and 27，2016．After reviewing the proposals from the investment banks，the Board narrowed the list to BMO and BAML．JX 295 at＇790． Vujcic，whom McMullen regarded as his＂in house banker，＂ summarized the state of the Company＇s outreach．JX 293 at＇521．Compare JX 262 at＇485，with JX 234 at＇630． He reported that third parties exhibited a general＂［1］ack of knowledge around the significant improvement in operations and general performance，＂and he reported that a number of parties were either focused on other deals，not considering M\＆A because of prior bad acquisitions，or not considering PGM companies because of negative associations with risky jurisdictions like South Africa and Russia．JX 293 at＇522．For the first time，the Board authorized management＂to engage in discussions with strategic buyers，financial buyers or any
other party interested in consummating a potential strategic transaction with the［Company］．＂JX 296 at＇791．
＊10 After the meeting，McMullen scheduled a second site visit for Sibanye and discussed the＂timelines to and post announcement＂with Froneman．JX 315 at＇291 to＇292；see PTO 『 214．Sibanye convinced McMullen that they needed to announce the deal by mid－December 2016．See JX 281 at ＇425；JX 282 at＇776；see also PTO 『｜ 241.

\section*{J．BAML Begins An Abbreviated Pre－Signing Market Check．}

On November 7，2016，the Board formally retained BAML． PTO 9\｜216－17；see JX 323 at＇371．The Board also decided to hire＂additional legal counsel with substantial experience in advising Delaware publicly traded companies in respect of potential strategic transactions．＂JX 323 at＇372．Four days later，the Board retained Jones Day．PTO 『｜ 232.

On November 8，2016，Bateman sent BAML a package of information that included Sibanye＇s indication of interest from July，the non－disclosure agreements with Hecla and Coeur，a cash flow model，and instructions for accessing the data room．See JX 325；JX 326；JX 327；JX 328；JX 329．The next day，BAML sent management a slide deck titled＂M\＆A Process Considerations．＂JX 331 at＇277．

BAML understood from management that Sibanye wanted to sign up a deal in December 2016，so BAML proposed to complete its outreach to a list of parties in just two days． That timeframe was drastically shorter than the four weeks that BAML had recommended in September 2016．Anyone who expressed interest would have three weeks to conduct diligence and submit an indication of interest，just half of the six weeks that BAML had recommended in September． At that point，the Board would decide whether to proceed with Sibanye or engage with the other bidders．PTO 『 226； see JX 331 at＇280．Even though McMullen had previously told BAML that it was critical for potential bidders to visit the Company＇s mines before making an initial indication of interest，BAML＇s compressed timeline did not contemplate that step．

BAML＇s presentation identified twenty－eight third parties divided into four categories：

\footnotetext{
－＂Interested Parties＂－Sibanye，Coeur，and Hecla．
}
- "Possibly Interested Parties"-Gold Fields, Independence Group NL, Kinross, MMG Limited, Rio Tinto, and South32 Limited.
- "Additional Parties To Contact"-Alamos Gold Inc., Anemka, CITIC, Fresnillo plc, Goldcorp Inc., IAMGOLD Corporation, Impala Platinum Holdings Limited, New Gold Inc., Northam Platinum Limited, Pan American Silver Corporation, X2 Resources, and Yamana Gold Inc.
- "Not Interested"-Northern Star, Amplats, Eldorado Gold Corporation, Evolution Mining Limited, Newcrest Mining Limited, Newmont Mining Corporation, and OZ Minerals.
JX 331 at '279. Anemka and CITIC were listed as "Additional Parties to Contact," even though they had expressed interest during BAML's earlier independent outreach. OceanaGold Corporation and Boliden AB, whom Vujcic had included in his review of the Company's outreach, were omitted from BAML's list.

BAML's presentation included scripts for its bankers to use when making their calls. For "Possibly Interested Parties," the script stated:
- Announce participants and remind parties of confidentiality;
- BofA Merrill Lynch has been retained by Stillwater Mining Company to explore strategic alternatives;
- We understand you have had some discussions previously with our client;
- We would like to further clarify your potential interest in Stillwater as the process moves forward;
*11 • Do you have any interest to learn more?
- If so, we would suggest you sign an NDA for access to diligence on the company.
PTO ๆ 225 (formatting added); JX 331 at '281. For the "Additional Parties To Contact," the script omitted Stillwater's name and asked generally about interest in the PGM sector.
- Announce participants and remind parties of confidentiality;
- We are calling to gauge your potential interest in a situation in the PGM sector;
- Our client is a leading player and low cost producer of PGMs and substantial organic production growth;
- Do you have any interest to learn more?
- If yes, disclose that our client is Stillwater and suggest they sign an NDA for access to diligence.
PTO 『 224 (formatting added); JX 331 at '281. For Hecla and Coeur, BAML planned to skip the call and send instructions for submitting an indication of interest by November 23. PTO - 1231 ; JX 336; JX 337.

Because of the expedited timeline, BAML decided not to contact companies in the "Not Interested" category, even though many of those companies had said they were not interested when BAML previously called them with "a banker idea." The response could have been different with a formal mandate. BAML's script for "Additional Parties to Contact" was not likely to generate interest because it did not say anything more than "a situation in the PGM sector." Because almost every other PGM company was located in a politically unstable jurisdiction, additional parties were less likely to have interest without a signal that the company involved was Stillwater. And because Stillwater had been advertising its interest in acquisitions, there was no reason for the additional parties to think that the situation involved Stillwater. See JX 124 at ' 074 .

Using its scripts, BAML contacted five of the six possibly interested parties, missing Gold Fields. See JX 351. BAML contacted eight of the twelve additional parties, missing Alamos, Goldcorp, New Gold, and Yamana Gold. See PTO - 230; JX 338; JX 339; JX 340; JX 341; JX 342. BAML contacted Northern Star, even though they were listed as not interested. See JX 351 at '953.

Three of the companies expressed interest: Anemka, Northern Star, and X2. BAML sent a confidentiality agreement and an invitation to submit a bid by November 29 to Anemka and Northern Star. BAML sent only a confidentiality agreement to X2, which quickly retracted its interest. See JX 395 at '412; see also JX 359 at '413.

Sibanye learned about BAML's market check from Bateman. JX 332 at '969. Sibanye perceived that a compressed timeline was its "only real advantage" in the process. Id.

\section*{K．The Abbreviated Pre－Signing Market Check Continues．}

On November 17，2016，the Board met again，with Jones Day attending for the first time．BAML and McMullen updated the Board on the outreach and＂the Board directed management to continue the strategic assessment process．＂\({ }^{8}\) Sibanye had already sent a draft merger agreement to Jones Day．
＊12 On November 18，2016，BAML suggested contacting Norilsk Nickel，a Russian mining company that had owned a majority stake in the Company between 2003 and 2010．JX 367．McMullen decided against it．See McMullen Dep． 476.

On November 20，2016，the CFO of Northern Star informed McMullen that they were not interested in buying Stillwater but remained interested in a merger of equals．Northern Star asked McMullen to send a proposal．PTO 『 242.

On November 22，2016，the CEO of Independence informed McMullen that they were not interested in buying Stillwater but were interested in a merger of equals．PTO व 246. Independence asked to sign a confidentiality agreement and perform diligence，explaining that they had trouble reaching BAML．Independence did not receive a confidentiality agreement until November 25．See JX 403；JX 405.

The Board met again on the afternoon of November 23， 2016．McMullen reported that he had told Sibanye that its July proposal of \(\$ 15.75\) per share was not sufficient． He also reported that Sibanye needed the transaction to be ＂announced by the second week in December＂；otherwise， Sibanye would need to delay the deal until the following year so that it could obtain stockholder approval to raise the capital needed to fund the Merger．JX 395 at＇411． McMullen viewed a December signing as＂ambitious given that ．．．the Company＇s assessment process with other potential parties was ongoing and would need to be concluded prior to proceeding with a transaction with Sibanye．＂Id．

By the time of the board meeting，twenty－four parties had received some type of formal or informal contact from BAML or Stillwater management．Four parties－Sibanye，Hela， Coeur，and Anemka－had signed NDAs and accessed the data room．Four parties－Sibanye，Hela，Coeur，and Northern Star －had conducted site visits．Two parties－Coeur and Anemka －had notified BAML that they would not proceed further． PTO 『 235；JX 393 at＇868．Two other parties－Northern Star
and Independence－had informed Stillwater that they were only interested in a merger of equals．Hecla had reported that it needed to find a partner and had asked Stillwater to extend its bid deadline from November 23 to November 30. PTO 『 247；JX 383．The Board extended Hecla＇s deadline to November 28．JX 395 at＇ 413 ．By comparison，the Board had given Sibanye until November 30 to update its expression of interest from July．See JX 359 at＇414．

After receiving these updates，the Board met in executive session，and the minutes reflected for the first time that McMullen did not participate．See JX 395 at＇413．The Board instructed BAML to evaluate a merger of equals as a potential alternative．Id．When McMullen learned of the decision， he was skeptical，believing that a merger of equals could not compete with＂a circa \(\$ 18 /\) share［ ］all cash offer from S［ibanye］．＂JX 406 at＇ 376 ．He shared his negative opinion with one of the directors，who replied that a merger of equals was actionable and needed to be explored as an alternative to Sibanye．See JX 401.

McMullen and BAML worked together to update the presentation that McMullen had given the Board in January 2016 on a potential merger of equals．See JX 384；JX 396. McMullen ranked the Company＇s options as follows：1） Sibanye＇s acquisition；2）a merger of equals with Northern Star；and 3）do nothing or a merger of equals with Independence．JX 396 at＇707．
＊13 After the board meeting on November 23，2016，BAML followed up with Hecla to solicit a specific indication of interest．See JX 394 at＇ 214 ．Hecla did not respond，and the Company treated Hecla as having dropped out of the process．

On November 29，2016，Northam asked to be included in the process．JX 414．BAML sent Northam a confidentiality agreement and invited them to submit a bid by December 7. PTO 『 258；see JX 423；JX 424．That same day，Independence asked for an extension to the bid deadline since they were still negotiating the confidentiality agreement．JX 411．McMullen decided that meant that Independence was not interested．

\section*{L．Sibanye Revises Its Price．}

As of November 20，2016，Sibanye anticipated borrowing \(\$ 2.5\) billion to complete the Merger．Of this amount，\(\$ 1.98\) billion would be used to pay for the Company＇s stock，with the consideration priced at a \(30 \%\) premium over the Company＇s thirty－day VWAP，just as McMullen and Froneman had agreed in March．See JX 378 at＇979，＇009，＇016，＇017．

The additional \(\$ 500\) million would be used to pay off the Company's debt, fund change-of-control payments for management, and pay transaction fees.

But on November 30, 2016, Sibanye ran into problems. First, Sibanye realized that the Company's stock price had increased to a point where the pricing metric would cause the total purchase price to exceed Sibanye's financing. Using the 30\% premium over the thirty-day VWAP, Sibanye would have to pay approximately \(\$ 18.25\) per share, an amount that would require Sibanye to supplement the transaction financing with cash on hand or from its revolving credit line. See JX 420 at '876.

Second, Sibanye realized that it had calculated the purchase price in its indication of interest using a twenty-day VWAP rather than a thirty-day VWAP. Id. at ' 874 . The Sibanye team recognized that they had agreed in principle to a thirty-day VWAP, but when they sent their initial indication of interest, they used a twenty-day VWAP because the Company's stock had been in a declining trend, so the shorter period resulted in a lower price. Id. at ' 873 .

Citigroup recommended pretending that Sibanye had never agreed to a pricing mechanism and had instead offered a fixed price. Id. The Sibanye team went along and disavowed all of the communications in which they had agreed in principle to a 30\% premium over the thirty-day VWAP. See Stewart Dep. 147-48; PTO बTI 243, 245; JX 397 at '448; JX 378 at '009, '016. Going forward, Sibanye would discuss price based on an indication of interest of \(\$ 15.75\) per share.

\section*{M. Stillwater Negotiates With Sibanye.}

On December 1, 2016, the deal teams from the Company and Sibanye met in New York City. Sibanye proposed to acquire the Company for between \(\$ 17.50\) and \(\$ 17.75\) per share in cash. PTO 『 261.

On December 2, 2016, the Board met in New York City. See JX 432; JX 430. McMullen shared Sibanye's revised offer. The minutes do not reflect any discussion of Sibanye's departure from the prior agreement in principle on a \(30 \%\) premium over the thirty-day VWAP or the fact that the agreed-upon pricing metric would have supported a price around \(\$ 18.25\) per share. Even though BAML had worried about Sibanye using precisely this tactic, and even though McMullen had assured BAML that Sibanye would stick to the agreed-upon pricing metric, see JX 343 at '740 to '741, no one
appears to have mentioned the change to the Board. See JX 432 at '414.
*14 During the meeting, BAML presented its preliminary financial analysis of the Company. Using a discounted cash flow analysis, BAML valued the Company at between \(\$ 10.78\) and \(\$ 14.14\) per share. \(I d\). at '416. That same day, the Company's stock closed at \(\$ 15.17\) per share. PTO Ex. A.

BAML also reviewed potential merger of equals transactions with Northern Star and Independence. JX 432 at '417. According to the minutes, the Board decided not to pursue either transaction because: (i) the lack of synergies; (ii) "the significant disparity in trading multiples"; (iii) "no merger-of-equals or similar transaction appeared to be available to the Company at this time"; (iv) "neither Northern Star nor Independence Mining had signed a confidentiality agreement"; and (v) "a substantial delay in the process to pursue such a possible transaction could result in the loss of a potential transaction with Sibanye." JX 432 at '417; see McMullen Tr. 769. At the time, Northern Star and Independence had both proposed a merger-of-equals transaction and both had signed confidentiality agreements. There was also a meaningful probability that the Sibanye transaction would slip into the following year.

During the meeting, the Board instructed management to seek a higher price from Sibanye. That evening, McMullen and Bateman had dinner with Richard Stewart, Sibanye's Executive Vice President of Business Development. PTO ब 265. After the dinner, Stewart emailed Froneman that "Mick's number is \(18 \$+\) and that he thinks he can get his board across the line on that." JX 434 at ' 426 . Froneman, Stewart, and Citigroup discussed the limits of Sibanye's financing, which would support a bid up to \(\$ 18.20\) per share. A \(30 \%\) premium on the twenty-day VWAP for the Company's common stock was \(\$ 19.20\) per share. Id. The group decided to bid \(\$ 18.00\) per share, observing that "if this is truly not good enough - they will come back but we need to be firm." JX 434 at ' 425.

On December 3, 2016, Stewart called McMullen and offered \(\$ 18\) per share. PTO 『 267. BAML had been expecting \$19 per share. See JX 438.

On the evening of December 3, 2016, Bateman had "a very open discussion" with one of Sibanye's bankers from Citigroup, sharing information about the Board's internal dynamics, the Company's lack of other prospects, and his
preferences for employment. See JX 444. The Citigroup banker reported on the conversation as follows:
- 1. Value. Didn't push back, as knows we're at our limits. Said Mick will recommend our proposal to the Board, [that two directors] are "very commercial". [Schweitzer] is the one most focused on \(30 \%\) premium to 20D VWAP. I reiterated that we've truly been talking about 30D VWAP internally and with [Stillwater], which he seems to understand.
- 3. MOE. He seemed quite dismissive of the MOE candidate, but said certain Board members are keen to not shut it down completely (I suspect more from a litigation perspective).
- 4. Chris' Plans. Said he honestly hasn't given a lot of thought to what's next, and he's generally open minded about it. ... He could be open to staying with [Sibanye], but depends on the vision and the role. He would have no desire to be a divisional CFO, but potentially interested in an Americas Head position. ...
Id. Bateman participated in this discussion one day after Jones Day had advised the Board and senior management about the risk of conflicts during the negotiations. In response, Bateman and other members of management had represented to the Board that they had not had any discussions with Sibanye about their roles. See JX 432 at ' 418.
*15 On December 4, 2016, Stewart called McMullen and told him that \(\$ 18.00\) was Sibanye's best and final offer. PTO - 270. After Bateman's dinner with the Citigroup banker, Sibanye knew it did not have to bid higher.

Later that afternoon, McMullen shared the offer with the Board. Fearing that the timeline might slip into 2017, the directors instructed management "to progress discussions with Sibanye" and to find out whether Northam remained interested. JX 440 at ' 742.

On December 5, 2016, BAML reported that it had not heard anything from Northam. JX 445. That same day, Froneman called McMullen to reiterate that \(\$ 18.00\) per share was the best Sibanye could do given their financing constraints. PTO - 272.

\section*{N. McMullen Demands His Stock Awards.}

On December 7, 2016, McMullen asked Sibanye to "put something into the merger agreement" about his 2017 stock awards. JX 451. According to McMullen, Sibanye had previously agreed to the following terms:
- On Closing of the deal, the value of the awards would be converted to cash based on the metrics of the deal (share price etc) and the amount paid out as per the normal vesting schedule in cash, namely \(1 / 3\) of the RSU value at each of the end of 2017, 2018 and 2019, and all the PSU value is paid out at the end of 2019. If any employee leaves for Good Cause (fired or diminution of job role) then the RSU's accelerate in accordance with our plan docs, but the PSU amount is still paid out at the end of 2019.
\(I d\). McMullen told Sibanye that the Compensation Committee had "decided that the 2015 and 2016 PSU's would vest at \(150 \%\) for each series in the event of an \(\$ 18\) bid." Id.

\section*{O. The Board Approves The Merger.}

On December 8, 2016, the Board met to consider the Merger Agreement and decide whether to proceed with the Merger. McMullen reported that Northam had withdrawn from the process. JX 454 at '744; see JX 459. By this point, BAML had interacted with fourteen parties since being formally retained. Five had signed NDAs and conducted diligence. Only Sibanye had made a bid.

BAML rendered its opinion that Sibanye's offer of \(\$ 18\) per share was fair. The consideration of \(\$ 18\) per share represented a \(21 \%\) premium to the Company's then-current stock price, a \(21 \%\) premium to the 20 -day VWAP, and a \(25 \%\) premium to the 30-day VWAP. JX 453 at ' 260 . In its presentation, BAML valued the Company between \(\$ 10.58\) per share and \(\$ 13.98\) per share using a discounted cash flow analysis. Id. at '279 to '281.

The Merger Agreement contained a no-shop clause with a fiduciary out that permitted the Company to provide information to and negotiate with a third-party bidder if the bidder made an "Acquisition Proposal" that constituted or was reasonably likely to lead to a "Superior Proposal" and the Board concluded that its fiduciary duties required it. See JX 525 Annex A § 6.2.4. The Board had the right to change its recommendation in favor of the Merger if a competing bidder made a superior proposal and the Board concluded that its fiduciary duties required it. The Board did not have the right to terminate the Merger Agreement to pursue the superior proposal. The Company had to proceed through the stockholder meeting and only gained the right to terminate if the stockholders voted down the deal.
*16 If the Company exercised its right to terminate after a negative stockholder vote, then the Company was obligated to pay Sibanye a termination fee of \(\$ 16.5\) million plus reimbursement of Sibanye's expenses up to \(\$ 10\) million, for a total payment of \(\$ 26.5\) million. The total payment represented approximately \(1.2 \%\) of equity value, with the termination-fee portion reflecting \(0.76 \%\) of equity value. The Company had approximately \(\$ 110\) million more cash than debt, resulting in a slightly smaller enterprise value than equity value. The total payment represented approximately \(1.3 \%\) of enterprise value.

The Board adopted the Merger Agreement and resolved to recommend that the Company's stockholders approve it. JX 454 at '746. On December 9, 2016, Sibanye and the Company announced the Merger. Sibanye's stock price dropped \(18 \%\) from \(\$ 8.20\) per share to \(\$ 6.96\) per share.

The last day of unaffected trading in Stillwater's common stock was December 8, 2016. On that date, the Company's shares closed at \(\$ 14.68\), equating to a market capitalization of approximately \(\$ 1.8\) billion. The deal price represented a \(22.6 \%\) premium over the unaffected trading price and a \(24.4 \%\) premium over the 30-day VWAP. During the previous two years, Stillwater's stock price had never traded above \$15.58, a level it reached on August 1, 2016.

\section*{P. Vujcic Gets Paid.}

After the Merger was signed, McMullen sent Vujcic a retroactive consulting agreement to compensate him for assisting with the Merger. Vujcic had two comments. First, he wanted confirmation that he would "not be named in the proxy." JX 474 at '101. Second, he was disappointed with his compensation, stating:
- I'm a little perplexed as to why you are being so aggressive on the comp, especially when you are exposed to a potentially large claim from Jefferies and when I feel I have been pretty fair all along in (a) not locking you in earlier (trusted your guidance on compensation in July) and (b) in making every effort leading up to the board meetings in late October to give you the comfort to reiterate that Sibanye were the only show in town.
Id. at '100.

The petitioners argue that Vujcic's statement that he made "every effort ... to give you comfort to reiterate that Sibanye were the only show in town" shows that McMullen and Vujcic had been trying to eliminate the competition for

Sibanye. That is a conspiratorial reading, rather than a credible reading. Vujcic was attempting to justify receiving greater compensation by pointing to his efforts to solicit other potential bidders. He showed that Sibanye was "the only show in town" by engaging in outreach and demonstrating that no one else wanted to bid. The record does not support an inference that McMullen and Vujcic deceived the Board. See also McMullen Dep. 442-46.

McMullen and Vujcic agreed on a fixed fee of \$20,000 per month beginning on October 24, 2016, plus a discretionary bonus of \(\$ 100,000\). JX 477 . Vujcic's name and compensation arrangement did not appear in the proxy statement. See JX 525.

\section*{Q. Wadman's Noisy Withdrawal}

In February 2017, McMullen and Bateman negotiated the terms of their post-closing employment with Sibanye. As part of those discussions, Sibanye agreed to treat the Merger as triggering McMullen and Bateman's change-of-control payments, without the need for a second trigger such as termination or a resignation for "Good Reason." None of the Company's other employees received this special treatment. For the other employees, the Merger was only the first trigger, and no change-in-control benefits would be paid absent a second trigger.

When McMullen reported on this agreement to the Board during a meeting on February 23, 2017, Wadman objected. He had been concerned since July 2016 that McMullen and Bateman had pursued a sale of the Company in their own interest and had used the deal to advantage themselves. He regarded their special deal on change-in-control benefits as "clearly self-dealing." JX 526 at '376. The Board did not address Wadman's concerns during the meeting.
*17 One month later, Wadman resigned. In his resignation letter, Wadman restated his concerns about how the deal process unfolded. He noted that after the board meeting on February 23, 2017, McMullen and Bateman "removed [me] from all legal conversations and decision-making" and "prohibited me from doing my job." Id. at '377 to '378. Quoting his employment agreement, Wadman resigned for "Good Reason" based on a "material diminution" to his "nature of responsibilities, or authority." Id.

Over the next several days, the Company's counsel negotiated a settlement with Wadman. On March 30, 2017, the Company released a Form 8-K, which stated:

On March 29, 2017, Brent R. Wadman, our Vice President, Legal Affairs \& Corporate Secretary, terminated employment. In connection therewith, we entered into an agreement with Mr. Wadman with respect to his separation pursuant to which we will pay him up to approximately \(\$ 1.49\) million. This amount includes the settlement of Mr. Wadman's outstanding equity awards, which will continue to vest in accordance with their terms, including in connection with the previously announced merger with Sibanye Gold Limited.
JX 527. The Form 8-K did not mention Wadman's letter or the reasons for his resignation.

\section*{R. Stockholder Approval And Closing}

During Stillwater's annual meeting on April 26, 2017, the stockholders approved the Merger Agreement. Under Delaware law, a merger requires the approval of holders of a majority of the outstanding shares, making a non-vote the equivalent of a "no" vote. Because stockholders can vote no by not voting, the percentage of the outstanding shares is the appropriate metric for evaluating the level of stockholder support for a merger. The Company had \(121,389,213\) shares outstanding. Holders of \(91,012,990\) shares voted in favor of the Merger, representing \(75 \%\) of the issued and outstanding equity. Holders of \(103,088,167\) shares were present at the meeting in person or by proxy, so the same number of affirmative votes results in a misleadingly higher approval percentage of \(88 \%\). See JX 549 at 1.

The Merger closed on May 4, 2017. Between signing and closing, the spot price of palladium increased by \(9.2 \%\). The spot price of a weighted basket of Stillwater's products increased by \(5.9 \%\).

\section*{S. Post-Closing Developments}

On July 1, 2017, Sibanye entered into employment agreements with Bateman and McMullen. Bateman agreed to serve as Executive Vice President-US Region, reporting directly to Froneman. Bateman waived his change-of-control benefits in return for a higher base salary and additional incentive compensation. See JX 585.

McMullen agreed to serve as a Technical Advisor to Sibanye. His employment agreement permitted him "to perform the functions of that role while residing in the Turks and Caicos." JX 586 at '041. Like Bateman, McMullen waived his change-
of-control benefits in return for an annual salary of \$712,000 plus incentive compensation. See id.

In November 2017, Sibanye issued a Competent Person's Report that valued the Company's operating mines at \(\$ 2.7\) billion as of July 31, 2017. This valuation was \(23 \%\) greater than the total consideration that Sibanye paid for the Company at closing, just three months before the valuation date for the report. PTO 『 102; JX 615 at 205.

\section*{T. This Appraisal Proceeding}

Holders of \(5,804,523\) shares of the Company eschewed the consideration offered in the Merger and pursued appraisal. In August 2018, the holders of 384,000 shares settled their claims. The remaining petitioners litigated their claims through trial.

\section*{II. LEGAL ANALYSIS}
*18 "An appraisal proceeding is a limited legislative remedy intended to provide shareholders dissenting from a merger on grounds of inadequacy of the offering price with a judicial determination of the intrinsic worth (fair value) of their shareholdings." Cede \& Co. v. Technicolor, Inc. (Technicolor I), 542 A.2d 1182, 1186 (Del. 1988). Section 262(h) of the Delaware General Corporation Law states that
the Court shall determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation, together with interest, if any, to be paid upon the amount determined to be the fair value. In determining such fair value, the Court shall take into account all relevant factors.
8 Del. C. § 262(h). The statute thus places the obligation to determine the fair value of the shares squarely on the court. Gonsalves v. Straight Arrow Publ'rs, Inc., 701 A.2d 357, 361 (Del. 1997).

Because of the statutory mandate, the allocation of the burden of proof in an appraisal proceeding differs from a traditional liability proceeding. "In a statutory appraisal proceeding, both sides have the burden of proving their respective valuation positions ...." M.G. Bancorp., Inc. v. Le Beau, 737 A.2d 513, 520 (Del. 1999). "No presumption, favorable or unfavorable, attaches to either side's valuation ...." Pinson v. CampbellTaggart, Inc., 1989 WL 17438, at *6 (Del. Ch. Feb. 28, 1989). "Each party also bears the burden of proving the constituent
elements of its valuation position ..., including the propriety of a particular method, modification, discount, or premium." Jesse A. Finkelstein \& John D. Hendershot, Appraisal Rights in Mergers and Consolidations, Corp. Prac. Series (BNA) No. 38-5th, at A-90 (2010 \& 2017 Supp.) [hereinafter Appraisal Rights].

As in other civil cases, the standard of proof in an appraisal proceeding is a preponderance of the evidence. M.G. Bancorp., 737 A. 2 d at 520 . A party is not required to prove its valuation conclusion, the related valuation inputs, or its underlying factual contentions by clear and convincing evidence or to exacting certainty. See Triton Constr. Co. v. E. Shore Elec. Servs., Inc., 2009 WL 1387115, at *6 (Del. Ch. May 18, 2009), aff'd, 2010 WL 376924 (Del. Jan. 14, 2010) (ORDER). "Proof by a preponderance of the evidence means proof that something is more likely than not. It means that certain evidence, when compared to the evidence opposed to it, has the more convincing force and makes you believe that something is more likely true than not." Agilent Techs., Inc. v. Kirkland, 2010 WL 610725, at * 13 (Del. Ch. Feb. 18, 2010) (internal quotation marks omitted).
"In discharging its statutory mandate, the Court of Chancery has discretion to select one of the parties' valuation models as its general framework or to fashion its own." M.G. Bancorp., 737 A.2d at \(525-26\). " \([\mathrm{I}] \mathrm{t}\) is entirely proper for the Court of Chancery to adopt any one expert's model, methodology, and mathematical calculations, in toto, if that valuation is supported by credible evidence and withstands a critical judicial analysis on the record." Id. at 526. Or the court "may evaluate the valuation opinions submitted by the parties, select the most representative analysis, and then make appropriate adjustments to the resulting valuation." Appraisal Rights, supra, at A-31 (collecting cases). The court may also "make its own independent valuation calculation by ... adapting or blending the factual assumptions of the parties' experts." M.G. Bancorp., 737 A. 2 d at 524 . "If neither party satisfies its burden, however, the court must then use its own independent judgment to determine fair value." Gholl v. eMachines, Inc., 2004 WL 2847865, at *5 (Del. Ch. Nov. 24, 2004). But the court must also be cautious when adopting an approach that deviates from the parties' positions. Doing so "late in the proceedings" may "inject[ ] due process and fairness problems" that are "antithetical to the traditional hallmarks of a Court of Chancery appraisal proceeding," because the court's approach will not have been "subjected to the crucible of pretrial discovery, expert depositions, cross-expert rebuttal, expert testimony at trial,
and cross examination at trial." Verition P'rs Master Fund Ltd. v. Aruba Networks, Inc., 210 A.3d 128, 140-41 (Del. 2019).
*19 In Tri-Continental Corporation v. Battye, 74 A.2d 71 (Del. 1950), the Delaware Supreme Court explained in detail the concept of value that the appraisal statute employs:

The basic concept of value under the appraisal statute is that the stockholder is entitled to be paid for that which has been taken from him, viz., his proportionate interest in a going concern. By value of the stockholder's proportionate interest in the corporate enterprise is meant the true or intrinsic value of his stock which has been taken by the merger. In determining what figure represents the true or intrinsic value, \(\ldots\) the courts must take into consideration all factors and elements which reasonably might enter into the fixing of value. Thus, market value, asset value, dividends, earning prospects, the nature of the enterprise and any other facts which were known or which could be ascertained as of the date of the merger and which throw any light on future prospects of the merged corporation are not only pertinent to an inquiry as to the value of the dissenting stockholder's interest, but must be considered .... \({ }^{9}\)
Subsequent Delaware Supreme Court decisions have adhered consistently to this definition of value. \({ }^{10}\) Most recently, the Delaware Supreme Court reiterated that " \([\mathrm{f}]\) air value is ... the value of the company to the stockholder as a going concern," i.e., the stockholder's "proportionate interest in a going concern." Aruba, 210 A.3d at 132-33.

The trial court's "ultimate goal in an appraisal proceeding is to determine the 'fair or intrinsic value' of each share on the closing date of the merger." Dell, Inc. v. Magnetar Global Event Driven Master Fund Ltd., 177 A.3d 1, 20 (Del. 2017) (quoting Cavalier Oil, 564 A.2d at 1142-43). To accomplish this task, "the court should first envisage the entire premerger company as a 'going concern,' as a standalone entity, and assess its value as such." Id. (quoting Cavalier Oil, 564 A. 2 d at 1144). When doing so, the corporation "must be valued as a going concern based upon the 'operative reality' of the company as of the time of the merger," taking into account its particular market position in light of future prospects. M.G. Bancorp., 737 A.2d at 525 (quoting Cede \& Co. v. Technicolor, Inc. (Technicolor IV), 684 A.2d 289, 298 (Del. 1996)); accord Dell, 177 A.3d at 20. The concept of the corporation's "operative reality" is important because " \([\mathrm{t}]\) he underlying assumption in an appraisal valuation is that the dissenting shareholders would be willing to maintain their investment position had the merger not occurred."

Technicolor IV, 684 A.2d at 298. Consequently, the trial court must assess "the value of the company ... as a going concern, rather than its value to a third party as an acquisition." M.P.M. Enters., Inc. v. Gilbert, 731 A.2d 790, 795 (Del. 1999).
*20 "The time for determining the value of a dissenter's shares is the point just before the merger transaction 'on the date of the merger.' "Appraisal Rights, supra, at A-33 (quoting Technicolor I, 542 A.2d at 1187). Put differently, the valuation date is the date on which the merger closes. Technicolor IV, 684 A. 2 d at 298; accord M.G. Bancorp., 737 A. 2 d at 525 . If the value of the corporation changes between the signing of the merger agreement and the closing, then the fair value determination must be measured by the "operative reality" of the corporation at the effective time of the merger. See Technicolor IV, 684 A.2d at 298.

The statutory obligation to make a single determination of a corporation's value introduces an impression of false precision into appraisal jurisprudence.
[I]t is one of the conceits of our law that we purport to declare something as elusive as the fair value of an entity on a given date .... [V]aluation decisions are impossible to make with anything approaching complete confidence. Valuing an entity is a difficult intellectual exercise, especially when business and financial experts are able to organize data in support of wildly divergent valuations for the same entity. For a judge who is not an expert in corporate finance, one can do little more than try to detect gross distortions in the experts' opinions. This effort should, therefore, not be understood, as a matter of intellectual honesty, as resulting in the fair value of a corporation on a given date. The value of a corporation is not a point on a line, but a range of reasonable values, and the judge's task is to assign one particular value within this range as the most reasonable value in light of all the relevant evidence and based on considerations of fairness. \({ }^{11}\)
As the Delaware Supreme Court recently explained, "fair value is just that, 'fair.' It does not mean the highest possible price that a company might have sold for had Warren Buffet negotiated for it on his best day and the Lenape who sold Manhattan on their worst." DFC Glob. Corp. v. Muirfield Value P'rs, 172 A.3d 346, 370 (Del. 2017).

Because the determination of fair value follows a litigated proceeding, the issues that the court considers and the
outcome it reaches depend in large part on the arguments advanced and the evidence presented.

An argument may carry the day in a particular case if counsel advance it skillfully and present persuasive evidence to support it. The same argument may not prevail in another case if the proponents fail to generate a similarly persuasive level of probative evidence or if the opponents respond effectively.
Merion Capital L.P. v. Lender Processing Servs., L.P., 2016 WL 7324170, at *16 (Del. Ch. Dec. 16, 2016). Likewise, the approach that an expert espouses may have met "the approval of this court on prior occasions," but may be rejected in a later case if not presented persuasively or if "the relevant professional community has mined additional data and pondered the reliability of past practice and come, by a healthy weight of reasoned opinion, to believe that a different practice should become the norm ...." Glob. GT LP v. Golden Telecom, Inc. (Golden Telecom Trial), 993 A.2d 497, 517 (Del. Ch.), aff'd, 11 A.3d 214 (Del. 2010).

\section*{A. The Deal Price}
*21 Sibanye contends that the deal price of \(\$ 18.00\) per share is a persuasive indicator of fair value if adjusted downward to eliminate elements of value arising from the Merger. The petitioners argue that the deal price should receive no weight. As the proponent of using the deal price, Sibanye bore the burden of establishing its persuasiveness. Sibanye also bore the burden of proving its downward adjustment.

\section*{1. The Standard For Evaluating A Sale Process}

There is no presumption that the deal price reflects fair value. Dell, 177 A.3d at \(21 ; D F C, 172\) A.3d at 366-67. Relying on the statutory requirement that the Court of Chancery must consider "all relevant factors" when determining fair value, the Delaware Supreme Court has rejected "requests for the adoption of a presumption that the deal price reflects fair value if certain preconditions are met, such as when the merger is the product of arm's-length negotiation and a robust, non-conflicted market check, and where bidders had full information and few, if any, barriers to bid for the deal." Dell, 177 A.3d at 21. Yet the Delaware Supreme Court has also cautioned that its
refusal to craft a statutory presumption in favor of the deal price when certain conditions pertain does not in any way signal our ignorance to the economic reality that the sale
value resulting from a robust market check will often be the most reliable evidence of fair value, and that secondguessing the value arrived upon by the collective views of many sophisticated parties with a real stake in the matter is hazardous.
\(D F C, 172\) A.3d at 366. The Delaware Supreme Court has likewise cautioned that "we have little quibble with the economic argument that the price of a merger that results from a robust market check, against the back drop of a rich information base and a welcoming environment for potential buyers, is probative of the company's fair value." Id. Based on the facts presented in DFC and Dell, the Delaware Supreme Court endorsed using the deal price as a persuasive indicator of fair value in those cases. Based on the facts presented in Aruba, the Delaware Supreme Court used a deal-price-lesssynergies metric to make its own fair value determination.

As a general matter, the persuasiveness of the deal price depends on the reliability of the sale process that generated it. When assessing whether a sale process results in fair value, the issue "is not whether a negotiator has extracted the highest possible bid." Dell, 177 A.3d at 33. "[T]the purpose of an appraisal is ... to make sure that [the petitioners] receive fair compensation for their shares in the sense that it reflects what they deserve to receive based on what would fairly be given to them in an arm's-length transaction." \(D F C, 172\) A.3d at \(370-\) 71. "[T]he key inquiry is whether the dissenters got fair value and were not exploited." Dell, 177 A.3d at 33.

Relying on the Delaware Supreme Court's decision in \(D F C\), the petitioners assert that the deal price "deserves weight only if the merger is the product of a 'robust market search' and an arm's-length third party transaction with 'no hint of selfinterest that compromised the market check.' " Dkt. 210 at 36 [hereinafter PTOB] (quoting \(D F C, 172\) A.3d at 349). That is not what \(D F C\) held.

The petitioners have accurately quoted phrases from the decision in \(D F C\), but when the Delaware Supreme Court made those observations, it was describing the trial court's findings regarding the sale process that took place in that case. The Delaware Supreme Court then determined that given those attributes, "the best evidence of fair value was the deal price." \(D F C, 172\) A.3d at 349 . The high court's comments in DFC explained why the particular sale process in that case was so good as to make the deal price "the best evidence of fair value." The decision did not identify minimum characteristics that a sale process must have before a trial court can give it weight. The decision also did not
address what makes a sale process sufficiently bad that a trial court cannot give it weight. Technically, the decision did not even delineate when a sale process would be sufficiently good that a trial court should regard it as "the best evidence of fair value." The Delaware Supreme Court could have believed the sale process in \(D F C\) warranted that level of consideration without excluding the possibility that a not-asgood sale process could warrant the same treatment.
*22 The same is true for the Delaware Supreme Court's comments about the sale process in Dell. There, the Delaware Supreme Court described the sale process as having featured "fair play, low barriers to entry, outreach to all logical buyers, and the chance for any topping bidder to have the support of Mr. Dell's own votes ...." Dell, 177 A.3d at 35. Based on its view of the sale process, the Delaware Supreme Court suggested that "the deal price deserved heavy, if not dispositive weight." Dell, 177 A.3d at 23. After describing the sale process in greater detail, the Delaware Supreme Court observed, "Overall, the weight of evidence shows that Dell's deal price has heavy, if not overriding, probative value." Id. at 30 . As in \(D F C\), the Delaware Supreme Court was explaining why it regarded a particular sale process as so good that it deserved "heavy, if not dispositive weight." The Delaware Supreme Court was not identifying the minimum requirements for a sale process to generate reliable information about fair value, nor was it enumerating qualities which, if absent, would render the outcome of a sale process so unreliable as to provide no insight into fair value.

The Delaware Supreme Court's decision in Aruba likewise did not address the minimum requirements for a sale process to generate reliable information about fair value. There, the trial court found the sale process to be sufficiently reliable to use the deal price as a valuation indicator, but declined to give it weight. The Delaware Supreme Court accepted that the sale process was sufficiently reliable and used the deal price as the exclusive basis for its own fair value determination. As with Dell and DFC, the Aruba decision did not have to address when a sale process was sufficiently bad that a trial court should decline to rely on the deal price.

The decisions in DFC, Dell, and Aruba are highly informative because they analyze fact patterns in which the Delaware Supreme Court viewed the sale processes as sufficiently reliable to use the deal price as either (i) the exclusive basis for its own fair value determination (Aruba), (ii) as a valuation indicator that "deserved heavy, if not dispositive weight" (Dell), or (iii) as a valuation indicator that provided
"the best evidence of fair value" (DFC). But Aruba, Dell, and \(D F C\) do not establish legal requirements for a sale process. Whether a sale process is sufficiently good that the deal price should be regarded as persuasive evidence of fair value, or whether a sale process is sufficiently bad that the deal price should not be regarded as persuasive evidence of fair value are invariably fact-specific questions, and the answers depend on the arguments made and the evidence presented in a given case.

\section*{2. Objective Indicia Of Reliability}

In the recent appraisal decisions that have examined the reliability of a sale process, the Delaware Supreme Court has cited certain "objective indicia" that "suggest[ ] that the deal price was a fair price." Dell, 177 A.3d at 28 ; accord \(D F C, 172\) A. 3 d at 376 . The presence of objective indicia do not establish a presumption in favor of the deal price. The indicia are a starting point for analysis, not the end point, and in each of its recent appraisal decisions, the Delaware Supreme Court has determined that a combination of the objective indicia and other evidence outweighed the shortcomings in the sale processes that the petitioners had identified (Aruba) or which the trial court had regarded as undermining the persuasiveness of the deal price (Dell and DFC).

First, the Merger was an arm's-length transaction with a third party. See DFC, 172 A.3d at 349 (citing fact that "the company was purchased by a third party in an arm's length sale" as factor supporting fairness of deal price). It was not a transaction involving a controlling stockholder. See Dell, 177 A.3d at 30 (citing fact that "this was not a buyout led by a controlling stockholder" as a factor supporting fairness of deal price). Sibanye was an unaffiliated acquirer with no prior ownership interest in Stillwater.

Second, the Board did not labor under any conflicts of interest. Six of the Board's seven members were disinterested, outside directors, and they had the statutory authority under the Delaware General Corporation Law to say "no" to any merger. See 8 Del. C. § 251(b) (requiring board adoption and recommendation of a merger agreement); Dell, 177 A.3d at 28 (citing fact that special committee was "composed of independent, experienced directors and armed with the power to say 'no'" as factor supporting fairness of deal price). Stillwater's stockholders were widely dispersed, and the petitioners have not identified divergent interests among them. Cf. id. at 11 (citing the fact that "any outside bidder
who persuaded stockholders that its bid was better would have access to Mr. Dell's votes" as a factor supporting fairness of deal price).
*23 Third, Sibanye conducted due diligence and received confidential information about Stillwater's value. See Aruba, 210 A.3d at 137 (emphasizing that buyer armed with "material nonpublic information about the seller is in a strong position (and is uniquely incentivized) to properly value the seller"). Like the acquirer in Aruba, Sibanye "had signed a confidentiality agreement, done exclusive due diligence, gotten access to material nonpublic information," and had a "sharp[ ] incentive to engage in price discovery ... because it was seeking to acquire all shares." Id. at 140.

Fourth, Stillwater negotiated with Sibanye and extracted multiple price increases. See id. at 139 (citing "back and forth over price"); Dell, 177 A.3d at 28 (citing fact that special committee "persuaded Silver Lake to raise its bid six times"). In July 2016, when Sibanye indicated interest in a transaction at \(\$ 15.75\) per share, Stillwater did not rush into a deal. In December 2016, when Sibanye raised its indication of interest to a range of \(\$ 17.50\) to \(\$ 17.75\) per share, Stillwater again did not proceed. With the Board's backing, McMullen demanded a higher price. When Sibanye offered \(\$ 18.00\) per share, the Board did not immediately accept. Only after Sibanye twice stated that \(\$ 18.00\) per share was its best and final offer did the Board accept that price.

Most importantly, no bidders emerged during the post-signing phase, which is a factor that the Delaware Supreme Court has stressed when evaluating a sale process. \({ }^{12}\) The Merger Agreement did not contain any exceptional deal protection features, and the total amounts due via the termination fee and expense reimbursement provision were comparatively low, representing approximately \(1.2 \%\) of equity value. Excluding the expense reimbursement, the termination fee reflected only \(0.76 \%\) of equity value. The absence of a topping bid was thus highly significant.

As noted, these are fewer objective indicia of fairness than the Delaware Supreme Court identified when reviewing the sale processes in DFC, Dell, or Aruba, and the presence of these factors does not establish a presumption in favor of the deal price. Nevertheless, the objective indicia that were present provide a cogent foundation for relying on the deal price as a persuasive indicator of fair value, subject to further review of the evidence.

\section*{3. The Challenges To The Pre-Signing Phase}

The petitioners have advanced a multitude of reasons why they believe the deal price for Stillwater does not provide a persuasive indicator of fair value. The bulk of their objections concern the pre-signing phase.

As a threshold matter, the petitioners argue generally that a reliable sale process requires some degree of pre-signing outreach, citing a comment from the Union Illinois decision in which this court used a deal-price-less-synergies metric to value a privately held company after concluding that the company was "marketed in an effective manner." Union Ill., 847 A.2d at 350 . The petitioners also cite a statement from the \(A O L\) decision to the effect that a sale process will provide persuasive evidence of statutory fair value when "(i) information was sufficiently disseminated to potential bidders, so that (ii) an informed sale could take place, (iii) without undue impediments imposed by the deal structure itself." In re Appraisal of AOL Inc., 2018 WL 1037450, *8 (Del. Ch. Feb. 23, 2018). Neither decision established a rule that pre-signing outreach is invariably required before the deal price can serve as persuasive evidence of fair value. At least for a widely held, publicly traded company, a sale process could justify both sets of observations through the public announcement of a transaction and a sufficiently open post-signing market check.
*24 The petitioners' myriad arguments about the pre-signing process in this case raise a fundamental question: Would the deal price provide persuasive evidence of fair value if Stillwater had pursued a single-bidder strategy in which it only interacted with Sibanye before signing the Merger Agreement, recognizing that the Merger Agreement was sufficiently open to permit a meaningful post-signing market check? If the deal price would have provided persuasive evidence of fair value under those circumstances, then the additional efforts that Stillwater made before signing, even if disorganized and flawed, should not change the outcome. It is conceivable that a pre-signing process could involve features that undermined the effectiveness of a post-signing market check, such as never-waived standstill agreements containing don't-ask-don't-waive provisions, but that was not the case here. At least on the facts presented, Stillwater's efforts were additive, not subtractive. They might not have added much, but they did not detract from what Stillwater could have achieved through a single-bidder process focused on Sibanye followed by a post-signing market check.

\section*{a. The Possibility Of A Single-Bidder Strategy}

Although the Delaware Supreme Court has not had the opportunity to consider a single-bidder strategy for purposes of determining the persuasiveness of a deal-price metric in an appraisal proceeding, extant precedent suggests that if Stillwater had pursued a single-bidder strategy in which it only interacted with Sibanye before signing the Merger Agreement, then the deal price would provide persuasive evidence of fair value because the Merger Agreement was sufficiently open to permit a meaningful post-signing market check. The reasoning that leads to this endpoint starts not with the recent triumvirate of appraisal cases, but rather with an important Delaware Supreme Court decision that restated the high court's enhanced scrutiny jurisprudence for purposes of applying that standard of review in a breach of fiduciary duty case. C \& J Energy Servs., Inc. v. City of Miami Gen. Empls.' \& Sanitation Empls.' Ret. Tr., 107 A.3d 1049 (Del. 2014). The Delaware Supreme Court's enhanced scrutiny jurisprudence becomes pertinent to appraisal proceedings because, as commentators have perceived, the deal price will provide persuasive evidence of fair value in an appraisal proceeding involving a publicly traded firm if the sale process would satisfy enhanced scrutiny in a breach of fiduciary duty case. \({ }^{13}\)

In \(C \& J\) Energy, the Delaware Supreme Court held that plaintiffs who challenged a transaction involving only a passive, post-signing market check had not shown a reasonable likelihood that the director defendants had breached their fiduciary duties under the enhanced scrutiny standard of review. The transaction in \(C \& J\) Energy was a stock-for-stock merger between C \& J Energy Services, Inc. and a subsidiary of Nabors Industries Ltd. Although C \& J Energy was nominally the acquirer, it would emerge from the transaction with a controlling stockholder, and the Delaware Supreme Court therefore examined whether the directors had fulfilled their situationally specific duty to seek the best transaction reasonably available. See C \& J Energy, 107 A.3d at 1067.
*25 The merger in C \& J Energy resulted from a CEO-driven process. Joshua Comstock, the founder, chairman, and CEO of C \& J Energy, spearheaded the discussions. Talks between Comstock and the CEO of Nabors started in January 2014, and although Comstock discussed the deal with some of C \& J Energy's directors, he did not receive formal board approval
to negotiate until April. Later in the process, he made a revised offer to Nabors without board approval. The plaintiffs argued that Comstock acted without authority and misled the board about key issues. The Delaware Supreme Court found "at least some support for the plaintiffs' contention that Comstock at times proceeded on an 'ask for forgiveness rather than permission' basis." Id. at 1059 .

There was evidence in \(C \& J\) Energy that Comstock had personal reasons to favor a deal with Nabors. The Nabors CEO "assured Comstock throughout the process that he would be aggressive in protecting Comstock's financial interests if a deal was consummated." Id. at 1064. After the key terms of the transaction had been negotiated, but before it was formally approved, Comstock asked for a side letter "affirming that C \& J's management would run the surviving entity and endorsing a generous compensation package." Id. When the Nabors CEO balked, Comstock threatened to not sign or announce the deal. The Nabors CEO gave in, and the deal was announced as planned. Id. at 1064-65. In addition, there was evidence that C \& J Energy's primary financial advisor was less than optimally effective and seemed to be advocating for the deal rather than advocating for C \& J Energy. See id. at 1056. The banker also had divergent interests because of its role as a financing source for the deal. \(I d\). at 1057. There were thus reasons to think that the two principal negotiators for C \& J-its CEO and its bankerhad personal reasons to favor a transaction with Nabors and to push for that outcome.

The merger agreement in \(C\) \& \(J\) Energy included a no-shop clause subject to a fiduciary out and a termination fee equal to \(2.27 \%\) of the deal value. \(I d\). at 1063 . The period between the announcement of the deal on June 25, 2014, and the trial court's issuance of the injunction on November 25, 2014, lasted 153 days. No competing bidder emerged during that period.

On these facts, the Delaware Supreme Court found no grounds for a potential breach of duty, explaining that "[w]hen a board exercises its judgment in good faith, tests the transaction through a viable passive market check, and gives its stockholders a fully informed, uncoerced opportunity to vote to accept the deal, we cannot conclude that the board likely violated its Revlon duties." Id. at 1053. Elaborating, the senior tribunal explained that a board may pursue a single transaction partner, "so long as the transaction is subject to an effective market check under circumstances in which any bidder interested in paying more has a reasonable
opportunity to do so." Id. at 1067. The high court emphasized that "[s]uch a market check does not have to involve an active solicitation, so long as interested bidders have a fair opportunity to present a higher-value alternative, and the board has the flexibility to eschew the original transaction and accept the higher-value deal." Id. at 1067-68. The transaction in \(C \& J\) Energy satisfied this test. Describing the suite of deal protections, the Delaware Supreme Court observed that "a potential competing bidder faced only modest deal protection barriers." Id. at 1052. Later, the court reiterated that "there were no material barriers that would have prevented a rival bidder from making a superior offer." Id. at 1070; accord id. ("But in this case, there was no barrier to the emergence of another bidder and more than adequate time for such a bidder to emerge."). The Delaware Supreme Court also cited with approval precedents in which a sell-side board had engaged exclusively with a single buyer, had not conducted a pre-signing market check, then agreed to a merger agreement containing a no-shop clause, a matching right, and a termination fee, and the resulting combination was found sufficient to permit an effective postsigning market check that satisfied the directors' duties under enhanced scrutiny. \({ }^{14}\)
*26 Procedurally, the Delaware Supreme Court's decision in \(C\) \& \(J\) Energy vacated an injunction that the trial court had entered in advance of the stockholder vote. In holding that the trial court had issued the injunction improvidently, the high court noted that " \([t]\) he ability of the stockholders themselves to freely accept or reject the board's preferred course of action is also of great importance in this context." \(I d\). at 1068. The role of the vote, however, should not detract from the high court's observations about the adequacy of the single-bidder process. Underscoring that point, the Delaware Supreme Court cited the trial court's apparent belief "that Revlon required C \& J's board to conduct a pre-signing active solicitation process in order to satisfy its contextual fiduciary duties," then explicitly rejected that understanding of the enhanced scrutiny standard. Id. at 1068. As a result, the Delaware Supreme Court's decision in \(C \& J\) Energy has implications that go beyond the injunction context.

One area where its implications subsequently became manifest was in a post-closing liability action where plaintiffs sought to recover from an alleged aider-and-abettor under a quasi-appraisal theory of damages. See In re PLX Tech. Inc. S'holders Litig., — A.3d - , 2019 WL 2144476 (Del. May 16, 2019) (TABLE). The \(P L X\) litigation challenged a merger agreement in which the acquirer (Avago) purchased
the target (PLX) for cash. As in \(C \& J\) Energy, the sale process was not pristine. The trial court found that a key director and the company's investment banker had divergent interests that caused them to favor a sale over having PLX remain independent, that Avago tipped the director and the banker about the timing and pricing of a deal, that the director and the banker failed to disclose the tip to the board while using the information to help them position PLX to be sold, and that the proxy statement failed to disclose these issues. See In re PLX Tech. Inc. S'holders Litig. (PLX Trial), 2018 WL 5018535, at *32-35, *44-47 (Del. Ch. Oct. 16, 2018) (subsequent history omitted). Based on these findings, the trial court found a predicate breach of fiduciary duty under the enhanced scrutiny standard. The trial court also found that the sole remaining defendant-an activist stockholder affiliated with the key director-had participated knowingly in the breach. See id. at *48-50.

The plaintiffs' claim foundered, however, at the damages stage. The plaintiffs sought to recover compensatory damages on behalf of a class of stockholders based on the theory that PLX should have remained independent rather than being sold. Under this theory, the plaintiffs sought "out-of-pocket (i.e., compensatory) money damages equal to the 'fair' or 'intrinsic' value of their stock at the time of the merger, less the price per share that they actually received," with "[t]he 'fair' or 'intrinsic' value of the shares ... determined using the same methodologies employed in an appraisal." Id. at *50 (internal quotation marks omitted) (collecting cases). The plaintiffs' expert used a DCF methodology to value PLX at \(\$ 9.86\) per share, well above the deal price of \(\$ 6.50\) per share. See id. at *51.

Although PLX's pre-signing process was marred by breaches of fiduciary duty resulting from Avago's tip to the key director and the company's banker, the trial court found that the sale process as a whole was sufficiently reliable to warrant rejecting the plaintiffs' valuation. The trial court explained that "[m]ore important than the pre-signing process was the post-signing market check." Id. at *55. After discussing the outcome in \(C\) \& \(J\) Energy, the trial court reasoned that "the structure of the Merger Agreement satisfied the Delaware Supreme Court's standard for a passive, post-signing market check." Id. The merger agreement (i) contained a no-shop with a fiduciary subject an unlimited match right that gave Avago four days to match the first superior proposal and two days to match any subsequent increase, and (ii) required PLX to pay Avago a termination fee of \(\$ 10.85\) million, representing \(3.5 \%\) of equity value ( \(\$ 309\) million) and \(3.7 \%\) of enterprise
value (\$293 million). See id. at *26, *44. Avago launched its first step-tender offer on July 8, 2014. No competing bidder intervened, and the merger closed thirty-five days later on August 12. Id. at *27. This time period compared favorably with other passive, post-signing market checks that Delaware decisions had approved. \({ }^{15}\)
*27 On appeal, the Delaware Supreme Court affirmed the judgment based solely on the trial court's damages ruling and without reaching or expressing a view on any of the other issues raised by the case. See PLX, 2019 WL 2144476, at *1. For present purposes, the damages issue is the important one, because the trial court had determined that the suite of defensive measures in the merger agreement, together with the absence of a topping bid, provided a more reliable indication of value than the plaintiffs' discounted cash flow model. See PLX Trial, 2018 WL 5018535, at *44, *54-56. Notably for present purposes, although the burden of proof rested solely with the plaintiffs, the trial court in PLX made its determination using the same valuation standard that would apply in an appraisal proceeding. Id. at *50.

To reiterate, in its appraisal jurisprudence, the Delaware Supreme Court has not yet been asked to rule on the reliability of a sale process involving a single-bidder strategy, no presigning outreach, and a passive post-signing market check. The closest precedent is Aruba, where the dynamics of the sale during the pre-closing phase resembled a single-bidder strategy, although the company's banker did engage in some minimal outreach.

The pre-signing phase of the sale process in Aruba had two stages. See Verition P'rs Master Fund Ltd. v. Aruba Networks, Inc. (Aruba Trial), 2018 WL 922139, at *7-8 (Del. Ch. Feb. 15,2018 ) (subsequent history omitted). The first stage began in late August 2014, when HP approached Aruba about a deal. Aruba hired an investment banker (Qatalyst), who identified thirteen potential partners and approached five of them. For reasons having "nothing to do with price," no one was interested. \(I d\). at *10. Aruba and HP entered into an NDA that restricted HP from speaking with Aruba management about post-transaction employment, and HP began conducting due diligence. Id. at \(* 11\). Despite the restriction in the NDA, HP asked Aruba's CEO, Dominic Orr, if he would take on a key role with the combined entity. Orr replied that he had no objection. Id.

The parties seemed to be making progress towards a deal, but the HP board of directors balked at making a bid
without further analysis, recalling the fallout from a disastrous acquisition in 2011. In November 2014, Aruba terminated discussions, bringing the first stage of the pre-signing process to a close. Id. at *12.

For its part, HP continued to evaluate an acquisition of Aruba. In December 2014, HP tapped Barclays Capital Inc. as its financial advisor. That firm had worked for Aruba and had been trying to secure the sell-side mandate. \(I d\). at *13. On January 21, 2015, HP's CEO met with Orr for dinner. During the meeting, when HP's CEO proposed resuming merger talks, Orr responded with enthusiasm and suggested trying to announce a deal by early March. But HP's CEO also told Orr that because Qatalyst had represented the seller in HP's disastrous acquisition from 2011, HP would not proceed if Aruba used Qatalyst. Id. at *14.

The Aruba board decided to move forward with the deal and informed Qatalyst about HP's ukase. Aruba was obligated to pay Qatalyst a fee in the event of a successful transaction, so it kept Qatalyst on as a behind-the-scenes advisor. From then on, Qatalyst's primary goal was to repair its relationship with HP, and Qatalyst regarded a successful sale of Aruba to HP as a key step in the right direction. Aruba also needed a new HP-facing banker. It hired Evercore, a firm that was trying to establish a presence in Silicon Valley. During the sale process, Evercore likewise sought to please HP, viewing HP as a major source of future business. See id. at *9, *15-16, *19, *21.

The ensuing negotiations proceeded quickly. HP had anticipated making an opening bid of \(\$ 24\) per share, but after Orr's enthusiastic response, HP opened at \(\$ 23.25\) per share. Id. at *16-17. Qatalyst reached out to a sixth potential strategic partner, but it was not interested. Id. at *17. The Aruba board decided to counter at \(\$ 29\) per share. Evercore conveyed the number to Barclays, but when Barclays dismissed it, Evercore emphasized Aruba's desire to announce a deal quickly. Id. at *17-18. On February 10, 2015, twenty days after HP resumed discussions with Orr, the Aruba board agreed to a price of \(\$ 24.67\) per share. Id. at * 19 . The parties negotiated a merger agreement, and on March 1, 2015, the Aruba board approved it.
*28 The post-signing phase was uneventful. On March 2, 2015, Aruba and HP announced the merger. The merger agreement (i) contained a no-shop clause subject to a fiduciary out, (ii) conditioned the out for an unsolicited superior proposal on compliance with an unlimited match right that gave HP five days to match the first superior
proposal and two days to match any subsequent increase, and (iii) required Aruba to pay HP a termination fee of \(\$ 90\) million, representing \(3 \%\) of Aruba's equity value. No competing bidder emerged, and on May 1, 2015, Aruba's stockholders approved the merger. Id. at *21-22.

Although the sale process in Aruba had flaws, the trial court found that it was sufficiently reliable to make the deal price a persuasive indicator of fair value. Overall, the trial court viewed the HP-Aruba merger as "a run-of-the-mill, third party-deal," where "[n]othing about it appear[ed] exploitive." \(I d\). at *38. The petitioners argued that the deal price resulted from a closed-off sale process in which HP had not faced a meaningful threat of competition. Id. at *39. The trial court rejected that contention, noting that the petitioners failed "to point to a likely bidder and make a persuasive showing that increased competition would have led to a better result." Id. (citing Dell, 177 A.3d at 28-29, 32, 34).

The petitioners also argued that the negotiators' incentives undermined the pre-signing phase, citing the desire of Aruba's bankers to cater to HP and the more subtly divergent interests of Aruba's CEO. The trial court found that although the petitioners proved that Aruba could have negotiated more aggressively, they did not prove that "the bankers, [the CEO], the Aruba Board, and the stockholders who approved the transaction all accepted a deal price that left a portion of Aruba's fundamental value on the table." Id. at *44.

In other portions of the decision, the trial court found that Aruba's unaffected trading price was a reliable indicator of fair value and rejected the parties' DCF valuations as unreliable. These holdings left the trial court with two reliable valuation indicators: the unaffected trading price and the deal price. The trial court determined that the unaffected trading price was the better measure of the fair value of Aruba's shares. See id. at *53-55.

On appeal, the Delaware Supreme Court reversed. The high court found that the trial court had incorrectly relied on the unaffected trading price, but it accepted the trial court's finding that the deal price was a reliable indicator of fair value. Aruba, 210 A.3d at 141-42.

Addressing the petitioners' claim that the pre-signing phase of the sale process was insufficient to establish a competitive bidding dynamic, the Delaware Supreme Court emphasized that
when there is an open opportunity for many buyers to buy and only a few bid (or even just one bids), that does not necessarily mean that there is a failure of competition; it may just mean that the target's value is not sufficiently enticing to buyers to engender a bidding war above the winning price.
Id. at 136. Applying this principle to the facts in Aruba, the high court explained:

Aruba approached other logical strategic buyers prior to signing the deal with HP , and none of those potential buyers were interested. Then, after signing and the announcement of the deal, still no other buyer emerged even though the merger agreement allowed for superior bids. It cannot be that an open chance for buyers to bid signals a market failure simply because buyers do not believe the asset on sale is sufficiently valuable for them to engage in a bidding contest against each other. If that were the jurisprudential conclusion, then the judiciary would itself infuse assets with extra value by virtue of the fact that no actual market participants saw enough value to pay a higher price. That sort of alchemy has no rational basis in economics.
*29 Id. On the facts presented, the level of competition in Aruba was sufficient to support the reliability of the deal price.

The Delaware Supreme Court also explained that the negotiations between Aruba and HP over price had important implications for the reliability of the deal price:
[A] buyer in possession of material nonpublic information about the seller is in a strong position (and is uniquely incentivized) to properly value the seller when agreeing to buy the company at a particular deal price, and that view of value should be given considerable weight by the Court of Chancery absent deficiencies in the deal process.
Id. at 137. The high court noted that HP and Aruba went "back and forth over price" and that HP had "access to nonpublic information to supplement its consideration of the public information available to stock market buyers ...." Id. at 139. The Delaware Supreme Court elsewhere emphasized that "HP had signed a confidentiality agreement, done exclusive due diligence, gotten access to material nonpublic information," and "had a much sharper incentive to engage in price discovery than an ordinary trader because it was seeking to acquire all shares." Id. at 140 . On the facts presented, the extent of the negotiations in Aruba was sufficient to support the reliability of the deal price.

The high court ultimately concluded that Aruba's sale process was sufficiently reliable to render the deal price the best measure of fair value. The Delaware Supreme Court declined to use the trial court's estimate of the deal price minus synergies, instead adopting HP's contemporaneous synergies estimate and remanding with instructions that "final judgment be entered for the petitioners in the amount of \(\$ 19.10\) per share plus any interest to which the petitioners are entitled." \(I d\). at 142.

The Aruba decision technically did not involve a singlebidder process, but the dynamics closely resembled one. Although Qatalyst reached out to five bidders at the beginning of the first phase of the pre-signing process, none of those parties had any interest in Aruba. After this development, both Qatalyst and Aruba's CEO concluded that Aruba's "only (but strong) weapon is to say we go alone." Aruba Trial, 2018 WL 922139, at *10. Later, Aruba's CEO had a "pretty open dialogue" with HP during which he informed HP that Aruba was "not running a sales process" and did not attempt to posture about pitting HP against anyone else. Id. at *40 (internal quotation marks omitted). During the second phase of the pre-signing process, after HP re-engaged, HP understood that Aruba was not pursuing other options. Id. at *41. The negotiations unfolded in a manner consistent with a single-bidder dynamic. See id.

In concluding that the deal price was a reliable indicator of fair value, the trial court considered a number of factors, including that "HP and Aruba agreed to terms for the merger agreement that the petitioners have not meaningfully challenged." Id. at *38. After describing the suite of defensive measures in the merger agreement, the trial court noted that " \([t]\) his combination of defensive provisions would not have supported a claim for breach of fiduciary duty." Id. The petitioners had argued about a lack of competition during the pre-signing phase, and the trial court had discussed that factor at length, ultimately rejecting the objection. See id. at *39-41. On appeal, the Delaware Supreme Court emphasized that a failure of competition does not result simply because a limited number of parties bid, "or even just one bids." Aruba, 210 A.3d at 136. The Delaware Supreme Court also emphasized the reliability of the price that resulted from the "back and forth" between Aruba and HP. Id. at 139.
*30 Given these precedents, I cannot agree that a reliable sale process must invariably involve some level of active outreach during the pre-signing phase. By making this observation, I am not suggesting that the Delaware Supreme

Court has ever endorsed a single-bidder process for purposes of appraisal, nor that any of the precedents that this decision has discussed are squarely on point. Nor am I claiming to have any privileged insight into how the Delaware Supreme Court would or should evaluate the persuasiveness of a single-bidder strategy on the facts of any particular case. It nevertheless seems to me that if the proponent of a singlebidder process could show that the merger agreement allowed for a passive post-signing market check in line with what decisions have held is sufficient to satisfy enhanced scrutiny, and if there were no other factors that undermined the sale process, then the deal price would provide persuasive evidence of fair value.

This decision has already found that the sale process exhibited objective indicia of reliability. As noted and as discussed in greater detail below, the petitioners have not raised a meaningful challenge to the post-signing market check. The operative question for purposes of examining the pre-signing phase is not whether Stillwater's process fell short of what would have been optimal, but rather whether the pre-signing process sufficiently impaired the sale process as a whole, including the post-signing phase, so as to prevent the deal price from serving as a persuasive indicator of fair value.

\section*{b. The Relative Involvement Of McMullen And The Board In The Pre-Signing Phase}

In their initial challenge to the pre-signing phase, the petitioners attack McMullen's role in the pre-signing process. They contend that McMullen acted improperly by pursuing Sibanye's indication of interest without authorization from the Board and contrary to its direction to pursue acquisitions or a merger of equals. See PTOB at 37. They also criticize McMullen for starting to engage with Sibanye in January 2016, but failing to inform the Board until after receiving an expression of interest from Sibanye in July. During this period, McMullen met with Sibanye's senior executives at least twice to discuss a sale of Stillwater, reached an understanding with Sibanye's CEO on pricing the deal at a \(30 \%\) premium over Stillwater's thirty-day VWAP, and arranged a multi-day site visit for Sibanye personnel.

The petitioners also contend that after the Board learned of Sibanye's expression of interest in July 2016, the Board did not exercise meaningful oversight over the sale process. They accurately observe that the record lacks any evidence of meaningful engagement by the Board until October 3,

2016, two months before signing, when the Board received a report on the Company's outreach to various parties, instructed McMullen to obtain formal proposals for retaining an investment bank, instructed McMullen to create a cash flow model that could be used to value the Company, and decided not to form a special committee. See JX 246.

The petitioners correctly contend that these facts could have contributed to findings that McMullen and the directors breached their duty of care under the enhanced scrutiny standard of review. \({ }^{16}\) But the enhanced scrutiny analysis would not have ended there. The \(C\) \& \(J\) Energy decision likewise involved a CEO that began deal discussions without formal board authorization, engaged for months without formally reporting to the board, made a revised offer without board approval, and generally proceeded by asking for forgiveness rather than by getting permission. See \(C\) \& \(J\) Energy, 107 A.3d at 1059. After considering the totality of the sale process, the Delaware Supreme Court concluded that the facts would not support a fiduciary breach, placing heavy reliance on the directors' decision to "test[ ] the transaction through a viable passive market check ...." Id. at 1053.
*31 The outcome in PLX likewise shows that the existence of problems during the pre-signing process does not necessarily undermine the reliability of the deal price. The trial court in PLX found that the directors had breached their fiduciary duties under the enhanced scrutiny standard because of an undisclosed tip from the eventual buyer to a key director and the company's banker. PLX Trial, 2018 WL 5018535, at *15-16, *32-35, *44-47. Despite this defect, the sale process provided reliable evidence of the company's value based primarily on the adequacy of the company's postsigning market check. See id. at *55 ("More important than the pre-signing process was the post-signing market check."). Applying the same damages standard that would govern in an appraisal proceeding, the trial court found that the sale process was sufficiently reliable to render the plaintiffs' damages calculation unpersuasive, resulting in a failure of proof. \(I d\). at *50-55. The Delaware Supreme Court affirmed the judgment based solely on the trial court's damages ruling. See PLX, 2019 WL 2144476, at *1.

McMullen's unsupervised activities and the Board's failure to engage in meaningful oversight until October 2016 represent flaws in the pre-signing process. They are factors that must be taken into account, but they do not inherently disqualify the sale process from generating reliable evidence of fair value.

In this case, McMullen's unsupervised activities did not comprise the entirety of the Company's sale process. Ultimately, after the Board engaged, Stillwater formally retained BAML, conducted an expedited pre-signing canvass, and entered into the Merger Agreement. The terms of the Merger Agreement facilitated a meaningful post-signing market check, and no other buyer emerged even though the merger agreement allowed for superior bids. As in Dell, the petitioners did not point to any evidence that another party was interested in proceeding and would have bid if McMullen and the Board had acted differently. See Dell, 177 A. 3d at 29.

\section*{c. McMullen's Personal Interest In A Transaction}

In their next challenge to the pre-signing process, the petitioners contend that McMullen undermined the sale process because he planned to leave Stillwater, and "he wanted the benefit of a strategic transaction (i) to boost the Company's stock price prior to his departure and (ii) to maximize his payout upon stepping down as CEO." PTOB at 39. The petitioners correctly observe that by leaving after a transaction, McMullen would be entitled to unvested equity awards and accelerated retention payments that he could not obtain if he left without a transaction.

The petitioners also point out that McMullen devoted considerable time to developing and selling his personal investments outside of Stillwater. They cite McMullen's contemporaneous service in 2016 as CEO of Nevada Iron and as President of New Chris, even though McMullen's employment agreement with Stillwater limited McMullen's outside activities to board service and otherwise required him to devote his full efforts to Stillwater. See JX 114. During 2016, McMullen raised money for the successor company to New Chris and sold Nevada Iron. See McMullen Tr. 709, 86364. The petitioners cite McMullen's activities (i) to show that McMullen was trying to maximize his personal wealth before retiring to Turks \& Caicos, (ii) to suggest that McMullen might have done a better job with the sale process if he had not been pursuing his other investments, and (iii) as further evidence that the Board failed to provide active oversight.

Sibanye takes the extreme position that "there is no evidence to suggest that Mr. McMullen was motivated by anything other than maximizing stockholder value." Dkt. 211 at 59. Sibanye points to McMullen's decision in March 2016 to extend his employment by two years, claiming simplistically that if "McMullen's intention was truly to do a quick sale and
leave the company, there would have been no need for him to renew his employment agreement since his prior contract did not expire until December 31, 2016 and contained essentially the same termination benefits as the new contract." Id. at 60 . To the contrary, McMullen understood that completing a sale to Sibanye or another buyer might extend past December 31. Extending his employment agreement was the smart play for McMullen personally. Although Sibanye has not argued this point, it was also likely good for Stillwater, because it avoided the prospect of a near-term issue with CEO succession.
*32 Sibanye has no meaningful response to McMullen's pursuit of his other activities. Sibanye says they were permitted, but the petitioners have correctly described McMullen's employment agreement as only authorizing board service, not his more active roles. Sibanye also contends that his outside interests were disclosed in public filings, but that is not the point. The issue is whether the interests undermined the sale process, not whether they were disclosed. On this final point, Sibanye asserts that the petitioners "have pointed to no evidence that these outside interests presented an actual conflict, that these interests competed with or were adverse to Stillwater's interests, or that they otherwise interfered with Mr. McMullen's ability to carry out his duties as CEO of Stillwater." Id.

Sibanye has focused on the critical question: whether McMullen's personal interests undermined the sale process. Senior executives almost invariably have divergent incentives during a sale process, often because of change-in-control agreements, and equally often because the transaction will have implications for their personal employment situations.

Two Delaware appraisal precedents provide insight into factual scenarios involving divergent incentives of this type. The Aruba decision involved a sale process where the top executive and the company's investment bankers had conflicting incentives. The CEO wanted to retire, but he cared deeply about the company and its employees. When HP proposed to acquire Aruba and keep the CEO on to integrate the companies, it offered the perfect path "to an honorable personal and professional exit." Aruba Trial, 2018 WL 922139, at *5; see id. at *43 (analyzing CEO's conflict). Aruba's investment bankers both wanted to curry favor with HP. Qatalyst was desperate to save its Silicon Valley franchise, and Evercore was auditioning for future business. \(I d\). at *43. The trial court acknowledged the petitioners' concerns, but found that the conflicting incentives did not undermine the deal price as an indicator of fair value:

The evidence does not convince me that the bankers, Orr, the Aruba Board, and the stockholders who approved the transaction all accepted a deal price that left a portion of Aruba's fundamental value on the table. Perhaps different negotiators could have extracted a greater share of the synergies from HP in the form of a higher deal price. Maybe if Orr had been less eager, or if Qatalyst had not been relegated to the back room, then HP would have opened at \(\$ 24\) per share. Perhaps with a brash Qatalyst banker leading the negotiations, unhampered by the Autonomy incident, Aruba might have negotiated more effectively and gotten HP above \(\$ 25\) per share. An outcome along these lines would have resulted in HP sharing a greater portion of the anticipated synergies with Aruba's stockholders. It would not have changed Aruba's standalone value. Hence, it would not have affected Aruba's fair value for purposes of an appraisal.
\(I d\). at *44. On appeal, the Delaware Supreme Court accepted the reliability of the deal price as a valuation indicator and used it when making its own fair value determination. Aruba, 210 A.3d at 141-42.

The Dell decision also involved a conflict: Mr. Dell, the company's founder and top executive, was a buy-side participant in the management buyout and would emerge from the transaction with a controlling stake. A special committee negotiated the terms of the transaction with the financial sponsor backing the deal, but the trial court regarded Mr . Dell's involvement on the buy side as a factor cutting against the reliability of the deal price. For example, the trial court found that Mr. Dell gave the buyout group a leg-up given his relationships within the company and his knowledge of its business, and the trial court accepted the testimony of a saleprocess expert that if bidders competed to pay more than what Mr. Dell's group would pay, then they risked overpaying and suffering the winner's curse. In re Appraisal of Dell Inc. (Dell Trial), 2016 WL 3186538, at *42-43 (Del. Ch. May 31, 2016) (subsequent history omitted). Equally important, Mr. Dell was a net purchaser of shares in the buyout, so any increase in the deal price cost him money.
*33 If Mr. Dell kept the size of his investment constant as the deal value increased, then Silver Lake would have to pay more and would demand a greater ownership stake in the post-transaction entity. [The petitioners' sale-process expert] showed that if Mr. Dell wanted to maintain 75\% ownership of the post-transaction entity, then he would have to contribute an additional \(\$ 250\) million for each \(\$ 1\) increase in the deal price. If Mr. Dell did not contribute
any additional equity and relied on Silver Lake to fund the increase, then he would lose control of the post-transaction entity at a deal price above \(\$ 15.73\) per share. Because Mr. Dell was a net buyer, any party considering an overbid would understand that a higher price would not be well received by the most important person at the Company.
Id. at *43 (footnote omitted). The trial court found that for purposes of price discovery in an appraisal case, Mr. Dell's involvement and incentives undermined the reliability of the sale process and the persuasiveness of the deal price. \(I d\). at *44.

On appeal, the Delaware Supreme Court held that Mr. Dell's involvement in the buyout group had not undermined the sale process. See Dell, 177 A.3d at 32-33. The high court noted that "the [trial court] did not identify any possible bidders that were actually deterred because of Mr. Dell's status." Id. at 34. The Delaware Supreme Court also emphasized Mr. Dell's willingness to work with rival bidders during due diligence and the absence of evidence that Mr. Dell would have left the company if a rival bidder prevailed. Id. at 32-34. The high court concluded that the lack of a higher bid did not call into question the sale process, because " \([i] f\) a deal price is at a level where the next upward move by a topping bidder has a material risk of being a self-destructive curse, that suggests the price is already at a level that is fair." \(I d\). at 33 .

The facts of \(C \& J\) Energy are also relevant. The merger in \(C\) \& \(J\) Energy resulted from a CEO-driven process, and there was evidence that the sell-side CEO had personal reasons to favor the deal because he would be in charge of the combined company and receive significantly greater compensation. See \(C\) \& \(J\) Energy, 107 A.3d at 1064. After the key terms of the transaction had been negotiated, but before it was formally approved, the CEO went so far as to demand a side letter "affirming that C \& J's management would run the surviving entity and endorsing a generous compensation package." Id. When the acquirer balked, the CEO threatened to terminate the discussions. He got his way, and the deal was announced as planned. Id. at 1065. There was also evidence that C \& J Energy's primary financial advisor acted as a banker for the deal rather than for C \& J Energy, and the banker had divergent interests as a source of financing for the deal. See id. at 1056-57. The Delaware Supreme Court held that the facts could not support a reasonable probability that the defendants had failed to obtain the best transaction reasonably available, relying heavily on the post-signing market check. See id. at 1053, 1067-68.

In this case, McMullen's personal interests are not as serious as the buy-side conflict that failed to undermine the sale process in Dell. They more closely resembled the divergent sell-side interests that affected the negotiators in Aruba and \(C \& J\) Energy. Like the CEOs and bankers in those cases, McMullen's change-of-control benefits gave him a personal reason to secure a deal under circumstances where a disinterested participant might prefer a standalone option. McMullen appears to have been motivated by his desire to maximize his personal wealth and retire to a greater degree than the negotiators in Aruba. Stillwater's general counsel (Wadman) recognized McMullen's conflict, voiced his concerns to the Board, and ultimately resigned when McMullen secured more favorable treatment in the Merger for his own change-in-control benefits and for his CFO. See JX 526. As a result, McMullen's motivations most closely resembled the incentives of the CEO in \(C \& J\) Energy, who held up the entire transaction until the acquirer agreed to a side letter "affirming that C \& J's management would run the surviving entity and endorsing a generous compensation package." C \& J Energy, 107 A.3d at 1064. The Delaware Supreme Court held that the facts in \(C\) \& \(J\) Energy did not provide reasonable grounds for a breach of fiduciary duty under the enhanced scrutiny standard of review.
*34 At the same time, McMullen had ample reason to pursue the best deal possible for Stillwater. From his testimony and demeanor, McMullen seems like someone who took considerable satisfaction in his ability to achieve outcomes. As a matter of professional pride, he wanted to sell Stillwater for the best price he could. He also had economic reasons to extract a higher price. As disclosed in the proxy statement for the Merger, McMullen held 131,248 common shares, 155,891 restricted stock unit awards, and 222,556 performance based restricted stock unit awards, for a total of 509,695 common shares or share equivalents. See JX 525 at 78. At the deal price, these common shares and share equivalents had a value of \(\$ 9,174,510\). To state the obvious, every \(\$ 1\) increment in the deal price generated another half-a-million dollars for McMullen.

When directors or their affiliates own "material" amounts of common stock, it aligns their interests with other stockholders by giving them a "motivation to seek the highest price" and the "personal incentive as stockholders to think about the trade off between selling now and the risks of not doing so."
Chen v. Howard-Anderson, 87 A.3d 648, 670-71 (Del. Ch. 2014) (quoting Dollar Thrifty, 14 A.3d at 600); see also Lender Processing, 2016 WL 7324170, at *22 (discussing
incentive to maximize deal price where target managers were net sellers and would not retain jobs post-merger).

Consistent with his personal desire to obtain a good price for Stillwater, McMullen negotiated with Sibanye to increase the consideration. When Sibanye indicated interest at \(\$ 15.75\) per share in July 2016, McMullen did not rush to sign up a deal. When Sibanye raised indication of interest to \(\$ 17.50\) to \(\$ 17.75\) per share in December 2016, McMullen and the Board demanded a higher price. Even after Sibanye offered \(\$ 18.00\) per share, McMullen wanted more. Only after Sibanye twice said that \(\$ 18.00\) per share was its best and final offer did McMullen and the Board finally agree to transact.

As with McMullen's initiation of the sale process and the Board's failure to engage in meaningful oversight of his activities until October 2016, McMullen's personal motivation to exit from Stillwater and maximize his personal wealth represents a flaw in the sale process. Although Wadman's noisy withdrawal highlighted these issues, McMullen's personal interests as a whole do not appear materially different from interests that have not been sufficient in other cases to undermine the reliability of sale processes. On balance, the evidence does not convince me that McMullen's divergent interests led either McMullen or the Board to accept a deal price that left a portion of Stillwater's fundamental value on the table, particularly in light of the effective post-signing market check that Stillwater conducted.

\section*{d. The "Soft-Sell"}

Turning to the details of the pre-signing phase, the petitioners contend that Stillwater's pre-signing market check fell short because until BAML was formally retained, McMullen relied on a "soft sell" approach that provided potential buyers with insufficient information to conclude that Stillwater was for sale and used unauthorized agents who could not formally engage on Stillwater's behalf. See PTOB at 44-45.

The evidence demonstrates that on the facts of this case, the "soft sell" strategy was not an effective means of generating interest in the Company. At the same time, the "soft sell" effort did not do anything to harm either BAML's abbreviated pre-signing process or the post-signing market check. The soft sell strategy was not a positive feature of the sale process, and it does not help support the persuasiveness of the deal price, but it does not detract from it either.

\section*{e. BAML's Compressed Pre-Signing Market Check}

In a further criticism of the pre-signing phase, the petitioners contend that after BAML was formally retained, BAML did not have time to run an organized and meaningful process. The petitioners complain that BAML hastily called a list of potentially interested parties, who then were given only days after signing an NDA to prepare an expression of interest. Contrary to McMullen's strong recommendation in September 2016 that any bidder visit the Company's mines before providing an expression of interest, the November timeline did not accommodate site visits until after a party made an expression of interest. See JX 229 at '603. At trial, the petitioners introduced testimony from a sale process expert who questioned the effectiveness of BAML's abbreviated presigning process. See Gray Tr. 567-68. Even Sibanye's sale process expert questioned the effectiveness of the type of condensed outreach that BAML attempted to conduct. See Stowell Tr. 947-48.
*35 The petitioners have made a persuasive case that the BAML's pre-signing process was suboptimal, but they have not shown that it was worthless, nor that it was harmful. To the contrary, when evaluated against Delaware precedents, the pre-signing efforts, while rushed, were a positive factor for the sale process.

BAML received its formal mandate on November 7, 2016. The next day, BAML received a package of information from the Company, including Sibanye's indication of interest from July, the non-disclosure agreements with Hecla and Coeur, a cash flow model, and instructions for accessing the data room. BAML understood that Sibanye was pushing to close a deal by December and swung into action to do what it could. By November 9, BAML had generated a plan for an expedited market check that contemplated reaching out to twenty parties over the next two days, working with parties who expressed interest for the rest of the month, and then receiving expressions of interest at the end of the month. At that point, the Board would decide how to proceed.

In accordance with its expedited plan, BAML engaged directly with Sibanye, Coeur, and Hecla. BAML contacted five of the six parties that BAML regarded as "Possibly Interested," missing one. BAML contacted eight of the twelve additional parties that BAML had identified, missing
four. BAML also contacted Northern Star, even though they originally had been listed as not interested.

Ten of the fourteen parties had no interest, but four engaged. One quickly withdrew, two ultimately expressed interest in a merger of equals, and the fourth dropped out by late November. Coeur also dropped out, and Hecla indicated that it needed to find a partner to pursue a transaction. Although the Board extended Hecla's deadline for submitting an indication of interest, and BAML followed up with Hecla, Hecla did not respond. At the end of November, an additional partyNortham—asked to be included in the Company's process.

During a meeting on December 2, 2016, the Board considered the status of the Company's process. At that point, the Board's only definitive expression of interest was a proposal that Sibanye had submitted on December 1 to acquire the Company for between \(\$ 17.50\) and \(\$ 17.75\) per share in cash. The Board decided to focus on Sibanye, which later raised its offer to \(\$ 18\) per share. Northam decided to withdraw, and on December 8, the Board approved the Merger Agreement.

Although compressed and expedited, BAML's outreach resulted in fourteen other parties hearing about Stillwater. In addition to Sibanye, a total of seven parties engaged to some degree. Ultimately, no one other than Sibanye submitted an indication of interest. The plaintiffs have criticized the timing, pacing, and scope of the pre-signing process, but it resulted in BAML contacting the "logical strategic buyers" before Stillwater signed up its deal with Sibanye. Cf. Aruba, 210 A.3d at 136 (observing that "Aruba approached other logical strategic buyers prior to signing the deal with HP, and none of those potential buyers were interested."). The number of meaningful contacts compares favorably with or is similar to the facts in the Delaware Supreme Court precedents. \({ }^{17}\) When considering whether a deal price provides persuasive evidence of fair value, it is pertinent that the parties contacted failed to pursue a merger when they had a free chance to do so. See DFC, 172 A.3d at 376 (citing "failure of other buyers to pursue the company when they had a free chance to do so" as factor supporting fairness of deal price).
*36 On balance, BAML's pre-signing efforts were helpful. At a minimum, the abbreviated process generated incremental interest in Stillwater and gave those parties who engaged a leg up for the post-signing market check. Even the parties who were contacted but did not engage had the benefit of knowing that a transaction potentially was afoot. As with the "soft sell" strategy, there is no evidence that BAML's abbreviated
process did anything to harm the sale process. The bidders who participated in the abbreviated pre-signing phase were free to bid during the post-signing phase. There is no evidence that any were alienated or put off by the Company's presigning efforts.

BAML's abbreviated pre-signing process was not ideal. Nevertheless, contrary to the petitioners' contentions, it was a positive factor for the reliability of the sale process.

\section*{f. The Negotiations With Sibanye}

In their penultimate objection to Stillwater's pre-signing process, the petitioners contend that Sibanye pressured Stillwater to sign a merger agreement before the Company's rising stock price made what Sibanye was willing to pay look inadequate. The evidence demonstrates that early in his discussions with Sibanye, McMullen and Froneman recognized that any transaction would require a premium over Stillwater's trading price and agreed in principle on a \(30 \%\) premium over the thirty-day VWAP. On October 17, 2016, Froneman told McMullen that Sibanye's offer of a " \(30 \%\) premium to VWAP remained unchanged" and that Sibanye's board of directors unanimously supported the transaction. JX 281 at '425. Another Sibanye executive repeated this message on November 22. PTO 『 243.

Sibanye, however, needed to borrow the funds to acquire Stillwater, and by November 30, 2016, Stillwater's share price had recovered to a point where a \(30 \%\) premium over the thirty-day VWAP equaled \(\$ 18.25\) per share. Sibanye could not pay more than \(\$ 18\) per share without supplementing the consideration with cash on hand or a draw from its revolving credit line, which Sibanye did not want to do. Rather than sticking with the concept of a \(30 \%\) premium over a thirty-day VWAP, Sibanye disavowed that concept, instead treating its prior indication of interest from July 2016 as a fixed price of \(\$ 15.75\) per share. On December 1, 2016, Sibanye proposed a transaction in a range of \(\$ 17.50\) to \(\$ 17.75\) per share, below what the \(30 \%\) premium to the thirty-day VWAP would have contemplated.

The petitioners object that rather than breaking off discussions or continuing the sale process, the Board negotiated a price of \(\$ 18.00\) per share, representing the maximum that Sibanye could pay under its financing arrangements. They argue that the highest price a bidder is willing to pay is not the same as fair value. See, e.g., M.P.M. Enters., 731 A. 2 d at

797 (cautioning that the merger price must be supported "by evidence tending to show that it represents the going concern value of the company rather than just the value of the company to one specific buyer"); In re Appraisal of Orchard Enters., Inc., 2012 WL 2923305, at *5 (Del. Ch. July 18, 2012) ("[A]lthough I have little reason to doubt Orchard's assertion that no buyer was willing to pay Dimensional \(\$ 25\) million for the preferred stock and an attractive price for Orchard's common stock in 2009, an appraisal must be focused on Orchard's going concern value.").

The petitioners' objection resembles similar arguments that the Delaware Supreme Court rejected in Dell and DFC. In Dell, the trial court found that the price negotiations during the pre-signing phase were limited by what the financial sponsors could pay based on their leverage-buyout pricing models. The respondent had conceded that the LBO model was not "oriented toward solving for enterprise value," and the special committee's financial advisors had briefed the committee about the LBO model and how financial sponsors would use it. Dell Trial, 2016 WL 3186538, at *29 (internal quotation marks omitted). The committee's financial advisors used a similar model to calculate the maximum prices that a financial sponsor could pay. See id. at *30. The evidence indicated that the financial sponsors bid consistently with the results of an LBO model, and their negotiations with the committee proceeded within that framework. See id. at *3032. In addition to the record evidence, the trial court relied on treatises which explained how the price generated by an LBO model can diverge from fair value. \({ }^{18}\) Based on this evidence, the trial court found that the original merger consideration "was dictated by what a financial sponsor could pay and still generate outsized returns," rather than Dell's value as a going concern. Id. at *32.
*37 Three months later, the trial court in DFC reached a similar conclusion when evaluating the deal price paid by a financial sponsor (Lone Star) to acquire the company (DFC) that was the subject of the appraisal proceeding. Although the trial court regarded the deal price as sufficiently reliable to use as a valuation input, the court expressed concern that "Lone Star's status as a financial sponsor ... focused its attention on achieving a certain internal rate of return and on reaching a deal within its financing constraints, rather than on DFC's fair value." In re Appraisal of DFC Glob. Corp. (DFC Trial), 2016 WL 3753123, at *22 (Del. Ch. July 8, 2016) (subsequent history omitted).

The appeal from the trial-level ruling in DFC reached the Delaware Supreme Court before the appeal in Dell. The Delaware Supreme Court rejected the trial court's finding that the buyer's financial constraints limited the price it could pay and caused the deal price to diverge from fair value, stating:

To be candid, we do not understand the logic of this finding. Any rational purchaser of a business should have a targeted rate of return that justifies the substantial risks and costs of buying a business. That is true for both strategic and financial buyers. It is, of course, natural for all buyers to consider how likely a company's cash flows are to deliver sufficient value to pay back the company's creditors and provide a return on equity that justifies the high costs and risks of an acquisition. But, the fact that a financial buyer may demand a certain rate of return on its investment in exchange for undertaking the risk of an acquisition does not mean that the price it is willing to pay is not a meaningful indication of fair value. That is especially true here, where the financial buyer was subjected to a competitive process of bidding, the company tried but was unable to refinance its public debt in the period leading up to the transaction, and the company had its existing debt placed on negative credit watch within one week of the transaction being announced. The "private equity carve out" that the Court of Chancery seemed to recognize, in which the deal price resulting in a transaction won by a private equity buyer is not a reliable indication of fair value, is not one grounded in economic literature or this record.
DFC, 172 A.3d at 349-50. When the Delaware Supreme Court subsequently ruled on the discussion of the LBO model in the appeal from the trial-level ruling in Dell, the high court relied on its decision in \(D F C\), explaining:
[W]e rejected this view [in \(D F C\) ] and do so again here given we see "no rational connection" between a buyer's status as a financial sponsor and the question of whether the deal price is a fair price. After all, "all disciplined buyers, both strategic and financial, have internal rates of return that they expect in exchange for taking on the large risk of a merger, or for that matter, any sizeable investment of its capital."
Dell, 177 A.3d at 28 (quoting \(D F C, 172\) A.3d at 374-76).

The reasoning that led the Delaware Supreme Court to reject the implications of the LBO model for deal pricing indicates that comparable constraints on a prevailing bidder's ability or willingness to pay-whether resulting from IRR hurdles, a comparatively higher cost of capital, or limits on the availability of financing-should not undermine the deal
price as an indicator of fair value if the sale process was otherwise sufficiently open. Both Dell and DFC suggest that a post-signing market test can be the predominant source of price competition. In Dell, the only participants during the pre-signing phase were the two financial sponsors, whom the committee permitted to participate at any one time and each of whom priced their deals using an LBO model. See Dell Trial, 2016 WL 3186538, at *9-10, *30-31, *37. In DFC, although the company initially engaged in a broad solicitation, the only bidders who engaged and submitted indications of interest during the pre-signing phase were two financial sponsors, one of whom soon dropped out. See DFC Trial, 2016 WL 3753123 , at *4.
*38 On the facts of this case, Sibanye had the ability to pay more. Although it had not secured transactional financing that would have supported a price greater than \(\$ 18.00\) per share, Sibanye could have deployed cash on hand or drawn on its revolving line of credit. As a rational bidder for Stillwater, Sibanye understandably had a targeted rate of return that it needed to satisfy to justify the substantial risks and high costs of the acquisition. That Sibanye did not bid higher does not mean that the price it agreed to pay did not reflect fair value when its bid prevailed. See Aruba, 210 A.3d at 136; Dell, 177 A.3d at 28; \(D F C, 172\) A.3d at 349-50, 374-76.

The negotiations between Stillwater and Sibanye over price, together with Sibanye's refusal to pay more, provides strong evidence of fair value. In Aruba, the Delaware Supreme Court explained that
a buyer in possession of material nonpublic information about the seller is in a strong position (and is uniquely incentivized) to properly value the seller when agreeing to buy the company at a particular deal price, and that view of value should be given considerable weight by the Court of Chancery absent deficiencies in the deal process.
Id. at 137. The high court observed that HP and Aruba went "back and forth over price" and that HP had "access to nonpublic information to supplement its consideration of the public information available to stock market buyers ...." Id. at 139. The Delaware Supreme Court elsewhere emphasized that "HP had signed a confidentiality agreement, done exclusive due diligence, gotten access to material nonpublic information" and "had a much sharper incentive to engage in price discovery than an ordinary trader because it was seeking to acquire all shares." Id. at 140 . Given these facts, the extent of the negotiations in Aruba supported the reliability of the deal price. The same observations apply to Sibanye on the facts of this case. Sibanye entered into an NDA
with Stillwater, conducted extensive due diligence, obtained access to material nonpublic information, and was "in a strong position (and is uniquely incentivized) to properly value the seller when agreeing to buy the company at a particular deal price."

The fact that Stillwater and Sibanye reached agreement at \(\$ 18.00\) per share is entitled to considerable weight. Although the petitioners perceive it to be a weakness of the pre-sale process, the Delaware Supreme Court's precedents indicate that it was a strength.

\section*{4. The Challenges To The Post-Signing Phase}

In contrast to their many objections to the pre-signing phase, the petitioners have relatively few disagreements with the post-signing phase. They advance perfunctory challenges to the terms of the Merger Agreement, claiming that it prevented the stockholders from capturing the value of an increasing palladium price and foreclosed other bids. They also contend that the proxy statement contained disclosure violations.

\section*{a. The Merger Agreement And The Price Of Palladium}

The petitioners observe that the price of palladium increased between signing and closing. They then object that the Merger Agreement "provided no practical way for Stillwater's stockholders to receive that additional value." PTOB at 51. In cursory fashion, they criticize the Board for not asserting the existence of a Company Material Adverse Effect or invoking the fiduciary-out clause. Id. at 52. This objection is not really a criticism of the sale process, but so be it.

The petitioners never engage with the terms of the Merger Agreement and how it uses the concept of a Company Material Adverse Effect. The definition of a Company Material Adverse Effect turns on any "facts, circumstance, condition, event, change, development, occurrence, result, or effect" that is materially adverse to the Company. JX 575, Annex A, at A-3. The arising of a Company Material Adverse Effect does not mean that something good has happened to Stillwater, like an increase in value due to rising commodity prices. It means something very bad has happened to Stillwater. In the Merger Agreement, Stillwater represented that it had not suffered a Company Material Adverse Effect, and the Merger Agreement made the accuracy of this representation a condition to Sibanye's obligation to
close. See id. §§ 4.10.2, 7.2.1. The Merger Agreement also made the absence of a Company Material Adverse Effect a separate condition to Sibanye's obligation to close. See id. § 7.2.3. Stillwater did not obtain the right to declare something akin to a Company Material Beneficial Effect and terminate the Merger Agreement on that basis. The petitioners' criticism that the Board did not declare a Company Material Adverse Effect is a turn down a blind alley.
*39 The petitioners likewise never engage with the terms of the Merger Agreement and the scope of the fiduciary out. The Board had the right to change its recommendation in favor of the Merger based on (i) its receipt of a "Superior Proposal" or (ii) the occurrence of an "Intervening Event." See JX 525, Annex A, § 6.2.4. As permitted by Delaware law, see 8 Del. C. § 146, the Merger Agreement contained a force-the-vote provision that obligated Stillwater to take the Merger to a stockholder vote even if the Board changed its recommendation, but the stockholders would have the benefit of the Board's negative recommendation when voting. See id. § 6.17.2 ("Without limiting the generality of the foregoing, the Company shall submit this Agreement for the adoption by its stockholders ... whether or not a Company Adverse Recommendation Change shall have occurred or an Acquisition Proposal shall have been publicly announced or otherwise made ...."). If the Company's stockholders voted down the Merger, or under other defined circumstances, then the Company had the ability to terminate the Merger Agreement. See id. § 8.1.2(ii). The Board's ability to change its recommendation for an Intervening Event, however, did not include changes in commodity prices. The Merger Agreement defined the concept of an "Intervening Event" as
any material change, event, effect, occurrence, consequence or development with respect to the Company or Parent, as applicable, that (i) is unknown and not reasonably foreseeable as of the date hereof, (ii) does not relate to any Acquisition Proposals, and (iii) does not arise out of or result from changes after the date of this Agreement in respect of prices or demand for products.
Id. at A-6; cf. R. Franklin Balotti \& A. Gilchrist Sparks, III, Deal Protection Measures and the Merger Recommendation, 96 Nw. U. L. Rev. 467, 468 (2002) (explaining the importance of an intervening event provision for the target who "discover[s] the world's largest deposit of gold under its headquarters, causing the value of the target to increase dramatically"). Post-signing changes "in respect of prices or demand" for palladium thus would not qualify as an Intervening Event and would not support a change of recommendation. The petitioners' criticism that the Board did
not exercise its fiduciary out based on changes in commodity prices is another wrong turn.

The record reflects that Stillwater did not want the merger consideration to float with the price of palladium. McMullen testified that "we wanted to know with certainty what was the number that we were taking to shareholders as the value proposition." McMullen Tr. 770. That was a legitimate goal.

The petitioners may well take these explanations and run with them, claiming that the situation was even worse than they thought because the Board lacked the power to do things that the petitioners previously believed the Board had merely failed to consider. Regardless, the petitioners' bottom-line criticism of the Merger Agreement misses the point of what the contract was trying to accomplish. The Merger Agreement was not attempting to give the stockholders the benefit of a transaction that included the potential upside or downside that would result from changes in the price of palladium after signing. The Merger Agreement was trying to provide stockholders with the ability to opt for the comparative certainty of deal consideration equal to \(\$ 18.00\) per share.

More broadly, the petitioners are mistaken when they claim that there was no practical way for Stillwater's stockholders to receive the additional value that the increased commodity price could generate. If Stillwater's stockholders had wanted to capture the increased value of palladium, then they could have voted down the Merger and kept their shares. The spot price of palladium was readily available public information that Stillwater's stockholders could take into account when deciding how to vote.

\section*{b. The Merger Agreement And Competing Bids}

In conclusory fashion, the petitioners object that the Merger Agreement "contained a no solicitation provision and 5day matching rights," which the petitioners characterize as "more buyer friendly than the protections provided in \(A O L\) that this Court described as creating 'structural disadvantages dissuading any prospective bidder." "PTOB at 51-52 (quoting \(A O L, 2018 \mathrm{WL}\) 1037450, at *9, and noting that the decision "describe[ed] a no-shop provision with a 3.5\% termination fee and unlimited 3-day matching rights"). The petitioners argue that Sibanye's matching rights deterred interested buyers from making a topping bid because Sibanye could simply match any competing proposal.
*40 The \(A O L\) decision was a fact-specific ruling that turned on the court's view of the sale process in that case, after hearing the witnesses at trial and considering the evidentiary record. The Dell and DFC decisions issued while the matter was pending, and the trial court requested supplemental briefing on the effect of those decisions. Both sides continued to argue for determining fair value based on financial metrics rather than by relying on the deal price. AOL, 2018 WL 1037450 , at \(* 1\). The court nevertheless examined the sale process and regarded the persuasiveness of the deal price as "a close question." Id. On balance, the court decided not to rely on the deal price, except as cross check to a DCF valuation. In reaching this outcome, the court placed heavy weight on a comment made by AOL's CEO, shortly after the signing of the deal, in which he said he was "committed to doing the deal with Verizon" and emphasized that he "gave the team at Verizon my word that ... this deal is going to happen." Id. at *9. The court found that the comment "could reasonably cause potential bidders to pause when combined with the deal protections here." Id. A trial court's job is to make that type of decision and determine when the evidence warrants a casespecific departure from a general rule.

The broader Delaware corpus supports the general principle that the package of defensive measures found in the Merger Agreement in this case is sufficient to permit an effective post-signing market check, even when matching rights are present. As noted, commentators have perceived that under the Delaware Supreme Court's recent appraisal decisions, a sale process involving a publicly traded firm will function as a reliable indicator of fair value as long as it would pass muster if reviewed under enhanced scrutiny in a breach of fiduciary duty case. See Hamermesh \& Wachter, supra, at 962, 98283; Korsmo \& Myers, supra, at 269. Based on numerous trial court precedents, the suite of deal protection measures in the Merger Agreement would not have supported a claim for breach of fiduciary duty. \({ }^{19}\) The suite of deal protections in the Merger Agreement compared favorably with the deal protections in \(C \& J\) Energy and PLX, which this decision has discussed at length.
*41 The Aruba decision involved a similar suite of deal protections. The merger agreement in that case "prohibited Aruba from soliciting competing offers and required the Aruba Board to continue to support the merger, subject to a fiduciary out and an out for an unsolicited superior proposal" and included a termination fee equal to \(3 \%\) of the merger's equity value. Aruba Trial, 2018 WL 922139, at *21, *38. The matching rights were similar too: HP had "an unlimited
match right, with five days to match the first superior proposal and two days to match any subsequent increase, and during the match period Aruba had to negotiate exclusively and in good faith with HP." Id. at *38 (footnote omitted). Viewing the deal protections holistically, the Delaware Supreme Court found that potential buyers had an open chance to bid, which supported the high court's use of a deal-price-less-synergies metric to establish fair value. See Aruba, 210 A.3d at 136.

The Delaware Supreme Court has explained that a postsigning market check is effective as long as "interested bidders have a fair opportunity to present a higher-value alternative, and the board has the flexibility to eschew the original transaction and accept the higher-value deal." C \& \(J\) Energy, 107 A.3d at 1068. This description comports with guidance from a frequently cited treatise, which identifies "critical aspects" of a merger agreement that does not "preclude or impermissibly impede a post-signing market check." 1 Lou R. Kling \& Eileen T. Nugent, Negotiated Acquisitions of Companies, Subsidiaries and Divisions § 4.04[6][b], at 4-89 to -90 (1992 \& Supp. 2019).

First, the economics of the executed agreement must be such that it does not unduly impede the ability of third parties to make competing bids. Types of arrangements that might raise questions in this regard include asset lockups, stock lock-ups, no-shops, force-the-vote provisions, and termination fees. The operative word is "unduly;" the impact will vary depending upon the actual type of device involved and its specific terms.

Second, the target should be permitted to disclose confidential information to any third party who has on its own (i.e., not been solicited) "shown up" in the sense that it has submitted a proposal or, at a minimum, an indication of interest which is, or which the target believes is, reasonably likely to lead to (and who is capable of consummating) a higher competing bid. In this regard, the target should also be able to negotiate with such third parties. This removes any informational advantage that the initial (anointed) purchaser may have.
* * *

Finally, the target board of directors should have the contractual right, without violating the acquisition agreement, to withdraw or modify its recommendation to shareholders with respect to the transaction provided for in the executed acquisition agreement.

Id. at 4-90 to -94.1 (footnotes omitted).

Using this framework, the deal protections did not preclude or impermissibly impede a post-signing market check. For starters, any party could submit a bona fide written Acquisition Proposal. If the Board determined that the Acquisition Proposal "constitutes, or could reasonably be expected to result in, a Superior Proposal" and entered into an "Acceptable Confidentiality Agreement" with the party making the proposal, then the Board could "engage in negotiations or discussions with, or furnish any information to," the party making the Acquisition Proposal. JX 545, Annex A, § 6.2.2. Additional requirements included that the Company notify Sibanye within twenty-four hours of its determination, furnish Sibanye "substantially concurrently" with any information provided to the third party, and not share any of Sibanye's confidential information unless required by law. Id. The Company also had to notify Sibanye of the terms of the Acquisition Proposal and the identity of the third party making it, then keep Sibanye informed of any developments on a reasonably prompt basis. Id. § 6.2.3.
*42 After that point, if the Board determined that the Acquisition Proposal constituted a Superior Proposal and that its fiduciary duties required it, then the Board could change its recommendation in favor of the Merger, provided that before doing so, the Board gave Sibanye five days in which to match the Superior Proposal or otherwise offer changes to the Merger Agreement to avoid the change of recommendation. The Board could also withdraw or modify its recommendation for an Intervening Event, again conditioned on giving Sibanye five days in which to propose changes to the Merger Agreement to avoid the change of recommendation. If the stockholders voted down the deal, then Stillwater could terminate the Merger Agreement, subject only to paying a termination fee and expense reimbursement equal to \(1.2 \%\) of the Merger's equity value.

The post-signing market check began on December 9, 2016, when Sibanye and the Company announced the Merger. It ended on April 26, 2017, when the Company's stockholders approved the Merger Agreement. The resulting passive market check lasted 138 days, close to the 153 days in \(C\) \& \(J\) Energy and far longer than many of the passive, post-signing market checks that the Delaware courts have approved. See App.

During the post-singing market check, no one bid. The failure of any other party to come forward provides significant
evidence of fairness, because " \([f]\) air value entails at minimum a price some buyer is willing to pay-not a price at which no class of buyers in the market would pay." Dell, 177 A.3d at 29; see id. at 32, 34. The absence of a higher bid indicates "that the deal market was already robust and that a topping bid involved a serious risk of overpayment," which in turn "suggests the price is already at a level that is fair." Id. at 33. As in Aruba, "[i]t cannot be that an open chance for buyers to bid signals a market failure simply because buyers do not believe the asset on sale is sufficiently valuable for them to engage in a bidding contest against each other." Aruba, 210 A.3d at 136. Instead it suggests that "the target's value is not sufficiently enticing to buyers to engender a bidding war above the winning price." Id.

\section*{c. The Stockholder Vote}

In their last challenge to the post-signing phase, the petitioners assert that the stockholders approved the Merger based on incomplete and misleading information. They devote only two pages in their opening brief to this argument, the bulk of which describes the legal principles that apply in fiduciary duty cases. See PTOB at 53-54 (citing Morrison v. Berry, 191 A.3d 268, 282-83 (Del. 2018); and Corwin v. KKR Fin. Hldgs., LLC, 125 A.3d 304, 312 (Del. 2015)). The factual description of their disclosure theory appears in just three sentences:

Stillwater's stockholders were told McMullen led the sale process, but they were never informed that he was preparing to leave the Company or the scope of his outside business ventures. In addition, Stillwater stockholders were told that Wadman left the Company prior to closing, but they were never informed of the context of his departure or his "noisy exit." Stillwater's stockholders were also provided no information regarding the Company's exploration zones.
PTOB at 53-54. They devote the same amount of space to this theory in their reply brief, although the text extends over three pages. Dkt. 228 at 26-28. In their reply brief, they argue that stockholders should have been told that Wadman raised concerns about McMullen's conflicts of interest and "his manner of soliciting interest from third parties," and that Wadman was "retaliated against for doing so." Id. at 27. They also argue that stockholders should have been told that McMullen "was in violation of his 2016 employment agreement" while running the sale process because of his roles with Nevada Iron and New Chris. Id.
*43 The petitioners' argument about Stillwater's exploration zones does not appear to hold up under their own understanding of the law. The petitioners elsewhere argued persuasively that under Industry Guide 7, promulgated by the Securities and Exchange Commission, Stillwater was not permitted to disclose information about the value of the Company's exploration zones. See, infra, Pt. II.B.3.a.

The disclosure theories about McMullen and Wadman would likely have some merit if the petitioners had done more to articulate them, support them with case law, and explain their relationship to a determination of fair value. Presumably the petitioners' believe that if stockholders had been told that McMullen was pursuing a sale in part because of his personal interest in exiting the Company and that Wadman resigned because of disputes over how McMullen handled the sale process, then some stockholders might have questioned whether the deal price reflected fair value.

These contentions would have to overcome the doctrine against self-flagellation. See, e.g., Loudon v. Archer-DanielsMidland Co., 700 A.2d 135, 143 (Del. 1997). That said, the proxy statement should have disclosed McMullen's interest in retiring, his roles with GT Gold and New Chris, and their implications for his employment agreement. Stockholders also should have been told that Wadman resigned because of disputes with senior management about the conduct of the sale process.

Although I have tried to give the petitioners the benefit of the doubt by crediting their conclusory assertions in this fashion, I am not convinced that their arguments are sufficient to undermine the stockholder vote as an expression of the preference of a supermajority of Stillwater's stockholders for a sale rather than having the Company continue as a standalone entity. The Delaware Supreme Court has explained that " \([t]\) he issue in an appraisal is not whether a negotiator has extracted the highest possible bid. Rather, the key inquiry is whether the dissenters got fair value and were not exploited." Dell, 177 A.3d at 33. The disclosures that the petitioners say the Company should have made could have affected stockholders' views about whether their negotiators had extracted the highest possible bid. If stockholders had been provided with information about McMullen's interests and Wadman's withdrawal, then perhaps some stockholders would have inferred that a different negotiator might have pushed for more from Sibanye or worked harder during the pre-signing phase to find a bidder who could have paid
a higher price (an inference undercut by the absence of any topping bid during the post-signing phase). They would not have had any reason to revise their assessment of the Company's prospects as a standalone entity or to vote down the Merger in the belief that the Company was more valuable as a going concern in its operative reality as a widely held, publicly traded firm.

Because of the disclosure issues, this decision does not give heavy weight to the stockholder vote. Nevertheless, the vote remains a positive factor when evaluating whether the deal price reflected fair value. If stockholders believed that the Company was worth more, they could have voted down the Merger and retained their proportionate share of the Company as a going concern. By approving the Merger at \(\$ 18.00\) per share, they evidenced their belief that the deal price provided fair value and was not exploitive.

\section*{5. The Sale Process Was Reliable.}
*44 Sibanye proved by a preponderance of the evidence that the sale process made the deal price a persuasive indicator of fair value. The sale process was not perfect, and the petitioners highlighted its flaws, but the facts of this case, when viewed as a whole, compare favorably or are on par with the facts in \(C\) \& J Energy, PLX, DFC, Dell, and Aruba.

The sale process that led to the Merger bore objective indicia of fairness that rendered the deal price a reliable indicator of fair value. To reiterate, it was an arm's-length transaction. It was approved by an unconflicted Board and by Stillwater's stockholders. And it resulted from adversarial price negotiations between Stillwater and Sibanye. Most significantly, no bidders emerged during the post-signing phase, despite a Merger Agreement that contained a suite of deal protections that would pass muster under enhanced scrutiny.

The petitioners pointed to problems during the early phases of the sale process before the Board began exercising serious oversight and before BAML was retained. Those flaws are factors to consider, but they do not undermine the reliability of the sale price given what happened later. BAML's presigning canvass was a positive factor. The negotiations with Sibanye were also a positive factor. And the process culminated in an effective, albeit passive, post-signing market check. If Stillwater had pursued a single-bidder strategy and only engaged with Sibanye, then the terms of the Merger

Agreement would have facilitated a sufficiently reliable postsigning market check to validate the deal price. Stillwater did more than what would have been sufficient under a singlebidder scenario.

It is theoretically possible that a more thorough pre-signing process or more vigorous negotiations might have generated a higher transaction price for Stillwater's stockholders, but the issue in an appraisal "is not whether a negotiator has extracted the highest possible bid." Dell, 177 A.3d at 33.

Capitalism is rough and ready, and the purpose of an appraisal is not to make sure that the petitioners get the highest conceivable value that might have been procedure had every domino fallen out of the company's way; rather, it is to make sure that they receive fair compensation for their shares in the sense that it reflects what they deserve to receive based on what would fairly be given to them in an arm's-length transaction.
\(D F C, 172\) A.3d at \(370-71\). "[T]he key inquiry is whether the dissenters got fair value and were not exploited." Dell, 177 A. 3 d at 33 .

The Merger in this case was rough and ready. McMullen and the Board did not adhere to the best practices and transactional niceties that an advisor steeped in Delaware decisions would recommend. Nevertheless, given the arm's-length nature of the Merger, the premium over market, and the substance of what took place during the sale process, it is not possible to say that an award at the deal price would result in the petitioners being exploited.

\section*{6. The Adjustment For Value Arising From The Merger}

Section 262 provides that "the Court shall determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation ...." 8 Del. C. § 262(h). "[I]t is widely assumed that the sale price in many M\&A deals includes a portion of the buyer's expected synergy gains, which is part of the premium the winning buyer must pay to prevail and obtain control." \(D F C, 172\) A.3d at 371. "In an arm's-length, synergistic transaction, the deal price generally will exceed fair value because target fiduciaries bargain for a premium that includes ... a share of the anticipated synergies ...." Olson v. ev3, Inc., 2011 WL 704409, at *10 (Del. Ch. Feb. 21, 2011). "[S]ection 262(h) requires that the Court of Chancery discern the going concern value of the company irrespective
of the synergies involved in a merger." M.P.M. Enters., 731 A.2d at 797. To derive an estimate of fair value, the court must exclude "any synergies or other value expected from the merger giving rise to the appraisal proceeding itself ...." Golden Telecom Trial, 993 A.2d at 507. This means the trial court "must exclude ... the amount of any value that the selling company's shareholders would receive because a buyer intends to operate the subject company, not as a standalone going concern, but as part of a larger enterprise, from which synergistic gains can be extracted." Aruba, 210 A.3d at 133 (internal quotation marks omitted).
*45 Sibanye's valuation expert was Mark Zmijewski, an emeritus professor of finance at the University of Chicago and a consultant at Charles River Associates. Zmijewski opined that the evidence he reviewed did "not indicate that the Transaction resulted in quantifiable synergies." JX 652 - 66 [hereinafter Zmijewski Rep.]; see Zmijewski Tr. 1146. Sibanye told its stockholders that the price did not reflect any synergies. JX 421 at ' 224 . McMullen testified at trial that he did not believe there were any synergies arising from the Merger. McMullen Tr. 801. There is accordingly no reason to exclude any value from the deal price based on synergies.

In this proceeding, Sibanye argued that despite the absence of quantifiable cost synergies or revenue synergies, it willingly paid more than fair value for Stillwater, resulting in a portion of the consideration reflecting value "arising from the accomplishment or expectation of the merger or consolidation ...." 8 Del. C. § 262(h). In its opening brief, Sibanye argued that it paid a premium for two strategic reasons: (i) to facilitate entry into the United States and (ii) to expand its share of the PGM market. Sibanye also argued that it could pay a premium in the Merger because after the Merger, it could obtain a better rating on its debt. See also Zmijewski Tr. 1120-22; JX 397 at '452; JX 498 at 20; JX 486 at 1; Rosen Tr. 407-08. Each of these reasons identifies a valuable aspect of Stillwater based on its operative reality as a going concern. Stillwater was the only PGM producer located in the United States, and it generated significant cash flow. None of these features represented a source of value "arising from the accomplishment or expectation of the merger or consolidation."

Sibanye failed to meet its burden of proof to establish a quantifiable amount that the court should deduct from the deal price. This decision does not make any downward adjustment to the deal price to compensate for combinatorial value.

\section*{7. The Adjustment For Changes In Value Between Signing And Closing}

Under Section 262, the time for determining the value of a dissenter's shares is the point just before the merger closes. See Appraisal Rights, supra, at A-33. The deal price provides a data point for the value of the company as of the date of signing, but the valuation date for an appraisal is the date of closing. Consequently, if the value of the corporation changes between the signing of the merger and the closing, the fair value determination must be measured by the "operative reality" of the corporation at the effective time of the merger. Technicolor II, 684 A.2d at 298.

In a merger involving a widely held, publicly traded company, some gap between signing and closing will usually exist. The customary need to prepare and disseminate disclosure documents, then complete a first-step tender offer or obtain a stockholder vote will typically result in several months elapsing between signing and closing. See Robert T. Miller, The Economics of Deal Risk: Allocating Risk Through MAC Clauses in Business Combination Agreements, 50 Wm. \& Mary L. Rev. 2007, 2018-19 (2009) (discussing timelines for various transaction structures). If regulatory approvals are required, the temporal gap can expand. Id. at 2020-23. During this period, the value of the company could rise or fall.

Despite the customary existence of a temporal gap between signing and closing, Delaware appraisal decisions have typically not made adjustments to the deal price to reflect a valuation change during the post-signing period. In Union Illinois, this court relied for the first time on a deal-price-less-synergies metric when determining the fair value of a privately held bank (UFG). See Union Ill., 847 A. 2 d at 343. Six months elapsed between signing and closing, and the petitioners objected to using the deal price because of the temporal gap. The trial court described this argument as a "quibble" and as "not a forceful objection," because "[ \(t]\) he negotiation of merger terms always and necessarily precedes consummation." \(I d\). at 358 . Turning to the facts of the case, the court found that the petitioners were not able "to cite any rational explanatory factor that indicates why an investor would perceive UFG's future more optimistically on New Year's Eve 2001 than they did on the preceding Fourth of July." Id. UFG had experienced "a modest upward adjustment in its [net income margin] in the second half of 2001," but the court saw no evidence that the increase was sustainable or would alleviate UFG's problems complying with capital
adequacy standards. Id. Although UFG had refinanced its debt, the loan came from the acquirer, and UFG was not in a position to either service that debt or refinance it completing the merger. Id. The court concluded that "[c]onsidered fairly, the record does not support the idea that UFG was more valuable at the end of 2001 than it was when the Merger Agreement was signed." Id.
*46 In PetSmart, this court awarded fair value based on the deal price in a case involving a publicly traded firm. See In re PetSmart, Inc., 2017 WL 2303599, at *2 (Del. Ch. May 26, 2017). The court regarded the petitioners' argument that the merger price "was stale by the time of closing" as "at best speculative." Id. at *31. Citing Union Illinois, the court explained that " \([m]\) ergers are consummated after the consideration is set. That temporal separation, however, does not in and of itself suggest that the merger consideration does not accurately reflect the company's going concern value as of the closing date." Id. The court then turned to the petitioners' case-specific arguments:

Petitioners would have me conclude that the Merger Price was stale because, in the gap between signing and closing, PetSmart's fortunes took a miraculous turn for the better. While the record indicates that the Company did enjoy some favorable results in Q4 2014, such as an uptick in comparable store sales growth, I am not convinced that these short-term improvements were indicative of a longterm trend. In fact, all testimony at trial was to the contrary -the Board, as well as Teffner, believed that the Q4 results were temporary and provided no basis to alter their view of the Company's long-term prospects. These perceptions were born out in Q1 2015 (when the Merger closed) during which PetSmart's comparable store sales dropped to \(1.7 \%\). At year end, PetSmart reported comparable store sales growth of \(0.9 \%\), a \(40 \%\) miss from the Management Projections in just the first projection year.
Id. (footnotes omitted). The petitioners in PetSmart thus failed to carry their burden of proving that the value of the company had changed.

Most recently, in Columbia, this court awarded fair value based on the deal price in another case involving a publicly traded firm. See In re Appraisal of Columbia Pipeline Gp., Inc., 2019 WL 3778370, at *1 (Del. Ch. Aug. 12, 2019). The company developed, owned, and operated natural gas pipelines, storage facilities, and other midstream assets, and it had a business plan that called for raising large amounts of equity financing through a master limited partnership ("MLP"). Before agreeing to be acquired, the company
had been unable to use the MLP structure to raise capital because of adverse trends in the MLP financing market. The merger agreement was signed on March 17, 2016, and the transaction closed on July 1, 2016. The petitioners argued that in the interim, the market for MLP equity had improved and prices for energy commodities had increased. See id. at *45. The court found that the petitioners had not carried their burden of proving how to quantify the alleged improvements in the form of a higher deal price. Id. The court also found that the improvement in two MLP indices did not persuasively support the claim that the company would have been able to raise capital efficiently through its MLP. The court similarly rejected any valuation increase based on the prices of energy related commodities, because everyone agreed that the company's value did not depend on commodities. As a midstream company, it did not own, buy, or sell the commodities that it transported or stored. Id.

The one arguable exception is Lender Processing, where this court awarded fair value based on the value of the deal price at closing, rather than at signing, where the deal consideration consisted of \(50 \%\) cash and \(50 \%\) stock. See Lender Processing, 2016 WL 7324170, at *1, *8. Because of the stock component, the value of the merger consideration increased from \(\$ 33.25\) per share at signing to \(\$ 37.14\) per share at closing. Id. The petitioners pointed to the existence of the temporal gap as a reason not to rely on the deal price or other market-based metrics associated with the signing of the deal. The respondent pointed to the absence of a topping bid as validating the deal price. After reviewing the evidence, the court concluded that the final merger consideration "was a reliable indicator of fair value as of the closing" and that "because of synergies and a post-signing decline in the Company's performance, the fair value of the Company as of the closing date did not exceed" that amount. Id. at *23. The acquirer's expert had not tried to quantify the synergies or the amount of the post-signing valuation decline, and the court concluded that the respondent had failed to carry its burden of proof on those issues. Id. at *33. By using the deal price as measured at closing rather than at signing, the Lender Processing decision accounted for changes in value between signing and closing, but without making an explicit adjustment.
*47 All four precedents considered whether the deal-price metric needed to be adjusted to reflect changes in value between signing and closing. The decisions thus indicate that an adjustment to the deal price can be warranted. But the decisions also show that the proponent of the adjustment must
carry its burden by identifying a persuasive reason for the change and proving the amount.

At a minimum, it would seem to make sense to adjust the deal price for inflation. When the parties agreed to the deal price on December 8, 2016, they reached agreement on a price measured in dollars valued as of that date. Between that date and the closing on May 4, 2017, the purchasing power of those dollars declined. If Stillwater had precisely the same value in the abstract on May 4, 2017, as it did on December 8, 2016, it would still be necessary to adjust the number of dollars used to express that value to reflect the intervening decline in what the value of a dollar represented. Adjusting the deal price for inflation would achieve this result. \({ }^{20}\)

As their valuation expert, the petitioners relied on Howard Rosen, a senior managing director at FTI Consulting. When adjusting the unaffected trading price, Rosen used an inflation rate of \(2 \%\) per annum to account for the decrease in the value of dollars between signing and closing, then made further adjustments. See JX 728 बी \(5.19,5.25\) to 5.28 . A similar inflation-based adjustment could be made to the deal price, generating a value on the closing date of \(\$ 18.14\) per share, but no one argued for it.

The nature of Stillwater's business makes this case a plausible one for an upward adjustment that goes beyond inflation. Stillwater was a mining concern that primarily produced palladium and platinum. Stillwater's cash flows depended on the prices of those metals, so when the prices of those metals increased or decreased materially, the value of the Company increased or decreased materially as well. The Company's annual report for 2016 explained the relationship as follows:
*48 The Company's earnings and cash flows are sensitive to changes in PGM prices - based on 2016 revenue and costs, a \(1 \%\) (or approximately \(\$ 7\) per ounce) change in the Company's average combined realized price for palladium and platinum would result in approximately a \(\$ 7.1\) million change to before-tax net income and a change to cash flows from operations of approximately \(\$ 3.9\) million.
JX 728 § 5.21 (quoting Stillwater Mining Company, Annual Report (Form 10-K) (Feb. 16, 2017)). The Merger was signed on December 9, 2016. The Merger closed on May 4, 2017. Between signing and closing, the prices of palladium and platinum increased materially, with a direct effect on Stillwater's value. Id. 『 5.20.

Rosen determined that the sales-weighted price of Stillwater's commodities increased by \(5.9 \%\) between signing and closing. Using the formula in Stillwater's annual report, Rosen calculated the valuation impact of the additional cash flow as ranging from \(\$ 248\) million (using a \(11.2 \%\) WACC) to \(\$ 285\) million (using a \(10 \% \mathrm{WACC}\) ), which equated to an increase of between \(\$ 2.00\) to \(\$ 2.30\) per share. Id. He regarded his estimate as conservative because he kept production constant and did not account for new sources, such as Blitz, coming on line. Id. - \(\uparrow \mathbb{T} 5.23\) to 5.25 . Rosen used this figure to make adjustments to the unaffected trading price. In theory, he could have made similar adjustments to the merger price.

As this discussion indicates, the petitioners never argued for an adjustment to the deal price based on an increase in value between signing and closing. As discussed in the next section, Sibanye argued that the court could make an adjustment to the unaffected trading price and use the adjusted trading price as an indicator of fair value. The petitioners countered that argument by proposing an adjustment of their own that resulted in the adjusted trading price exceeding the deal price. Those arguments addressed the trading price, not the deal price. There could be considerable conceptual overlap between the approaches, but there could also be significant differences.

A petitioner seeking to make valuation-based adjustments to a reliable deal price also would need to confront the implications of the post-signing market check. As in Lender Processing, a respondent in an appraisal case could easily argue that if a company's value increased between signing and closing, then a competing bidder would have perceived that value and offered more than the deal price. The respondent would argue that if no one bid, then that fact would call for rejecting the petitioners' evidence of a valuation increase. There are several possible responses to this argument.

One response is a relatively small point from a valuation perspective: the termination fee. Using this case as an example, if a topping bidder made a Superior Proposal, and if the Board changed its recommendation, and if the stockholders voted down the Merger, then Stillwater would have to pay Sibanye a termination fee of \(\$ 16.5\) million plus reimbursement of Sibanye's expenses up to \(\$ 10\) million, for a total payment of \(\$ 26.5\) million or 21.6 cents per share. Those amounts would reduce Stillwater's value to the acquirer, making the acquirer neutral as to any increase in Stillwater's value that did not clear that level. The point of indifference is actually higher, because a competing bidder would incur
expenses of its own to make the competing bid. Ignoring those incremental expenses and focusing only on the sell-side fees, Stillwater's value could increase by up to \(\$ 26.5\) million without a rational acquirer having any reason to bid. The absence of a topping bid could not rule out a valuation change of this magnitude, but an award above the deal price that fell within the range permitted by the termination fee would likely be cold comfort to the typical appraisal petitioner.
*49 A more significant counterargument would focus on the timing of the valuation change. A premise that underlies the effectiveness of the post-signing market check is that other bidders learn that the target is for sale when the deal is announced, can examine the target for themselves, and if they value the target more highly (taking into account synergies and other sources of bidder-specific value), then they can intervene. Under this theoretical framework, competing bidders can begin work shortly after the announcement, giving them the full timeline between the signing and the vote in which to intervene. When the potential overbid would be induced by a change in the value of the target company, the time for the competing bidder to act does not begin with the announcement of the deal, but rather when the bidder learns of the valuation change. The delayed signal shortens the amount of time for the bidder to intervene. As the date of the stockholder vote approaches, it becomes less likely (all else equal) that a bidder will intervene, if only because less time is available in which to do so. Because of this effect, a failure to bid during the post-signing phase provides a much noisier signal about changes in the target's value than it does about the absence of higher-valuing bidders. In this case, the increase in value that resulted from changes in the spot price did not really begin until February 2017, two months after signing. It dropped in March, then picked up again in April, when the stockholder vote took place.

A third counterargument would examine the possibility of changes in value after the stockholder vote but before closing. As this case illustrates, a competing bidder's only meaningful opportunity to intervene is before the stockholders approve the transaction. In a case where closing is delayed significantly after the stockholder vote because of issues such as the need for regulatory approvals, the post-vote temporal gap would matter more.

Perhaps the most significant problem with relying on a postsigning market check to rule out an increase in the target's standalone value is that the resulting valuation improvement would be available to any bidder. The competition for the
incremental value would likely operate as a common value auction, defined as an auction in which "every bidder has the same value for the auctioned object." Peter Cramton \& Alan Schwartz, Using Auction Theory to Inform Takeover Regulation, 75 L. Econ. \& Org. 27, 28-29 (1991). In a competition for that incremental value, the incumbent bidder's matching right would loom large. To make it worthwhile to bid, a potential deal jumper would not only have to perceive that the value of the target had increased above the level set by the deal price plus the termination fee and fee reimbursement plus the deal jumper's likely transaction costs, but also perceive a pathway to success that was sufficiently realistic to warrant becoming involved, taking into account the potential reputational damage that could result from being unsuccessful. Unless the competitor had a unique reason to value the increased cash flows more highly than the incumbent, the competitor should expect the incumbent to match any incremental bid. \({ }^{21}\) In a case like this one, where the valuation increment would result from improved commodity prices that would be available to all bidders, a strong argument can be made that a competitor would not think that it had the ability to outbid the incumbent and would not try.
*50 The respondent in an appraisal proceeding could make similar arguments about the stockholder vote. If the reasons for the valuation increase were public, and stockholders still voted for the deal, then their behavior would provide contrary market evidence undermining the claim of increased value. In this case, the increase in commodity prices was publicly available information, and Stillwater's stockholders had the ability to vote down the deal if they thought the increased value from improving commodity prices changed matters. One obvious response to this argument is that to vote down the deal, stockholders would have had to prefer returning to Stillwater in its operative reality as a widely traded firm, where their only the options for liquidity were either to sell into the market or hold out for a higher-priced takeover down the road. Given these choices, stockholders might well have preferred the surer option of the deal price, even if they believed that the Company's value had increased between signing and closing such that the deal price no longer reflected fair value.

As this discussion shows, whether to adjust the deal price for an increase in value between signing and closing presents numerous difficult questions. In this case, the petitioners did not argue for an adjustment to the deal price, and so the parties did not have the opportunity to address these interesting issues. The court will not take them up at this late stage in the
proceeding. The petitioners accordingly failed to prove that the deal price should be adjusted upward to reflect a change in value between signing and closing. See Columbia, 2019 WL 3778370 , at \(* 45\). This decision finds that the deal price of \(\$ 18.00\) per share provides reliable evidence of fair value.

\section*{B. The Adjusted Trading Price}

Sibanye contended that Stillwater's adjusted trading price is a reliable indicator of the fair value of the Company. Sibanye generates the adjusted trading price by making adjustments to the unaffected trading price, so the reliability of the adjusted trading price depends on the reliability of the unaffected trading price. As the proponent of using this valuation indicator, Sibanye bore the burden of establishing its reliability and persuasiveness.

Assessing the reliability of the trading price for Stillwater's common stock means getting "deep into the weeds of economics and corporate finance." In re Appraisal of Jarden Corp., 2019 WL 3244085, at *1 (Del. Ch. July 19, 2019). The thicket of market efficiency is one such place where "law-trained judges should not go without the guidance of experts trained in these disciplines." Id. In this case, both sides retained financial experts who tried to lead the court through the undergrowth. Zmijewski addressed these issues for Sibanye. Israel Shaked, a professor of economics and finance at Boston University, addressed these issues for petitioners.

\section*{1. Informational Efficiency and Fundamental-Value Efficiency}

The experts agreed on the difference between informational efficiency and fundamental-value efficiency. See Zmijewski Tr. 1087; JX 651 बT| 13-27, 33-41 [hereinafter Shaked Rep.]. "[I]nformational Efficiency ... is concerned with how rapidly security prices reflect or impound new information that arrives to the market." Shaked Rep. 『 33 (quoting Alex Frino et al., Introduction to Corporate Finance 305 (5th ed. 2013)). There are three recognized types of informational efficiency:
- Weak: a company's stock price reflects all historical price information.
- Semi-Strong: a company's stock price reflects all publicly available information.
- Strong: a company's stock price reflects both publicly available information and inside information.

No one claimed that the market for Stillwater's common stock could be informationally efficient in the strong sense. Everyone focused on whether the market for Stillwater's common stock was informationally efficient in the semistrong sense. All of the references in this decision to informational efficiency as it relates to Stillwater's common stock therefore contemplate informational efficiency in the semi-strong sense.
*51 "While informational efficiency is a function of speed and how quickly new material information is incorporated into a stock's price, fundamental value efficiency is an incremental function of how accurately a market in which a stock trades discretely incorporates new material information." Shaked Rep. \(\mathbb{4} 42\). The price of a security in a market that is fundamental-value efficient should reflect its intrinsic value, defined as "the present value of all cash payments to the investor in the stock, including dividends as well as the proceeds from the ultimate sale of the stock, discounted at the appropriate risk adjusted rate." Shaked Rep. - 40. (internal quotation marks omitted). In other words, a stock trading in a market that is fundamental-value efficient is one in which the trading price "fully reflects all estimates, guidance and other public, material information that portray the risks and returns of a stock accurately, including all key drivers." Id. 『 41.

The experts agreed that it is impossible to observe whether a stock trades in a market that is fundamental-value efficient. See Zmijewski Tr. 1088, 1153-54; Shaked Report ब 41. According to the petitioners, this concession means that Sibanye cannot meet its burden of proof.

While theoretically valid, the petitioners' argument goes too far. Whether called fundamental value, true value, intrinsic value, or fair value, the really-real value of something is always an unobservable concept. No valuation methodology provides direct access to it. Fundamental value is like a Platonic form, and the various valuation methodologies only cutouts casting shadows on the wall of the cave. The real issue is not whether a particular method generates a shadow (they all do), but rather whether the shadow is more or less distinct than what other methods produce.

Reliance on the trading price of a widely held stock is generally accepted in the financial community, and the trading price or metrics derived from it are regularly used to estimate the value of a publicly held firm based on its operative reality in that configuration. For purposes of determining fair value
in an appraisal proceeding, therefore, the trading price has a lot going for it. \({ }^{22}\) Like democracy, the trading price may be imperfect, but it often will serve better than the other metrics that have been tried. Cf. Winston Churchill, Churchill by Himself 574 (Richard Langworth ed., 2008). The petitioners' admittedly valid objection that it is impossible to prove that a trading price reflects fundamental value is thus not one that automatically disqualifies the use of the trading price as a valuation indicator in an appraisal.
*52 In this regard, it is important to recognize that informational efficiency and fundamental-value efficiency are not all-or-nothing concepts. See Bradford Cornell \& John Haut, How Efficient Is Sufficient: Applying the Concept of Market Efficiency in Litigation, 74 Bus. Law. 417, 418 (2019). A stock trading in a national market like the New York Stock Exchange will have more attributes of informational efficiency than a stock trading over the counter, but a party might be able to show that the particular over-the-counter market had sufficient attributes to regard the trading price as informationally efficient. The attributes of the over-thecounter market are likely to be consistent with a greater degree of informational efficiency than thinner and chunkier markets, such as markets for houses or entire companies.

Fundamental-value efficiency is likewise a matter of degree. A market could be precisely fundamental-value efficient in that it accurately prices the asset at exactly its true value. Or it might be nearly fundamental-value efficient in that it accurately prices the asset within some percentage, say plus or minus \(3 \%\), of its true value. Or it might be approximately fundamental-value efficient in that it accurately prices the asset within some wider range of its true value, such as a factor of two. See id. at 422 ("We might define an efficient market as one in which price is within a factor of 2 of value, i.e., the price is more than half of value and less than twice value." (quoting Fischer Black, Noise, 41 J. Fin. 553 (1986))).

Although it is impossible to test for fundamental value, there are indicators of fundamental-value efficiency. One indicator is directional consistency, in which the market for a security reacts positively to new material information that is positive, and negatively to new material information that is negative. See Shaked Rep. 9¢l 43-44. Another indicator is proportionality, which examines not only whether the direction of the reaction to new material information is consistent with its content, but also whether the extent of the reaction corresponds with the informational content. See id. 【 45. In simplified terms, if a company announces
a positive earnings surprise and its stock price increases, then that outcome is directionally consistent. If the stock price increases by an amount generally proportionate to the present value of the earnings surprise, then that outcome is proportionally consistent. A market that evidences directionality and proportionality is more likely to be fundamental-value efficient. A market that lacks evidence of directionality and proportionality is less likely to be fundamental-value efficient. See id. \(\mathbb{T} 46\).

The question in this case is thus not whether the market for Stillwater's common stock was or was not informationally efficient. Nor is it whether the market for Stillwater's common stock was or was not fundamental-value efficient. The question is whether the market for Stillwater's common stock was informationally efficient enough, and fundamental-value efficient enough, to warrant considering the trading price as a valuation indicator when determining fair value. Put differently, the operative question in this case is whether Sibanye proved that Stillwater's common stock traded in a market having attributes that made the trading price a sufficiently reliable valuation indicator to be taken into account when determining fair value, either in conjunction with other metrics, or even as the sole metric, with the answer turning on both the attributes of the market for Stillwater's common stock, and also on the relative reliability of the trading price compared to other metrics like the deal price and the outputs of DCF models. See, e.g., Jarden, 2019 WL 3244085, at *4, *27-31 (determining fair value based on the unaffected trading price after concluding that it was comparatively the most reliable valuation indicator); Cornell \& Haut, supra, at 425 ("What is important in legal applications is not some abstract notion of market efficiency. Rather, what is important is whether the market is sufficiently efficient in any particular situation.").

\section*{2. Evidence Of Market Efficiency}
*53 The experts disagreed about the extent to which the market for Stillwater's shares was efficient. The experts discussed factors that courts have considered as indicative of informational efficiency. The experts also conducted event studies and opined on their implications for informational efficiency, directionality, and proportionality.

\section*{a. The Cammer And Krogman Factors}

Zmijewski examined whether the market for Stillwater's shares exhibited attributes that courts have associated with informational efficiency. He relied on an instruction from Sibanye's counsel that "Delaware Courts cite as attributes of market efficiency characteristics such as market capitalization, public float, weekly trading volume, bid-ask spread, analyst following, and market reaction to breaking news and information." Zmijewski Rep. बI 49. He also analyzed the existence of market makers, eligibility to file SEC Form S-3, institutional ownership, and autocorrelation of stock returns, noting that these additional factors were considered in Cammer v. Bloom, 711 F. Supp. 1264 (D.N.J. 1989), and in Krogman v. Sterritt, 202 F.R.D. 467 (N.D. Tex. 2001). Zmijewski Rep. ब 51. For simplicity, and following the parties' lead, this decision refers to these attributes as the "Cammer and Krogman factors," even though not all of them were considered in those two cases.

Based on his review of the record, Zmijewski reached the following conclusions about these attributes:
- Market Capitalization: Zmijewski opined that "firms with a larger market capitalization tend to have larger institutional ownership," "tend to be listed on the New York Stock Exchange," and are therefore more likely to have shares that trade in markets that are informationally efficient. Zmijewski Rep. App. C ब 35 (citing Randall S. Thomas \& James F. Cotter, Measuring Securities Market Efficiency in the Regulatory Setting, 63 L. \& Contemp. Probs. 105, 115 (2000) (JX 896)). The Company's market capitalization averaged approximately \(\$ 1.3\) billion, exceeding roughly \(60 \%\) of the combined equities of companies listed on the New York Stock Exchange and NASDAQ. Id.
- Public Float: Zmijewski opined that having a large percentage of shares in the public float is indicative of a trading market that is informationally efficient. \(I d\). \(\mathbb{q} \boldsymbol{\|}\) 42-43 (noting that the Delaware Supreme Court in Dell cited a public float of 1.5 billion shares representing \(84.29 \%\) of the outstanding stock, and in \(D F C\) cited a public float of 37.5 million shares representing \(95 \%\) of the outstanding stock). The Company's public float consisted of 106 million shares representing \(87.4 \%\) of the outstanding stock. Id. \(\mathbb{\|} 44\).
- Weekly Trading Volume: Zmijewski opined that an average weekly trading volume of at least \(2 \%\) warrants a "strong presumption" of informational efficiency. \(I d\). \|

2 (quoting Cammer, 711 F. Supp. at 1286). The average weekly turnover for Stillwater was \(6.8 \%\). Id. \(\mathbb{\|} \|\).
- Bid-Ask Spread: Zmijewski opined that a bid-ask spread of less than \(2.5 \%\) is indicative of a trading market that is informationally efficient. Id. बๆ \(37-38\) (citing \(D F C\), 172 A.3d at 352; Dell, 177 A.3d at 1, 5-6, 24-27, 41; In re Sci.-Atlanta, Inc. Sec. Lititg., 571 F. Supp. 2d 1315, 1340 (N.D. Ga. 2007); Cheney v. Cyberguard Corp., 213 F.R.D. 484, 501 (S.D. Fla. 2003); and Krogman, 202 F.R.D. at 478). The Company's average daily bid-ask spread was \(0.10 \%\). Id. ब \(\$ 39\).
*54 - Analyst Coverage: Zmijewski opined that the presence of at least five analysts following a company is indicative of a trading market that is informationally efficient. Id. ब氏\| 4-6 (relying on Thomas \& Cotter, supra, at 115). Seven analysts followed the Company. Id. \(\mathbb{\text { q }} 7\).
- Market Makers: Zmijewski opined that the presence of at least nineteen market makers is indicative of a trading market that is informationally efficient and that the same inference can be drawn when a company's shares trade on a centralized auction market like the New York Stock Exchange. Id. ब|f 8-9 (citing Cammer, 711 F. Supp. at 1293; Cheney, 213 F.R.D. at 499-500; In re Dynex Capital, Inc. Sec. Litig., 2011 WL 781215, at *5 (S.D.N.Y. Mar. 7, 2011); and Zvi Bodie et al., Investments 62-70 (12th ed. 2018)). The Company's stock traded on the New York Stock Exchange and had eighty-two market makers. \(I d\). \(\mathbb{\square} 10\).
- SEC Form S-3 Eligibility: Zmijewski opined that a company's eligibility to register shares using SEC Form S-3 eligibility is indicative of a trading market that is informationally efficient. Id. \(\mathbb{\|} 11\) (citing Cammer, 711 F. Supp. at 1284). A company is eligible for Form S-3 if it, among other things, has been subject to the Securities Exchange Act of 1934 reporting requirements for more than one year, filed documents in a timely manner, and shown that it has not failed to pay certain obligations. Id. The Company filed Forms S-3 in 1996, 1998, 2001, 2009, and 2010. Id. ब 12.
- Institutional Ownership: Zmijewski opined that having a significant percentage of stock owned by institutional investors is indicative of a trading market that is informationally efficient. Id. ब 46 (citing Thomas \& Cotter, supra, at 106, 119). As of September 30, 2016, institutions held approximately \(90 \%\) of the Company's outstanding stock. Id. \(\mathbb{\|} 47\).
- Autocorrelation: Zmijewski opined that a lack of autocorrelation in a company's stock return is indicative of a trading market that is informationally efficient. \(I d\). \(\mathbb{1} 48\). Autocorrelation measures the extent to which the next day's stock price movement can be predicted based on the current day's stock price. Zmijewski found no evidence of statistically significant autocorrelation during the 254 trading days preceding the announcement of the Merger. Id.
- Cause And Effect: Zmijewski opined that market reactions to significant events are indicative of informational efficiency. Id. ब 13 (citing Cammer, 711 F. Supp. at 1287). Zmijewski found that after the Merger announcement, there was a quick and significant increase in trading volume. \(I d\). \(\mathbb{1}\) 17. The first news of the Merger was released at 1:04 a.m on December 9, 2016. Pre-market trading opened at 4:00 a.m. The first trade occurred at 4:01 a.m. at \(\$ 17.50\). The Company's stock closed that day at \(\$ 17.32\) per share, with 38 million shares having traded. The day before, the Company's stock closed at \(\$ 14.68\) per share, and only 3.2 million shares were traded. Id. 9母I 15-16; see Zmijewski Tr. 1096.

Having considering the Cammer and Krogman factors, Zmijewski opined that " \([t]\) he evidence indicates that Stillwater's common stock traded in a semi-strong efficient market." Zmijewski Rep. ๆ 49.

In response, Shaked disputed whether the Cammer and Krogman factors established informational efficiency to a sufficiently reliable degree. He opined that "the Cammer and Krogman factors have not been academically tested and are not truly conclusive in judging a market as semi-strong form efficient, but merely an indicator that a market is likely semistrong form efficient." Shaked Rep. © 23. The petitioners did not cite any academic studies or provide other forms of evidence that would undermine the use of the Cammer and Krogman factors, at least as a starting point for assessing informational efficiency. Zmijewski did not engage on this issue. He analyzed the factors because he understood that courts considered them.

\section*{b. The Event Studies}
*55 The experts also conducted event studies. Zmijewski's event study tested for a cause-and-effect relationship between new information and a trading price reaction, which would
provide evidence of informational efficiency. He examined five events-the four quarterly earnings releases leading up to the announcement of the Merger plus the announcement itself. Zmijewski characterized the events as positive or negative, and examined the market evidence to determine if the observations resulted in statistically significant abnormal returns. Three of the five did, but one of those was the reaction to the announcement of the Merger. Shaked persuasively observed that finding a statistically significant relationship between the trading price and the announcement of the Merger was trivial. See Shaked Tr. 468-69.

For the remaining four observations, Zmijewski found that only two resulted in statistically significant abnormal returns, and he admitted that he would have expected the rate of statistically significant results in an informationally efficient market to be higher. Zmijewski Tr. 1101. The events themselves do not suggest any reason why the market would have reacted in one instance and not the other. For example, for both the fourth quarter of 2015 and the third quarter of 2016, Stillwater announced higher earnings per share, yet only the former resulted in a statistically significant abnormal return.

Shaked conducted three event studies, and he analyzed the results not only for evidence of a cause-and-effect relationship consistent with informational efficiency, but also for evidence of directionality and proportionality that would provide indications of fundamental value efficiency. In his first study, Shaked looked at eleven quarterly earnings releases during the three-year period leading up to the announcement of the Merger and characterized their informational content as positive or negative. He then examined whether the announcement resulted in abnormal returns consistent with the direction of the news. Shaked observed that only six of the eleven releases resulted in a directionally consistent reaction; five of the eleven did not.

In his second study, Shaked examined articles, analyst reports and SEC filings during the same three-year period, yielding a total of 181 events that he believed contained material new information. News of the 181 events was published on a total of fifty-six days, resulting in fifty-six observations. Although there are reasons to question some of Shaked's events, on the whole, his identification appears credible. Of these fifty-six observations, only twelve resulted in statistically significant abnormal returns that were consistent with the directional content of the information. Moreover, there were thirty-eight days in the study period when there was a
statistically significant abnormal return but no material news announcement.

In his third study, Shaked tested for proportionality by examining the reaction of the Company's stock to the announcement of a significant increase in the expansion of its mining operations in its earnings announcement for the third quarter of 2016. In the prior quarterly earnings releases, the Company forecast that the expansion would produce between 150,000 and 200,000 PGM ounces per year. JX 134 at 13; JX 187 at 17. In the earnings announcement for the third quarter of 2016, the Company increased the projection to between 270,000 and 330,000 PGM ounces per year. JX 309 at 16; see JX 306. Shaked estimated the pretax net income that would result from the increased output, taking into account the additional costs. He then prepared a discounted-cash-flow model that assumed production would ramp up by 25,000 ounces per year until 2022, continue at 125,000 ounces per year until 2031, then stop with no terminal value. Based on this model, Shaked calculated a net present value of \(\$ 111.6\) million for the increased production, which should have equated to a \(7.08 \%\) abnormal return. Although the stock reacted positively, the observed abnormal return was only \(0.39 \%\). Shaked concluded that the Company's stock did not react in a proportionate manner, further undermining the claim of informational efficiency.

\section*{c. The Assessment Of Market Efficiency}
*56 Absent any countervailing evidence, Zmijewski's analysis of the Cammer and Krogman factors would support a finding that the trading market for Stillwater's common stock had sufficient attributes to be regarded as informationally efficient. Shaked pointed out that the Cammer and Krogman factors have not been shown to provide a reliable indication of informational efficiency, but given the weight of authority on this issue, an absence of evidence on this point is no longer enough. \({ }^{23}\)

The event studies, however, cut in the opposite direction. Courts applying the Cammer and Krogman factors have generally given greater weight to event studies compared to the other factors. \({ }^{24}\) Based on his studies, Shaked opined that Stillwater's stock did not trade in a manner consistent with informational efficiency, and Zmijewski's event study generated relatively unconvincing results. Given this evidence, it is difficult to conclude that Stillwater's stock was informationally efficient to a degree sufficient to use the
trading price as an indicator of fair value when a superior market-based metric, like the deal price, is available. That does not mean that Stillwater's stock was not informationally efficient, only that the deal price is a superior market-based metric for purposes of determining fair value.
*57 Shaked's event studies also raised questions about the degree of directionality and proportionality exhibited by the market for Stillwater's common stock. This evidence does not mean that Stillwater's stock price was unreliable, but it does make it difficult to conclude that Stillwater's stock was fundamental-value efficient to a degree sufficient to use the trading price as an indicator of fair value when a superior market-based metric like the deal price is available.

\section*{3. Evidence Of Information Gaps}

The petitioners advance two other challenges to the reliability of Stillwater's trading price. Because everyone agrees that the market for Stillwater's common stock could only be informationally efficient in the semi-strong sense, the trading price could only account for publicly available information. The petitioners argue that material information about Stillwater's inferred reserves was not publicly available, meaning that the trading price could not be a reliable indicator of fundamental value. They also cite evidence indicating that the parties themselves did not trust the market's estimation of the Company's value. The former point is another strike against the trading price; the latter is not.

\section*{a. Industry Guide 7}

The petitioners argue that Stillwater's trading price is not a reliable indicator of value because the market did not have access to material information related to the Company's value. On this issue, the petitioners relied on another expert: Thomas Matthews, a Principal Resource Geologist at Gustavson Associates. Matthews discussed the constraints imposed by Industry Guide 7, which specifies what the United States Securities and Exchange Commission permits a mining company to disclose. See JX 843 [hereinafter Industry Guide 7]; 17 C.F.R. 229.801(g).

To oversimplify a significantly more complex area, Industry Guide 7 only permits a mining company to disclose information about proven reserves or probable reserves. A proven reserve is a mineral deposit where (i) "quantity is computed from dimensions revealed in outcrops, trenches,
workings or drill holes," (ii) "grade or quality are computed from the results of detailed sampling," and (iii) "the sites for inspection, sampling and measurement are spaced so closely and the geologic character is so well defined that size, shape, depth and mineral content of reserves are wellestablished." Industry Guide 7 I (a)(2). A probable reserve is a mineral deposit where "the sites for inspection, sampling, and measurement are farther apart or are otherwise less adequately spaced," resulting in a "degree of assurance" that is "lower than that for proven reserves" but still "high enough to assume continuity between points of observation." Id. ब (a)(3). Industry Guide 7 does not permit a mining company to disclose information about inferred resources, which are mineral deposits where the quantity, grade, and quality "can be estimated" based on "geological evidence," "limited sampling," and "reasonably assumed, but not verified, geological and grade continuity." JX 7 at 4; see Industry Guide 7 ब (b)(5), Instruction 3.

Since at least 2012, the Society for Mining, Metallurgy and Exploration, Inc. has criticized this aspect of Industry Guide 7, complaining that the restrictions on reporting "limits the completeness and relevance of SEC reports for investors." JX 15 at 1 . The Society contrasted Industry Guide 7 with the standards applied in other countries, which permit this disclosure. Id. at 2. In 2016, the SEC acknowledged the issue and proposed revisions to Industry Guide 7, but the new rules did not go into effect until 2018, long after the Merger closed. See Modernization of Property Disclosures for Mining Registrants, Exchange Act Release No. 34-84509, 2018 WL 5668900 (Oct. 31, 2018).
*58 Under Industry Guide 7 as it existed during the period leading up to the Merger, Stillwater could disclose information about the Stillwater Mine and East Bolder Mine, but could not disclose information about the inferred resources at Blitz, Lower East Boulder, Iron Creek, Altar, and Marathon. See JX 727 || 13 (Matthews Reb. Rep.). For Blitz, the Company possessed but could not disclose "a resource estimation, a conceptual mine plan, material movement schedules, a capital and operating cost review, and a preliminary economic analysis for the Blitz expansion." Id. - 12. The Company could only disclose certain drill data and briefly describe production target ranges, estimated capital spend, and timeframes. See id. \(\mathbb{\|} 14\).

The parties disagreed about whether disclosure of this information would cause investors to place a higher or lower valuation on the Company, but they agreed that it created
an information gap for purposes of trading in the Company's stock. See id. ब 16; Zmijewski Tr. 1151. Zmijewski argued that because the effect of the information was unknowable, the court should assume that the absence of the information did not bias the trading price up or down. Sibanye also pointed out that some of the information was available in a filing that Stillwater made in March 2011 under the laws of Canada. See JX 9 at '055; cf. JX 501 at '345.

Stillwater's inability to disclose information about inferred resources under Industry Guide 7, combined with its partial disclosure of some of this information in a Canadian filing from 2011, are negative factors for purposes of using the Company's trading price as a valuation indicator. They are not dispositive in their own right, but they undermine the relative persuasiveness of the trading price.

\section*{b. Contemporaneous Evidence Of A Valuation Gap}

The petitioners also cite contemporaneous evidence in the record in which knowledgeable insiders affiliated with Stillwater, its advisors, or Sibanye regarded the trading price as an unreliable indicator of value. For example:
- In May 2015, Stillwater management told the Board that " \([\mathrm{m}]\) uch of the value from Blitz, Lower East Boulder and recycle ramp up yet to be recognized by the market and potential buyers." JX 41 at ' 715 .
- In January 2016, the Board thought that "the stock had been forced down significantly and ... didn't feel it really was reflective of what was going on in the business." McMullen Dep. 145.
- In June 2016, Froneman described the markets as "a bit all over the place lately." JX 152 at '532.
- In their second and third quarter 2016 reports, BMO analysts thought the Company's stock price did not reflect the value of Blitz. See JX 766 (stating in October 2016 that "[e]ven with arguably conservative assumptions, we maintain our opinion that the magnitude of the growth potential at Blitz is not factored into SWC shares"); Shaked Rep. \(\mathbb{1} 124\) (quoting a June 2016 BMO report stating that "Blitz remains an underappreciated growth opportunity").
- In October 2016, Vujcic told the Board that the market perceived PGMs as "exposed to irrational producer
behaviour in both South Africa and Russia." JX 293 at '522.
- During October, November, and December 2016, Stewart repeatedly stated that "[a]t an offer price of \(\sim\) US \(\$ 2 \mathrm{bn}\) ( \(30 \%\) premium to 30 day VWAP) we are effectively paying a full price for the existing operations, \(50 \%\) of Blitz and getting the remaining upside optionality for free." JX 282 at '775; see JX 410; JX 378 at '009; JX 447 at '981. He did not believe the market was "really considering Blitz." JX 397 at '451; see JX 280 at '279 (describing the Company's underperformance as "unlikely to remain as market recognises improvements are sustainable and Blitz comes on line").
*59 • In late November 2016, two weeks before signing, Stewart stated that the market was "currently at or near the bottom of the PGM cycle," suggesting a depressed stock price. JX 410 at '099; see PTO ब 257; see also JX 280 at '279; JX 399 at '407.
- In early December 2016, days before signing, McMullen commented on how the price of palladium had been artificially depressed. See JX 437 at ' 471 (noting that palladium was "finally starting to reflect the fundamentals")
- After announcing the Merger, Sibanye received two "deal of the year" awards and commented in both instances that the Merger was signed "at an opportune time in the commodity price cycle." JX 511; JX 641 at 1.
- At trial, Schweitzer testified that "[t]he company's stock price was all over the place from 2013 to 2016" and that he and "McMullen both believed there was a disconnect between the price of metals and the share price for Stillwater stock." Schweitzer Tr. 173.
This evidence as a whole is less extensive and persuasive than what the record demonstrated about the contemporaneous views of knowledgeable insiders regarding the existence of a valuation gap in Dell, and the Delaware Supreme Court in that case found that the trial court erred by giving weight to that evidence. See Dell, 177 A.3d 25-26; cf. Dell Trial, 2016 WL 3186538 , at *33-36. This decision therefore does not give any weight to the petitioners' weaker showing in this case.

\section*{4. The Comparative Reliability Of The Trading Price}

Through Zmijewski's analysis of the Cammer and Krogman factors, Sibanye made an initial showing that would be sufficient to support the reliability of the trading price as
a valuation indicator absent contrary evidence. The results of the experts' event studies and the limitations imposed by Industry Guide 7 provided contrary evidence. Based on the parties' showings, the trading price is a less persuasive and less reliable valuation indicator in this case than the deal price. The lack of a reliable trading price does not undermine a court's ability to rely on the deal price, where the persuasiveness of the deal price has been established by analyzing the sufficiency of the sale process. See Columbia, 2019 WL 3778370, at *49.

This decision does not find that the trading price was so unreliable that it could not be used as a valuation indicator. If a market-tested indicator like the deal price was unavailable, then this decision might well have given weight to the trading price. Had this decision been forced to take that route, it would not have relied on the unaffected trading price, because Sibanye did not argue for its use, but instead would have taken into account the adjusted trading price.

Based on the record that the parties generated, Sibanye did not carry its burden to establish that the adjusted trading price was a sufficiently reliable valuation indicator for the court to use in determining fair value. The reliability of the adjusted trading price depended on the reliability of the unaffected trading price, and the record provides sufficient reason for concern about incorporating a trading price metric. This decision therefore does not give any weight to the adjusted trading price.

\section*{C. The Discounted Cash Flow Models}

The petitioners and Sibanye each introduced a DCF valuation prepared by an expert. The petitioners relied on Rosen, whose DCF model generated a value of \(\$ 25.91\) per share. Sibanye relied on Zmijewski, whose DCF model generated a value of \(\$ 17.03\) per share. The difference amounts to approximately \(\$ 1\) billion in value.
*60 The DCF method is a technique that is generally accepted in the financial community. "While the particular assumptions underlying its application may always be challenged in any particular case, the validity of [the DCF] technique qua valuation methodology is no longer open to question." Pinson, 1989 WL 17438, at *8 n.11. It is a "standard" method that "gives life to the finance principle that firms should be valued based on the expected value of their future cash flows, discounted to present value in a manner that accounts for risk." Andaloro v. PFPC Worldwide, Inc., 2005 WL 2045640, at *9 (Del. Ch. Aug. 19, 2005).

The DCF model entails three basic components: an estimation of net cash flows that the firm will generate and when, over some period; a terminal or residual value equal to the future value, as of the end of the projection period, of the firm's cash flows beyond the projection period; and finally a cost of capital with which to discount to a present value both the projected net cash flows and the estimated terminal or residual value.
In re Radiology Assocs., Inc. Litig., 611 A.2d 485, 490 (Del. Ch. 1991) (internal quotation marks omitted).

In Dell and DFC, the Delaware Supreme Court cautioned against using the DCF methodology when market-based indicators are available. In Dell, the high court explained that "[a]lthough widely considered the best tool for valuing companies when there is no credible market information and no market check, DCF valuations involve many inputsall subject to disagreement by well-compensated and highly credentialed experts-and even slight differences in these inputs can produce large valuation gaps." Dell, 177 A.3d at 37-38. The high court warned that when market evidence is available, "the Court of Chancery should be chary about imposing the hazards that always come when a law-trained judge is forced to make a point estimate of fair value based on widely divergent partisan expert testimony." Id. at 35 . Making the same point conversely in \(D F C\), the Delaware Supreme Court advised that a DCF model should be used in appraisal proceedings "when the respondent company was not public or was not sold in an open market check ...." DFC, 172 A.3d at 369 n .118 . The high court commented that "a singular discounted cash flow model is often most helpful when there isn't an observable market price." Id. at 370.

This case illustrates the problems that the Delaware Supreme Court identified. The experts disagreed over many inputs, with small changes producing large swings in value. The briefing focused on eight inputs, with four generating the bulk of the difference.

First, the experts debated whether to apply a small-company risk premium, otherwise known as a size premium. Zmijewski applied a size premium of \(1.66 \%\), relying on Duff \& Phelps, 2017 Valuation Handbook - U.S. Guide to Cost of Capital (2017). Rosen did not apply one, arguing that it was not warranted. To the extent the court disagreed, he argued for using a premium of \(1.5 \%\) drawn from Ibbotson Associates, SBBI 2013 Valuation Yearbook (2013). The scholarly literature on whether and how to apply a size premium is less than enlightening. The same respected
scholars have found different results depending on the data set, \({ }^{25}\) and others have engaged in vigorous debate about how to interpret the data and what inferences to draw. \({ }^{26}\) This one dispute results in a valuation swing of \(\$ 2.13\) per share, accounting for approximately \(24 \%\) of the difference between the two models.
*61 Second, the experts debated the size of the equity risk premium. Zmijewski used a historic supply-side risk premium of 5.97\% published by Duff \& Phelps. See JX 837; JX 893. Duff \& Phelps advised practitioners to deduct \(1.08 \%\) from this measurement to account for "the WWII Interest Rate Bias." JX 893 at 34. Zmijewski did not make the adjustment, explaining that it would not make sense to exclude the effect of interest rate controls during World War II, while failing to account for other periods of government control, such as the extreme phases of interest rate repression and quantitative easing that followed the 2008 financial crisis. Zmijewski Tr. 1042-43. Rosen used a forward-looking premium of 5.34\%, derived from a model created by Aswath Damodaran. See JX 678. Zmijewski criticized the model, explaining that a user could generate approximately seventy different equity risk premiums by manipulating the inputs and objecting to some of Rosen's selections. See JX 893 at 47; JX 894; Zmijewski Tr. 1053-54. This one dispute results in a valuation swing of \(\$ 1.33\) per share, accounting for approximately \(15 \%\) of the difference between the two models.

Third, the experts disputed which set of commodity price forecasts to use to generate cash flows. Zmijewski relied on price forecasts prepared by another expert for Sibanye. JX 710 (Burrows Rep.). Rosen relied on price forecasts from Bloomberg. JX 654 ब 8.21 (Rosen Rep.). This one dispute results in a valuation swing of \(\$ 0.82\) per share, accounting for approximately \(9 \%\) of the difference between the two models.

Fourth, the experts diverged in their treatment of Stillwater's exploration areas. Sibanye argued that any valuation of these properties would be speculative and instructed Zmijewski not to try. Zmijewski Tr. 1074-75. Rosen estimated an "inground metal dollar value" for the properties, then relied on a report that examined PGM transactions in South Africa to estimate that exploration properties could be worth "between .5 percent and 2.5 percent of the estimated in situ dollar value of metal." Rosen Tr. 277-78; see JX 765. The respondent's mining expert identified many problems with Rosen's method. See JX 768. The dispute over the exploration areas results in a valuation swing of more than
\(\$ 2.00\), accounting for approximately \(23 \%\) of the difference between the two models.

Four other disputes account for the remaining valuation swing of \(\$ 3.00\) per share. Those disagreements concern how to account for the resources in mine-adjacent areas, the amount of excess cash, the value of inventory, and the value of Altar. As with the four major disputes, both sides have good reasons for their positions.

The legitimate debates over these inputs and the large swings in value they create undercut the reliability of the DCF model as a valuation indicator. If this were a case where a reliable market-based metric was not available, then the court might have to parse through the valuation inputs and hazard semi-informed guesses about which expert's view was closer to the truth. In this case, there is a persuasive marketbased metric: the deal price that resulted from a reliable sale process. Dell and DFC teach that a trial court should have greater confidence in market indicators and less confidence in divergent expert determinations. See Dell, 177 A.3d at 3538; \(D F C, 172\) A.3d at \(368-70 \&\) n.118. Compared to the deal-
Case \begin{tabular}{lll} 
Time Between \\
Announcement \\
of Deal and \\
Commencement \\
of Tender Offer
\end{tabular}\(~\)\begin{tabular}{l} 
Time from \\
Commencement \\
of Tender Offer \\
to Closing
\end{tabular}
price metric, the DCF technique "is necessarily a second-best method to derive value." Union Illinois, 847 A.2d at 359. This decision therefore does not use it. See In re Appraisal of Solera Hldgs., Inc., 2018 WL 3625644, at *32 (Del. Ch. July 30, 2018).

\section*{III. CONCLUSION}

The fair value of the Company's common stock at the effective time of the Merger was \(\$ 18.00\) per share. The legal rate of interest, compounded quarterly, shall accrue on the appraised value from the effective date until the date of payment. The parties shall cooperate to prepare a form of final order. If there are additional issues that need to be resolved, then the parties shall submit a joint letter within fourteen days that identifies them and proposes a path to bring this matter to a conclusion at the trial level.

\section*{APPENDIX}
\begin{tabular}{lll} 
Total Time for & Termination Fee & \begin{tabular}{l} 
Other Deal \\
Protection \\
Purposes of \\
Court Decision
\end{tabular} \\
& & Measures
\end{tabular}
\begin{tabular}{llllll} 
Yanow v. Sci. & 4 business days, 4 & 19 business days, & 23 business days, & Expense & Window-shop, \\
Leasing, Inc., & calendar days & 28 calendar days & 32 calendar days & reimbursement & \(16.6 \%\) stock \\
1988 WL 8772 & & & & & option lock-up
\end{tabular}
\begin{tabular}{llllll}
\hline In re Fort Howard & 4 business days, 4 & 25 business days, & 29 business days, & \$67.8 million; & No-shop \\
Corp. S'holders \\
calendar days & 38 calendar days & 42 calendar days & \(1.9 \%\) of equity & permitting target \\
Litig., 1988 WL & & & & & value \\
83147 (Del. Ch. & & & & \begin{tabular}{l} 
information and \\
Aug. 8,1988 )
\end{tabular} & \\
& & & negotiate (i.e., a \\
& & & window-shop).
\end{tabular}
\begin{tabular}{lllllll}
\hline In re KDI Corp. & 4 business days, 6 & 24 business days, & 28 business days, & \(\$ 8\) million; \(4.3 \%\) of & Window-shop \\
S'holders Litig., & calendar days & 35 calendar days & 41 calendar days & equity value & \\
1988 WL 116448 & & & & & \\
(Del. Ch. Nov. 1, & & & & & \\
1988) & & & & & \\
& & & & & & \\
\hline In re Formica & 3 business days, 3 & 30 business days, & 33 business days, & Graduated fee & Strict no-shop \\
Corp. S'holders & calendar days & 43 calendar days & 46 calendar days & capped at 1.9\% of & \\
Litig., 1989 WL & & & & equity value &
\end{tabular}
\begin{tabular}{|c|c|c|c|}
\hline Braunschweiger v. Am. Home Shield Corp., 1989 WL 128571 (Del. Ch. Oct. 26, 1989) & Single-step merger. No tender offer. 143 business days, 205 calendar days, between announcement of merger and stockholder vote approving deal. & \(4.5 \%\) of equity value & None \\
\hline Roberts v. Gen. Instr. Corp., 1990 WL 118356 (Del. Ch. Aug. 13, 1990) & \begin{tabular}{lll}
5 business days, 7 & 25 business days, & 30 business days, \\
calendar days & 35 calendar days & 42 calendar days
\end{tabular} & \$33 million; 2\% of equity value & Window-shop \\
\hline \begin{tabular}{l}
McMillan \(v\). \\
Intercargo Corp., 768 A.2d 492 (Del. Ch. 2000)
\end{tabular} & Single-step merger. No tender offer. 102 business days, 148 calendar days between announcement of merger and stockholder vote approving deal. & \$3.1 million; 3.5\% of equity value & Window-shop \\
\hline In re Pennaco Energy, Inc. S'holders Litig., 787 A.2d 691 (Del. Ch. 2001) & \begin{tabular}{lll}
9 business days, & 20 business days, & 29 business days, \\
17 calendar days & 28 calendar days & 45 calendar days
\end{tabular} & \$15 million; 3\% of equity value & Window-shop \\
\hline In re Cysive, Inc. S'holders Litig., 836 A.2d 531 (Del. Ch. 2003) & Single-step merger. No tender offer. 45 business days, 63 calendar days between announcement of merger and stockholder vote approving deal. & Expenses up to \(\$ 1.65\) million; up to \(1.7 \%\) of deal value & Window-shop with matching rights \\
\hline In re MONY Gp. Inc. S'holder Litig., 852 A.2d 9 (Del. Ch. 2004) & Single-step merger. No tender offer. 82 business days, 121 calendar days between announcement of merger and stockholder vote approving deal. & \$50 million; 3.3\% of equity value; \(2.4 \%\) of deal value & Window-shop \\
\hline In re Dollar Thrifty S'holder Litig., 14 A.3d 573 (Del. Ch. 2010) & Single-step merger. No tender offer. 100 business days, 144 calendar days between announcement of merger and stockholder vote approving deal. & \(\$ 44.6\) million with up to additional \(\$ 5\) million in expenses; 4.3\% of deal value after accounting for options, RSUs and performance units. & Window-shop with matching rights \\
\hline In re SmurfitStone Container Corp. S'holder Litig., 2011 WL 2028076 (Del. Ch. May 20, 2011) & Single-step merger. No tender offer. 89 business days, 123 calendar days between announcement of merger and stockholder vote approving deal. & \$120 million; 3.4\% of equity value & Window-shop with matching rights \\
\hline \begin{tabular}{l}
In re EI Paso \\
Corp. S'holder \\
Litig., 41 A.3d 432 \\
(Del. Ch. 2012)
\end{tabular} & Single-step merger. No tender offer. 51 business days, 75 calendar days between announcement of merger and stockholder vote approving deal. & \$650 million; 3.1\% of equity value & Window-shop with matching rights \\
\hline \begin{tabular}{l}
In re Plains Expl. \\
\& Prod. Co. \\
S'holder Litig., \\
2013 WL 1909124
\end{tabular} & Single-step merger. No tender offer. 79 business days, 117 calendar days between announcement of merger and stockholder vote approving deal. & \$207 million; 3\% of deal value & Window-shop with matching rights \\
\hline
\end{tabular}
(Del. Ch. May 9, 2013)

C \& J Energy Single-step merger. No tender offer. 130 business days, \(\$ 65\) million; 2.27\% Window-shop Servs., Inc. v. 189 calendar days between announcement of merger and of deal value City of Miami stockholder vote approving deal.

\section*{All Citations}

Not Reported in Atl. Rptr., 2019 WL 3943851

\section*{Footnotes}

1 Citations in the form "PTO \| -" refer to stipulated facts in the pre-trial order. Dkt. 209. Citations in the form "[Name] Tr." refer to witness testimony from the trial transcript. Citations in the form "[Name] Dep." refer to witness testimony from a deposition transcript. Citations in the form "JX — at -" refer to a trial exhibit with the page designated by the last three digits of the control or JX number. If a trial exhibit used paragraph or section numbers, then references are by paragraph or section.
2 The two slides in the management presentations that addressed a sale contained comments like " \(\rceil]\) inding a willing buyer with higher priced currency is difficult," "[m]uch of the value from Blitz, Lower East Boulder and recycle ramp up yet to be recognized by the market and potential buyers," and the " \([r]\) cecent downward trend in PGM prices not the right environment in which to be a seller." Id. at ' 866 to ' 867 . Out of the nearly 190 slides in the banker presentations, only one discussed a possible sale. There, BMO opined that selling was "unlikely to be a value maximizing strategy until value has been extracted from all the other alternatives" available to the Company. Id. at '108.
3 See, e.g., JX 50 at ' 586 to '594; JX 52; JX 53; JX 55; JX 57; JX 58; JX 67; JX 68; PTO \(\mathbb{1}\) I 138-39. Although principally focused on acquisitions, McMullen asked BMO in an October 2015 email for its views about "who would potentially be a buyer of Stillwater in an M+A deal?" JX 57 at ' 920 . BMO sent back a list of twenty-one candidates, but warned that "[g]enerally as a whole we would say that we do not believe there is a high level of current interest and capability for an acquisition of Stillwater." Id. at '919.
4 Only one slide in McMullen's presentation referenced a sale of the Company, and it advised that there was a "[v]ery limited number of potential buyers" and that because "commodity prices and sentiment are low," the Company "would not realize full value potentially." JX 86 at ' 025 . By contrast, he presented multiple slides discussing positively how the Company could deploy its "capital and currency" (its stock) to make an acquisition. See id. at '026 to '035.
5 See JX 138; JX 139 at ' 831 ; JX 154 at '087; JX 155; JX 157 at '315; McMullen Tr. 709-10; see also JX 349.
6 See Schweitzer Tr. 189-90. McMullen testified that he told Schweitzer and Merrin about Sibanye's approach after his initial meeting with Froneman. He also claimed that he kept the Board informed as discussions progressed. McMullen's self-interested testimony conflicted with Schweitzer's more credible testimony and other record evidence.
7 See JX 152 at ' 532 ' 533 . At trial, McMullen testified that after Sibanye conducted its site visit, the Board told him that they wanted "some sort of written expression of interest" before starting "a data room process." McMullen Tr. 728-29. That testimony was not credible. The evidence indicates that McMullen did not brief the Board about a potential transaction with Sibanye until the July 2015 board meeting. See Schweitzer Tr. 189-90.
8 JX 364 at '374. At trial, Schweitzer testified that this was the meeting at which the Board finally decided it did not need a special committee. See Schweitzer Tr. 157-58, 194. The minutes omit any discussion of the matter.
9 Id. at 72. Although Battye is the seminal Delaware Supreme Court case on point, Chancellor Josiah Wolcott initially established the meaning of "value" under the appraisal statute in Chicago Corporation v. Munds, 172 A. 452 (Del. Ch. 1934). Citing the "material variance" between the Delaware appraisal statute, which used "value," and the comparable New Jersey statute that served as a model for the Delaware statute, which used "full market value," Chancellor Wolcott held that the plain language of the statute required "value" to be determined on a "going concern" basis. Id. at 453-55. But see Union III. 1995 Inv. Ltd. P'ship v. Union Fin. Gp., Ltd., 847 A.2d 340, \(355-56\) (Del. Ch. 2004) ("This requirement
that the valuation inquiry focus on valuing the entity as a going concern has sometimes been confused as a requirement of § 262's literal terms. It is not.").
10 See, e.g., Montgomery Cellular Hldg. Co. v. Dobler, 880 A.2d 206, 222 (Del. 2005); Paskill Corp. v. Alcoma Corp., 747 A.2d 549, 553 (Del. 2000); Rapid-Am. Corp. v. Harris, 603 A.2d 796, 802 (Del. 1992); Cavalier Oil Corp. v. Harnett, 564 A.2d 1137, 1144 (Del. 1989); Bell v. Kirby Lumber Corp., 413 A.2d 137, 141 (Del. 1980); Universal City Studios, Inc. v. Francis I. duPont \& Co., 334 A.2d 216, 218 (Del. 1975).
11 Cede \& Co. v. Technicolor, Inc., 2003 WL 23700218, at *2 (Del. Ch. Dec. 31, 2003, revised July 9, 2004), aff'd in part, rev'd in part on other grounds, 884 A.2d 26 (Del. 2005); accord Finkelstein v. Liberty Dig., Inc., 2005 WL 1074364, at *12 (Del. Ch. Apr. 25, 2005) ("The judges of this court are unremittingly mindful of the fact that a judicially selected determination of fair value is just that, a law-trained judge's estimate that bears little resemblance to a scientific measurement of a physical reality. Cloaking such estimates in grand terms like 'intrinsic value' does not obscure this hard truth from any informed commentator.").
12 See Aruba, 210 A.3d at 136 ("It cannot be that an open chance for buyers to bid signals a market failure simply because buyers do not believe the asset on sale is sufficiently valuable for them to engage in a bidding contest against each other."); Dell, 177 A.3d at 29 ("Fair value entails at a minimum a price some buyer is willing to pay-not a price at which no class of buyers in the market would pay."); id. at 33 (finding that absence of higher bid meant "that the deal market was already robust and that a topping bid involved a serious risk of overpayment," which "suggests the price is already at a level that is fair").
13 See Lawrence A. Hamermesh \& Michael L. Wachter, Finding the Right Balance in Appraisal Litigation: Deal Price, Deal Process, and Synergies, 73 Bus. Law. 961, 962 (2018) (commending outcomes in Dell and DFC and arguing that "the Delaware courts' treatment of the use of the deal price to determine fair value does and should mirror the treatment of shareholder class action fiduciary duty litigation"); id. at 982-83 (citing Dell and DFC in observing, "What we discern from the case law, however, is a tendency to rely on deal price to measure fair value where the transaction would survive enhanced judicial scrutiny .... Thus, in order to determine whether to use the deal price to establish fair value, the Delaware courts are engaging in the same sort of scrutiny they would have applied under Revlon if the case were one challenging the merger as in breach of the directors' fiduciary duties." (footnote omitted)); Charles Korsmo \& Minor Myers, The Flawed Corporate Finance of Dell and DFC Global, 68 Emory L.J. 221, 269 (2018) (explaining that Dell and DFC "conflate questions of fiduciary duty liability with the valuation questions central to appraisal disputes").
14 See id. at 1068 n. 87 (citing cases including In re Dollar Thrifty S'holders Litig., 14 A.3d 573, 612-13, 615 (Del. Ch. 2010) (finding that the target board's use of no-shop, matching rights, and termination fee provisions were reasonable even though the company had agreed to deal exclusively with the buyer without conducting a pre-signing market check); and In re MONY Gp. Inc. S'holders Litig., 852 A. \(2 d 9\) (Del. Ch. 2004) (finding that the board acted reasonably even though it did not actively shop the company because the board was financially sophisticated, had knowledge of the relevant industry, and there was a "substantial opportunity for an effective market check" after the agreement was announced)); id. at 1069 (citing Lyondell Chem. Co. v. Ryan, 970 A.2d 235, 243 (Del. 2009)).
15 See id. at *44. The PLX Trial decision included an appendix that collected decisions approving a passive market check. The table somehow swapped the details of the passive market check in Braunschweiger v. American Home Shield Corporation, 1989 WL 128571 (Del. Ch. Oct. 26, 1989), with the details from In re Formica Corporation Shareholders Litigation, 1989 WL 25812 (Del. Ch. Mar. 22, 1989). A corrected version is attached to this decision as an appendix.
16 See Citron v. Fairchild Camera \& Instr. Corp., 569 A.2d 53, 66 (Del. 1989) ("Il]n change of control situations, sole reliance on hired experts and management can taint[ ] the design and execution of the transaction. Thus, we look particularly for evidence of a board's active and direct role in the sale process." (internal quotation marks omitted)); Mills Acq. Co. v. Macmillan, Inc., 559 A.2d 1261, 1281 (Del. 1989) ("[A] board of directors ... may not avoid its active and direct duty of oversight in a matter as significant as the sale of corporate control."); Cede \& Co. v. Technicolor, Inc. (Technicolor II), 634 A.2d 345, 368 (Del. 1993) (explaining that directors must maintain "an active and direct role in the context of a sale of a company from beginning to end"); In re Rural Metro Corp. S'holders Litig., 88 A.3d 54, 91 (Del. Ch. 2014) ("As a threshold matter, the decision to initiate a sale process falls short under enhanced scrutiny because it was not made by an authorized corporate decisionmaker. The Board did not make the decision to launch a sale process, nor did it authorize the Special Committee to start one."), aff'd sub nom. RBC Capital Mkts., LLC v. Jervis, 129 A.3d 816 (Del. 2015); id. ("One of the Delaware Supreme Court's clearest teachings is that 'directors cannot be passive instrumentalities during merger proceedings.' " (quoting Technicolor II, 634 A.2d at 368)).
17 See Aruba, 210 A.3d at 136-39, 142 (adopting deal price less synergies as fair value where company's banker contacted five potential buyers after HP's initial outreach, none were interested, sale process terminated, and sale process later
resumed as single-bidder engagement with HP, with only one quick contact to a sixth party); Dell, 177 A.3d at 28 (finding competitive pre-signing process where Silver Lake competed one-at-a-time with interested parties); DFC, 172 A.3d at \(350,355,376\) (finding "competitive process of bidding" where company's banker contacted "every logical buyer," three expressed interest, and two named a preliminary price with one dropping out before serious negotiations commenced).
See Dell Trial, 2016 WL 3186538, at *29 \& n. 24 (citing Joshua Rosenbaum \& Joshua Pearl, Investment Banking: Valuation, Leveraged Buyouts, and Mergers \& Acquisitions 195-96 (2009) ("IAn LBO model] is used ... to determine an implied valuation range for a given target in a potential LBO sale based on achieving acceptable returns...."); and Donald M. DePamphilis, Mergers, Acquisitions, and Other Restructuring Activities 506 (7th ed. 2014) ("[T]he DCF analysis solves for the present value of the firm, while the LBO model solves for the internal rate of return."); id. at *29 nn. 25,26 (citing Rosenbaum \& Pearl, supra, at 195-96 ("In an M\&A sell-side advisory context, the banker conducts LBO analysis to assess valuation from the perspective of a financial sponsor. This provides the ability to set sale price expectations for the seller and guide negotiations with buyers accordingly ...." (emphasis added)); id. at 235-36 ("Traditionally, the valuation implied by LBO analysis is toward the lower end of a comprehensive analysis when compared to other methodologies, particularly precedent transactions and DCF analysis. This is largely due to the constraints imposed by an LBO, including leverage capacity, credit market conditions, and the sponsor's own IRR hurdles.")).
19 See, e.g., Dent v. Ramtron Int'I Corp., 2014 WL 2931180, at *8-10 (Del. Ch. June 30, 2014) (rejecting fiduciary challenge to "(1) a no-solicitation provision; (2) a standstill provision; (3) a change in recommendation provision; (4) information rights for [the acquirer]; and (5) a \(\$ 5\) million termination fee" where termination fee represented \(4.5 \%\) of equity value and change-of-recommendation provision included unlimited matching right); In re BJ's Wholesale Club, Inc. S'holders Litig., 2013 WL 396202, at *13 (Del. Ch. Jan. 31, 2013) (rejecting fiduciary challenge to a merger agreement with a no-shop provision, matching and information rights, a termination fee representing \(3.1 \%\) of deal value, and a force-thevote provision; observing that "under Delaware law, these deal protection measures, individually or cumulatively, have routinely been upheld as reasonable"); In re Novell, Inc. S'holder Litig., 2013 WL 322560, at *10 (Del. Ch. Jan. 3, 2013) (describing "the no solicitation provision, the matching rights provision, and the termination fee" as "customary and well within the range permitted under Delaware law" and observing that "[t]he mere inclusion of such routine terms does not amount to a breach of fiduciary duty"); In re Synthes, Inc. S'holder Litig., 50 A.3d 1022, 1049 (Del. Ch. 2012) (finding that a termination fee of \(3.05 \%\) of equity value, a no-solicitation provision with a fiduciary out and matching rights, a force-thevote provision, and a voting agreement that locked up at least \(33 \%\) of the company shares in favor of the merger were not unreasonable deal protection devices); In re Answers Corp. S'holders Litig., 2011 WL 1366780, at * 4 \& \(n .47\) (Del. Ch. Apr. 11, 2011) (describing "a termination fee plus expense reimbursement of \(4.4 \%\) of the Proposed Transaction's equity value, a no solicitation clause, a 'no-talk' provision limiting the Board's ability to discuss an alternative transaction with an unsolicited bidder, a matching rights provision, and a force-the-vote requirement" as "standard merger terms" that "do not alone constitute breaches of fiduciary duty" (quoting In re 3Com S'holders Litig., 2009 WL 5173804, at *7 (Del. Ch. Dec. 18, 2009))); In re Atheros Commc'ns, Inc. S'holder Litig., 2011 WL 864928, at \({ }^{*} 7\) n. 61 (Del. Ch. Mar. 4, 2011) (same analysis for no-solicitation provision, matching right, and termination fee); In re 3Com, 2009 WL 5173804, at *7 \& n. 37 (rejecting challenge to merger agreement with a no-solicitation provision, matching rights, and a termination fee in excess of \(4 \%\) of equity value; describing provisions as having been "repeatedly" upheld by this court and collecting authorities).
The pop-culture illustration of this principle is J. Wellington Wimpy's offer to "gladly pay you Tuesday for a hamburger today." See J. Wellington Wimpy, Wikipedia, https://en.wikipedia.org/wiki/J._Wellington_Wimpy (last visited Aug. 20, 2019). Setting aside credit risk, dollars paid next Tuesday are worth less than dollars paid today, so the same price paid next Tuesday is a pleasant deal for Wimpy. The same is true for Sibanye in an appraisal. Valuing Stillwater at \(\$ 18.00\) per share based on an agreement reached on December 8, 2016, then using that figure to determine value as of May 4, 2017, lets Sibanye use December's dollars for a valuation in May. The statutory interest award is measured from closing, so that aspect of the appraisal remedy does not pick up the decline in the purchasing power of dollars used to measure the deal-price metric. In this respect, the petitioners are differently situated than stockholders who did not pursue their appraisal rights. They accepted the \(\$ 18.00\) per share and received it, without interest, shortly after May 4, 2017, once the merger consideration payouts were processed through the clearing system. The appraisal petitioners did not accept that outcome. They opted for appraisal and sought a determination of Stillwater's fair value as of May 4, 2017. Sibanye can argue legitimately that the deal price of \(\$ 18.00\) per share provides the best evidence of fair value, but that is a price calculated in December 2016 dollars, not May 2017 dollars.
21 See Fernán Restrepo \& Guhan Subramanian, The New Look of Deal Protection, 69 Stan. L. Rev. 1013, 1058-63 (2017) (analyzing implications of matching rights); Brian JM Quinn, Bulletproof: Mandatory Rules for Deal Protection, 32 J. Corp. L. 865, 870 (2007) (analyzing matching rights as the functional equivalent of a right of first refusal and explaining that " \([t]\) he
presence of rights of first refusal can be a strong deterrent against subsequent bids" because "[s]uccess under these circumstances may involve paying too much and suffering the 'winner's curse' "); see also Marcel Kahan \& Rangarajan K. Sundaram, First-Purchase Rights: Rights of First Refusal and Rights of First Offer, 12 Am. L. \& Econ. Rev. 331, 331 (2012) (finding "that a right of first refusal transfers value from other buyers to the right-holder, but may also force the seller to make suboptimal offers"); Frank Aquila \& Melissa Sawyer, Diary of a Wary Market: 2010 in Review and What to Expect in 2011, 12 M \& A Law. Nov.-Dec. 2010, at 1 ("Match rights can result in the first bidder 'nickel bidding' to match an interloper's offer, with repetitive rounds of incremental increases in the offer price.... [M]atch rights are just one more factor that may dissuade a potential competing bidder from stepping in the middle of an already-announced transaction."); David I. Walker, Rethinking Rights of First Refusal, 5 Stan. J.L. Bus. \& Fin. 1, \(20-21\) (1999) (discussing how a right of first refusal affects bidders).
22 See, e.g., Richard A. Booth, Minority Discounts and Control Premiums in Appraisal Proceedings, 57 Bus. Law. 127, 151 n. 130 (2001) ("[M]arket price should ordinarily equal going concern value if the market is efficient."); William J. Carney \& Mark Heimendinger, Appraising the Nonexistent: The Delaware Court's Struggle with Control Premiums, 152 U. Pa. L. Rev. 845, 847-48, 857-58 (2003) ("The basic conclusion of the Efficient Capital Markets Hypothesis (ECMH) is that market values of companies' shares traded in competitive and open markets are unbiased estimates of the value of the equity of such firms."); id. at 879 (noting that the appraisal statute requires consideration of all relevant factors and stating that "in an efficient market, absent information about some market failure, market price is the only relevant factor"); Lawrence A. Hamermesh \& Michael L. Wachter, The Short and Puzzling Life of the "Implicit Minority Discount" in Delaware Appraisal Law, 156 U. Pa. L. Rev. 1, 52 (2007) ("Take the case of a publicly traded company that has no controller. Efficient market theory states that the shares of this company trade at the pro rata value of the corporation as a going concern."); id. at 60 ("As a matter of generally accepted financial theory ..., share prices in liquid and informed markets do generally represent th[e] going concern value ...."); see also Lawrence A. Hamermesh \& Michael L. Wachter, Rationalizing Appraisal Standards in Compulsory Buyouts, 50 B.C. L. Rev. 1021, 1033-34 (2009) (positing trading prices should not be used to determine fair value if there is either no public market price at all, if the shares are illiquid or thinly traded, or if there is a controlling stockholder, implying that outside of these scenarios, "because financial markets are efficient, one can simply use the market value of the shares").
23 The experts' exploration of the Cammer and Krogman factors has left me with significantly less confidence in them than I had before this litigation. There appears to be substantial overlap among the factors, such that a single attribute, like a New York Stock Exchange listing, would correlate with and lead to the satisfaction of multiple factors. For an issuer to satisfy multiple Cammer and Krogman factors is thus likely less significant than it might seem. It is also striking how many of the Cammer and Krogman, at least based on Zmijewski's report, stem from judicial opinions or law review articles, rather than from financial or economic papers. I am left with the concern that the Cammer and Krogman factors may be a convenient heuristic that law-trained judges deploy as a matter of routine, rather than because they have support in reliable research. That said, the absence of evidence is not necessarily evidence of absence, and the record in this case does not provide grounds to call the Cammer and Krogman factors into doubt.
24 See, e.g., In re DVI, Inc. Sec. Litig., 639 F.3d 623, 634 (3d Cir. 2011) ("[B]ecause an efficient market is one in which information important to reasonable investors ... is immediately incorporated into stock prices, the cause-and-effect relationship between a company's material disclosures and the security price is normally the most important factor in an efficiency analysis." (internal quotation marks omitted)), abrogated on other grounds by Amgen Inc. v. Conn. Ret. Plans \& Tr. Funds, 568 U.S. 455 (2013); In re Xcelera.com Sec. Litig., 430 F.3d 503, 512 (1st Cir. 2005) (describing the cause and effect prong of Cammer as "in many ways the most important" and explaining that " \([i] n\) the absence of such a relationship, there is little assurance that information is being absorbed into the market and reflected in its price"); Cammer, 711 F . Supp. at 1287 ("[S]howing a cause and effect relationship between unexpected corporate events or financial releases and an immediate response in the stock price" is "the essence of an efficient market and the foundation for the fraud on the market theory."); see also Teamsters Local 445 Freight Div. Pension, Fund v. Bombardier Inc., 546 F.3d 196, 207 (2d Cir. 2008) (quoting Xcelera.com for the import of the cause and effect prong of Cammer). That said, the cause-andeffect factor is not dispositive. Beaver Cty. Empls.' Ret. Fund v. Tile Shop HIdgs., Inc., 2016 WL 4098741, at *10-11 (D. Minn. July 28,2016 ) (collecting cases and explaining that " \([t]\) he weight of authority on this issue favors" a finding of market efficiency without a favorable resolution of the cause and effect factor).
25 Compare Eugene F. Fama \& Kenneth R. French, A Five-Factor Asset Pricing Model, 116 J. Fin. Econ. 1 (2015) (JX 681) (finding evidence of size premium in asset pricing models), and Eugene F. Fama \& Kenneth R. French, Common Risk Factors in the Returns on Stocks and Bonds, 33 J. Fin. Econ. 3 (1993) (JX 680) (finding evidence that stocks with smaller market capitalizations tended to have higher average returns), with Eugene F. Fama \& Kenneth R. French, Size,

Value, and Momentum in International Stock Returns, 105 J. Fin. Econ. 457 (2012) (JX 679) (finding no evidence of a size premium in any region based on analyses of international stock returns from November 1989 to March 2011).
26 Compare, e.g., Cliff Asness et al., Size Matters, If You Control Your Junk, 129 J. Fin. Econ. 479, 479 (2018) (finding "[a] significant size premium ..., which is stable through time, robust to the specification, more consistent across seasons and markets, not concentrated in microcaps, robust to non-price based measures of size, and not captured by an illiquidity premium" and arguing that challenges to the existence of the size premium "are dismantled when controlling for the quality, or the inverse 'junk', of a firm"), and Roger Grabowski, The Size Effect Continues To Be Relevant when Estimating the Cost of Capital, 37 Bus. Valuation Rev. 93 (2018) (responding to criticisms of Ang, infra), with Aswath Damodaran, The Small Cap Premium: Where is the Beef?, Musings on Markets (Apr. 11, 2015) (JX 682 at 1) (commenting that "the historical data, which has been used as the basis of the argument [for size premia], is yielding more ambiguous results and leading us to question the original judgment that there is a small cap premium" and that "forward-looking risk premiums, where we look at the market pricing of stocks to get a measure of what investors are demanding as expected returns, are yielding no premium for small cap stocks"), http://aswathdamodaran.blogspot.com/2015/04/the-small-cap-premium-fact-fiction-and.html, and Clifford Ang, The Absence of a Size Effect Relevant to the Cost of Equity, 37 Bus. Valuation Rev. 87 (2018) (JX 732 at 3-4) (concluding from survey of empirical literature that either "(1) investors ... do not believe a size effect exists and, therefore, do not demand compensation for it, or (2) investors ... believe a size effect exists, but believe the adjustment for the size effect is not made in the cost of equity"). Zmijewski has acknowledged that "there is much weaker evidence of a size effect since the original [article finding the effect] was published." JX 836 at 322.

KeyCite Yellow Flag - Negative Treatment
Distinguished by In re Appraisal of Dell Inc., Del.Ch., May 31, 2016
2015 WL 4540443
Only the Westlaw citation is currently available.

\section*{UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.}

Court of Chancery of Delaware.
LONGPATH CAPITAL, LLC, a Delaware limited liability company, Petitioner, V.

RAMTRON INTERNATIONAL CORPORATION, a Delaware corporation, Respondent. C.A. No. 8094-VCP |
Submitted: March 3, 2015
|
Decided: June 30, 2015

\section*{Attorneys and Law Firms}

David A. Jenkins, Esq., Laurence V. Cronin, Esq., Smith, Katzenstein \& Jenkins LLP, Wilmington, Delaware; Attorneys for Petitioner.
A. Thompson Bayliss, Esq., Sara E. Hickie, Esq., Abrams \& Bayliss LLP, Wilmington, Delaware; Attorneys for Respondent.

\section*{MEMORANDUM OPINION}

PARSONS, Vice Chancellor.
*1 In this appraisal action, the petitioner asks the Court to determine the fair value of its shares in the respondent. On November 10, 2012, a third party acquired the respondent in a hostile cash merger for \(\$ 3.10\) per share. The deal had an equity value of approximately \(\$ 110\) million and paid a \(71 \%\) premium over the respondent's unaffected stock price of \(\$ 1.81\).

The petitioner acquired its shares after the announcement of the merger and demanded appraisal pursuant to 8 Del . C. § 262. The respondent contends the merger price less synergies
offers the most reliable measure of the fair value of its shares. That methodology, as applied by the respondent's expert, yields a value of \(\$ 2.76\) per share. The petitioner's expert, relying on a combination of a discounted cash flow ("DCF") analysis and a comparable transactions analysis, contends that the fair value is \(\$ 4.96\) per share.

For the reasons that follow, I conclude that a DCF analysis is not an appropriate method of determining fair value in this instance. The utility of a DCF ceases when its inputs are unreliable; and, in this instance, I conclude that the management projections that provide the key inputs to the petitioner's DCF analysis are not reliable. The parties agree that there are no comparable companies. The petitioner relies, in part, upon a comparable transactions approach, but I conclude that his two-observation data set does not provide a reasonable basis to determine fair value. Although the petitioner thoroughly disputes this point, I conclude that the sales process in this instance was thorough and that the transaction price less synergies provides the most reliable method of determining the fair value of the petitioner's shares. The respondent, however, has not shown that the synergies in fact amounted to \(\$ 0.34\) per share, as it claims. Instead, I adopt the petitioner's estimate of \(\$ 0.03\) per share in synergies, resulting in a fair value of \(\$ 3.07\) per share.

\section*{I. BACKGROUND}

I begin by providing a brief overview of the parties, the respondent and its business, and the process leading up to the merger. \({ }^{1}\) I delve more deeply into several of these and related topics in subsequent Sections.

\section*{A. The Parties}

Petitioner, LongPath Capital, LLC ("LongPath"), is an investment vehicle that began acquiring shares of the respondent in mid-October 2012, about a month after the announcement of the merger. \({ }^{2}\) Overall, LongPath timely demanded and perfected its appraisal rights as to 484,700 shares of common stock in the respondent. \({ }^{3}\)

Respondent, Ramtron International Corporation ("Ramtron" or the "Company"), is a fabless semiconductor company that produces F-RAM. A "fabless" semiconductor company is one that does not manufacture the silicon wafers used in
its products, but instead, outsources that task to a separate company known as a "fab" or a "foundry." RAM stands for random access memory, a ubiquitous component of computers. F-RAM is ferroelectric RAM. \({ }^{5}\) The benefits of F-RAM are that it has fast read and write speeds, can be written to a high number of times, and consumes low power. \({ }^{6}\) Importantly, F-RAM will retain memory when power is lost. \({ }^{7}\)
*2 Nonparty Cypress Semiconductor Corporation ("Cypress") issued a bear hug letter to Ramtron on June 12, 2012, offering to buy all of its shares for \(\$ 2.48\) per share. \({ }^{8}\) After Ramtron's board rejected the offer as inadequate, Cypress initiated a hostile tender offer on June 21, 2012, at \(\$ 2.68\) per share. \({ }^{9}\) Ramtron and Cypress eventually reached an agreement on a transaction price of \(\$ 3.10\) per share and signed a merger agreement on September 18, 2012. \({ }^{10}\) Following a subsequent tender offer-apparently in an unsuccessful effort to acquire \(90 \%\) or more of the outstanding stock or at least solidify Cypress' stock holdings-and a stockholder vote, the long-form merger closed on November 20, 2012 (the "Merger"). \({ }^{11}\)

\section*{B. Ramtron's Operative Reality}

Throughout this litigation, Respondent has portrayed Ramtron as a struggling company unlikely to be able to continue as a business had the transaction with Cypress not concluded successfully. Petitioner, by contrast, describes Ramtron as a company with strong patent and intellectual property protection of its core products, a successful new management team, and excellent business prospects. Indeed, in relying on the management projections, Petitioner characterizes Ramtron as a company on the verge of taking off like a rocket. Perhaps unsurprisingly, I find that Ramtron's operative reality at the time of the Merger was somewhere in between these practically polar opposite characterizations.

\section*{1. Ramtron's foundry situation}

As a fabless semiconductor company, Ramtron's relationships with its foundries were vitally important. Indeed, Ramtron depended on its foundry to manufacture its products. At the time of the Merger, Ramtron's primary foundry was Texas Instruments ("TI"). \({ }^{12}\) Ramtron's contract with TI provided that, if TI decided to terminate the contract, it would have
to provide three additional years of products to Ramtron. By contrast, in the event of a change-in-control transaction at Ramtron, TI could stop providing foundry services after only ninety days. \({ }^{13}\)

Semiconductor foundries were the subject of a substantial amount of testimony at trial. As will be seen, the subject of foundries relates to both the reliability of the management predictions and the disputed cause of Ramtron's poor performance in 2012. Gery Richards, Ramtron's CFO at the time of the Merger, \({ }^{14}\) testified that Fujitsu previously served as the Company's primary foundry. In 2009, Fujitsu gave Ramtron a "last-time buy" notice under the relevant contract, indicating that Fujitsu intended to terminate its foundry relationship with Ramtron in two years. \({ }^{15}\)

The testimony at trial made clear that transitioning foundries is not a simple process. Semiconductors are complex products. In fact, even the silicon wafers from which the semiconductors are created are not commodities but instead vary by company. \({ }^{16}\) Additionally, each foundry's technology differs and F-RAM, being a relatively unique product, complicates the process further. Thus, transitioning to a new foundry requires understanding the foundry's manufacturing technology and how it interacts with the semiconductors as designed, then modifying the product design to eliminate any resulting errors, then completing several rounds of product testing followed by further design modifications to eliminate any previously undiscovered errors, and then allowing the customers to evaluate the product before finally moving to full-scale production. \({ }^{17}\) Unlike, for example, consumer RAM that one could purchase at an electronics store for a PC and then, depending on the model, simply "plug and play," Ramtron's F-RAM often was designed into the product being created by another manufacturer, thus inhibiting Ramtron's ability to unilaterally change its products in any significant way. According to T.J. Rodgers, the CEO of Cypress, even for a noncontroversial shift of "going to a different foundry, to change one of your products, you're looking at two years plus." \({ }^{18}\)
*3 In fact, Ramtron's own track record of foundry transitions suggests that two years probably is a significant underestimate. When Fujitsu gave Ramtron a last-time buy notice in 2009, Ramtron already had been attempting to develop a second foundry relationship with TI. The effort of transitioning to TI had begun in 2004 and took seven years to complete. \({ }^{19}\) That transition was not smooth, resulting in
product shortages that caused Ramtron to place its customers on allocation. \({ }^{20}\) Despite the difficulty of transitioning from Fujitsu to TI, Ramtron succeeded, eventually, in obtaining a reliable new foundry.

To increase its flexibility and reduce its dependence on TI, Ramtron sought to develop a second foundry relationship with IBM. That effort, however, never succeeded. Thomas Davenport, Ramtron's Vice President of Technology at the time of the Merger, \({ }^{21}\) described the Company's attempt to work with IBM. Davenport headed up a team of six people that worked from 2009 until spring 2012, attempting to get IBM up and running as a second Ramtron foundry. They incurred \(\$ 17\) million in direct costs in addition to \(\$ 16\) million in capital equipment purchased by Ramtron and provided to IBM to enable it to produce F-RAM. \({ }^{22}\) But, in what Davenport considered a "huge personal disappointment," \({ }^{23}\) the integration project failed and Ramtron never achieved a single milestone. To put the IBM investment in context, in 2011 Ramtron had approximately \(\$ 66\) million in revenue. \({ }^{24}\)

The witnesses at trial uniformly attested to the difficulty of transitioning foundries. \({ }^{25}\) Ramtron's own experience with transitioning to TI and its failed attempt to develop IBM as a foundry confirm this fact. Nevertheless, on July 20, 2012, about a month after Cypress launched its hostile bid for Ramtron, Ramtron entered into a manufacturing agreement with ROHM Co., Ltd. ("ROHM"), a Japanese company, to act as Ramtron's second fab. \({ }^{26}\) Ramtron's management's fiveyear forecasts incorporate the purported cost savings that would derive from having ROHM operate as a second, or even the primary, foundry for Ramtron.

\section*{2. Ramtron's business and finances}

\section*{Revenue Recognition Comparison}

Ramtron's board of directors installed Eric Balzer as the Company's new CEO in January 2011. \({ }^{27}\) He hired Pete Zimmer to lead the Company's sales department. At Zimmer's recommendation, Scott Emley was hired to lead Ramtron's marketing department. Both Zimmer and Emley had worked at TI and joined Ramtron sometime in 2011. \({ }^{28}\) Richards officially became CFO in late 2011 or 2012. \({ }^{29}\) Thus, as of the time of the Merger, most of Ramtron's executives had been in their positions for less than two years and, in the case of Emley and Zimmer, about a year.

The difficult transition from Fujitsu to TI caused problems for Ramtron's day-today business throughout 2011 and into 2012. A brief overview of Ramtron's sales process is required in order to understand that effect. Ramtron sold some of its product directly to customers, but the majority was sold to distributors who in turn sold the products to the end users. \({ }^{30}\) Ramtron also recognized revenue on a point-of-purchase basis instead of a point-of-sale basis. Under the point-ofpurchase system, revenue is recognized when the product is shipped to a distributor. By contrast, under the point-of-sale method, revenue is only recognized when the product is sold to the end user, whether directly by the Company or indirectly by the distributor. \({ }^{31}\)
*4 Theoretically, the two systems should arrive at the same results. Unless the distributors are buying exactly the same amount of inventory as they are selling during each financial reporting period, however, the systems will result in revenue being recognized at different times. To take a simplistic example, suppose a company sells \(100 \%\) of its products through distributors and that the company develops a new product in the first quarter. The following chart provides an example of how the company would recognize revenue under the two different regimes assuming the company sold 100 units of the product to the distributors at \(\$ 1\) each over the course of a year:

\section*{Revenue Recognized}
\begin{tabular}{lllll}
\hline Quarter & Distributors & Point-of-Purchase Method & Point-of-Sale Method \\
\hline & Buy & Sell & & \\
\hline Q1 & 20 & 0 & \(\$ 20\) & \(\$ 0\) \\
\hline Q2 & 30 & 10 & \(\$ 30\) & \(\$ 10\)
\end{tabular}
\begin{tabular}{lllll}
\hline Q3 & 40 & 20 & \(\$ 40\) & \(\$ 20\) \\
\hline Q4 & 10 & 30 & \(\$ 10\) & \(\$ 30\)
\end{tabular}

This comparison deliberately highlights an important dispute between the parties in this case: the point-of-purchase method makes it difficult to forecast actual demand because the distributors provide a buffer. Indeed, in this example, under the point-of-purchase method, demand appears to be falling, while under the point-of-sale method, it appears to be rising. Several of the witnesses testified that they believed Ramtron's point-of-purchase revenue system made it more difficult accurately to forecast future sales. \({ }^{32}\) The revenue recognition system matters for two reasons. First, as already mentioned, distributor activity can mask actual demand. The difficult transition from Fujitsu to TI forced Ramtron to place its customers on allocation in or around 2011. Because Ramtron's F-RAM already was designed into many of their customers' products, those customers needed to ensure that they would have a sufficient supply of F-RAM. After they were placed on allocation, many customers apparently increased their orders accordingly. \({ }^{33}\) For example, a customer that was allocated \(80 \%\) of its ordered amount potentially would order five units for every four that it actually needed. This increase in orders led Ramtron to increase the number of wafers it was ordering from TI. The upshot of this chain of events was a massive inventory bubble, over-recognition of revenue, and a resulting cash crunch for Ramtron because it then had to pay for the extra inventory it ordered. \({ }^{34}\) Because of its point-of-purchase revenue recognition, Ramtron recognized these additional distributor orders as revenue, even though the over-ordering was not reflective of "real" underlying demand, but instead, at least in part, was an effort of the customers to game the allocation system.

The second reason that Ramtron's point-of-purchase revenue recognition system is relevant is because it allows management to alter the Company's revenue by forcing more inventory into the distribution channels. This practice is known as "channel stuffing." As discussed in more detail in Section III.A infra, I find that Ramtron's management did stuff the channel in the first quarter of 2012, thereby distorting the company's revenue.

The combination of over-orders from customers that were placed on allocation and Ramtron's stuffing of the channel
led to a massive build-up of inventory. The chart below \({ }^{35}\) shows the amount of inventory Ramtron had accumulated as of the time of the Merger. Because of its point-of-purchase accounting system, Ramtron already had recognized this inventory as revenue. As this chart shows, in the first quarter of 2012, Ramtron had 3.6 times as much inventory as a year earlier.

\section*{Ramtron Inventory}


This inventory needed to be financed, which took a serious toll on Ramtron's cash position. Ramtron's primary lender was Silicon Valley Bank ("SVB"). Throughout 2011 and 2012, the years affected by the inventory bubble, Ramtron either missed or needed to renegotiate its loan covenants repeatedly. For example, the Company missed its April 2011 liquidity covenant and received a forbearance for May of that year. \({ }^{36}\) A July 7, 2011 Form 8-K filing states that on June 30, 2011, Ramtron entered into a Default Waiver and Fifth Amendment to its loan agreement with SVB, an amendment that cost the Company \(\$ 20,000 .{ }^{37}\)

Around this time, Cypress began expressing an interest in Ramtron. On March 8, 2011, Cypress made a non-public written offer to Ramtron for \(\$ 3.01\) a share. \({ }^{38}\) Ramtron rejected the offer as inadequate later that month. The offer represented a \(37 \%\) premium over the March 8 closing price of Ramtron's stock. \({ }^{39}\) Rodgers described the offer as including "a high market premium to say we were serious and not to try to squeeze on them., \({ }^{40}\)

After rebuffing Cypress and renegotiating its bank covenants, Ramtron still needed capital. SVB apparently had shifted to lending to Ramtron on an asset-backed basis, meaning that its loans were collateralized by the Company's receivables instead of being unsecured. Ramtron considered borrowing from other lenders, but concluded that the cost was too high. \({ }^{41}\) So, in July 2011, Ramtron launched a secondary public offering of \(4,750,000\) shares, which was roughly \(20 \%\) of its outstanding shares. \({ }^{42}\) The secondary offering occurred at \(\$ 2\) per share, with a net to Ramtron of \(\$ 1.79\) after underwriting commissions and other charges. \({ }^{43}\) The Company used the proceeds of this equity raise largely for working capital to pay off its excess inventory. \({ }^{44}\)

As the above chart shows, Ramtron's inventory continued to increase throughout 2011. Despite the recent equity raise, Ramtron soon fell short on cash again. At least one internal Company email from January 2012 suggests that the first quarter covenants would be tight. \({ }^{45}\) And, by spring 2012, the Company was in a cash crunch of sorts. Richards emailed Davenport on March 3, 2012, that "we are basically running on fumes in regards to cash management and related bank covenants, which we just announced new ones yesterday., \({ }^{46}\) These cash management problems continued after Cypress announced its hostile bid for Ramtron on June 12, 2012. Shortly after the merger agreement was signed, Richards provided Brad Buss, Cypress' then-CFO, with cash forecasts that showed the Company would go cash negative on October 26, 2012. \({ }^{47}\) In response, Cypress promptly began funding Ramtron. \({ }^{48}\)
*6 Overall, the evidence shows that Ramtron continually had difficulty meeting its bank covenants, but that SVB seemed willing to renegotiate those covenants. There is no evidence that SVB ever sought to call its loans or that the Company actually faced a serious risk of foreclosure. Richards concisely summed up Ramtron's relationship with SVB as "rocky in regards to the covenants" but that he "had a good relationship with the bankers." \({ }^{49}\) From the evidence of record, therefore, I conclude that the Company was cashstrapped and struggling from a liquidity standpoint at the time of the Merger, but that Ramtron was not, as Cypress suggests, a bankruptcy waiting to happen.

On June 12, 2012, Ramtron issued a public letter declaring its intent to acquire Ramtron for \(\$ 2.48\) a share. \({ }^{50}\) Interestingly, the \(\$ 2.48\) offer reflected the same \(37 \%\) premium to market as Cypress' March 2011 offer; the decrease in price corresponded to the fall in Ramtron's stock price. \({ }^{51}\) Ramtron rejected that offer as inadequate in a June 18 press release and announced that it had begun exploring strategic alternatives. \({ }^{52}\)

Only two days after Cypress announced its public bid, Balzer, Ramtron's CEO, ordered the creation of new long-term management projections (the "Management Projections"). While, as discussed infra, the parties vigorously dispute the accuracy of Ramtron's prior forecasts, there seems to be no dispute that the Company's management had not previously created multi-year forecasts and instead generally only created five-quarter forecasts. \({ }^{53}\) Balzer oversaw the team in charge of creating the new management projections, which consisted of Richards, Brian Yates, who worked for Richards, Zimmer, and Emley. \({ }^{54}\)

A June 14, 2010 email chain among those five individuals shows a team undertaking a new and unfamiliar project. As if emphasizing that the projections were not being prepared in the ordinary course of Ramtron's business, Balzer wrote that he wanted a "product by product build up, with assumptions, for it to hold water in the event of a subsequent dispute." \({ }^{55}\) Indeed, Richards testified that he understood the purpose of the projections to be twofold: marketing the company to a white knight and creating inputs for a DCF analysis. \({ }^{56}\) The Ramtron management team had never done long-term projections before. \({ }^{57}\) Zimmer, the head of sales, wrote that not even the automotive industry, which he apparently considered more predictable than the semiconductor industry, "can do a line item 4 year forecast." 58 He also suggested that for "[o]ut years I would simply plug in \(30 \%\) CAGR, \({ }^{, 59}\) a comment that reinforces the inference that these projections were not produced in the ordinary course of business based on reliable data. Additionally, Balzer wanted the projections done using a point-ofsale approach, as opposed to Ramtron's standard point-of-purchase methodology. Ramtron's management team had never done point-of-sale projections. \({ }^{60}\) I describe the resulting projections in significantly more detail in Section III.A infra.

\section*{C. The Merger}
*7 Meanwhile, Cypress' hostile offer continued. On June 21, 2012, Cypress commenced a hostile tender offer for Ramtron at \(\$ 2.68\) per share. \({ }^{61}\) Ramtron's Board rejected the \(\$ 2.68\) price as inadequate and not in the best interests of the Company's stockholders. Accordingly, the Board recommended that the stockholders not tender their shares. \({ }^{62}\) Shortly thereafter, Ramtron issued its second quarter 2012 earnings, which were significantly below expectations. In the first quarter of 2012, Ramtron had reported \(\$ 15\) million in revenue and reaffirmed its public guidance for entire-year 2012 revenue of "approximately \(\$ 70\) million." \({ }^{63}\) On July 24, 2012, Ramtron reported \(\$ 14.2\) million in revenue for the second quarter and projected revenue of \(\$ 14\) to \(\$ 14.5\) million for the third quarter. \({ }^{64}\) These results and projections placed the Company on track to undershoot its full-year 2012 estimate by at least \(\$ 10\) million. On July 26, 2012, shortly after Ramtron's announcement, Merriman Capital, the only analyst covering Ramtron, downgraded the Company from "buy" to "neutral." \({ }^{\text {" }}\) Merriman also suspended its target price and observed that "were Cypress to pull its offer for Ramtron, these shares might very well return to the \(\$ 2.00\) range or perhaps lower." \({ }^{\text {, } 66}\)

The witnesses at trial agreed that Ramtron's second quarter performance was disappointing. \({ }^{67}\) The parties, however, vigorously dispute the reasons for that. Petitioner assigns basically all of the blame for the poor second quarter to Cypress and denies that it resulted from any inherent weakness in Ramtron. According to Petitioner, the distributors pulled back their orders dramatically in light of Cypress' hostile bid, because they feared being terminated after the merger. For this proposition, LongPath relies mostly on Balzer's deposition testimony. \({ }^{68}\) Respondent argues that Ramtron's second quarter results reflected Ramtron's own operational failures.

It is conceivable that Cypress' offer may have had some negative effect on second quarter sales, but the weight of the evidence shows that operational shortcomings of Ramtron were the primary cause of the decline in sales. Ramtron appears to run on a calendar fiscal year. As such, less than three weeks remained in June (and the second quarter) when Cypress issued its bear hug letter on June 12 and at most ten days remained after Cypress initiated its hostile tender offer. The most probable explanation for the poor second quarter is that Ramtron's management had stuffed the Company's distribution channel with inventory in the first quarter of

2012, and that caused the Company's distributors to order less product in quarter two. I discuss channel stuffing in Section III. A infra. Here, it suffices to note that, as of the first quarter of 2012, Ramtron had \(\$ 25.5\) million in inventory, a \(264 \%\) increase over the previous year. Even assuming Ramtron's optimistic 2012 projection of \(\$ 70\) million in revenue, Ramtron had roughly nineteen weeks worth of inventory, for which it already had recognized revenue, at the beginning of the second quarter of 2012. \({ }^{69}\) A fiscal quarter contains only thirteen weeks.

Other factors support the conclusion that Cypress' hostile bid did not drive Ramtron's poor second quarter performance. First, Davenport disagreed with the allegation that the distributors were pulling back because of Cypress. Davenport viewed Zimmer's comments to that effect as excuses for not hitting his sales targets. \({ }^{70}\) Considering that Balzer admittedly based his assertion that the distributors were withholding orders on out-of-court statements made by Zimmer, who did not testify at trial, I accord it little weight. Second, it appears from the record that a significant number of Ramtron's products are "designed into" the final products, meaning that the end users would need the semiconductors to complete their own products and thus would have relatively stable, long-term demand. This makes it unlikely that demand dipped sharply at the end of Q2 because of Cypress' bid. \({ }^{71}\) For all of these reasons, I find that, although Cypress' bid may have contributed slightly to Ramtron's poor performance in the second quarter of 2012, the main cause of that performance was Ramtron's own business reality.
*8 Notwithstanding the poor second quarter, Cypress increased its offer price to \(\$ 2.88\) per share on August 27, 2012, and extended the term of the tender offer. \({ }^{72}\) On September 10, 2012, Ramtron's Board again concluded that the offer was inadequate and recommended that the stockholders not tender their shares. \({ }^{73}\) During the time Cypress was pursuing its hostile tender offer, Ramtron actively canvassed the market looking for other buyers. In fact, Ramtron contacted over twenty potential suitors, a process I discuss in more detail in Section III.C infra. None of those other companies, however, ever made a firm offer, even though the most serious of them had access to Ramtron's internal management projections.

Beginning on September 12, 2012, representatives of Cypress and Ramtron engaged in active negotiations. Cypress increased its offer to \(\$ 3.01\) per share on September 16 and then again to \(\$ 3.08\) on September 17. Later that same day,

Ramtron and Cypress agreed on the final transaction price of \(\$ 3.10\) per share. \({ }^{74}\) The parties signed the merger agreement on September \(18,{ }^{75}\) and the Merger was approved by a stockholder vote on November 20, 2012. \({ }^{76}\)

\section*{D. Procedural History}

LongPath filed this appraisal action on December 11, 2012. After the parties engaged in discovery, the Court presided over a three-day trial from October 7 to 9, 2014. Eight witnesses testified, including the parties' experts. After extensive post-trial briefing, I heard final argument on March 3, 2015.

I also note, for completeness, that a stockholder class action challenging the Merger was filed on October 15, 2012. Those plaintiffs moved to preliminarily enjoin the Merger, but that motion was denied. Thereafter, the defendants in the class action moved to dismiss. On June 30, 2014, I issued a memorandum opinion granting those motions and dismissing the stockholder class action with prejudice. \({ }^{77}\)

\section*{E. Parties' Contentions}

Both parties base their positions on expert testimony. Petitioner called David Clarke as its expert; Respondent relied upon Gregg Jarrell. Not surprisingly, the experts arrived at widely disparate conclusions. Clarke contends that the fair value of Ramtron's stock as of the Merger was \(\$ 4.96\) a share. Jarrell opines that the stock was worth only \(\$ 2.76\). Petitioner's fair value of \(\$ 4.96\) a share is more than \(274 \%\) of Ramtron's unaffected stock price of \(\$ 1.81\).

Clarke bases his conclusion of \(\$ 4.96\) per share on a combination of a DCF analysis and a comparable transactions analysis, which he weighted at \(80 \%\) and \(20 \%\), respectively. Clarke relied on Ramtron's management projections and a three-stage DCF analysis to arrive at a value of \(\$ 5.20\) per share. He based his comparable transactions analysis on a dataset consisting of only two transactions and obtained a fair value of \(\$ 3.99\) per share. Because Clarke found no comparable companies, he did not rely on that valuation method.

Jarrell rather unusually began his analysis with two premises: (1) that the Merger price was the result of a fair and
competitive auction; and (2) that the management projections were overly optimistic. Based on these predicates, Jarrell opted to examine the transaction price and back out any synergies in order to determine fair value. This approach resulted in a fair value of \(\$ 2.76\) per share. In addition, Jarrell conducted a DCF analysis, in which he relied upon the management projections he earlier concluded were overly optimistic. Based on that analysis, Jarrell opined, apparently in the alternative, that the fair value of the Company's shares was \(\$ 3.08\) each, a number coincidentally only two pennies from the Merger price. As a result of his analysis, Jarrell also concluded that there were no comparable companies or comparable transactions.
*9 Much has been said of litigation-driven valuations, none of it favorable. \({ }^{78}\) Here, the parties have proffered widely disparate valuation numbers which differ, at the extremes, by \(\$ 2.44\) as compared to an unaffected stock price of \(\$ 1.81\) and a deal price of \(\$ 3.10\). LongPath asks this Court to adopt its \(\$ 4.96\) figure and conclude that the market left an amount on the table exceeding Ramtron's unaffected market capitalization. This would be a significant market failure, especially in the context of a well-publicized hostile bid and a target actively seeking a white knight. But, LongPath itself is a market participant. It bought its shares after the announcement of the Merger, thereby effectively purchasing an appraisal lawsuit. Although such arbitrage can be profitable on the merits when flawed deals undervalue companies, LongPath invested an amount so small that, even if I accepted its position and concluded that Ramtron's true value at the time of the Merger was somewhere in the range of \(\$ 4.96\) per share, this lawsuit is likely a less-than-breakeven proposition for LongPath after considering its litigation expenses. Respondent, on the other hand, has submitted an eyebrow-raising DCF that, based on projections its expert presumed were overly optimistic, still returns a "fair" value two cents below the Merger price.

\section*{II. STANDARD OF REVIEW}

In a statutory appraisal action brought pursuant to 8 Del . C. § 262, the Court is tasked with "determin[ing] the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation, together with interest, if any, to be paid upon the amount determined to be the fair value., \({ }^{, 79}\) The Delaware Supreme Court has held that "fair value" is "the value to a stockholder of the firm as a going concern, as opposed
to the firm's value in the context of an acquisition or other transaction." 80 "Accordingly, the corporation must be valued as a going concern based upon the 'operative reality' of the company as of the time of the merger. \({ }^{, 81}\) Section 262 directs that, in making this determination, "the Court shall take into account all relevant factors. \({ }^{, 82}\) Our case law has made clear that "[a]ny 'techniques or methods which are generally considered acceptable in the financial community and otherwise admissible in court' may be used. \({ }^{\prime} 83\)

As is well-known, the Delaware appraisal statute places the burden of proof on both parties. \({ }^{84}\) "If neither party satisfies its burden, however, the court must then use its own independent business judgment to determine fair value., 85

\section*{III. ANALYSIS}

A survey of the case law reveals that there are four main, or at least recurring, valuation techniques generally presented in an appraisal action: a discounted cash flow or DCF analysis, a comparable companies approach, a comparable transactions approach, and an examination of the merger price itself, less synergies. Like all tools, each has its own strengths and weaknesses. The parties agree that there are no comparable companies. Jarrell and Clarke disagree about whether there are comparable transactions, but the universe of potential comparables, even according to Clarke, is limited to two. Both sides conducted a DCF analysis, but disagree about certain issues in addition to the reliability of the Management Projections, such as the proper size premium, the appropriate method of modeling future capital expenditures, and whether a two-step or three-step DCF is more appropriate, as well as several more minor issues. The parties strongly disagree about the appropriate weight, if any, to give the Merger price, which Respondent weighs at \(100 \%\). Petitioner places the most weight on its DCF analysis. Accordingly, I begin there and then address the utility of a comparable transactions approach before turning to the transaction price.

\section*{A. A Discounted Cash Flow Analysis Is Inappropriate Because the Management Projections Are Unreliable}
*10 A discounted cash flow analysis "involves projecting operating cash flows for a determined period, setting a terminal value at the end of the projected period, and then
discounting those values at a set rate to determine the net present value of a company's shares." 86 "Typically, Delaware courts tend to favor a DCF model over other available methodologies in an appraisal proceeding. However, that metric has much less utility in cases where the transaction giving rise to appraisal was an arm's-length merger, [or] where the data inputs used in the model are not reliable.... \({ }^{87}\) The foundational inputs of a DCF are the company's cash flows. \({ }^{88}\) In determining those inputs, this Court has placed substantial weight on the projections of the incumbent management. Indeed, "this Court prefers valuations based on management projections available as of the date of the merger and holds a healthy skepticism for post-merger adjustments to management projections or the creation of new projections entirely." 89

The reason that "Delaware law clearly prefers valuations based on contemporaneously prepared management projections" is "because management ordinarily has the best first-hand knowledge of a company's operations." 90 These projections are useful in appraisals, because they "by definition, are not tainted by post-merger hindsight and are usually created by an impartial body.... When management projections are made in the ordinary course of business, they are generally deemed reliable." \({ }^{91}\) By corollary, projections prepared outside of the ordinary course do not enjoy the same deference. In fact, management projections can be, and have been, rejected entirely when they lack sufficient indicia of reliability, such as when they were prepared: (1) outside of the ordinary course of business; (2) by a management team that never before had created long-term projections; (3) by a management team with a motive to alter the projections, such as to protect their jobs; and (4) when the possibility of litigation, including an appraisal action, was likely and probably affected the neutrality of the projections. \({ }^{92}\) These factors go to the reliability of the projections. In this case, the Ramtron management projections suffer from all of these problems.
1. A new Ramtron management team prepared projections not in the ordinary course using a methodology they never had employed before
*11 The team in charge of creating the new Management Projections consisted of Richards and one of his employees, Zimmer, and Emley, with oversight by Balzer. \({ }^{93}\) According to

Richards, the projections started with the numbers provided by the sales department, because most of the Company's costs either were fixed or a percentage of revenue, so the revenue numbers were the most important inputs. \({ }^{94}\) Zimmer and Emley were the lead individuals responsible for developing the sales (and, hence, revenue) numbers. Both had been with the Company at most a year when they began creating the new projections. \({ }^{95}\)

Aside from having relatively new employees tasked with creating the inputs, the team that developed the Management Projections utilized: (1) a new product-by-product buildup method; (2) a point-of-sale instead of the usual point-of-purchase methodology; and (3) a multi-year projection period. \({ }^{96}\) The Ramtron management team previously had not created projections using any of these methods, much less all three.

Additionally, the projections were not prepared in the ordinary course of business. There is no evidence Ramtron ever had prepared forecasts for more than five quarters, with the exception of Richards's deferred tax asset projections. \({ }^{97}\) Balzer ordered the projections created immediately after Cypress issued its bear hug letter. Thus, these projections were prepared in anticipation of potential litigation, or, at least, a hostile takeover bid. Balzer explicitly wrote that he wanted a "product by product build up, with assumptions, for it to hold water in the event of a subsequent dispute." 98 Furthermore, at least Richards understood one of the purposes of the projections was to serve as a marketing tool in Needham's hunt for a white knight. \({ }^{99}\) This knowledge gave the management team an incentive to err on the optimistic side.

In sum, Ramtron's new management team employed a new methodology to create long-term projections, which they were not accustomed to doing, out of the ordinary course of business, with knowledge that the projections could or would be used: (1) in a subsequent dispute; (2) in marketing the Company; (3) as the inputs for Needham's DCF analysis; \({ }^{100}\) or (4) any combination of those three possibilities. These projections, therefore, facially lack the
\begin{tabular}{llc} 
*12 Date & Qtr & Q1 2011 \\
\hline Apr. 2010 & Q2 2010 & \(\$ 21,000\) \\
\hline July 2010 & Q3 2010 & \(\$ 21,000\)
\end{tabular}

Q2 2011
Q3 2011
Q4 2011

LongPath Capital, LLC v. Ramtron International Corporation, Not Reported in AtI. Rptr....
\begin{tabular}{|c|c|c|c|c|c|}
\hline Oct. 2010 & Q4 2010 & \$21,000 & \$23,000 & \$24,000 & \\
\hline Dec. 2010 & Q1 2011 & \$21,000 & \$22,000 & \$24,000 & \$25,000 \\
\hline Jan. 2011 & Q1 2011 & \$10,000 \$10,440 & \$15,000 & \$20,000 & \$22,000 \\
\hline Apr. 2011 & Q2 2011 & & \$15,000 \$16,537 & \$20,000 & \$22,000 \\
\hline July 2011 & Q3 2011 & & & \$21,500 \$21,736 & \$22,532 \\
\hline Oct. 2011 & Q4 2011 & & & & \$22,300 \$16,90 \\
\hline Feb. 2012 & Q1 2012 & & & & \\
\hline
\end{tabular}

Respondent's argument is straightforward: the waterfall chart appears in a presentation to the Board, \({ }^{103}\) and there is no indication that the numbers are anything other than ordinarycourse forecasts. LongPath relies on a pair of "Sales Update" presentations that refer to the numbers in the waterfall chart as "stretch goals." \({ }^{104}\) Respondent advances the theory (and urges the Court to infer) that Zimmer, as the Vice President of Sales, referred to the forecasts as stretch goals because, as the head of sales, he primarily was responsible for failing to meet revenue targets. At trial, Ramtron's Vice President of Technology, Davenport, similarly suggested that Zimmer blamed Ramtron's poor second quarter on Cypress as an excuse to cover up his own poor performance. \({ }^{105}\)

More practical reasons lead me to the conclusion that the waterfall chart likely represented management's actual forecasts. First, contemporaneous emails suggest that the management team saw these numbers as goals they should hit. In a late January 2012 email chain, Balzer writes to Zimmer, Richards, and Yates that the Company "really need[s] to find a way to hit \(\$ 14.5\). That is what we said we would do." \({ }^{\circ 106}\) The first quarter 2012 forecast for that quarter was \(\$ 14\) million, as the chart above shows. Second, the very idea of "stretch" or "reach" goals requires targets that are, as the names imply, actually within reach. \({ }^{107}\) Many of these forecasts were wildly incorrect. In December 2010, for example, the Company forecasted \(\$ 21\) million for the first quarter of 2011 (the very next quarter), a quarter in which actual revenue was \(\$ 10.4\) million, less than half of the forecast. Relatedly, as the actual quarter drew closer, management generally reduced its forecasts to better approximate the actual revenue. As the quote from Balzer suggests, the management team treated these numbers as real targets, not lofty stretch goals. \({ }^{108}\) Third, if these are not actual forecasts, then the record lacks evidence of regularly created and updated management
forecasts, i.e., if the waterfall chart only contains stretch goals, then management's publicly issued guidance would be the only basis for assessing its forecasting.
*13 I find it most likely that management began with high aspirations for future quarters and reduced those expectations toward the actual expected results as the quarter drew nearer. This suggests that management's near-term forecasting abilities were mediocre at best. Even so, the waterfall forecasts and the public guidance forecasts were done with a different methodology than the Management Projections. Accordingly, I conclude that management, even under its traditional forecasting system, was of middling quality when it came to forecasting Ramtron's future business. Several witnesses at trial testified that, in general, the semiconductor business is difficult to forecast. \({ }^{109}\) Indeed, after Ramtron issued its weak second quarter 2012 earnings, Merriman Capital issued a report that suspended its target price for the Company and stated: "We simply can't figure out how to model this company consistently at the current time." \({ }^{110}\) Ramtron's management also recognized its own limited success in forecasting. \({ }^{111}\) In sum, management's lack of success in accurately projecting future revenue in the past provides another reason to doubt the reliability of the Management Projections.

\section*{3. The projections incorporate unrealistic assumptions regarding ROHM}

I also note that the Management Projections assume cost reductions, over time, associated with the transition to ROHM's foundry. The projections reflect an assumption that production of F-RAM at ROHM would to begin in January 2013 at 150,000 units a month and increase by 50,000
units per month thereafter. \({ }^{112}\) These assumptions are too speculative to merit any deference. \({ }^{113}\)

Ramtron entered into a manufacturing agreement with ROHM in late July 2012 pursuant to which ROHM would serve as a second foundry for Ramtron. \({ }^{114}\) According to a July 23, 2012 press release, "Initial low-density F-RAM products have already been qualified for commercial production and Ramtron expects to receive and begin selling the first devices produced on ROHM's manufacturing line within approximately 60 days." \({ }^{" 115}\) As already described, it took Ramtron seven years to transition entirely from Fujitsu to TI. That process went so poorly that it forced Ramtron to place its customers on allocation in 2011. Ramtron's earlier efforts to develop IBM as a second foundry took place over three years and caused it to incur more than \(\$ 30\) million in direct costs and equipment expenses. That endeavor failed entirely. Additionally, the evidence shows that, in July 2012, Ramtron was not flush with cash. The IBM venture suggests that establishing a new foundry requires a substantial monetary investment, and Ramtron's liquidity situation in the summer of 2012 makes it doubtful that Ramtron would have been able to finance the continued development of ROHM as a foundry. \({ }^{116}\) In light of this evidence, as well as the uniform testimony on the difficulty of transitioning foundries, I do not find credible the proposition that Ramtron reasonably could expect to begin commercial production at ROHM in sixty days and start enjoying cost savings within six months. \({ }^{117}\)
*14 Additionally, evidence presented at trial buttresses this conclusion. Consistent with the other testimony on the lead time for getting a product from concept to full-fledged commercial sale, \({ }^{118}\) Davenport testified the term "initial lowdensity F-RAM products" referred to sample quantities that Ramtron was "going to take over ROHM's design and try to commercialize them as samples. They weren't cost-effective but they would seed the market." \({ }^{" 119}\) In fact, Ramtron never got further than this initial sample stage. Davenport further testified that Ramtron "never got so far as transfer[ing] our designs to the ROHM foundry" before the Merger closed. \({ }^{120}\) It also appears that ROHM technologically lagged behind both TI and IBM as a foundry. \({ }^{121}\) I do not question the strategic judgment of Ramtron's management in seeking to implement the Company's manufacturing agreement with ROHM, but the record as a whole leads me to find that the ROHM assumptions built into the Management Projections
were speculative and further undermine the reliability of those projections.

\section*{4. The Management Projections rely on 2011 and 2012 revenue figures that were distorted because of customer allocation issues and channel stuffing}

As discussed in the next Subsection, the Management Projections for revenue assume a constant growth rate of \(24 \%\) for 2014, 2015, and 2016. \({ }^{122}\) This is an arbitrary method of predicting revenue growth if not supported by reasonable assumptions. Such simple modeling makes the reliability of the base year numbers crucially important-i.e., if a set of projections assumes constant growth from a starting number, the inaccuracy of that foundational input affects the reliability of the entire enterprise. Substantial evidence in the record supports the conclusion that Ramtron's revenue in 2011, the last full year before Cypress' offer, is an unreliable figure.

In Section I.B. 2 supra, I discussed the massive inventory build-up that Ramtron experienced beginning in 2011. During no quarter in 2010 did Ramtron have more than \(\$ 7\) million in inventory. Over the course of 2011, however, Ramtron shipped a huge amount of inventory into its distribution channels until, in the first quarter of 2012, Ramtron had \(\$ 25.5\) million in inventory. Even under favorable assumptions for Ramtron, that amounts to about nineteen weeks of inventory in the channel and it consists of product for which Ramtron already had recognized revenue. \({ }^{123}\) In describing Ramtron's background, I found that this inventory build-up resulted at least in part from the supply shortages the Company faced as a result of its foundry transition. Those shortages forced the Company to place customers on allocation; the customers responded by over ordering. Because Ramtron recognized revenue when it shipped to distributors, it is reasonable to infer that an unknown, but not insignificant amount of Ramtron's revenue in 2011 actually reflected this over-ordering by customers, as opposed to a genuine surge in demand. In addition, because of the backlog of inventory that existed in the first quarter of 2012, it is logical that less revenue would be recognized later in 2012 as the inventory bubble was burned off, unless there was a significant uptick in demand.
*15 Ramtron's management, however, expected to hit their reduced forecasts for the first quarter of 2012. Although I already have discussed the difficulties with the point-ofpurchase revenue recognition system, there is another pitfall
not yet discussed: channel stuffing. Channel stuffing is the practice of stuffing inventory into the channel in order to recognize the attendant revenue sooner, notwithstanding the fact that the revenue does not correspond to underlying increases in demand. Hence, it is a form of revenue manipulation.

I find that Ramtron's management pushed excess inventory into the Company's distribution channels in the first quarter of 2012. In an already referenced email chain from late January 2012, Balzer remarked that the Company "really need[ed] to find a way to hit \(\$ 14.5\) " million. \({ }^{124}\) Zimmer responded: "I'll die trying. We'll for sure stuff channel. Next Qtr will suffer." \({ }^{125}\) There is no persuasive evidence that Balzer disagreed. Although Petitioner fights the channel-stuffing conclusion, \({ }^{126}\) the combination of Zimmer's contemporaneous comments and the massive inventory buildup strongly support the conclusion that Ramtron stuffed the channel in order to make its first quarter revenue forecast.

All of this matters for two reasons. First, forcing excess inventory into the channel in early 2012 meant that there would be a corresponding fall off in revenue at some point in the future absent a demand spike. \({ }^{127}\) As Zimmer predicted, the next quarter, Q2 2012, did suffer. Petitioner's efforts to attribute those disappointing results to Cypress' hostile offer, rather than weaknesses in Ramtron's own business practices, are unavailing. \({ }^{128}\) Second, Ramtron's revenue figures for 2011 and the first half of 2012 do not accurately map to actual demand for the Company's products. LongPath argues that the quantification of the point-of-purchase versus point-of-sale issue reveals that, at most, Ramtron over-recognized 3.7\% of its total revenue from 2010 through 2012. \({ }^{129}\) Assuming Petitioner's math is correct, that is an over-recognition, in three years, of \(\$ 6.6\) million for a company that only once in its history had had more than \(\$ 70\) million in revenue in a single year.

The problem, however, goes beyond just the amount of improperly recognized revenue. The timing of the revenue also is affected significantly. If 2011 and 2012 are used as base years in forecasting, but those years include inflated revenue because of either over-ordering by customers placed on allocation or channel stuffing, then the reliability of the projections is affected. Thus, customer allocation issues in 2011 and channel stuffing in the first quarter of 2012 throw significant doubt on the accuracy of the underlying revenue figures for those periods. In that regard, I do not consider
it productive (even assuming it is feasible) to attempt to quantify how much in extra revenue Ramtron recognized in 2011 or 2012 based on these factors. \({ }^{130}\)

\section*{5. The projections defy historical trends}
*16 Historical performance does not control a company's future performance. It is, however, a red flag when projections suggest a dramatic turnaround in a company despite no underlying changes that would justify such an improvement of business. This is the classic "hockey stick" problem. The Management Projections, prepared days after Cypress made its bid and with knowledge that Needham would use the Projections to market the Company, fall into this category. Both revenue growth and gross margins are shown as undergoing dramatic improvements. The following chart shows Ramtron's historical revenue (for the ten years before the projection period) versus its projected revenue. \({ }^{131}\) As the graphs make clear, the projection period suggests a period of previously unknown prosperity for Ramtron. Not only is the Company's historically volatile growth rate transformed into a consistently high growth rate, but the downward trend in revenue is replaced by a sharp, unprecedented increase in absolute revenue. \({ }^{132}\) This sharp uptick in revenue is in contrast to the fact that, at least dating back to 1994, the Company never has experienced four consecutive years of growth.


Presented in another perspective, the following chart shows the Company's compound annual growth rate ("CAGR") over various periods. \({ }^{133}\) Only under the arbitrary 20052008 timeframe, which appears to be the Company's bestever growth period, does historic growth approach projected growth. When comparing the five or ten years preceding the projections period, it is clear that the Management

Projections forecast incredible growth. Indeed, the five-year projection period implies a CAGR of \(22.73 \%\), which is roughly 3.36 times higher than the CAGR for the five years immediately preceding the projection period (2007-2011)

\section*{Time Period}
\begin{tabular}{lll}
\hline \(2002-2006\) & 5 & \(7.79 \%\) \\
\hline \(2005-2008\) & 4 & \(22.73 \%\) \\
\hline \(2007-2011\) & 5 & \(6.77 \%\) \\
\hline \(2009-2011\) & 3 & \(18.23 \%\) \\
\hline \(2002-2011\) & 10 & \(9.23 \%\) \\
\hline \(2012-2016\) & 5 & \(22.73 \%\)
\end{tabular}

Petitioner attempts to justify the Management Projections as reasonable by comparing the projections to a set of internal Cypress projections. In what was called the President's Strategic Plan (the "PSP"), Cypress forecasted the potential F-RAM market in terms of total available market, service available market (which was Cypress' term for a product's core market) and predicted share of the market. \({ }^{134}\) Petitioner argues that, if Ramtron simply maintained the market share of the core F-RAM market that it had at the time of the Merger, then the Management Projections would be accurate. There are numerous problems with this argument: (1) Ramtron's management did not have the PSP when they were creating the Management Projections, so this thesis is
and approximately 2.46 times greater than the ten-year period (2002-2011) before the management forecasts.

\section*{Years \\ CAGR}
an entirely post hoc justification for the Projections; (2) for the Management Projections to be accurate, Ramtron would have had to increase its market share significantly, not just maintain it; (3) to the extent that Cypress' predictions are relevant, the Management Projections would require Ramtron to capture a substantially larger portion of the market than Cypress predicted it would; and (4) perhaps most damaging to Petitioner's theory, Cypress predicted that Ramtron, operating as an improved division of Cypress, would lose market share.
*17 The chart below compares Cypress' predictions for Ramtron, as a division of Cypress, against the Ramtron Management Projections. Dollar values are in millions.
\begin{tabular}{|c|c|c|c|c|}
\hline & 2013 & 2014 & 2015 & 2016 \\
\hline Core Market & \$187 & \$218 & \$254 & \$288 \\
\hline Ramtron Share of Market, as Cypress Division & \$41 & \$55 & \$61 & \$67 \\
\hline Cypress F-RAM Market Share (forecast by Cypress) & 22\% & 25\% & 24\% & 23\% \\
\hline Ramtron Management Projections & \$69 & \$85.6 & \$106.1 & \$131.6 \\
\hline Ramtron F-RAM Market Share (Petitioner's argument) & 37\% & 39\% & 42\% & 46\% \\
\hline Market Share Gap & 15\% & 14\% & 18\% & 23\% \\
\hline
\end{tabular}

\section*{(Management Projections- \\ Cypress Predictions)}

Petitioner's argument is unpersuasive. The PSP forecasts Ramtron as a division of Cypress-i.e., after a possible merger. That alone makes the comparison of market share unavailing. More importantly, Cypress predicted a moderate, but falling market share for Ramtron or, at best, that Ramtron would maintain its market share. \({ }^{135}\) The Management Projections predict an entirely different trend under which Ramtron's market share would increase by nearly \(25 \%\), i.e., Ramtron would capture another nine percent of the core F-RAM market. By the year 2016, for the Management Projections to be accurate, Ramtron would need to hold twice as much of the core market as Cypress predicted it would. Considering all the evidence of record regarding projections, I find it unlikely that Cypress substantially would underestimate the potential of the very company it was about to purchase. Thus, Petitioner's attempts to show the "reasonableness" of the Management Projections by comparing them to the Cypress PSP are unconvincing. Rather, the Projections defy historical trends.

\section*{6. Management utilized other projections for ordinary business purposes}

The fact which I find to be the final nail in the coffin for the Management Projections is that Ramtron did not rely on them in the ordinary course of its business. Although Balzer suggested that the Management Projections were used for other purposes, such as cash management, \({ }^{136}\) the significance of those alleged uses is dubious. Richards, the CFO, credibly testified that he used other sets of projections for managing the Company's finances, such as providing estimated revenue and cash flow numbers to SVB, the Company's bank.

The final version of the Management Projections utilized by Needham in preparing its fairness opinion is from September 18, 2012. \({ }^{137}\) The Needham presentation listed \(\$ 58.2\) million for estimated 2012 revenue, a slight discrepancy from the native excel spreadsheet of the Projections, dated August 28, 2012, which listed \(\$ 58\) million for 2012. \({ }^{138}\) On July 17, 2012, however, Richards sent an email to SVB projecting \(\$ 56.5\) million for 2012 (the "July SVB Projections"). \({ }^{139}\) On September 10, 2012, Richards sent another update to SVB that reduced that projection to slightly less than \(\$ 54\)
million (the "September SVB Projections"). \({ }^{140}\) Both the July and September SVB Projections pre-date the Needham presentation. The September SVB Projections are nearly 6.9\% lower than the Management Projections. If the revenue growth assumptions from the Management Projections were applied to the September SVB Projections, the Management Projections would overstate five-year revenue by \(\$ 31\) million, even ignoring all of the other problems with the Management Projections I have discussed. Richards testified that he believed that the September SVB Projections "were more accurate" and that he provided those projections to SVB because it was the Company's "sole source of borrowing" and he wanted to keep the bank "apprised of the situation."141

\section*{7. There are insufficient reliable inputs to produce a reliable DCF analysis}
*18 In summary, the Management Projections suffer from numerous flaws. Specifically, they: (1) were prepared by a new management team, (2) in anticipation of future disputes and of shopping the Company to potential white knights, (3) using a new methodology, and (4) were for a significantly longer period of time than previous forecasts. In addition, I note the following problems: (5) management's track record at forecasting was questionable even under their standard method of forecasting; (6) the final projections incorporate speculative elements relating to ROHM, (7) rely on distorted base year figures that resulted from customer allocation issues and channel stuffing, and (8) predict growth out of line with historical trends; and, finally, (9) management itself was providing other, "more accurate" projections to the Company's bank. None of the indicia that often justify deferring to management projections are present in this case. Thus, Petitioner has not proven that the Management Projections are reliable, and I conclude that they are too questionable to form the basis of a reliable DCF valuation. \({ }^{142}\)
"[W]ithout reliable five-year projections, any values generated by a DCF analysis are meaningless." \({ }^{143}\) Having found that the Management Projections are unreliable and there are no other viable projections in the record, \({ }^{144}\) I therefore conclude that it would be inappropriate to determine fair value based on a DCF analysis in this instance.

\section*{B. The Comparable Transactions Method Does Not Produce a Reliable Value}

The parties' experts agree that there are no comparable companies to Ramtron. \({ }^{145}\) Using another approach, Clarke, petitioner's expert, opined that there were two comparable transactions from which Ramtron's value could be derived. \({ }^{146}\) This analysis resulted in an implied value for Ramtron of \(\$ 3.99\) per share, and Clarke accorded it a \(20 \%\) weight in his ultimate fair value determination. \({ }^{147}\) Jarrell concluded that there were no comparable transactions. \({ }^{148}\) For the following reasons, I conclude that Petitioner has not proven that the comparable transactions method is an appropriate valuation technique in this case.

A comparable transactions approach requires "identifying similar transactions, quantifying those transactions through financial metrics, and then applying the metrics to the company at issue to ascertain a value. The utility of a comparable transactions methodology is directly linked to the 'similarity between the company the court is valuing and the companies used for comparison.' „149 "Reliance on a comparable companies or comparable transactions approach is improper where the purported 'comparables' involve significantly different products or services than the company whose appraisal is at issue, or vastly different multiples." \({ }^{" 150}\)
*19 The purportedly comparable transactions are the acquisitions of Actel Corporation ("Actel") and Virage Logic
\begin{tabular}{lllll} 
Target Company & EV/LTM & EV/NTM & EV/NTM +1 \\
& & Revenue & Revenue & Revenue \\
\hline Virage & 4.43 x & 2.80 x & 2.25 x \\
Actel & Average & 2.05 x & 1.72 x & 1.65 x \\
& Financials & \(\mathbf{3 . 2 4 x}\) & \(\mathbf{2 . 2 6 x}\) & \(\mathbf{1 . 9 5 x}\) \\
Ramtron & \(\$ 58.2 \mathrm{M}\) & \(\$ 69.0 \mathrm{M}\) & \(\$ 85.6 \mathrm{M}\) \\
& \begin{tabular}{lll} 
Implied \({ }^{158}\) Equity Value (Unadjusted \\
for Synergies)
\end{tabular} & \(\mathbf{\$ 1 8 1 . 1 M}\) & \(\mathbf{\$ 1 4 8 . 4 M}\) & \(\$ 159.7 \mathrm{M}\) \\
& & & &
\end{tabular}

Corporation ("Virage"), both of which Clarke concluded were companies that produced memory products but, like Ramtron, operated without their own foundry. \({ }^{151}\) Clarke computed multiples for the two firms based on the transactions involving them for the following financial metrics: (1) equity value ("EV")/last twelve months' revenue ("LTM"); (2) EV/ next twelve months' forecasted revenue ("NTM"); and (3) EV/NTM \(+1 .{ }^{152}\) Clarke then averaged the Virage and Actel multiples and derived an implied value for Ramtron from them.

Jarrell contests Clarke's choice of comparable transactions. He notes that the proxy statement in the Virage transaction included a list of comparable companies from two industries similar to Virage's and that Ramtron was not listed in either group. \({ }^{153}\) It is unclear whether Jarrell believes that Actel is not comparable in and of itself, but he did observe that the multiples for that company support the Merger price as evidence of fair value. More importantly, Jarrell opines that the dispersion of the multiples for Actel and Virage is too great to be reliable and violates the "law of one price." \({ }^{154}\) I agree with this criticism.

In the past, " \([t]\) his Court has found comparable transactions analyses that used as few as five transactions and two transactions to be unreliable." \({ }^{155}\) This "dearth of data points ... undermines the reliability" of the methodology. \({ }^{156}\) Here, there are only two data points and the multiples (shown below) differ significantly. \({ }^{157}\)
three figures to arrive at a comparable-transactions-based equity value for Ramtron of \(\$ 141.9\) million.

Clarke then went on to: (1) subtract a \(13 \%\) synergy discount from each of the implied equity values; and (2) average the

Even assuming these two transactions qualitatively are comparable transactions, in that the acquired companies operated similar businesses to Ramtron, the meager number of data points and the range of multiples indicate that this valuation approach is of questionable reliability in this instance. The EV/LTM multiple, for example, yields synergyadjusted per share values of \(\$ 2.74\) to \(\$ 6.13\), a range of \(\$ 3.39\), which exceeds the Merger price of \(\$ 3.10\). \({ }^{159}\) The EV/NTM multiple suggests equity values of \(\$ 2.72\) to \(\$ 4.55\), a spread of \(\$ 1.83 .{ }^{160}\) By contrast, the EV/NTM +1 multiple produces a tighter range of \(\$ 3.27\) to \(\$ 4.53\).
*20 I see little justification for Clarke's simple averaging method, particularly with only two data points. His comparable transactions approach implies per share values ranging anywhere from \(\$ 2.72\) to \(\$ 6.13\). Two of the multiples have high-low ranges exceeding Ramtron's unaffected stock price. I am not convinced it is productive to utilize a method that implies Ramtron's fair value is somewhere between \(88 \%\) and \(198 \%\) of the deal price. \({ }^{161}\) Also, the EV/NTM and EV/NTM +1 multiples rely on the Management Projections, which I already have concluded are unreliable. Finally, Clarke himself attributed minimal weight to this approach-only one-fifth of his conclusion. For all of these reasons, I conclude that Petitioner has not satisfied its burden of proving that the comparable transactions approach provides a reliable indication of Ramtron's fair value.

\section*{C. The Transaction Price Provides the Best Evidence of Fair Value}

A DCF analysis attempts to value a company by looking within the company, extrapolating its financials into the future, and then discounting these cash flows to present value. A comparables approach instead looks outside the company and attempts to value it by market analogy. The former method is only useful to the extent its inputs are reliable; the latter is helpful only to the extent actual comparables exist. Neither approach yields a reliable measure of fair value in this case. Instead, I conclude that the Merger price offers the best indication of fair value.

A merger price does not necessarily represent the fair value of a company, as the term "fair value" is interpreted under 8 Del. C. § 262. For example, in a short-form merger under Section 253, the merger price is set unilaterally by the controlling stockholder; the minority stockholders are forced out of the
company and left with appraisal as their sole remedy. To presume that the merger price represented fair value in such a situation would leave the minority stockholders effectively without the remedy offered by Section 262 of an independent analysis of a company's fair value. In 2010, the Delaware Supreme Court in Golden Telecom, Inc. v. Global GT LP \({ }^{162}\) explicitly rejected the argument that this Court should "defer" to the merger price. Indeed, the Supreme Court concluded that such deference would be contrary to the statutory language of Section 262, which requires consideration of "all relevant factors" in determining a company's fair value. \({ }^{163}\)

Nevertheless, in the situation of a proper transactional process likely to have resulted in an accurate valuation of an acquired corporation, this Court has looked to the merger price as evidence of fair value and, on occasion, given that metric onehundred percent weight. \({ }^{164}\) In an oft-quoted passage, thenVice Chancellor Jacobs wrote: "The fact that a transaction price was forged in the crucible of objective market reality (as distinguished from the unavoidably subjective thought process of a valuation expert) is viewed as strong evidence that the price is fair." \({ }^{165}\) Similarly, Chief Justice Strine, then writing as a Vice Chancellor, noted: "[O]ur case law recognizes that when there is an open opportunity to buy a company, the resulting market price is reliable evidence of fair value." \({ }^{166}\) The inquiry here is whether the Merger process resulted in a price indicative of Ramtron's fair value or, as the parties have framed it, whether there was a "competitive and fair auction" \({ }^{167}\) for Ramtron.
*21 At the outset, I note that I am not aware of any case holding that a multi-bidder auction of a company is a prerequisite to finding that the merger price is a reliable indicator of fair value. Here, unlike in Union Illinois or Huff Fund, only one company, Cypress, made a bid. This case also differs in that the Merger was a hostile deal. As detailed below, however, I conclude that "the process by which [the Company] was marketed to potential buyers was thorough, effective, and free from any spectre of self-interest or disloyalty," \({ }^{168}\) and that the resulting price accordingly provides a reliable indication of Ramtron's fair value.

Ramtron could, and repeatedly did, reject Cypress' overtures. Simultaneously, Ramtron actively solicited every buyer it believed could be interested in a transaction. The Company provided several of those potential buyers with the muchvaunted Management Projections. No one bid. LongPath contends that the lack of other bidders indicates a flawed
process. I disagree. Any impediments to a higher bid resulted from Ramtron's operative reality, not shortcomings of the Merger process.

\section*{1. TI and Ramtron's operative reality}

Much already has been said about Ramtron's operative reality as of the Merger. Petitioner focuses on one particular factor that it contends irredeemably corrupted the sales process: Ramtron's foundry relationship with TI. Under Ramtron's manufacturing agreement with TI, Ramtron was guaranteed three additional years of production if TI terminated the agreement. \({ }^{169}\) But, in the event Ramtron experienced a change in control, TI had the right to terminate the agreement upon ninety days notice. \({ }^{170}\) LongPath argues that this change-in-control provision deterred prospective bidders. I reject this contention as contrary to the evidence.

The parties do not dispute that Cypress began preparing for its hostile bid well in advance. Part of that diligence involved predicting potential interlopers. Another aspect of Cypress' preparation involved essentially seeking TI's blessing for its potential bid. Because of the change-in-control provisions, Cypress sought to get some form of assurance from TI in advance of issuing its bear hug letter that TI would not exercise that right in relation to an acquisition by Cypress. Rodgers testified that he called TI's president to discuss a potential acquisition of Ramtron. In that regard, Cypress offered to avoid competing with one of TI's F-RAM products if TI agreed not to terminate the foundry relationship with Ramtron. Cypress never received a contract or other written agreement from TI—in fact, it appears that TI never explicitly agreed to support Cypress' bid. Cypress did receive, however, enough of an informal assurance that it deemed the risk of proceeding with the acquisition acceptable. \({ }^{171}\)

As Petitioner emphasizes, Rodgers began discussing this issue with TI in March 2011, over a year before Cypress' bid for Ramtron. \({ }^{172}\) Even so, the record is clear that Cypress never obtained a contractual commitment from TI. In an undated internal Cypress presentation analyzing the potential bid for Ramtron, the possibility of TI dishonoring its commitment is listed as a low risk, but Cypress (twice) listed the lack of TI support as a major risk to any potential deal. \({ }^{173}\)
*22 LongPath argues that Cypress had an unfair tactical advantage and that other bidders were unlikely to get

TI's support. This appears to be nothing but speculation. Ramtron's relationship with TI was part of its operative reality. A Cypress planning document, titled "Potential Interlopers," listed five such plausible interlopers. For three of them, Cypress predicted that TI would not extend foundry support because those companies directly competed with TI. \({ }^{174}\) A different document predicted the same as to a sixth possible interloper. \({ }^{175}\)

I find these predictions and Petitioner's reliance upon them somewhat puzzling. Even though Cypress offered not to encroach on one specific TI product line, "low power microcontrollers,, \({ }^{176}\) in order to get an informal assurance that the manufacturing agreement would continue, the uncontradicted evidence shows that TI and Cypress directly competed in several markets and that the two companies had significant bad blood between them as a result of two previous intellectual property lawsuits. \({ }^{177}\) Thus, applying the reasoning underlying Cypress' advisor's predictions, TI likely would not have extended foundry services to Cypress either. But, TI did make at least a nonbinding commitment to continue foundry services for Cypress.

Petitioner has not shown that any other company that wanted to acquire Ramtron was in a worse position than Cypress in terms of getting TI's assent. Indeed, some may have been better positioned than Cypress. Construed most favorably to LongPath, all bidders were in the same boat as Cypress vis-à-vis TI. Ramtron's manufacturing agreement with TI simply was part of the Company's operative reality at the time of the Merger.

Furthermore, there is no evidence that the change-in-control provisions in the TI manufacturing agreement actually deterred any of the potential bidders. \({ }^{178}\) Ramtron apparently proceeded the furthest in discussing alternative transactions with three companies: Atmel Corp., SMART Modular, and ROHM. Nothing suggests that the TI agreement caused any of those companies to back out. Davenport testified that SMART Modular was "very hesitant due to our supplyside cost structure and the tenuousness of our supply" and also did not like the Company's "sole sourcing." 179 Atmel similarly declined because of Ramtron's "cost structure [and] in particular our wafer supply, [which] they were very, very concerned about." \({ }^{180}\) ROHM seems to have been contemplating a minority investment, discussed in the next Subsection, which would not have implicated the TI concerns. In short, Petitioner has not demonstrated that the change-
in-control provisions in the manufacturing agreement with TI materially impaired Ramtron's sales process. Instead, Ramtron's sole or primary reliance on TI as its foundry was part of the Company's operative reality.

\section*{2. Ramtron tries to sell itself to anyone but Cypress}
*23 Ramtron authorized Needham, its financial advisor, to market the Company to other potential acquirers and explore strategic alternatives. According to an August 30, 2012 Needham presentation, Needham had: (1) contacted twenty-four third parties, including Cypress; (2) sent nondisclosure agreements ("NDAs") to twelve of those entities, again including Cypress; (3) received executed NDAs from six interested parties, which did not include Cypress; and (4) remained in discussions with two companies other than Cypress. \({ }^{181}\) This market canvass reveals that six companies were intrigued enough to enter into NDAs. It appears that those companies received or at least had access to Ramtron's Management Projections. \({ }^{182}\) In addition, by August, Ramtron had announced its new manufacturing agreement with ROHM. Yet, despite this sales effort, not one company besides Cypress ever made a firm bid for Ramtron.

SMART Modular and Atmel were two of the companies with which talks proceeded the furthest. As noted, both companies declined to pursue a transaction because of what they viewed as problems with Ramtron's cost structure. The evidence does not reveal why each and every other company declined to bid for Ramtron. At least one that executed an NDA saw no synergies in the transaction. \({ }^{183}\) A second did not see the acquisition fitting with the potential bidder's strategic priorities. \({ }^{184}\) Another that apparently did have familiarity with Ramtron's technology was advised by its engineers not to move forward. \({ }^{185}\) That company was sent, but did not sign, an NDA.

Not one of the specific explanations in the record relates to TI. Instead, what evidence there is suggests that these other companies did not see value in Ramtron exceeding Cypress' bid. The importance of this point is amplified by the fact that Needham's call \(\log\) indicates that the NDAs all were executed in late June, \({ }^{186}\) when Cypress' bid was only \(\$ 2.68\) a share. According to Petitioner's position in this litigation, at that point in time, the Company was being undervalued by \(\$ 2.28\). Ramtron's hostile bid caused a significant spike in trading volume, as revealed by Needham's stock price
analyses. \({ }^{187}\) Aside from the prospective purchasers that Needham contacted, therefore, the fact that Ramtron was in play was known in the market. Purely financial purchasers theoretically could have stepped in and made unsolicited bids and, according to LongPath's position in this litigation, snatched up Ramtron at a fire sale price. None did. Indeed, no one even bid, including those with inside information, even when Cypress' offer was \(\$ 0.42\) below the final Merger price.

Petitioner focuses at length on Ramtron's discussions with ROHM. On July 17, 2012, Ramtron's management proposed two alternative transactions to ROHM: (1) a purchase of seven million shares of Ramtron common stock at \(\$ 3.50\) per share together with a board seat; or (2) seven million shares of Ramtron convertible preferred stock at \(\$ 4.00\) per share and a board seat. \({ }^{188}\) Three days later, on July 20, Ramtron and ROHM announced their new manufacturing agreement. \({ }^{189}\) ROHM apparently also was interested in the potential purchase of Ramtron's common stock and, on August 11, 2012, communicated to the Company that any such purchase would be at \(\$ 3.00\) per share. \({ }^{190}\)

According to Petitioner, ROHM's interest in a minority investment at a price slightly below the deal price indicates that the Merger price undervalued Ramtron. If ROHM in fact had made such an investment, I might be inclined to agree. \({ }^{191}\) But, even in its email countering at \(\$ 3.00\), ROHM explicitly stated the following:
*24 Actually, one of our concerns at this time is the legal and financial risk for purchasing stocks of a public company with a price above the market price. Since we have to justify the purchasing price to achieve the accountability to our shareholders, we have to seek profit that can make up for the paid premium. And we have to be careful to decide the purchase price in order to avoid impairment loss of assets. \({ }^{192}\)
ROHM itself, it seems, was concerned with justifying the above-market premium. Perhaps, because of the manufacturing agreement between it and Ramtron, ROHM might have been able to exploit synergies between the two companies or otherwise unlock value in Ramtron not available to other bidders. Ultimately, however, ROHM backed away from pursuing a deal for Ramtron at the end of August. Citing "growing apprehension in ROHM's own business environment," ROHM determined that it was "not in a position to make an investment under present business outlook." \({ }^{193}\)

\section*{3. Ramtron extracts a substantial premium from Cypress}

Finally, LongPath criticizes Cypress' hostile approach, arguing that Cypress pounded Ramtron into submission at a below-market rate. I already have found that, to the extent Cypress' hostile bid negatively altered Ramtron's performance, such effects were dwarfed by Ramtron's own business problems, which included channel stuffing earlier in the year. Those flaws are part of Ramtron's operative reality. On the other hand, there is support in the case law for disregarding temporary distortions in determining a company's fair value. \({ }^{194}\) In theory, then, it could be acceptable to back out any negative effects caused by Cypress' hostile offer. The parties, however, have offered no practical way to quantify those effects, particularly as against the larger effects from Ramtron's own business problems.

In that regard, there is no evidence that Cypress' hostile approach hampered the ability of other companies to bid for Ramtron or otherwise affected the Merger process. Only one company contacted by Needham stated that it did not wish to bid against Cypress. \({ }^{195}\) By contrast, six other companies went so far as to execute NDAs. Even if Cypress was attempting to wear Ramtron down, \({ }^{196}\) Cypress had every right to do so and there is no evidence that it acted improperly in this regard. Furthermore, the history of the Merger runs contrary to LongPath's argument. Ramtron's Board had the ability to say no to Cypress and repeatedly did so. The Board advised Ramtron's stockholders on several occasions not to tender into Cypress' bid and, over the same time period, Cypress raised its bid five separate times. The price Cypress ultimately paid -which was negotiated by the Ramtron Board and Cypress -was \(25 \%\) higher than Cypress' starting offer.

\section*{4. Conclusion}

The Merger resulted from Cypress' hostile bid. Cypress spent three months attempting to acquire Ramtron, during which time the Company actively shopped itself to other conceivable buyers, several of which indicated serious interest. None of those potential alternative buyers made a firm offer. Cypress, however, repeatedly raised its price until it and Ramtron's Board agreed on final Merger price of \$3.10 per share. This lengthy, publicized process was thorough and gives me confidence that, if Ramtron could have commanded
a higher value, it would have. "For me (as a law-trained judge) to second-guess the price that resulted from that process involves an exercise in hubris and, at best, reasoned guess work." \({ }^{197}\) As such, I conclude that the Merger price is a reliable indication of Ramtron's fair value.

\section*{D. Transaction Price Less Synergies}
*25 Thus far, I have concluded that the Management Projections are unreliable, making the use of a DCF inappropriate. Additionally, the parties agree that there are no comparable companies and I concur with Respondent that the comparable transactions approach does not provide a reliable indication of fair value here. By contrast, the Merger process was thorough and supports my reliance on the Merger price as an indication of Ramtron's fair value. In the absence of alternative methodologies, I weigh the Merger price at 100\% in determining the fair value of Petitioner's shares.

In an appraisal action, however, it is inappropriate to include merger-specific value. Accordingly, I must exclude from the \$3.10 Merger price any portion of that amount attributable to Cypress-specific synergies, as opposed to Ramtron's value as a going concern. \({ }^{198}\) Respondent argues that the synergies amount to \(\$ 0.34\) per share. Petitioner contends that the net synergies are only \(\$ 0.03\).

Preliminarily, I reject LongPath's contention that synergies should be subtracted not from the Merger price, but instead from the value that Cypress attributed to Ramtron, which, according to Petitioner, is between \(\$ 3.90\) and \(\$ 5.44\). Those valuations estimated Ramtron's worth as a division of Cypress. Petitioner's requested approach is contrary to the language of Section 262, which commands that I "determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation." \({ }^{199}\) There is no basis to deduct synergies from the idiosyncratic value attributed to a company by its purchaser, because it is not clear that value would provide insight into the fair value of the target company as a going concern. Instead, the proper way of applying a merger-price-less-synergies approach is to determine the value paid for a company and then subtract that portion of the purchase price representing synergies. \({ }^{200}\)

As to the synergies in this transaction, I find Respondent's argument that over \(10 \%\) of the transaction price represented
synergies to be without merit. Jarrell first provided a marketwide analysis of the premia paid by financial versus strategic buyers and from this approach concluded that average synergies could be removed from the purchase price by applying the ratio of the average financial buyers' premium to the average strategic buyers' premium, i.e., effectively multiplying the Merger price by 0.73 , which results in a fair value of \(\$ 2.75 .{ }^{201}\)

This general data, however, does not tell me anything about this specific transaction, which must be the focus in a Section 262 action. With respect to Cypress-specific synergies, Jarrell compared the Management Projections to a set of Cypress projections \({ }^{202}\) and quantified the cost savings, which Jarrell determined to be \(\$ 0.69\) per share. He then assumed that Ramtron's stockholders captured between \(25 \%\) and \(75 \%\) of these synergies and took the midpoint of those calculations, resulting in a fair value of \(\$ 2.76 .{ }^{203}\) In addition to its back-of-the-envelope feel, this approach focuses solely on cost savings, which are positive synergies, and neglects the possibility of negative synergies, which Clarke asserts would exist here. \({ }^{204}\)
*26 Although Clarke rejected the transaction-price-lesssynergies approach, he opined that negative revenue synergies and transaction costs would have to be added back to any value based on Jarrell's estimate of synergies. I find this approach to be reasonable and supported by the record. The testimony at trial indicates that Cypress expected significant negative synergies from the Ramtron acquisition. \({ }^{205}\) While Petitioner's approach may understate the net synergies, I find that it better conforms to the evidence adduced at trial than Ramtron's position. Accordingly, I adopt LongPath's approach to synergies and exclude \(\$ 0.03\) from the Merger price. This results in a fair value determination of \(\$ 3.07\) per share.

\section*{E. Reality Checks}

As a final step, I consider it appropriate to touch briefly on some of the "real world" evidence that Petitioner contends undermines the Merger price as a reliable indicator of fair value. Some of these items are entitled to zero weight. Balzer, for example, testified at his deposition that he told Cypress at the time of its nonpublic offer in 2011 that he believed Ramtron's stock would be worth \(\$ 6\) to \(\$ 8\) "several years out." \({ }^{206}\) This speculation, of course, is not informative as to
what Ramtron was worth at the time of the Merger. Similarly, Ramtron's Chairman of the Board testified that he "personally would have paid more than \(\$ 3.10 ., 207\) The usefulness of a transaction price, however, is that "buyers with a profit motive [are] able to assess [company-specific] factors for themselves and to use those assessments to make bids with actual money behind them. \({ }^{, 208}\) By contrast, hypothetical statements about how much money someone allegedly would have paid, if they actually had the money to do so, which they apparently did not, are significantly less probative.

Similarly, I give no weight to the \(\$ 4\) target trading price Merriman Capital announced in January 2012, \({ }^{209}\) and reiterated in April 2012. \({ }^{210}\) By late July, Merriman Capital had pulled its target price and admitted it could not model Ramtron accurately. \({ }^{211}\) And, as already discussed, I do not find informative the fact that Cypress' internal documents suggest a value for Ramtron above the deal price; those documents model Ramtron as a division of Cypress and are not indicative of the fair value of Ramtron as a stand-alone company.

The one factor that does cause me some pause, however, is the ROHM potential investment. The fact that ROHM apparently was seriously considering a minority equity investment at \(\$ 3.00\) per share casts some doubt on the Merger price of \$3.10. Ultimately, however, ROHM did not make this investment and, in fact, expressed serious concern about paying an above-market price for Ramtron stock. Because ROHM had extensive information about Ramtron and ultimately decided not to pursue the minority investment, I discount its importance. ROHM made exactly as many actual bids as the rest of the market: zero. In that regard, the ROHM equity "investment" is simply another non-event.

Indeed, I suspect that, rather than the Merger price being low, it was more likely that the ROHM proposal was inexplicably high. Recall, for example, that, in 2011, long before Cypress made its public offer, Ramtron executed a secondary public offering in which it diluted its equity holders and sold about \(20 \%\) of its shares for \(\$ 2.00\) each, with a net to itself of \(\$ 1.79\). By July 2012, based on the findings in this Memorandum Opinion, Ramtron's financial condition was no better than it was when it made the secondary public offering. For these reasons, I conclude that the ROHM investment, which never actually occurred, does not cast doubt on the Merger price as a reliable indicator of fair value.

\section*{IV. CONCLUSION}
*27 For the foregoing reasons, I determine the fair value of Ramtron as of the Merger date to be \(\$ 3.07\) per share. Counsel for Petitioner shall submit, on notice, an appropriate final
order to that effect, including provisions for pre- and postjudgment interest.

\section*{All Citations}

Not Reported in Atl. Rptr., 2015 WL 4540443

\section*{Footnotes}

1 The factual record is drawn, in part, from the testimony presented at trial. Citations to such testimony are in the form "Tr. \# ( X )" with " X " representing the surname of the speaker, if not clear from the text. Exhibits will be cited as "JX \#" and facts drawn from the parties' pre-trial Joint Stipulation are cited as "JS I \# ."
2 Tr. 10 (Davidian).
3 JS 11.
4 ld. 14.
5 Tr. 184 (Davenport).
6 JS 12.
7 Tr. 281 (Rodgers).
8 JS 111.
9 Id. \(\mathbb{1} 13\).
10 Id. \(\mathbb{I} 18\).
11 Id. \(\mathbb{I} 23\).
12 ld .95.
13 JX 322, JX 324.
14 Before assuming the CFO position, Richards previously had served as the Company's controller. He appears to have started working at Ramtron in 2004. Tr. 49. After the Merger, he worked for Cypress for five months until March 2013. Id at 22-23.
15 Id. at 48-49. Apparently Fujitsu did not definitively terminate the foundry relationship, but instead, was moving its plant to a new location and Ramtron determined that the expense of transitioning to the new location outweighed the benefits.
\(16 \quad\) Id. at 291 (Rodgers).
17 ld. at 291-92 (describing the process of transitioning foundries). The Company's products primarily, if not entirely, were for commercial customers. The F-RAM often was "designed into" the customer's end product.
18 ld . at 292. Rodgers also suggested that Ramtron's products had design flaws that increased the difficulty of transitioning.
19 Tr. 49 (Richards).
20 Id. at 50-52 (Richards); id. at 187-88 (Davenport).
21 Davenport began working for Ramtron in 1986. He started as an equipment engineer and worked his way up to the Vice President position. He currently is employed by Cypress as the Vice President of Technical Staff. Tr. 183.
22 Id. at 198-99; JX 128.
23 Tr. 198.
24 JX 215 [hereinafter "Jarrell Rpt."] Ex. 8.
25 Tr. 49-50 (Richards); id. at 198 (Davenport) (noting that the difficulty and risk of transitioning foundries is "substantially higher" in the case of transferring a specialty process like F-RAM if the new foundry has no experience with F-RAM); id. at 291 (Rodgers) (stating that "in general, switching foundries is a big deal" and that the process requires a company to "in effect, change the product").
26 JS 『 5.
27 Id. \(\mathbb{T} 6\).
28 Tr. 63-64 (Richards).
29 Id. at 22.
30 Id. at 158 (Richards).
31 Id. at 30-31 (Richards).

32 Id. at 30 (Richards); id. at 192 (Davenport); id. at 299-302 (Rodgers); id. at 396-97 (Buss).
33 Id. at 50-51 (Richards); id. at 187-88 (Davenport).

35 The data in this chart is drawn from Exhibit 5 to the Jarrell Report.
36 JX 22; Tr. 25 (Richards).
37 JX 24.
38 JS \(\mathbb{1} 8\).
39 JX 14.
40 Tr. 285.
41 Id. at 54-55 (Richards).
\(42 \quad l d\). at 54 (Richards).
43 JS 19.
44 Tr. 55 (Richards).
45 JX 35.
46 JX 43; Tr. 28 (Richards: explaining that this reference to the new bank covenants related to the fact that Ramtron recently had renegotiated its covenants yet again).
47 JX 151.
48 Tr. 410 (Buss).
49 ld. at 30.
50 JS I 11.
51 Tr. 294 (Rodgers).
52 JS I 12.
53 The sole exception appears to be a set of projections created by Richards in February 2012 and sent to the Company's auditors in an effort to corroborate the extent of Ramtron's net operating loss tax assets. JX 40. Interestingly, the 2013 forecasts included a confidence factor of \(80 \%\) and the 2014 forecasts had a confidence factor of only \(50 \%\). Richards did not even bother providing a confidence factor for the 2015 forecasts. Id. (native file).
54 Tr. 59 (Richards).
55 JX 60.
56 Tr. 59 ("Needham was going to market our company.... [O]ne of their tactics was to put us out to bid so hopefully maybe a white knight would come in. And, two, I think they used [the projections] for a discounted cash flow to come up with a basis to value the company, if you will.").
\(57 \quad l d\). at 63.
58 JX 60.
59 Id. By recommending use of a 30\% CAGR, which generally stands for compound annual growth rate, Richards understood Zimmer to be advocating multiplying a base value by 1.3 for each year of the projection period.
60 Tr. 63 (Richards).
61 JS I 13.
62 ld. \(\mathbb{1} 14\).
63 JX 47.
64 JX 96.
65 JX 97.
66 Id.
67 Tr. 73 (Richards); id. at 302 (Rodgers); id. at 397 (Buss).
68 JX 245 [hereinafter "Balzer Dep."] at 106 ("Part of the reason that sales fell off as soon as Cypress announced the acquisition is distributors that we had.... If these distributors were not distributors of Cypress product, it was their beliefand I heard this from Pete [Zimmer]-their belief then that Cypress would probably not protect them if they consummated the deal and they could be stuck with a whole bunch of product and, hence, they just stopped buying."). There is a potential hearsay problem with this testimony, but Respondent did not press any such objection in its briefing.
69 A \(\$ 70\) million year would equate to weekly sales of, on average, \(\$ 1.347\) million.
70 Tr. 209.

71 Id. at 402-04 (Buss).
72 JS IT 15.
73 Id. 116.
74 Id. I 17.
75 Id. I 18.
76 Id. I 23.
77 Dent v. Ramtron Int'I Corp., 2014 WL 2931180 (Del. Ch. June 30, 2014).
78 E.g., In re Dole Food Co., 2014 WL 6906134, at *11 (Del. Ch. Dec. 9, 2014) ("In appraisal proceedings, the battling experts tend to generate widely divergent valuations as they strive to bracket the outer limits of plausibility."); Finkelstein v. Liberty Digital, Inc., 2005 WL 1074364, at *13 (Del. Ch. Apr. 25, 2005) ("Men and women who purport to be applying sound, academically-validated valuation techniques come to this court and, through the neutral application of their expertise to the facts, come to widely disparate results, even when applying the same methodology.").
8 Del. C. § 262(h).
80 Golden Telecom, Inc. v. Global GT LP, 11 A.3d 214, 218 (Del. 2010).
81 M.G. Bancorporation, Inc. v. Le Beau, 737 A.2d 513, 525 (Del. 1999) (quoting Cede \& Co. v. Technicolor, Inc., 684 A.2d 289, 298 (Del. 1996)).
828 Del. C. § 262(h).
83 Gholl v. eMachines, Inc., 2004 WL 2847865, at *5 (Del. Ch. Nov. 24, 2004) (quoting Weinberger v. UOP, Inc., 457 A.2d 701, 713 (Del. 1983)).
84 M.G. Bancorporation, Inc., 737 A.2d at 520 ("In a statutory appraisal proceeding, both sides have the burden of proving their respective valuation positions by a preponderance of the evidence.").
Gholl, 2004 WL 2847865, at *5.
Doft \& Co. v. Travelocity.com Inc., 2004 WL 1152338, at *5 (Del. Ch. May 21, 2004).
Highfields Capital, Ltd. v. AXA Fin., Inc., 939 A.2d 34, 52-53 (Del. Ch. 2007).
Cf. Laidler v. Hesco Bastion Envt', Inc., 2014 WL 1877536, at * 8 (Del. Ch. May 12, 2014) ("Though DCF is more prominently employed in Delaware appraisal litigation, both parties' experts opine that employing a DCF is not feasible here because [the company's] management never made cash flow projections in the ordinary course of its business.").
Cede \& Co. v. JRC Acq. Corp., 2004 WL 286963, at *2 (Del. Ch. Feb. 10, 2004).
Doft \& Co., 2004 WL 1152338, at *5.
91 Cede \& Co. v. Technicolor, Inc., 2003 WL 23700218, at *7 (Del. Ch. Dec. 31, 2003), revised (July 9, 2004), aff'd in part, rev'd in part, 884 A.2d 26 (Del. 2005).
92 Gearreald v. Just Care, Inc., 2012 WL 1569818, at *4 (Del. Ch. Apr. 30, 2012) (listing these four factors as reasons not to afford deference to the projections); see also Huff Fund Inv. P'ship v. CKx, Inc., 2013 WL 5878807, at *9-11 (Del. Ch. Nov. 1, 2013) (rejecting management projections prepared out of the ordinary course that included substantial speculative elements), holding left unmodified, 2014 WL 2042797 (Del. Ch. May 19, 2014), both aff'd, 2015 WL 631586 (Del. Feb. 12, 2015) (TABLE); Doft \& Co., 2004 WL 1152338, at *5-6 (finding management projections unreliable because: (1) management themselves did not regard them as reliable; and (2) the company, and seemingly the industry, was deemed nearly impossible to forecast in the short term, much less the long-term).

Recent cases continue to evaluate the reliability of management projections on similar grounds. See, e.g., Merlin P'rs LP v. AutoInfo, Inc., 2015 WL 2069417, at *8 (Del. Ch. Apr. 30, 2015) (refusing to rely on management projections where: (1) management never before had prepared similar projections; (2) the projections were so "indisputably optimistic" that the petitioner's own expert testified that a discount would have been appropriate; and (3) management "itself had no confidence in its ability to forecast"); Owen v. Cannon, 2015 WL 3189204, at *19-21 (Del. Ch. June 17, 2015) (rejecting an attack on the management projections when those projections did not include speculative business items, were not inconsistent with historical performance, were not "created by novices," and instead generally resulted from a "deliberate, iterative process over a period of three years to create, update and revise multi-year projections for the Company").
Tr. 59 (Richards).
Id. at 60.
Id. at 64.
Id. at 63 (Richards); see also JX 60.
97 See supra note 53.

98 JX 60.
99 Tr. 59.
100 ld.
101 E.g., JX 47 (forecasting, on April 19, 2012, \(\$ 70\) million in total 2012 revenue). On February 22, 2011, Ramtron forecasted between \(\$ 65\) and \(\$ 70\) million in total 2011 revenue. JX 294. Actual revenues for 2011 were \(\$ 66.4\) million. JX 215 Ex. 3. The 2011 forecast likely was not made by exactly the same management team and neither the 2011 nor the 2012 forecasts utilized a point-of-sale or a bottoms-up line-item methodology. Thus, the relevance of the 2011 and 2012 forecasts, as predictors of the accuracy of the Management Projections, is marginal, at best.
102 JX 39. This chart was included in a presentation to the Ramtron Board and is dated February 9, 2012. The first two columns indicate the month and the quarter when each particular forecast was made. The remaining columns are the quarters being forecasted. For unknown reasons, there are two sets of forecasts in the first quarter of 2011. The bolded number represents the actual results in thousands of dollars for each quarter. For example, the cell Q2 2010 by Q1 2011 represents management's forecast, as of the second quarter of 2010, for revenue in the first quarter of 2011. I have added the actual results for Q1 and Q2 2012, which were not yet known as of February 9, 2012.
103 Indeed, an earlier version of the same chart appeared in an October 18, 2011 board presentation entitled "Financial Outlook." JX 31. That chart similarly was entitled "Sales Forecast Waterfall Chart," as in JX 39, and it contained no indication that the figures presented were "stretch" goals.
104 JX 313 (Oct. 18, 2011); JX 314 (Feb. 13-14, 2012).
105 Tr. 209, 232.
106 JX 36 .
107 See Gholl, 2004 WL 2847865, at *9 (rejecting contention that management projections were unrealistic reach goals and noting: "If the 2002 budget represented management's wildest dreams come true, it would be illogical and callous to key the Bonus Plan to even higher targets that were not achievable").
108 The February 2012 projections cumulatively estimate \(\$ 67\) million in revenue for 2012. This is the same number used by Richards in a set of projections prepared to justify the Company's deferred tax assets to its auditors. JX 40. Richards's use of the waterfall chart forecast numbers for projections provided to the Company's auditors further supports my finding that these were not "stretch" goals.
109 Tr. 31-32 (Richards); id. at 320-21 (Rodgers: explaining that rigorous competition, technological change, and macroeconomic factors make the industry difficult to forecast); id. at 378-80 (Buss).
110 JX 97.
111 Balzer candidly conceded the Company was mediocre at forecasting:
Q: What was the quality of those forward-looking projections when you took over as CEO?
A: Probably mediocre.
Q: Did you attempt to make improvements in the quality of the projections?
A: Yes.
Q: Did you succeed?
A: l'd say no.
Q: Why not?
A: ... [Y]ou need to understand the market.... And while we were working very hard on that, we weren't there.
Balzer Dep. 50. These comments temper the reliability of Balzer's position that the Management Projections "were the most likely of what would happen if Cypress walked away." Id. at 83.
112 JX 170 native file.
113 See Gearreald, 2012 WL 1569818, at *5-6 (concluding that the requirement that a company be valued as a going concern based on its operative reality at the time of the merger required the exclusion of "speculative costs or revenues"); see also Huff Fund Inv. P'ship, 2013 WL 5878807, at *11 (finding the inclusion or exclusion of significant contract revenues so speculative as to render the management projections unreliable).
114 JX 95 .
115 ld .
116 E.g., Tr. 410 (Buss: commenting that, upon acquiring Ramtron, Cypress discovered that the Company still had unpaid legal bills from the beginning of 2012). Indeed, Ramtron was on pace to go cash negative before the end of October 2012. JX 151.

117 JX 170 native file (assumption of per part cost reductions).

118 See supra notes 16-18 and accompanying text.
119 Tr. 225.
120 Id. at 205.
121 Id. at 207-08 (Davenport: discussing ROHM's wafer yield of \(20 \%\) to \(60 \%\), as against a "good" yield of \(97 \%\), which TI could achieve, all of which bears on supply costs); id. at 348-51 (Rodgers: testifying that ROHM lagged behind TI technologically, was not competitive in the marketplace against TI's products, and had a very different technology than TI that would make the foundry transition difficult, all of which raised questions about the economic viability of manufacturing microchips there); id. at 395 (Buss: stating that TI and IBM "are probably two of the best, well-run, capable fabs in the world," and that successfully introducing ROHM as a second foundry "was definitely a long shot"). The testimony of Cypress' officers and employees is obviously self-serving, but their remarks on the technological status of ROHM versus TI or IBM is not contradicted by any other evidence and comports with Ramtron's own difficult history in transferring foundries.
122 JX 170 native file (year-over-year growth rates of \(-12 \%, 19 \%\), \(24 \%, 24 \%\), and \(24 \%\), for 2012 through 2016, respectively).
123 E.g. Tr. 415 (Buss: describing Ramtron's inventory problem).
124 JX 36.
125 Id.
126 LongPath cites to statements by Balzer regarding other time periods that the Company should avoid stuffing the channel. JX 10; JX 242.
127 The evidence suggests that many or most of Ramtron's products were "designed into" its customers' products. This longterm supply nature of Ramtron's business reduces the likelihood of dramatic short-term demand fluctuations.
128 See supra notes 70-72 and accompanying text.
129 Pet'r's Post-Trial Br. 34. My rather simplistic comparison of point-of-purchase versus point-of-sale revenue recognition supra suggested that the use of one system over the other affects only the timing of the revenue, not the amount. There are various reasons why using the point-of-purchase approach also may lead to over-recognition of revenue. The distributors may return inventory because, for example, they ordered too much or the products are obsolete. Distributors also may sell to the end-user for less than the list price, leading to a reduction in the actual revenue received. See Tr. 299-302 (Rodgers: comparing the two revenue recognition systems).
130 Moreover, because Ramtron's management moved to a new revenue-recognition approach for the Management Projections, it is not clear what steps the Company took to avoid double counting revenue. As of the end of January 2012, Ramtron had about \(\$ 21\) million in inventory in its distribution channels. JX 34 (Zimmer email). That is more than a quarter's worth of revenue. But, the Company apparently did track to some extent the differences between point-ofsale and point-of-purchase revenues. JX 174.
131 The historical figures are drawn from Exhibit 8 of Jarrell's Report. These figures are for the years 2002 through 2011 and are in blue. The projected revenues are drawn from the native excel spreadsheet of \(J X 170\), which is the final iteration of the Management Projections. The projection period is 2012 through 2016 and those numbers are displayed in red.
132 By 2012, the Company had experienced two consecutive years of revenue decreases. In fact, 2012 revenue was forecasted as less than 2008 revenue. 2016 forecasted revenue, by contrast, nearly would exceed Ramtron's 2010 and 2011 actual revenues combined.
133 The inputs are the same as the previous graph. CAGR provides the rate at which an initial value would need to grow each year in order to achieve a final amount. It is a measurement that smoothes out swings in growth over time. For CAGR, I use the formula: CAGR = ((End Value / Start Value \()^{\wedge}(1 /\) Number of Years) \()\) - 1. Note that, while, for example, 2002-2011 is a period of ten years, the input for the CAGR formula would be nine, because there are only nine periods of growth between year-end 2002 and year-end 2011. CAGR can be a misleading measurement tool, as the selection of years can dramatically affect the implied annual return. This is why multiple historical CAGR measurements are provided.
134 JX 199; Tr. 426-32 (Buss: explaining the various portions of JX 199, which is the PSP).
135 In 2017, for example, Cypress predicted a \(22 \%\) market share.
136 Balzer Dep. 80-81.
137 JX 170.
138 Id. \& native file.
139 JX 93 \& native file.
140 JX 136 \& native file.
141 Tr. 81.

142 My conclusion that the Management Projections are unreliable prevents me from using those inputs. It is equally dubious to use either set of the SVB Projections, because they extend only for the 2012 calendar year and one of the main problems with the Management Projections is that they forecast an unrealistic rate of growth. Thus, even if the SVB Projections provided a reliable 2012 input, it still would not be clear what rate of growth to apply for future years. The parties, perhaps, could have advised on this issue. Instead of arguing that the Management Projections should be discounted a certain percentage, however, the parties took the opposite tactic of wholesale adoption or rejection of the Management Projections. This has forced the Court to choose one of those routes. Adopting instead some sort of middle ground would require me to engage in impermissible and unreliable speculation.
143 Huff Fund Inv. P'ship, 2013 WL 5878807, at *9.
144 Cypress prepared its own projections for Ramtron. JX 174. Those projections, however, predict Ramtron's performance as a division of Cypress. Tr. 321-23 (Rodgers). Accordingly, they are not useful as a predictor of Ramtron's standalone operating potential. Furthermore, Cypress predicted substantially more conservative figures than Ramtron's management, even after accounting for improvements that Cypress anticipated making to Ramtron.
145 JX 214 [hereinafter "Clarke Rpt."] at 47; Jarrell Rpt. 84
146 Clarke Rpt. 51.
147 ld. at 58.
148 Jarrell Rpt. 87, 91.
149 Highfields Capital, Ltd. v. AXA Fin., Inc., 939 A.2d 34, 54 (Del. Ch. 2007) (quoting In re U.S. Cellular Operating Co., 2005 WL 43994, at *17 (Del. Ch. Jan. 6, 2005)).
150 In re Orchard Enters., Inc., 2012 WL 2923305, at *9 (Del. Ch. July 18, 2012).
151 Clarke Rpt. 50-51.
152 This is "forecasted revenue for the one-year period after the next 12 months." Id. at 53.
153 JX 216 [hereinafter "Jarrell Rebuttal Rpt."] at 38.
154 Id.
155 Merion Capital, L.P. v. 3M Cogent, Inc., 2013 WL 3793896, at *8 (Del. Ch. July 8, 2013) (citing In re John Q. Hammons Hotels Inc. S'holder Litig., 2011 WL 227634, at *5 (Del. Ch. Jan. 14, 2011) and In re U.S. Cellular Operating Co., 2005 WL 43994, at *18).
156 ld.
157 Clarke Rpt. 54.
158 The implied equity value is not an exact multiple, because Ramtron's debt of \(\$ 8.8\) million is subtracted out and the Company's cash of \(\$ 1.3\) million is added into the calculation. This results in netting out \(\$ 7.5\) million to obtain the implied equity value that is shown.
159 This calculation is derived by applying the comparable transaction multiples to Ramtron's financials, subtracting \(\$ 7.5\) million, discounting by \(13 \%\), and then dividing by the number of shares, which I assume to be Clarke's figure of \(35,528,425\). Jarrell contends that the latter figure understates the number of shares by about four million units because of restricted stock and stock options.
160 These numbers are inconsequentially different from Jarrell's calculations. The deviation seemingly results from his rounding of Clarke's determination of shares outstanding to \(35,500,000\).
161 Jarrell presents a colorable argument that Virage is not, in fact, a comparable transaction. If correct, that provides yet another reason that the comparable transaction methodology is not reliable here, but I need not decide that issue. If Virage is not comparable, the Court would be left attempting to value Ramtron on the highly questionable basis of a single allegedly comparable transaction.
16211 A.3d 214 (Del. 2010).
163 Id. at 217-18.
164 In re Appraisal of Ancestry.com, Inc., 2015 WL 399726 (holding that the merger price was the most reliable indication of fair value and performing confirmatory DCF analysis); Huff Fund Inv. P'ship, 2013 WL 5878807 (finding the merger price to be the best indication of fair value in light of the lack of other reliable methods); The Union Illinois 1995 Inv. Ltd. P'ship v. Union Fin. Gp., Ltd., 847 A. 2 d 340 (Del. Ch. Jan. 5, 2004) (concluding that the merger price offered the best indication of fair value and also performing a confirmatory DCF analysis).
165
166 Union Illinois, 847 A.2d at 357.
167 Id. at 358.

168 Huff Fund Inv. P'ship, 2013 WL 5878807, at *13.
169 JX 322 (TI Mfg. Agreement); JX 324 (TI Mfg. Agreement Amendment No. 2) § 13.1.
170 JX 322 § 14.8(b).
171 Tr. 287-90; id. at 289 (Rodgers: "They explicitly refused to say 'we will support you' to the point that I didn't even try to get them to sign a document, but my inference was that they wouldn't harm us if we didn't attack them.").
172 JX 320.
173 JX 236 at 7. Because the presentation includes actual numbers for 2011, I infer that it must be from sometime in 2012.
174 JX 67.
175 JX 65.
176 Tr. 287 (Rodgers).
177 Id. at 286 (Rodgers: "They're a company with many divisions, like us, and they compete broadly in the market."); id. at 287 ("TI and Cypress have a history of conflict, and they sued us twice about 15 years ago. We won both trials, but there's not good blood."); id. at 237 (Kaszubinski: testifying that TI and Cypress competed); id. at 389-90 (Buss: "So the challenge for us is that TI does not like Cypress. TI and T.J. [Rodgers] do not get along.... I believe he had been in two prior lawsuits with them prior to my tenure, and I think he beat them both times. So there is a lot of animosity between the two companies, and it was the number one issue we wrestled with.").
178 ld. at 65 (Richards); id. at 202 (Davenport).
179 ld. at 201.
180 Id.
181 JX 125 at 8.
182 The Management Projections were in the Company's data room. E.g., JX 84. Needham's call log shows that five companies who had signed NDAs accessed the data room, though one company that executed an NDA is missing from that log. JX 88.
183 JX 114.
184 JX 70.
185 JX 76.
186 JX 88.
187 JX 125.
188 JX 90.
189 JS ๆ 5.
190 JX 109.
191 Clarke's report, for example, suggested that the average acquisition premium in the semiconductor industry is about \(30 \%\), with roughly half of that amount attributable to a control premium and the remainder attributable to synergies. Clarke Rpt. 56 . An additional \(15 \%\) on top of \(\$ 3.00\) would imply a minimum acquisition price of \(\$ 3.45\), exclusive of synergies.
192 JX 109.
193 JX 126.
194 See Glassman v. Unocal Exploration Corp., 777 A.2d 242, 248 (Del. 2001).
195 JX 88.
196 See JX 89 ("Wear them down and wait is working.").
197 Union Illinois, 847 A.2d at 359.
198 Huff Fund, 2014 WL 2042797, at *2.
1998 Del. C. § 262(h) (emphasis added).
200 Cf. Huff Fund, 2014 WL 2042797, at *5 (providing the example of the urban cornfield auction and the eccentric farmer, and noting that, "In an auction setting, it makes little sense to determine whether a bid incorporates information about the value of certain opportunities by considering only the idiosyncratic weight attached to that information by any particular bidder, even the winning bidder").
201 Jarrell Rpt. 43-44.
202 JX 174.
203 Jarrell Rpt. 46.
204 JX 217 (Clarke Rebuttal Rpt.) at 26-27.
205 JX 217 (Clarke Rebuttal Rpt.) at 26-27.
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LongPath Capital, LLC v. Ramtron International Corporation, Not Reported in Atl. Rptr....

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206 Balzer Dep. 19.
207 JX 246 at 76.
208 Union Illinois, 847 A.2d at 359.
209 JX 38.
210 JX 48.
211 JX 97.

2015 WL 5723985
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\section*{UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.}

Court of Chancery of Delaware.

\section*{Stewart MATTHEW, Plaintiff,}
v.

Christophe LAUDAMIEL, Fläkt Woods
Group SA, Fläkt Woods Limited and DreamAir LLC, Defendants.

Fläkt Woods Group SA,
Cross-Claim Plaintiff,
v.

Christophe Laudamiel, Roberto
Capua, Action 1 SRL, and DreamAir
LLC, Cross-Claim, Defendants.


Date Submitted: June 5, 2015
|
Date Decided: September 28, 2015

\section*{Attorneys and Law Firms}

Thad J. Bracegirdle, Esquire of Wilks, Lukoff \& Bracegirdle, LLC, Wilmington, Delaware, Attorney for Plaintiff

Christopher Laudamiel, of New York, New York, SelfRepresented Defendant.

Seth J. Reidenberg, Esquire of Tybout, Redfeam \& Pell, Wilmington, Delaware and Mark Thornhill, Esquire, Kersten Holzhueter, Esquire, and Angus Dwyer, Esquire of Spencer Fane Britt \& Browne LLP, Kansas City, Missouri, Attorneys for Defendants Fläkt Woods Group SA and Fläkt Woods Limited.

\section*{MEMORANDUM OPINION}

\author{
NOBLE, Vice Chancellor
}
*1 Plaintiff, a businessman, aspired to create an innovative scenting business. He teamed with a perfumer and a financier in a limited liability company ("LLC"), which collaborated with an established company interested in integrating scenting technology into its commercial air handling systems. Developing a functioning product proved difficult, however, and interpersonal conflict further plagued the LLC. At some point, the perfumer and the financier began to seek support from an employee of the air handling company. The employee, who believed that the perfumer's skills were more valuable to the air handling company, participated in communication and meetings that excluded the businessman. Shortly after the perfumer and the financier voted to dissolve the LLC, they formed a new, similar company and ultimately contemplated working with the employee and the air handling company in a similar capacity. The businessman responded with this action asserting direct and indirect claims relating to the failed business. The Court sets forth its findings of fact and conclusions of law in this post-trial memorandum opinion. For the reasons below, the Court finds that the perfumer is liable for his conduct, the air handling company lacked the requisite scienter to participate in the wrongful conduct or cause independent injury and thus has no liability, and an award of \(\$ 491,839.79\) from the perfumer and the entity he controls, subject to resolution of one remaining issue, fairly compensates the businessman.

\section*{I. BACKGROUND}

\section*{A. The Parties}

Plaintiff and Counterclaim Defendant Stewart Matthew ("Matthew") was a manager of Aeosphere LLC ("Aeosphere" or the "Company") and held \(35 \%\) of its membership units. \({ }^{1}\) He maintains this action against Defendant and Counterclaim Plaintiff Christophe Laudamiel ("Laudamiel"), as well as Defendants DreamAir LLC ("DreamAir"), \({ }^{2}\) Fläkt Woods Group SA ("FWGSA"), and Fläkt Woods Limited ("FWL") to vindicate his rights following Aeosphere's dissolution. The liability of Roberto Capua ("Capua"), Capua's investment vehicle Action 1 SRL ("Action 1"), and SEMCO LLC ("SEMCO"), named in Matthew's original complaint, is no longer at issue.

Matthew, Laudamiel and Action 1 were Aeosphere's members, and Matthew, Laudamiel and Capua were Aeosphere's managers. \({ }^{3}\) Laudamiel, like Matthew, held 350 common units of Aeosphere ( \(35 \%\) of the fully diluted total),
and Capua held 300 preferred units of Aeosphere ( \(30 \%\) of the fully diluted total). \({ }^{4}\) Laudamiel and Capua formed DreamAir on May 7, 2010, shortly before Matthew filed Aeosphere's certificate of cancellation. \({ }^{5}\) FWGSA "provides management services and contracts for management services for the Flakt Woods family of companies,," \({ }^{6}\) including FWL, a United Kingdom entity. For convenience, the Court does not distinguish between FWGSA and FWL. A critical part of FWGSA's business is the manufacture and sale of air handling units. \({ }^{7}\)

\section*{B. The Creation of Aeosphere}
*2 Aeosphere originated as an entertainment company founded by Matthew to develop a project called the Scent Opera. \({ }^{8}\) The Scent Opera involved presenting a story through scents and sounds and would eventually yield performances at prominent museums. \({ }^{9}\) Although Laudamiel initially was not interested in forming a business with Matthew, he agreed to create the fragrances for the Scent Opera. \({ }^{10}\) To obtain funding for his project, Matthew made a number of "cold call[s]," one of which was to FWGSA. \({ }^{11}\) As the discussions progressed, Matthew worked primarily with Neil Yule ("Yule"), then responsible for various business development projects at FWGSA. \({ }^{12}\) Yule saw an opportunity for FWGSA to use scenting technology with its air handling units to offer an "aroma-control and fragrancing" system. \({ }^{13}\) This Scent Project intrigued Yule because it would allow FWGSA to differentiate its business in a "mature industry with a lot of competition." \({ }^{14}\)

The discussions culminated in the formation of Aeosphere, with Matthew and Laudamiel as co-CEOs, and the execution of the Operating Agreement of Aeosphere LLC dated June 20, 2008. \({ }^{15}\) Aeosphere entered into a Collaboration Agreement with FWGSA on July 2, 2008. \({ }^{16}\) The Collaboration Agreement broadly anticipated Aeosphere developing proprietary scent formulas, another company providing the scented oils, and FWGSA marketing and supplying the "integrated package ... for incorporation into new or existing air handling equipment designed to ensure the controlled diffusion of the selected scent into selected areas of space., \({ }^{17}\)

The parties disagree about whether they based their agreement on the use of electric field effect technology ("EFET"),
developed by Battelle Memorial Institute ("Battelle"), to transform scent oils into particles that could be dispersed by the air handling units. It is clear, however, that the parties saw EFET as the best option in terms of both function and profitability. \({ }^{18}\) While a device developed by Prolitec, Inc. ("Prolitec") existed as a prospective alternative to EFET, the Prolitec device did not perform as well as claimed \({ }^{19}\) and use of such device would mean collaborating with an FWGSA competitor. \({ }^{20}\)

Yule presented the Scent Project to FWGSA, but FWGSA did not adopt the project because of the costs associated with developing the technology, among other reasons. \({ }^{21}\) Aeosphere eventually found a source of funding in Capua, who provided 1.55 million through Action \(1 .{ }^{22}\) In return, Action 1 received a 30\% membership interest in Aeosphere \({ }^{23}\) and Capua became a manager. \({ }^{24}\) Part of the effort to attract Capua's investment involved Matthew's preparation of pro forma financials projecting that FWGSA would sell 15,100 scenting devices by the end of 2013 (and 2,200 by the end of 2010). \({ }^{25}\)
*3 Under Aeosphere's LLC Agreement, certain actions, such as terminating Matthew and winding up Aeosphere, required a unanimous vote of the co-CEOs, though Capua negotiated other meaningful voting rights. \({ }^{26}\) Generally speaking, Capua's investment came with a "preferred return" of \(7 \%\) (compounded annually) on "outstanding and unreturned ... Capital Contributions" and priority in distributions of available cash and liquidation proceeds. \({ }^{27}\) The new arrangement was reflected in the LLC Agreement, dated as of May 11, 2009. Matthew and Laudamiel's employment agreements appeared as attachments to the LLC Agreement. \({ }^{28}\) Each had a term of five years, with a base salary equivalent to \(\$ 300,000\) in the first year and \(\$ 350,000\) per year thereafter.

Around March 2009, with news of Capua's investment, Yule updated projections and pitched the Scent Project once more. \({ }^{29}\) At about the same time, FWGSA contracted with Battelle for an option to license the Battelle technology, \({ }^{30}\) and the Collaboration Agreement was amended to increase royalties on sales " \([\mathrm{i}] \mathrm{n}\) return for [Aeosphere's] co-investment with FWG[SA]" in the technology contemplated by the License and Development Agreement with Battelle. \({ }^{31}\) The assumption of using EFET was "significan[t]" to Yule's
projections that 2010 sales would reach around 2.6 million. \({ }^{32}\) Yule claims that his projection would have been at best one-fifth to one-tenth of that had the Prolitec technology been used. \({ }^{33}\) Jean Philippe Margrita, who became FWGSA's senior vice president of marketing and product development in late 2008, \({ }^{34}\) was somewhat skeptical of Yule's numbers; he believed that it would take over a year to begin selling units using EFET. \({ }^{35}\) FWGSA adopted the Scent Project as one of its initiatives but used a more conservative projection of 500,000 in 2010 sales (later updated to 200,000 in forecasted sales) in seeking shareholder approval of the November 2009 budget. \({ }^{36}\) The presentation noted that the FWGSA "device [was] not yet completed" but anticipated using Prolitec technology in the meantime. \({ }^{37}\) Unfortunately, even the updated numbers proved too optimistic.

\section*{C. The Conflict and Yule's Involvement}
*4 As Aeosphere struggled, conflict arose within the Company's management, including Laudamiel's desire to bring his husband, perfumer Christophe Hornetz ("Hornetz"), into the business as an employee, \({ }^{38}\) and certain conduct during the Scent Opera engagements. \({ }^{39}\) As to be expected with disagreements and secret negotiations, the record does not paint a clear picture of who was planning to do what, and when. A few records and acts, however, are particularly noteworthy and illustrate the timeline of the managers' negotiations and the ultimate dissolution.

Around September 2009, Matthew, Laudamiel, and Capua began to discuss restructuring their roles within Aeosphere. \({ }^{40}\) Records from October confirm preexisting strife and a desire to exclude certain members from communication. In one email chain, Laudamiel expressed concern about Matthew holding up a project, and Yule suggested fabricating a scheduling conflict as a ruse to keep Matthew out of a meeting they felt unnecessary. \({ }^{41}\) In a follow-up email, Yule asked Laudamiel about the "possibility that [Matthew] could gain access to [Laudamiel's] mails through the Aeosphere server., \({ }^{, 42}\) Laudamiel and Yule discussed business opportunities without informing Matthew into November. \({ }^{43}\) Matthew, too, solicited Capua's help to prevent Laudamiel from "hav[ing] his own way all the time.,"44

Laudamiel and Capua then held a secret meeting with Yule in Paris. During that January 2010 meeting, the three discussed
the conflict within Aeosphere and Capua's desire "to place the business into ... different business streams to ... allow [Matthew] and [Laudamiel] to operate in their preferred areas and ... avoid some of the conflict., \({ }^{45}\) Yule claims that he did not know that Laudamiel and Capua wanted to discuss a potential division; he had believed the meeting was to visit a site for a Scent Opera performance and a center for perfumery. \({ }^{46} \mathrm{He}\) admits, however, that he had known as early as fall 2009 that the managers were considering "some sort of reorganization." \({ }^{47}\) Yule agreed to keep the meeting confidential \({ }^{48}\) Laudamiel and Capua likely did not inform Matthew of the meeting, \({ }^{49}\) although Capua did inform Matthew that he had discussed the management problems with Yule at some point. \({ }^{50}\) The evidence suggests that Matthew did not authorize his co-members to discuss the internal separation discussions with Yule and attempted to keep them confidential himself. \({ }^{51}\)
*5 Adding to the tension was a string of disappointing test results. Matthew highlights a failed round of testing, of which Yule notified Laudamiel and Capua on January 21, 2010. \({ }^{52}\) In his email, Yule suggested,

One option is for you guys to use the \(\mathrm{EF}[\mathrm{E}] \mathrm{T}\) option as a bargaining chip in your negotiations with [Matthew], If we agree that it is not a suitable technology for HVAC applications, then perhaps you should offer the license to [Matthew] as his share of Aeosphere, allowing him to leave without the need for an additional financial pay-off? \({ }^{53}\)
The next day, in response to emails from Capua about conflict with Matthew, Yule expressed his " \(100 \%\) commit[ment]" to Laudamiel and Capua. \({ }^{54}\) He not only agreed to conceal his knowledge of "how serious matters had become" \({ }^{55}\) but also represented that "[a]ny contact [he may] have with [Matthew] during this time will purely be on the basis that it may help [Laudamiel and Capua].,"56 Yule admits that he favored Laudamiel (and Capua), as Laudamiel's skills were more valuable to the business arrangement (at least going forward). \({ }^{57}\) At the same time, he intended to "remain[ ] entirely impartial with regard to Aeosphere's internal structural review." \({ }^{58}\) In Yule's words, "the ideal scenario" for FWGSA would have been for Aeosphere to have two divisions, one with Matthew developing new media projects and one with Laudamiel working on ambient scenting. \({ }^{59}\)

By February 2010, if not earlier, the managers had retained counsel and were discussing a separation of business activities. \({ }^{60}\) On February 3, Capua asked Matthew to "discuss our members['] current situation during our meeting," adding that "[b]asically we are in agreement almost in everything[, though] we must deal with your proposal of split job and exclusivity." \({ }^{61}\) In that email chain, Capua refers to "the split of the company we are evaluating," explaining that he "do[es] not trust [Matthew] anymore," and ends that he will "see if [he] can \(\mathrm{r}[\mathrm{e}]\) cover some money from this terrible investment." \({ }^{, 62}\) Thereafter, the managers had a board meeting, which ended in frustration, "bang[ ]ing doors" and a hasty exit by Matthew. \({ }^{63}\) They were unable to agree on a budget. \({ }^{64}\) A follow-up email from Matthew to Capua states, "I cannot agree to a discussion of budget limited to a two to three months time horizon. Our company could face financial ruin in the meantime unless we set a responsible budget." \({ }^{"} 55\)
*6 In contrast, discussions among Laudamiel, Capua, and Yule continued. Matthew focuses on a number of exchanges over the next few months. For example, Yule, Laudamiel, and Capua held a February 24 conference call to discuss EFET and Prolitec. \({ }^{66}\) At that point, Laudamiel believed that EFET was still a viable option. \({ }^{67}\) Emails from March 8 through 9 discuss pursuit of EFET and working without interference from Matthew. \({ }^{68}\) Capua explained that they "finally reached a preliminary agreement [to] have [Matthew] out of the company at least for management and decision making" but retaining a " \(20 \%\) share." \({ }^{.69}\) At the end of March, Yule told a third party (then in negotiations with FWGSA and Aeosphere) about the management dispute and that Laudamiel and Capua "are close to concluding a deal that will result in [Matthew] leaving the firm in the next few weeks." 70 Though his testimony was not completely consistent, Yule stated in his deposition that he understood the negotiations to be confidential. \({ }^{71} \mathrm{He}\) told the third party contact, "[Matthew] is not aware that you and 1 have already spoken and 1 would prefer to maintain that impression during our call., 72

Regardless whether the conflict was a result of mutual negotiation (as alleged by Defendants) or a conspiracy to oust him (as alleged by Plaintiff), April emails reflect growing pressure on Matthew to resolve the conflict. On one hand, the correspondence appears to show some movement toward an arrangement where the co-CEOs could avoid deadlock, such as by making Capua the new CEO and allowing Matthew
and Laudamiel to pursue their respective fields. \({ }^{73}\) In one chain dated April 13, Capua explained that he was "done on financing [A]eosphere unless thing[s] change[d]" but that he was "trying the impossible to fix th[e] company." 74 Around one week later, Capua told Matthew that "[i]f everything is ok we can meet to finalize and sign [documents]" after discussing a "few little points." 75

On the other hand, there is ample evidence that Matthew saw only part of the picture. Notably, Laudamiel suggested on April 22 that Yule send an email, during the period of negotiations, to help his ability to work free from Matthew's "manipulations and ... arrogance., \({ }^{76}\) Laudamiel's suggestion resulted in an email (also dated April 22) in which Yule stated, "I am fearful that unless matters are quickly resolved, then I will be told to wind up [FWGSA's] involvement in the scent project." \({ }^{, 77}\) Matthew promptly followed up with a private phone call to Yule \({ }^{78}\) and an email request that Yule "consider sending a follow up message" that properly reflects his value to Aeosphere. \({ }^{79}\) The next day, Matthew emailed Capua to "terminate discussions of an alternative arrangement, unless it were to buy you and Christophe out of the company." 80 At this point (or shortly thereafter), Defendants say, the communication broke down. \({ }^{81}\)
*7 Capua and Matthew exchanged a few emails after April 23, in which Matthew reminded Capua that they "have responsibility to act according to [their] company's amended operating agreement., \({ }^{82}\) Laudamiel forwarded Yule certain April 23 emails sent by Matthew rejecting Capua's suggestion to become CEO-apparently at Yule's request \({ }^{83}\) and against Matthew's instructions about confidentiality. \({ }^{84}\) On April 27, Yule sent an email to Matthew making clear that FWGSA considered Laudamiel the critical business partner and that he needed to inform his board of the conflict. \({ }^{85}\) That email expressed a hope that "peace" would be achieved but also "implore[d] [Matthew] to quickly identify a way in which the business can be divisionalised or if necessary separated, in order for all parties to move forward. \({ }^{, 86}\) Yule hoped the email would be helpful to Laudamiel and Capua, \({ }^{87}\) but did not discuss his concerns with Margrita. \({ }^{88}\) In an April 29 reply, Matthew explained to Yule that Aeosphere, as a team, was committed to working with FWGSA. \({ }^{89}\)

Capua claims that he consulted counsel and decided, around May 3, to hold an emergency meeting on May 4 to wind up the company. \({ }^{90}\) Yet on April 28 and 29, Laudamiel wrote emails to Yule discussing a "Commando Operation" and "DDay." \({ }^{91}\) It is equally clear that Laudamiel was anticipating an important event (at a minimum, withdrawing money from Aeosphere's bank accounts \({ }^{92}\) ) and that Yule had no idea what Laudamiel meant. \({ }^{93}\) On April 29 and 30, Laudamiel took over \$145,000 from Aeosphere's account, of which \$70,000 was distributed to Action \(1 .{ }^{94}\) Matthew was only given a day's notice of the emergency meeting. \({ }^{95}\) Attached to the email notice was an agenda setting forth dissolution and windingup as the top item on the list. \({ }^{96}\)

Matthew did not attend the May 4 meeting. \({ }^{97}\) Regardless, Laudamiel and Capua took a vote "to cease operations, wind up the affairs of the Company and dissolve as soon as is practical in order to preserve important Company rights and avoid further Company liabilities." \({ }^{98}\) Votes were taken to terminate Matthew's employment, and Laudamiel was placed in charge of overseeing Aeosphere's winding up and liquidation. \({ }^{99}\) Capua understood that he was putting himself at risk of a lawsuit for breach of the LLC Agreement. \({ }^{100}\) Laudamiel also understood that Matthew had some rights under the LLC Agreement. \({ }^{101}\) In letters of that same date, Laudamiel assigned himself equipment in the Berlin office and "scents, scent formulas, scent conventions and annotations and test designs" and assigned Matthew equipment in the London office and "rights to the libretto of the ScentOpera 'Green Aria.' "102
*8 Laudamiel emailed Yule that same day, informing him that it was "GAME OVER" and that he and Capua would soon "be back up and running, AND FREE." 103 The next day, Yule emailed Battelle to assure it of FWGSA's continued "commitment to the development of scenting solutions for HVAC applications." \({ }^{104}\) By that time, FWGSA and other entities with business ties had received notice that Aeosphere was in the process of winding up. \({ }^{105}\) Yule explained at trial that he sent this email because he was interested in "a license that [he] may be able to sell to somebody else."106 However, Matthew observes that there were contractual barriers, including Battelle's consent and potential rights of Aeosphere. \({ }^{107}\) Laudamiel formed DreamAir on May 7, but must have planned for this entity in advance, judging from the
documents filed that day. \({ }^{108}\) On May 10, Matthew emailed Yule to inform him that "[Matthew's] partners in Aeosphere LLC[ ] have taken steps to dissolve the company" unlawfully and that he intended "to protect [his] rights and interest." \({ }^{109}\) Laudamiel caused the filing of Aeosphere's certificate of cancellation on May 12, 2010 \({ }^{110}\) and forwarded a copy to Yule. \({ }^{111}\) At the time of dissolution and winding up, Aeosphere had \(\$ 21,000\) in its bank account. \({ }^{112}\)

\section*{D. Post-Winding Up Events}

One day after receiving the certificate, Yule informed Battelle that he invited Laudamiel (who "remain[ed] a passionate supporter of \(\mathrm{EF}[\mathrm{E}] \mathrm{T}\) ") and Capua to join their conference call regarding EFET. \({ }^{113}\) The email expressed a willingness of Capua and Laudamiel to fund further testing efforts, including by sending a Battelle engineer to FWGSA's testing facility in Sweden. \({ }^{114}\)

The next set of communication Matthew highlights involves a July 28 email from Capua seeking clarification on the business relationship between DreamAir and FWGSA: "[W]e really need to understand how our relationship is going to start." \({ }^{115}\) He continued, "I know that you are very busy in more important issue[s] that involve your company but please do not forget about us." \({ }^{116}\) Yule replied that his "assumption has been that DreamAir will simply inherit the terms of the agreement previously in place with Aeosphere" but that "[a]s [they] will initially be primarily working with the Prolitec equipment, [FWGSA's] margins will be far smaller." \({ }^{117}\) Yule sent DreamAir a draft Collaboration Agreement in October \(2010^{118}\) and encouraged Laudamiel to sign. \({ }^{119}\) Changes included provisions allowing them "to revisit all of the substantive clauses at a later date., \({ }^{120}\) They never formalized the contract. \({ }^{121}\) Ultimately, DreamAir sold Prolitec units and Prolitec scents. \({ }^{122}\)

\section*{E. Procedural Posture}

This litigation has a long history. Matthew filed his original claim in November 2010 against Laudamiel, Capua, Action 1, FWGSA, and SEMCO. \({ }^{123}\) In February 2012, the Court dismissed claims against SEMCO and FWGSA for lack of personal jurisdiction and certain counterclaims filed by Laudamiel, Capua, and Action 1. \({ }^{124}\) The Supreme Court later reversed that decision in part, finding that the Court had
personal jurisdiction over FWGSA based on the conspiracy theory of personal jurisdiction. \({ }^{125}\) Matthew added DreamAir and FWL in later amended complaints. He moved for partial summary judgment on claims for breach of the LLC Agreement and conversion, which led to a June 2012 opinion generally denying the motion. \({ }^{126}\) However, the Court explained that, "unless the Manager Defendants prevail on one of their affirmative defenses or Matthew is unable to prove that he suffered any damages, [Laudamiel and Capua] will be liable for a breach of § 5.2.6(b)(iii) of the LLC Agreement" by winding up Aeosphere without Matthew's approval. \({ }^{127}\)
*9 Capua and Action 1 reached a settlement with Matthew, and all relevant claims against them were dismissed with prejudice in April 2014. \({ }^{128}\) One condition of the settlement was Capua's agreement to cease funding Laudamiel and DreamAir's legal representation. \({ }^{129}\) Counsel for Laudamiel withdrew as of April 10, 2014, \({ }^{130}\) and Laudamiel proceeded as a self-represented litigant. One month later, the Court granted default judgment against DreamAir. \({ }^{131}\) Before trial, the Court granted summary judgment on one of Laudamiel's counterclaims, finding that Matthew had not materially breached the LLC Agreement. \({ }^{132}\) The Court granted FWGSA's motion for summary judgment on Matthew's unjust enrichment claims but denied the attempt to dismiss the other claims against FWGSA. \({ }^{133}\)

\section*{II. CONTENTIONS}

By the time of trial, Matthew maintained breach of contract, breach of fiduciary duty, conversion, and unjust enrichment claims against Laudamiel; aiding and abetting and tortious interference with contract claims against FWGSA; and civil conspiracy claims against Laudamiel, FWGSA, and DreamAir. \({ }^{134}\) Laudamiel's counterclaims for non-material breach of contract \({ }^{135}\) and for breach of fiduciary duty remained as well. Laudamiel did not participate in posttrial briefing, but he did appear for trial and post-trial argument. Waiver generally operates to bar issues not briefed. Nonetheless, the Court is aware of the difficulties of proceeding as a self-represented litigant and will consider FWGSA's arguments in determining whether Matthew has met his burdens to establish his claims and right to recovery.

Matthew's claims against Laudamiel, while differing in technical elements, largely seek to hold Laudamiel accountable for winding up Aeosphere and pursuing its business without him. Matthew points to earlier opinions effectively finding Laudamiel liable for breach of contract with respect to winding up and employment termination. Matthew also alleges that Laudamiel contravened the LLC Agreement's confidentiality provision. The conversion claim, too, is based on violation of the LLC Agreement (in winding up), although this contractual violation is argued to have breached Delaware's LLC Act. The fiduciary duty claims point to a self-interested effort to misappropriate the benefits of Aeosphere resulting in violations and injury broader than that addressed by the LLC Agreement. Matthew's unjust enrichment claim is similarly based on a scheme to "usurp[ ] Aeosphere's assets and opportunities for [Laudamiel's] personal benefit." \({ }^{136}\) The conspiracy claims against Laudamiel (and DreamAir and FWGSA) are said to have foundation in the above theories. \({ }^{137}\) Matthew attacks Laudamiel's counterclaims by claiming a lack of breach, simple disagreement, and lack of demonstrable, material harm.
*10 FWGSA attempts to frame the dispute such that the LLC Agreement governs all potential recovery. Laudamiel's argument perhaps is best described as an effort to clarify and explain his conduct. He did not analyze the legal elements of Matthew's claims or his own counterclaims. Matthew's arguments in reply emphasize waiver.

The theories of liability remaining against FWGSA are aiding and abetting, tortious interference, and civil conspiracy. With respect to the aiding and abetting claims, Matthew argues that Laudamiel breached his duty of loyalty by favoring personal interests, failing to deal candidly with Matthew, sharing confidential information with business partners, improperly winding up Aeosphere, terminating Matthew, and generally engaging in a scheme to remove Matthew and take Aeosphere's "most valuable assets" for his own business. \({ }^{138}\) According to Matthew, there is enough evidence (direct and circumstantial) to find that FWGSA (through Yule) "knowingly facilitated Mr. Laudamiel's breach of trust," \({ }^{139}\) or engaged in a scheme to push Matthew out of Aeosphere and misappropriate the Company's assets. Matthew further draws on a number of emails to illustrate the breadth of Defendants' actions and the harm he suffered. FWGSA attacks the aiding and abetting claims by arguing that Laudamiel acted in the best interests of Aeosphere, \({ }^{140}\) that contract claims
supersede the fiduciary duty claims, that FWGSA did not knowingly act to facilitate a breach by Laudamiel, and that no damages resulted from any breach. While directly attacking the elements of the claims, FWGSA also explains Yule's actions in the overall business context.

Matthew's tortious interference claims similarly draw on direct and circumstantial evidence. The focus here, though, is on Yule's knowledge of Matthew's employment agreement and the LLC Agreement and his actions encouraging violation of those contracts. Matthew alleges that FWGSA is liable in tort because Yule encouraged Capua and Laudamiel's breaches, knowing that Matthew was a co-CEO of Aeosphere and having notice of the LLC Agreement (the latter, two days before the certificate of cancellation was filed). On the other hand, FWGSA asserts that Matthew's claims must fail because FWGSA did not know of "both the [LLC Agreement and the employment] contract[s] and the specific provision[s] allegedly interfered with," \({ }^{141}\) no act of FWGSA caused a breach, the Collaboration Agreement justified FWGSA's acts, and Matthew suffered no damages.

Finally, on the civil conspiracy claims, Matthew describes a conspiracy "for the ultimate purpose of misappropriating Aeosphere's assets to Mr. Matthew's exclusion, actions which were not limited to (but pre-dated and post-dated) the Company's winding up." \({ }^{142} \mathrm{He}\) bases the claims on Laudamiel's breach of fiduciary duty, conversion (as a statutory violation), and unjust enrichment and adds that the direct and circumstantial evidence presented at trial is sufficient to establish the conspiracy. FWGSA responds that the claims against it must fail because, similar to the aiding and abetting claims, it did not knowingly participate. It disputes the showing of any tort and explains that the members of Aeosphere made the consequential decisions, including the one to wind up Aeosphere.
*11 Matthew's claims for damages rest on the value of his interest in Aeosphere and the value of his employment agreement. With respect to Aeosphere, the parties primarily debate whether a discounted cash flow or liquidation approach better accounts for its value and, if using the former, whether Aeosphere was a start-up or early development stage company. Matthew highlights factors such as Capua's financing commitment and Aeosphere's low capital requirements, valuable contracts with established companies like FWGSA, and ability to proceed whether or not EFET materialized. In response, FWGSA emphasizes Aeosphere's cash shortage, Capua's refusal to contribute
additional funds, the management conflict, and EFET's poor prospects. Related debates include the reliability of the valuation inputs, the effect of Capua's preferred units on the calculations, and the extent to which the Court may consider facts that post-date Aeosphere's dissolution. These issues account for the difference between Matthew's measure ( \(\$ 3,184,000\) ) and FWGSA's measure ( \(\$ 0\) ) of Matthew's ownership interest.

Additionally, Matthew contends that he should recover the expected value of his (five-year) employment agreement ( \(\$ 1.4\) million) because of Defendants' tortious conduct. FWGSA counters that Matthew has not shown that the alleged wrongful conduct caused the loss in payment. Rather, Aeosphere had insufficient funds to continue its operations and neither Laudamiel nor Capua was willing to act to fund Matthew's salary. The damages dispute ends with Matthew requesting pre-judgment interest for his opportunity costs, compounded quarterly, and FWGSA advocating for simple interest, if any.

\section*{III. ANALYSIS}

\section*{A. Legal Standard}

For Matthew to recover, he must prove his case by a preponderance of the evidence. \({ }^{144} \mathrm{He}\) bears the burden of proving that "certain evidence, when compared to the evidence opposed to it, has the more convincing force." 145 Laudamiel's status as a self-represented litigant is afforded some consideration, but Laudamiel chose not to submit posttrial briefing despite inclusion in the scheduling process. \({ }^{146}\) Issues not briefed are "generally" considered waived. \({ }^{147}\) Thus, the Court deals with the claims against Laudamiel for completeness and largely to determine FWGSA's liability. Because Matthew needs to support his claims for damages, FWGSA's counter-presentation will be considered broadly.

\section*{B. The Direct Claims}

\section*{1. Contract Claims}

Earlier opinions largely dictate the result on Matthew's contract claims, and the Court need not belabor the point here. In June 2012, the Court held that section 5.2.6(b) (iii) of the LLC Agreement required a unanimous vote to wind up Aeosphere. \({ }^{148}\) Although not specifically the subject of that opinion, sections 5.2 .6 (b)(i) and (ii) fall under the
same umbrella: a unanimous vote was required to terminate Matthew's employment agreement and dispose Aeosphere's assets. \({ }^{149}\) Matthew did not vote to terminate his employment agreement, wind up Aeosphere, or divide the assets. There is also an allegation that Laudamiel breached Section 10.10 of the LLC Agreement, which prohibited use and disclosure of "financial or business data, ... contracts or agreements entered into by or on behalf of [Aeosphere,] or other proprietary information., \({ }^{150}\) Laudamiel undoubtedly shared information about separation discussions with FWGSA. He sought Yule's help to push along confidential separation negotiations. The question then, foreshadowed in the Court's June 2012 opinion, is whether Laudamiel "prevail[s] on one of [his] affirmative defenses or Matthew is unable to prove that he suffered any damages." \({ }^{151}\)
*12 The Court provided a partial answer in an October 2014 opinion, in which it found that Matthew had not committed any material breach to excuse Laudamiel's. \({ }^{152}\) Laudamiel maintained two counterclaims leading into trial: nonmaterial breach of contract and breach of fiduciary duty. \({ }^{153}\) These claims generally involve "(1) acting unilaterally without approval; (2) failing to agree on or approve various contracts or courses of action for Aeosphere; and (3) failing to attend important meetings and events." \({ }^{154}\) Laudamiel did not participate in post-trial briefing, but at post-trial oral argument he noted Matthew's failure to bring in clients as promised, a neglect of responsibility to prepare a business plan, and a general sentiment that Matthew "killed" projects. \({ }^{155}\) The Court acknowledges the difficulty of proceeding as a self-represented litigant (and in a foreign language), but, as Matthew observes, Laudamiel has neither substantiated that the "harm" was more than legitimate disagreement between business partners nor proved losses from Matthew's conduct. \({ }^{156}\)

The Court discusses damages below. For present purposes, the Court observes that Matthew has only supported claims for his ownership interest in Aeosphere and compensation under his employment agreement. \({ }^{157}\) In his Opening PostTrial Brief, Matthew does mention that he "should be granted equitable restitution for Mr. Laudamiel's unjust enrichment (or, alternatively, the imposition of a constructive trust over any future income Mr. Laudamiel and DreamAir will receive by reason of their wrongful conduct)." \({ }^{158}\) His focus, however, is on the value of his units and his employment agreement, and he has not demonstrated enrichment beyond
the value captured by his share of Aeosphere. \({ }^{159}\) This point is significant because Matthew cannot recover multiple times on his various theories. The Court is satisfied that Matthew's showing on the breach of contract claims supports any damages that he can prove from the unlawful winding up of Aeosphere and termination of his employment agreement. \({ }^{160}\)

\section*{2. Non-Contract Claims}

The Court analyzes Matthew's non-contract claims against Laudamiel (breach of fiduciary duty, conversion, and unjust enrichment \({ }^{161}\) ) because of their potential impact on FWGSA's liability. Matthew's fiduciary duty claims look to Laudamiel's conduct over the entirety of the AeosphereFWGSA relationship, with the winding up just one (though a "critical" \({ }^{162}\) ) step along the way. In addition, Matthew alleges a breach of loyalty by the very acts of improperly winding up Aeosphere \({ }^{163}\) and failing in his "obligation to deal candidly" with Matthew. \({ }^{164}\) FWGSA frames the dispute as one about discrete acts associated with violations of Sections 5.2.6(b) (i)-(iii), 9.3, and 10.10 of the LLC Agreement-namely firing Matthew, distributing Aeosphere's assets, winding up Aeosphere, and disclosing confidential information. \({ }^{165}\)
*13 Laudamiel breached his fiduciary duties if he acted for a purpose other than to promote the best interests of Aeosphere. \({ }^{166}\) Except for general arguments that the scentrelated intellectual property rights he took were worthless to Matthew \({ }^{167}\) and that it was impossible to conduct business with Matthew, Laudamiel has not defended against Matthew's claim of disloyalty in the winding up process, distributing Aeosphere's assets in a way that would facilitate future scenting work, creating DreamAir, and filing the termination paperwork on May 12. Although the DreamAir-FWGSA partnership did not prove profitable, the Court cannot find that Laudamiel did not act in anticipation that it would. Laudamiel shared confidential information and, though often for the benefit of Aeosphere's business, some of that sharing went toward asking for help in manipulating the negotiation process. Matthew has met the prima facie requirements for fiduciary duty claims. These claims remain to the extent that they might facilitate recovery against FWGSA. \({ }^{168}\) Matthew has not shown injury independent of that subsumed by the contract or the fiduciary duty claims (and their indirect causes of action discussed below), and the Court need not address the conversion claims and the unjust enrichment claims in detail. \({ }^{169}\)

\section*{C. The Indirect Claims}

\section*{1. The Aiding and Abetting Claims}

As relevant in light of the above, Matthew argues that the evidence shows conduct "so suspect" that the Court can find that FWGSA knowingly participated in Laudamiel's breach of fiduciary duty. \({ }^{170}\) The elements of an aiding and abetting claim are "(1) the existence of a fiduciary relationship, (2) the fiduciary breached its duty, (3) a nonfiduciary defendant knowingly participated in a breach, and (4) damages to the plaintiff resulted from the concerted action of the fiduciary and nonfiduciary." \({ }^{171}\) The Court does not require a figurative smoking gun, and knowledge can be inferred under circumstances where conduct is particularly suspect. \({ }^{172}\) Knowing participation requires a showing "that the nonfiduciary act[ed] with the knowledge that the conduct advocated or assisted constitutes such a breach.,"173
*14 Matthew characterizes Yule's wrongdoing as "an executive at ... a contractual partner of Aeosphere[ ] interject[ing] himself into an internal dispute within the company." \({ }^{174}\) Matthew's analysis of Yule's knowledge, accordingly, looks to the "overall course of conduct with the motive and objective of removing Mr. Matthew from Aeosphere., \({ }^{175}\) Although parts of the story remain unclear, the Court can find with confidence that Yule did not know until after the May 4 vote that Capua's and Laudamiel's actions would be improper and that early May is a proper focal point for determining FWGSA's liability. Further discussion of the facts is warranted, especially to explain why the Court does not find a broad and longstanding scheme to wind up Aeosphere.

Matthew begins his Opening Post-Trial Brief by discussing the events of October 2009. By then, Aeosphere's members were considering separate divisions of, and roles within, Aeosphere. Over the following months, Matthew was excluded from meetings and communication. By February, Capua and Matthew were discussing a split of the company and had retained counsel, signifying the seriousness of their attempt to resolve the problems. An email from April 7 suggests that Matthew had decided to walk away from negotiations, but the negotiations continued. Capua has asserted that Matthew's April 23 email was the final straw. \({ }^{176}\) Capua claims to have consulted his counsel at that point and to have decided to dissolve Aeosphere.

Yule, of course, played some role in the managers' dispute, as the email record proves. Matthew did not authorize discussions of internal affairs, but both sides asked Yule for help to a certain degree. Yule was not opposed to working with Matthew, although Yule stated that Laudamiel provided more value to the collaboration. Yule also told at least one business partner about Aeosphere's management difficulties. On April 28, Laudamiel informed Yule about the "Commando Operation" through an email asking for more time to review certain terms with Prolitec and mentioning unexpectedly "find[ing] the jungle in New York." \({ }^{177}\) It was not until May 10, however, only two days before the certificate of cancellation was filed, that Yule received from Matthew actual notice that Capua and Laudamiel possibly violated the LLC Agreement. \({ }^{178}\)

One could argue that the negotiations for a mutual agreement on splitting Aeosphere were pretextual and part of a bigger secret plan, of which Yule knew early on. Nonetheless, evidence of continued business through months of negotiations and the eventual involvement of counsel makes Defendants' position the more probable. \({ }^{179}\) A longstanding scheme to push someone out and steal assets is not consistent with spending months in negotiations with that person and notifying him of a meeting at which he could vote in opposition. \({ }^{180}\) The July 28 email from Capua pleading that Yule "not forget about [DreamAir]" and the Collaboration Agreement markup offer further support. If Capua, Laudamiel, and Yule contrived to take the Scent Project for themselves, Capua should not have had to implore Yule to move forward with the DreamAir-FWGSA relationship. The agreement Yule proposed would likely not have avoided concrete terms.
*15 At most, the Court can find that Laudamiel and Capua formed a plan, by late April, to engage in a "Commando Operation" of withdrawing cash \({ }^{181}\) and calling an emergency meeting to pursue, among other items, dissolution. \({ }^{182}\) Yule's (literally fitting) response to the "Commando Operation" email, imagining Laudamiel "crawling through the undergrowth in ... camo-paint," \({ }^{183}\) suggests that he was clueless about Laudamiel's intentions (but was trying to be socially responsive). \({ }^{184}\) That Yule was involved in confidential communications and clearly favored Laudamiel does not lead to a natural or probable conclusion
that he knew about the emergency meeting and that Capua and Laudamiel would engage in wrongful conduct.

By May 10, Yule knew that Matthew thought the winding up had been conducted unlawfully. That said, there is no direct evidence that Yule knew he was advocating wrongdoing by pushing the parties to resolve their differences, \({ }^{185}\) and his actions between May 4 and \(12^{186}\) are not so suspect that the Court can infer knowing participation in the illicit winding up effort. \({ }^{187}\) At most, Yule emailed business partners (who had previously received notice of the winding up on May 5), asked for documentation that Aeosphere was no longer in business, \({ }^{188}\) and invited Laudamiel to join a conference call (sometime between May 12 and 13). \({ }^{189}\) Yule walked the line by expressing his opinions throughout the entire AeosphereFWGSA relationship, but the evidence does not show that he knowingly participated in a breach of fiduciary duties relating to the winding up effort.

Admittedly, there is ample evidence that Yule conveyed information about management conflict to a third party and participated in discussions about management issues to an extent unknown by (and actively concealed from) Matthew. However, Aeosphere and its members suffered no harm from these acts. It is likely that Yule had a sense of the disagreement from Matthew and Laudamiel's attempts to communicate with him on an individual basis. Despite Matthew's attempts to keep negotiations confidential, Matthew's yelling at Laudamiel at a Scent Opera venue was no secret. Yule's statement to a potential third-party partner that Matthew was soon to leave did not cause that partner to terminate relations with either FWGSA or Aeosphere. \({ }^{190}\) If anything, the negotiations with business partners enhanced Aeosphere's profitability. Yule explained that Laudamiel was the more valuable co-CEO to FWGSA - a scenting project needs a skilled perfumer-and that appears to have been true despite Matthew's contrary personal beliefs. The Court fails to see how Yule's repeating true information is actionable misconduct. The emails do not say that Matthew must quit or be fired. Yule stated that he was willing to work with both co-CEOs. Reminding the managers that their squabbles were hurting business is generally not objectionable. Instructing the managers to end their relationship lawfully, in the right context, is not necessarily wrongful.
*16 Matthew's argument that Capua and Laudamiel would not have dissolved Aeosphere without assurance of Yule's support, raised in the context of the tortious interference
claims, is also relevant on the point of resulting damages. \({ }^{191}\) Capua and Laudamiel clearly valued FWGSA's support, but the inferences that can be drawn from Yule's "poor set of words" \({ }^{192}\) do not outweigh the testimony and emails showing independent disagreement among Aeosphere's members and the escalation of the negotiations. Yule had expressed support for Laudamiel since at least October and sent his \(100 \%\) commitment email in January. \({ }^{193}\) The managers subsequently engaged in months of negotiations. Yule's belated involvement at most accelerated the already inevitable deterioration in Aeosphere's management relationships-it did not cause independent harm. \({ }^{194}\) In sum, the aiding and abetting claims fail for lack of knowing participation and harm.

\section*{2. The Tortious Interference Claims}

FWGSA's opposition to the tortious interference claims centers around whether Yule had the requisite knowledge of the LLC Agreement (and its particular provisions), the causal chain, and justification. A claim for tortious interference requires that "(1) there was a contract, (2) about which the particular defendant knew, (3) an intentional act that was a significant factor in causing the breach of contract, (4) the act was without justification, and (5) it caused injury."195 Tortious interference involves not only knowledge that a contract exists but also intent to interfere with that contract. \({ }^{196}\) The justification element depends on factors such as:
(a) the nature of the actor's conduct,
(b) the actor's motive,
(c) the interests of the other with which the actor's conduct interferes,
(d) the interests sought to be advanced by the actor,
(e) the social interests in protecting the freedom of action of the actor and the contractual interests of the other,
(f) the proximity or remoteness of the actor's conduct to the interference and
(g) the relations between the parties. \({ }^{197}\)

The Court evaluates tortious interference claims, including possible justification, mindful that "some types of intentional interference with contractual relations are a legitimate part of doing business." \({ }^{198}\)

Again, the Court starts with the premise that the potential violations are disclosure of confidential information and unlawful acts associated with winding-up, not a broad scheme. The tortious interference analysis focuses on Yule's knowledge of the LLC Agreement and attached employment contract, but the relevant facts are similar to those above. Yule had not known about the LLC Agreement (much less that Capua and Laudamiel were violating any provision of it) until May 10. As between the time of notice and the time that Laudamiel filed the certificate of cancellation (two days later), Matthew points to no act that significantly affected the filing of the certificate of cancellation or resulted in loss to Aeosphere, as discussed above.
*17 As previously mentioned, Matthew argues that Capua would not have wound up Aeosphere if he did not have Yule's commitment to work with a new business. \({ }^{199}\) For support, Matthew quotes a deposition passage in which Capua addressed the topic of asking Yule whether he would be willing to work with successors to Aeosphere, where Aeosphere would be divided into two companies led by Matthew and Laudamiel separately. Capua also recalled a concern that "without Flakt Woods Aeosphere would collapse., \({ }^{200}\) At most, such facts could support an inference that Yule's support was significant in Capua's decision to wind up Aeosphere. However, Capua's conduct is not at issue, and expressing a willingness to work with two different businesses does not show that Yule knew about the LLC Agreement, intended a breach of that agreement, or acted between May 10 and 12 to effectuate such a breach. If Yule's support caused the harm of winding up Aeosphere, it would mean that Capua and Laudamiel wasted months of their time and legal fees in negotiations and in operating Aeospherethe more likely scenario is that Capua and Laudamiel grew tired of dealing with Matthew.

With respect to the employment agreement (which was part of the LLC Agreement), Matthew alleges that there is enough evidence to find that Yule knew about it early on and intentionally interfered. He cites Yule's testimony and the Collaboration Agreement (with its amendments) that Matthew signed as co-CEO. On the other hand, Yule testified that he did not "know if [Matthew and Laudamiel] were working for Aeosphere with a salary or if they were simply shareholders and drawing dividends." \({ }^{201}\) As FWGSA observes, the mere existence of an employment agreement does not permit a finding that an employee has a right to a term of continued employment - a number of cases addressing the
implied covenant of good faith and fair dealing recognize a presumption under Delaware law that employment contracts are "at-will in nature with duration indefinite." 202 That one can interfere without understanding the legal effect of a contract does not negate the requirement of intending to interfere with something in the first place. There is also no reason to doubt Yule's position that FWGSA would have been amenable to working with Aeosphere as two separate companies or that he hoped that "peace" would ensue. Even if there were some knowledge of a contract, Matthew has failed to establish the critical element of intent to interfere with Matthew's employment.

Additionally, FWGSA prevails on the justification element. Yule expressed that Laudamiel's skill was more valuable to FWGSA, a true statement, and did not make overt threats. \({ }^{203}\) He did, however, exert pressure (at times prompted by Laudamiel), and there was some disingenuousness in his representation that FWGSA's board would get involved. More importantly, though, FWGSA was invested in a Collaboration Agreement that it hoped would differentiate itself from the competition in the air-handling market, and therefore had a proper motive \({ }^{204}\) (and interest \({ }^{205}\) ) in urging its business partner \({ }^{206}\) to resolve its management disputes. FWGSA concedes that Yule's conduct interfered with valid contracts, but justification does not require all factors to be met. Finally, as noted above, the weight of the evidence is that Yule was not the deciding factor in the winding up (although Yule did cause some disclosure of confidential information for which the Court has found no independent injury). The Court cannot ignore the progression of the separation negotiations and the value of the Scent Project to FWGSA and Aeosphere. Therefore, for reasons of justification and lack of knowledge, intent, and injury, the tortious interference claims fail.

\section*{3. The Conspiracy Claims}
*18 FWGSA argues that the conspiracy claim must fail for the reasons the aiding and abetting claims do: namely the lack of a wrongful act, knowing participation, and harm. \({ }^{207}\) A claim for conspiracy requires "(1) [a] confederation or combination of two or more persons; (2) [a]n unlawful act done in furtherance of the conspiracy; and (3) [a]ctual damage., \({ }^{208}\) Because "a plaintiff often cannot produce direct evidence of a conspiracy," circumstantial evidence can be offered as " 'proof that it occurred.' "209 Without rehashing the arguments above, the claims of FWGSA's involvement in a "conspiracy" of breaching confidentiality or excluding

Matthew fail as against FWGSA because either (1) no act of Yule was in furtherance of winding up Aeosphere or (2) no actual losses resulted. There was no "confederation" involving FWGSA regarding dissolution, winding up, and terminating Matthew's employment agreement-Yule did not know about Capua and Laudamiel's plans until after their acts had occurred (and he did not cause any harm once he had notice of potential wrongdoing). The exchange of confidential information did not produce any quantifiable harm to Aeosphere or Matthew. In contrast, Matthew succeeds on his claim against DreamAir. Laudamiel acted to form DreamAir before Aeosphere's certificate of cancellation was filed, and (anyway) default judgment has been entered against DreamAir. The breaches of fiduciary duty by Laudamiel (at a minimum) support holding DreamAir responsible for the damages, discussed below, on equal footing with Laudamiel. Thus, Matthew's conspiracy claims succeed to the extent that he can recover (once) for his injury.

\section*{D. Damages}

Based on the above, Matthew maintains claims for damages against Laudamiel and DreamAir but not FWGSA. Matthew seeks compensation for the value of his ownership interest in Aeosphere (the "remedy for conversion of ... Matthew's Aeosphere membership units \({ }^{, 210}\) ) and his employment agreement (the remedy for "a breach that was tortiously encouraged ... by FWGSA, \({ }^{211}\) ). According to Matthew, these damages total \(\$ 4,584,000\) plus interest. Matthew must prove that he is entitled to this amount to attain his full recovery, although the Court views its task as analogous to an appraisal and will exercise discretion in determining the appropriate valuation. \({ }^{212}\)

A few preliminary issues should be addressed. First, the Court declines to balance the qualifications of the expert witnesses, Kevin Vannucci ("Vannucci") for Matthew and G. Matt Barberich, Jr. ("Barberich") for FWGSA, other than to note that they were sufficient to present opinions at trial. Second, the parties do not argue that the LLC Agreement offers a standard for determining damages for a breach, although Section 9.3 governs how payments are to be made after dissolution. Third, consistent with an appraisal, the Court does not factor in events or facts unknowable as of the relevant date for valuation purposes, here May 12, 2010. \({ }^{213}\) Finally, the Court has not sought out the details of Matthew's settlement with Capua, but Matthew cannot recover twice for the same harm.

Amidst the debate over whether Aeosphere should be considered a going concern or should be treated as if it had been liquidated, \({ }^{214}\) the Court is convinced that neither side's account presents the entire story. If Aeosphere were worthless, it does not make sense that Laudamiel would specifically assign himself intellectual property and continue to work on a modified version of the Scent Project. On the other hand, the EFET system was not marketable by May 2010, reducing Aeosphere's potential for profitability.
*19 The entirety of the financial and other evidence demonstrates that Aeosphere was in dire financial straits. The Company could not even afford to pay Matthew and Laudamiel, its own co-CEOs, given its inadequate cash flow. The business continued to suffer as the co-CEOs failed to cooperate. Further, Aeosphere had considerable debt and at best a suboptimal product to sell. No evidence existed of any potential investor other than Capua, and by all accounts Capua refused to commit additional capital. \({ }^{215}\) Finally, if one makes the generous assumption that Aeosphere's cash bum rate was \(\$ 30,000\) per month (based in part on the coCEOs foregoing salaries), \({ }^{216}\) its bank account would have sustained operations for only another five to six months. There was some subjective optimism about EFET, though successful adaption of the technology to the commercial context was far from certain and never in fact materialized. As mentioned, Vannucci's cash flow projections assumed a viable EFET product, and were prepared by individuals motivated to promote Aeosphere. For these reasons, the Court cannot adopt Vannucci's valuation wholesale.

The liquidation approach is also imperfect because it does not address the Court's concerns about the distribution of Aeosphere's assets-particularly its intangible assets. Barberich's analysis worked off of the closing balance sheet in Vannucci's report, \({ }^{217}\) and the value of the Scent Project was not included in the balance sheet. \({ }^{218}\)

As noted above, Aeosphere was running on fumes, and hindsight proves that the Scent Project (never able to use EFET) was not profitable. At the time of the winding up, however, Aeosphere, despite its troubles, was a going concern with value in its intellectual property and potentially lucrative contracts with well-established entities such as FWGSA. Recognizing that Aeosphere had some value as a going concern, but mindful of the speculative nature of Aeosphere's product and future cash flows, the Court adopts Vannucci's
discounted cash flow model with a reduced enterprise value and allocates a \(35 \%\) interest to Matthew.

Vannucci, in his valuation, utilized venture capital rates of return for purposes of selecting a discount rate. \({ }^{219}\) In making this selection, Vannucci's first task was to classify Aeosphere into one of five stages of development, each of which is designated a distinct range of potential discount rates \({ }^{220}\) The first stage, a start-up stage investment, is one in which " \([t]\) he venture funding is to be used substantially for product development, prototype testing, and test marketing." 221 The second stage, an early development stage investment, is one "made in companies that have developed prototypes that appear viable and for which further technical risk is deemed minimal., 222

In classifying Aeosphere, the Court considers the following facts: First, Aeosphere had been in business for over a year, had contracts of value, and held some expectation that the Prolitec technology would suffice until EFET became marketable. Second, the parties were clearly interested in EFET, and Laudamiel and Capua did not just walk away from Aeosphere. Third, while Vannucci's valuation utilized projected cash flows assuming a viable EFET technology, the Court's calculation considers EFET a mere expectancy and assumes use of the then-viable Prolitec technology. \({ }^{223}\) Given these facts, Aeosphere can reasonably be considered an early development stage company. The Court, therefore, adopts Vannucci's discount rates- \(40 \%\) for the FWGSA projections and \(50 \%\) for the Aeosphere projections-both of which fall within the range of acceptable rates for an early development stage company. \({ }^{224}\)
*20 Vannucci's free cash flow inputs, however, assumed a viable EFET technology, and were therefore inflated. \({ }^{225}\) To compensate, the Court, in its independent valuation, reduced the free cash flows to one-fifth of their projected value. \({ }^{226}\) This reduction is consistent with Yule's testimony regarding the value of the scenting project absent viable EFET technology. \({ }^{227}\) Yule, however, further stated that if the Prolitec relationship was not exclusive (which it was not \(^{228}\) ), the projections "would drop again by a factor of about ten. \({ }^{, 229}\) In hindsight, therefore, the adjusted projections could reasonably be reduced to as little as two percent of the originals. \({ }^{230}\)

The Court's decision to reduce the projected free cash flows to one-fifth, as opposed to some lesser value between one-fifth and one-fiftieth, is deliberate. At the time of the valuation, the EFET technology lingered as a possibility. Therefore, the projected free cash flow, while assuming the use of Prolitec technology, must also incorporate the expected value of the EFET technology as of the time of the valuation. The Court incorporates such value by reducing the projected free cash flows by the minimum factor suggested by Yule, as opposed to reducing them further given the lack of an exclusive agreement with Prolitec. \({ }^{231}\) The possibility that EFET-based products could be ready to sell within a year of a successful test is further counterbalanced by the improbability that the co-managers would have outlasted the testing.

Applying the \(40 \%\) and \(50 \%\) discount rates respectively to FWGSA's and Aeosphere's adjusted free cash flow projections results in a weighted \({ }^{232}\) value of \(\$ 1,908,066.56\) for the Scent Project \({ }^{233}\) Accounting for cash and cash equivalents, working capital, and non-operating assets \({ }^{234}\) brings Aeosphere's enterprise value to \(\$ 1,405,256.56\). The total value of Matthew's \(35 \%\) share, treating all units equally, is therefore \(\$ 491,839.79\). Capua's preferred units had a liquidation preference and a preferred return, but the Court cannot find with confidence that those rights should be afforded any material value: the winding up was wrongful and the prospect of repayment in the face of Aeosphere's many struggles is too speculative. Matthew had a \(35 \%\) interest in Aeosphere and the right not to have it wound up without his approval. Although it is difficult to discern the value of an idea, and reasonable minds could disagree, the Court reaches this result with some level of comfort.
*21 Matthew appears to base his claim for damages from his employment contract on tortious interference. He has failed to prove that claim against FWGSA, but the question of Laudamiel's and DreamAir's liability lingers. Matthew argues that he should receive the remainder of his pay under his five-year contract because the remedy for a tort is what he expected, not simply what Aeosphere would have paid. The Court rejects this argument because Matthew's compensation was not reduced by any wrongful act; Matthew's employment contract had a five-year term, but Matthew and Laudamiel had been deferring salaries since at least May 2009. \({ }^{235}\) Capua and Laudamiel likely would not have authorized additional payments, and Matthew has not provided a basis for the Court to find that Aeosphere's cash flow would improve. Importantly, the Court's willingness to accept a discounted
cash flow valuation in the first place rests in part on the coCEOs' willingness to forgo compensation so that Aeosphere could remain a going concern \({ }^{236}\) Thus, Matthew has not demonstrated that he is separately entitled to damages for the termination of his employment contract.

\section*{E. Other Matters}

If the implementing order establishes that DreamAir owes any amount to Matthew, it shall respond to the motion to compel. Matthew has not provided a basis for shifting attorneys' fees to overcome the American Rule. Pre-judgment interest and post-judgment interest compounded quarterly at the statutory rate fairly compensate Matthew.

For the reasons discussed above, the Court awards Matthew \(\$ 491,839.79\) from Laudamiel and DreamAir for the unlawful winding up of Aeosphere, subject to a determination of the effect of the Capua and Action 1 settlement reached by Matthew. \({ }^{237}\) The interested parties shall address this issue. Judgment will be entered in favor of FWGSA and FWL and against Matthew. \({ }^{238}\)

Entry of an implementing order will await, in the absence of a request from any party, a conclusion regarding the effect of the earlier settlement.

\section*{All Citations}

Not Reported in Atl. Rptr., 2015 WL 5723985

\section*{IV. CONCLUSION}

\section*{Footnotes}

1 Joint Pre-Trial Stipulation and [Proposed] Order ("Stip.") § II III 2-3; JX 230 ("LLC Agreement") at A-1 (showing the members' interests).
2 Default judgment has been entered against DreamAir; only the amount of damages remains, and that question is resolved in this memorandum opinion because the liability of Laudamiel and the liability of DreamAir are the same.
3 Stip. § II ITI 2-3.
4 LLC Agreement A-1.
5 JX 240 (details of DreamAir LLC); JX 405 (Aeosphere's certificate of cancellation); Trial Tr. vol. III, at 737 (Laudamiel).
6 Slip. § II ITI 5-6.
7 Trial Tr. vol. II, 388 (Yule).
8 Trial Tr. vol. I, 20-23 (Matthew).
9 Id. at 16-18 (Matthew). Scent Opera performances were given at the Guggenheim Museums in New York and Bilbao, Spain.
10 Id. at 20-21 (Matthew).
11 Id. at 21-22 (Matthew).
12 Id. at 22-23 (Matthew); Trial Tr. vol. II, 390-91 (Yule).
13 JX 1 at FWGSA 000020 (describing the scope of the Collaboration Agreement).
14 Trial Tr. vol. II, 388-89 (Yule).
15 See JX 435 (original operating agreement).
16 JX 1 (Collaboration Agreement). The original collaboration agreement was amended in March and April 2009. Stip. § II II 8; JX 6 (April amendment).
17 JX 1 at FWGSA 000020-21.
18 E.g., JX 4 (email from Matthew to Yule discussing scenting technologies); JX 154 (comparing EFET technology to Prolitec technology); Trial Tr. vol. II, 428-29 (Yule).
19 JX 115 at FWGSA 016470; Trial Tr. vol. II, 395-96 (Yule).
20 Trial Tr. vol. II, 392 (Yule).
21 Id. at 391 (Yule); Trial Tr. vol. III, 776 (Margrita) (discussing sundry financing issues).
22 Dep. Trs. of Roberto Capua, vols. I and II ("Capua Dep.") 148; LLC Agreement B-1. Matthew suggested that the actual investment was less. Trial Tr. vol. I, 58-59, 74 (Matthew) ("AA]s I recall, it was 1.4 million euros.").
23 LLC Agreement A-1.

24 Stip. § II I 3; LLC Agreement A-1.
25 JX 239 at LCA 002597; Trial Tr. vol. I, 124-25 (Matthew).
26 See Matthew v. Laudamiel, 2012 WL 2580572, at *8 (Del. Ch. June 29, 2012) (interpreting § 5.2.6 of the LLC Agreement).
27 LLC Agreement §§ 1.1, 4.1, 6.1, 9.4.
28 Id. at E-1-2.
29 Trial Tr. vol. II, 393, 397 (Yule); see also JX 115 (updated PowerPoint).
30 JX 5 (agreement between Battelle and FWGSA).
31 JX 6 at FWGSA 000014. Matthew, however, protests that "payment of royalties to Aeosphere was never tied specifically to sales of equipment using EFET." PI.'s Post-Trial Reply Br. 7. The amendment also provided that Aeosphere would "remain exclusive designer and supplier of scented media to all FWG[SA] equipment and systems for a period of 10 years" if FWGSA did not execute the agreement with Battelle. JX 6 at FWGSA 000014.
32 JX 141; Trial Tr. vol. II, 427-28 (Yule). The parties debate whether Yule's projections were "cautious" (as Yule wrote in a contemporaneous email to Matthew), JX 141, or if they were the product of a salesman trying to pitch a project. See Trial Tr. vol. II, 413-14 (Yule). The Court addresses the reliability of the various projections in its discussion of damages, infra.
33 Trial Tr. vol. II, 428 (Yule). The figures would have been even less if FWGSA did not acquire exclusive rights to the Prolitec technology. Id.
34 Trial Tr. vol. III, 767 (Margrita).
35 Id. at 792-94 (Margrita) (elaborating, for example, that "it will have been at least three month[s] for the prototype, another probably six, seven months to realize the product, then another probably three month[s] to test it").
JX 270 at FWGSA 098985; JX 271 at FWGSA 029973; Trial Tr. vol. IV, 874-75, 885, 887-89 (Margrita). During posttrial oral argument, counsel for the Fla\#kt Woods parties stated that the 200,000 number was the only number presented to shareholders. Post-Trial Oral Arg. Tr. ("Oral Arg. Tr.") 95. See Trial Tr. vol. IV, 880 (Margrita) (explaining that most orders result in sales).
37 JX 271 at FWGSA 029973.
38 E.g., Trial Tr. vol. I, 80-82, 93 (Matthew).
39 See Trial Tr. vol. IV, 815-16, 836 (Laudamiel). For example, Laudamiel felt hurt when Matthew yelled at him, publicly, at one venue. Trial Tr. vol. IV, 815-16 (Laudamiel). The Court does not know the full extent of these tensions and only raises them for context. The Court will not speculate on matters for which it does not have a factual basis.
40 Trial Tr. vol. I, 92-94, 162-63 (Matthew). One option placed Matthew "as the sole CEO," a suggestion that Matthew declined as unacceptable to Laudamiel. Id. at 94 (Matthew).
41 JX 120 at FWGSA 008502-03 (October 22-23 emails).
42 Id. at FWGSA 008502 (October 23 email from Yule to Laudamiel). Yule's concern about security is also reflected in a later instruction to another FWGSA employee to email Laudamiel at his personal address. JX 155 at FWGSA 009300 (March 2010 email).
43 E.g., JX 120 at FWGSA 008503 ("[l]f I show [Matthew] all the details, the project will be stopped every second week."); JX 143 (Yule mediating communication between a client and Laudamiel); Trial Tr. vol. III, 573-74 (Yule) (discussing a proposal sent by Yule "on behalf of Christophe Laudamiel of Aeosphere and of Flakt Woods Group.").
44 JX 227 at LCA000001 (October 21 email from Matthew to Capua).
45 Trial Tr. vol. II, 451 (Yule); accord Trial Tr. vol. III, 579 (Yule).
46 Trial Tr. vol. II, 450-51 (Yule); see also JX 144 at FWGSA 008872 (explaining a wish to take Yule to two places in Paris).
47 Trial Tr. vol. III, 563 (Yule).
48 See JX 145 at LCA 024939 ("If and when you decide to tell [Matthew] that we have met, then please let me know straight away so that I am aware."). In the same email, Yule forwarded a marketing plan that he thought was an effort by Matthew "to establish his position in the relationship and to be seen to be the person driving the agenda forward." Id. While Matthew highlights Yule's conduct in this instance, the communication also implies one-sided contact by Matthew. Id. at LCA 024939-40 (Jan. 7, 2010 email from Matthew to Yule).
49 See Capua Dep. 120; JX 146; Trial Tr. vol. III, 698-99 (Laudamiel) (stating that he has "no idea" whether Matthew was ever told of the Paris meeting).
50 See JX 7 at SM046307 (email from Matthew to Capua stating that "your ... disclosure to [Yule] of a rift in Aeosphere destabilised his trust in the Flakt Woods Aeosphere arrangement").
51 See, e.g., id at SM046307-08; JX 41; JX 42 at SM031527; JX 150 at FWGSA 009058.
52 JX 147 at LCA 025266.

55 Id. at FWGSA 008963. In feigning ignorance of Capua's "divorce arrangement," Yule "instead spoke as if the Aeosphere team were simply evaluating [a] different business structure for the future which might involve [Matthew] leaving Aeosphere to form a new venture [ ], which would still work closely with Aeosphere and FW[GSA]." Id.

61 JX 28 at SM046427. Just one day earlier, Yule wrote Laudamiel and Capua about working with a chef-an opportunity that would not exist as long as Matthew remained their business partner. JX 113 at FWGSA 009094 ("As soon as [Matthew's] exit from Aeosphere has been confirmed, we should very quickly re-establish the connection with [the cheff."). Yule knew that Matthew had interpersonal conflicts with the chef. Trial Tr. vol. III, 605-06 (Yule).
JX 28 at SM046427.
JX 236 at LCA 027110.
Id.
Id. at LCA 027111.
See JX 153; JX 154.
Trial Tr. vol. III, 700 (Laudamiel).
68 JX 156. One email from Yule to Laudamiel suggested a call to discuss test results and options with Capua and Laudamiel, to be followed by a separate call involving Matthew. Id. at FWGSA 009369-70.
ld. at FWGSA 009371.
JX 157 at FWGSA 009532.
71 See Trial Tr. vol. III, 613-14 (Yule); Dep. Trs. of Neil Yule, vol. II 455.
72 JX 157 at FWGSA 009532.
See JX 29 at SM035389 (April 7 email from Capua to Matthew stating that "[counsel] informed me about your decision [to] quit any negotiation for our new agreement. Of course I was very disappointed especially considering all that we have achieved ... in order to fix our current management situation and start working to make [A]eosphere start in a good way."); JX 31 at SM052299 (April 9 email from Capua to Matthew suggesting that Capua become CEO and that they "continue [their] negotiation, or [Capua will] have to direct [his] legal advisor for another type of strategy and war.").
JX 33 at SM052263-64.
JX 34.
JX 122 at FWGSA 009915.
JX 37 at SM052245. Yule's email incorporates a significant portion of Laudamiel's draft. For example, Yule wrote,
Without wishing to interfere in internal Aeosphere matters, you will understand 1 am sure that ... it is important for me to have some clarity. The clock is ticking and 1 am fearful that unless matters are quickly resolved, then I will be told to wind up our involvement in the scent project. So if you could provide me with a little information, I would be grateful. It is also clear that the internal issues are becoming increasingly apparent to our other partners. The guys at Battelle have made several informal comments to me, such as "the guys at Aeosphere seem to have lost interest" and "Christophe's lost his fire[.]"[] Christophe-they have always placed great store on your reputation and expertise....
ld. Laudamiel's suggestion was,
Without of course interfering in internal Aeosphere matters [ ], you will understand that the special position of [FWGSA] makes me nervous not to hear a new plan when the clock is ticking, so if you could provide me with a little information, I would be very grateful. Know also no matter how hard you try to conceal it, people such as Battelle did feel something was not going round in the past phone conferences, for instance that Christophe is losing his usual passion and flame, and that worries people because this is key for Aeosphere.
JX 122 at FWGSA 009916.

Matthew points out that the Collaboration Agreement did not allow FWGSA to terminate for ten years—although winding up Aeosphere presented another way out. Pl.'s Opening Post-Trial Br. 14 n.7.

80 JX 42 at SM031529.
81 Capua Dep. 154-55 ("A]fter [Matthew] ... closed down the negotiations with no reason to me.... I decided this was the only solution."); see also Trial Tr. vol. IV, 836-37 (Laudamiel) (describing the period around April 22 and explaining that he and Capua "were running out of solutions, suggestions, to Mr. Matthew"); Oral Arg. Tr. 67-69, 76-77.

See Trial Tr. vol. III, 721-24 (Laudamiel). The Court notes that Laudamiel and Capua could, in theory, vote on the matter without violating the LLC Agreement; it was the subsequent action in accordance with the non-unanimous vote that breached the LLC Agreement.
93 See Trial Tr. vol. II, 505-06 (Yule); Trial Tr. vol. III, 707, 756-57 (Laudamiel).
94 JX 111; Trial Tr. vol. III, 707, 709-11, 715-20 (Laudamiel).
95 JX 109 (email about the emergency meeting); JX 110 (noting that Matthew had "acknowledged receipt of" the information).
96 JX 109.
97 JX 110 at LCA 001576.
98 ld.
99 ld. at LCA 001576-77.
100 Capua Dep. 166-68.
101 See Trial Tr. vol. III, 704-05 (Laudamiel).
102 JX 110 at LCA 001580-81.
103 82 JX 126.
104 JX 159 at FWGSA 010272 ("Please be aware that this has no impact on Fläkt Woods' commitment to the development of scenting solutions.... I do not expect it will be long before Christophe is once again in a position to lend his technical and creative support to this process.").
105 See id. at FWGSA 010272-73.
106 Trial Tr. vol. III, 626 (Yule).
107 PI.'s Opening Post-Trial Br. 22 (citing JX 5 at FWGSA_000007, FWGSA_000009; JX 6 § 4).
108 JX 240; Trial Tr. vol. III, 737-45 (Laudamiel) (questioning Laudamiel about the events surrounding the filing).
109 JX 48 at FWGSA 096730.
110 JX 405.
111 JX 129 (informing Yule that "t \([\) lhe Dissolution documents were signed yesterday and filed today with the State of Delaware").
112 See JX 434 at Schedule 7 (closing balance sheet).
113 JX 161 at FWGSA 010391.
114 Id.; Trial Tr. vol. III, 747 (Laudamiel).
115 JX 162 at FWGSA 010618.
116 ld.

\section*{117 Id. at FWGSA 010617.}

118 See JX 163 (draft agreement).
119 JX 168 at FWGSA 007007; Trial Tr. vol. III, 642 (Yule).
120 Trial Tr. vol. III, 679-81 (Yule); see also JX 163 at FWGSA 003692-93.
121 Trial Tr. vol. II, at 529-31 (Yule).
122 See JX 199 (sales summary); Trial Tr. vol. III, 758 (Laudamiel) ("We were nowhere near, and I want to say one or two years away from actually having a [custom] scent sold in a Prolitec device.").
123 Verified Compl. IT \(7-11\).
124 Matthew v. Laudamiel, 2012 WL 605589 (Del. Ch. Feb. 21, 2012); see also Matthew v. Laudamiel, 2012 WL 983142 (Del. Ch. Mar. 20, 2012), rev'd sub nom. Matthew v. Fläkt Woods Gp. SA, 56 A.3d 1023 (Del.2012).
125 Matthew v. Fläkt Woods Gp. SA, 56 A.3d 1023 (Del.2012).
126 Matthew v. Laudamiel, 2012 WL 2580572 (Del. Ch. June 29, 2012).
127 ld . at *8.
128 Stipulation and [Proposed] Order of Partial Dismissal, Apr. 10, 2014.
129 See Mot. of Defs. Christophe Laudamiel, Roberto Capua, Action 1 SRL, and DreamAir LLC to Withdraw Appearances of Their Att'ys of Record and for Stay of Case Management Schedule § 3, Mar. 21, 2014.
130 Order Granting Mot. to Withdraw Appearances of Gregory V. Varallo and Kevin M. Gallagher of Richards, Layton \& Finger, and Roger E. Barton and Randall L. Rasey of Barton LLP, Apr. 10, 2014.
131 Matthew v. Laudamiel, 2014 WL 2152353 (Del. Ch. May 22, 2014).
132 Matthew v. Laudamiel, 2014 WL 5499989 (Del. Ch. Oct. 30, 2014).
133 Matthew v. Laudamiel, 2014 WL 5904716, at *4 (Del. Ch. Nov. 12, 2014).
134 PI.'s Opening Post-Trial Br. 2.
135 While the Court in Matthew v. Laudamiel, 2014 WL 5499989 (Del. Ch. Oct. 30, 2014) dismissed Laudamiel's material breach counterclaims, id. at *2, it "[did] not dismiss claims for non-material breach which, perhaps, could justify minimal or nominal damages." Id. at *2 n .11 . Laudamiel only sought to allege claims of material breach, but those claims fell short of material breach, arguably remaining after summary judgment as claims for non-material breach.
136 PI.'s Opening Post-Trial Br. 35.
137 PI.'s Post-Trial Reply Br. 27 (identifying breach of fiduciary duty, conversion, and unjust enrichment in support of the conspiracy claims).
138 PI.'s Opening Post-Trial Br. 31-32.
139 ld. at 37.
140 At oral argument, FWGSA offered that Laudamiel's conduct before winding up Aeosphere (such as engaging in communications without Matthew) should not be evaluated as interested transactions because there was no associated financial benefit. Oral Arg. Tr. 82-83.
141 Defs.' Post-Trial Answering Br. 39.
142 PI.'s Opening Post-Trial Br. 43.
143 Counsel for FWGSA suggested some distinction between a traditional liquidation methodology and its expert's approach. Oral Arg. Tr. 101 ("I don't think [the expert] was really performing a liquidation analysis. What he did was to say, 'I don't think this is a going concern.' "). Because the expert's approach assumed Aeosphere was not a going concern and for simplicity and convenience, the Court nonetheless refers to this approach as the liquidation approach.
144 See Estate of Osborn ex rel. Osborn v. Kemp, 2009 WL 2586783, at *4 (Del. Ch. Aug. 20, 2009) ("Typically, in a posttrial opinion, the court evaluates the parties' claims using a preponderance of the evidence standard."), aff'd, 991 A.2d 1153 (Del.2010).
145 In re Mobilactive Media, LLC, 2013 WL 297950, at *9 (Del. Ch. Jan. 25, 2013) (internal quotation marks omitted).
146 See Oral Arg. Tr. 3-5.
147 See Del. Transit Corp. v. Amalgamated Transit Union Local 842, 34 A.3d 1064, 1068 n. 4 (Del.2011).
148 Matthew v. Laudamiel, 2012 WL 2580572, at *8 (Del. Ch. June 29, 2012).
149 ld. ("The only reasonable interpretation of \(\S 5.2 .6\) (b) is that it required the approval of all three Managers to approve the enumerated actions.").

150 LLC Agreement § 10.10. In the Pretrial Stipulation and Order, Matthew raised the question of whether the emergency meeting was properly called. Stip. § III.A I 4. This issue was not developed in the post-trial briefing, and any violation would not materially affect Matthew's recovery.
151 Matthew v. Laudamiel, 2012 WL 2580572, at *8 (Del. Ch. June 29, 2012). The Court declined to grant Matthew's motion for summary judgment on his conversion claim (based on breach of the LLC Agreement) for the same reasons. Id. at *11.
152 Matthew v. Laudamiel, 2014 WL 5499989 (Del. Ch. Oct. 30, 2014).
153 Def. Christophe Laudamiel's Verified Answer to Fourth Am. Verified Compl. and Countercls. Iq 111-18.
154 Matthew v. Laudamiel, 2014 WL 5499989, at *2 (Del. Ch. Oct. 30, 2014).
155 Oral Arg. Tr. 108-09. He also briefly mentioned that Matthew would discuss projects with Yule alone, but he "had no problem with [that]." Id. at 107.
156 See PI.'s Opening Post-Trial Br. 56-57 (incorporating PI.'s Opening Pre-Trial Br. 28-33, 56-59).
157 The Joint Pre-Trial Stipulation and Order asks for an injunction against use of Aeosphere's assets, an order for an accounting, a constructive trust, and attorneys' fees and costs. Matthew does not seriously develop these claims in his post-trial briefing. Furthermore, Matthew has not convinced the Court to award attorneys' fees against Laudamiel, a selfrepresented litigant.
158 PI.'s Opening Post-Trial Br. 35.
159 Cf. PI.'s Opening Pre-Trial Br. 52 ("To the extent the Court may find after trial that Mr. Matthew cannot adequately be compensated by an award of damages, equitable restitution for unjust enrichment is appropriate." (emphasis added)). An award of damages accounting for the value of the intellectual property taken should adequately compensate Matthew.
160 The argument for different remedies for tort and contract is discussed in the context of damages, infra.
161 The conspiracy claims are said to rest on these three underlying claims and are addressed in more detail in connection with the claims against FWGSA.
162 PI.'s Post-Trial Reply Br. 1.
163 ld. at 25 n. 6 .
164 PI.'s Opening Post-Trial Br. 31 (internal quotation marks omitted).
165 See, e.g., Defs.' Post-Trial Answering Br. 35-36 (arguing that the contract claims bar the fiduciary duty claims); id. at 44 n. 7 (noting "the primacy of contract theory").
166 "The duty of loyalty mandates that the best interest of the corporation and its shareholders takes precedence over any interest possessed by a director, officer or controlling shareholder and not shared by the stockholders generally." In re Orchard Enters., Inc. S'holder Litig., 88 A.3d 1, 33 (Del. Ch.2014) (alterations and internal quotation marks omitted). Although Laudamiel was a director of an LLC, no one disputes that he owed fiduciary duties to Aeosphere.
167 Oral Arg. Tr. 111-12.
168 The Court is not deciding that every breach of contract that involves some planning or discussion supports a fiduciary duty claim. The facts here show months of discussions, combined with potential pecuniary interests. These claims might have been dismissed if Laudamiel had retained an attorney, but the Court will not act on such speculation.
169 The conversion claim involves unlawfully depriving Matthew of his units, covered by damages the Court will award for the violation of LLC Agreement § 5.2.6(b)(iii). The Court notes, without deciding, that it seems circular to find an independent statutory claim for violating a contract, based on the LLC Act's facilitation of private ordering. See PI.'s Opening PostTrial Br. 34 (invoking 6 Del. C. § 18-801(a)(1)-(2)).
The unjust enrichment claims were based on "the unlawful winding up of Aeosphere, which represented the culmination of ... [the] scheme ... to remove Mr. Matthew ..., for the purpose of usurping Aeosphere's assets and opportunities for [Laudamiel's] benefit," rather than an injury independent of that already discussed. Id. at 35 . See also supra note 159.
PI.'s Opening Post-Trial Br. 37.
171 Triton Constr. Co. v. E. Shore Elec. Servs., Inc., 2009 WL 1387115, at *16 (Del. Ch. May 18, 2009), aff'd, 988 A. 2 d 938 (Del.2010) (TABLE).
172 ld.
173 Id. As the Court explains in a footnote in Hexion Specialty Chemicals, Inc. v. Huntsman Corp., the requirement to show knowledge in an aiding and abetting claim is important to "facilitate[ ] the commercial interaction of corporate entities." 965 A. \(2 \mathrm{~d} 715,747 \mathrm{n} .88\) (Del. Ch.2008). The alternative would produce an undesirable result: "whether a particular act by a board constitutes a breach of fiduciary duty is highly context specific, such third-parties would have to undertake extensive due diligence in order to assure themselves that the board had not breached a duty in authorizing the transaction." Id.

174 Oral Arg. Tr. 16. Matthew also specifies that Yule went too far by "assisting one side in that dispute, ... facilitating their knowledge, [and] creating an imbalance in the knowledge between Mr. Matthew and the adverse parties." Id. at 23.
175 ld. at 20.
176 Id. at 76-77; JX 39.
177 JX 158 at FWGSA 010215. Laudamiel contends that the dissolution decision came in May, Oral Arg. Tr. 106, but a privilege log entry discussed at trial suggests that Laudamiel was aware of a preliminary agenda for the emergency meeting by April 29. Trial Tr. vol. III, 712-14 (Laudamiel).
178 Oral Arg. Tr. 87-88; JX 48 at FWGSA 096730.
179 Matthew argues that the Court can infer knowledge or rely on circumstantial evidence in support of his various claims. Circumstantial evidence can prove a fact if the fact "follows as a natural or very probable conclusion from the facts actually proven." In re Purported Last Will \& Testament of Langmeier, 466 A.2d 386, 402 (Del. Ch.1983). The Court reaches its factual conclusions with this authority in mind.
180 Matthew had notice but chose not to participate in the May 4, 2010, meeting. JX 110 at LCA 001576 (emergency meeting minutes).
181 JX 158.
182 JX 109.
183 JX 158 at FWGSA 010215.
184 Yule's email said, "Good luck with the raid!" Id. Yet it does not make sense that Yule would send Laudamiel a "rush" request to read and comment on "Flaktwoods-Prolitec business terms" if he knew that Laudamiel was occupied with a crucial part of their alleged scheme. See id. at FWGSA 010215-16.
185 Yule testified that he had never received a copy of the LLC Agreement. Trial Tr. vol. II, 479, 501 (Yule). On cross examination, he was questioned about the extent of his knowledge of Laudamiel's employment rights, but not his lack of receipt. See Trial Tr. vol. III, 653-56 (Yule). The Court does not seek to create an insurmountable burden of due diligence in commercial transactions with third parties by requiring in depth knowledge of all governing documents to avoid contributing to a potential breach.
186 Once the certificate of cancellation was filed on May 12, Capua and Laudamiel no longer owed fiduciary duties to Aeosphere. See Comerica Bank v. Global Payments Direct, Inc., 2014 WL 3779025, at *14 n. 120 (Del. Ch. Aug. 1, 2014) (citing cases to distinguish between duties owed before and after termination of a joint venture).
187 See PI.'s Opening Post-Trial Br. 16-23 (reciting facts).
188 Trial Tr. vol. II, 510-11 (Yule); see also JX 129 (May 12 email from Laudamiel attaching minutes from May 4).
See JX 161 at FWGSA 010391. In a May 13 email, Yule indicates that he has invited Capua and Laudamiel to join the call. That email followed an email from May 12 in which Yule mentioned looking forward to the call.
190 See JX 157 at FWGSA 009532.
191 E.g., PI.'s Post-Trial Reply Br. 27.
192 Trial Tr. vol. II, 469 (Yule).
193 See PI.'s Opening Post-Trial Br. 4-5 (citing the October 23 email to create a scheduling conflict).
194 The Court finds that while Yule was aware that Laudamiel and Capua were taking a hard line with Mathew, there is no indication that Yule knew prior to the dissolution meeting that unanimous approval was required to oust Matthew or that doing so without unanimous approval would violate the LLC agreement. Yule was on notice of the dissolution's impropriety only after Matthew so informed him in a post-meeting email, JX 48 at FWGSA 096730, which Yule may or may not have believed.
195 WaveDivision Hldgs., LLC v. Highland Capital Mgmt., L.P. ("WaveDivision II"), 49 A.3d 1168, 1174 (Del. 2012) (internal quotation marks omitted).
196 NAMA Hldgs., LLC v. Related WMC LLC, 2014 WL 6436647, at *28 (Del. Ch. Nov. 17, 2014).
197 WaveDivision II, 49 A.3d at 1174 (citing Restatement (Second) of Torts § 767 (1979)).
198 NAMA HIdgs., LLC, 2014 WL 6436647, at *26.
199 PI.'s Opening Post-Trial Br. 42 (citing Capua Dep. 115); PI.'s Post-Trial Reply Br. 26-27.
200 Capua Dep. 115.
201 Trial Tr. vol. II, 502 (Yule).
202 Defs.' Post-Trial Answering Br. 40-41 (quoting Bailey v. City of Wilm., 766 A.2d 477, 480 (Del.2001)).
203 See generally Def. Fläkt Woods Group SA's Mem. of Law in Supp. of Its Mot. for Summ. J. 25-32. Matthew also incorporates earlier filings on the justification issue. See PI.'s Opening Pre-Trial Br. 45-49.

204 See WaveDivision II, 49 A.3d at 1174 ("Only if the defendant's sole motive was to interfere with the contract will this factor support a finding of improper interference.").
205 See WaveDivision Hldgs., LLC v. Highland Capital Mgmt. L.P. ("WaveDivision I"), 2012 WL 3224310, at *12 (Del.Super. Aug. 7, 2012) ("It was not improper for the defendants to interfere with the Wave Agreements in order to protect their own financial interest in Millennium."). However, both FWGSA's interest in protecting its investment in the Scent Project and Matthew's interest in his contract rights without interference by third parties were important. See id. at *13 (discussing " \([t]\) he societal interests in protecting the freedom of action of the actor and the contractual interests of the other." (emphasis removed)).
206 The parties' economic relationship weighs in favor of justifying FWGSA's involvement. Id.
207 Defs.' Post-Trial Answering Br. 43.
208 Nicolet, Inc. v. Nutt, 525 A.2d 146, 149-50 (Del.1987).
209 Reid v. Siniscalchi, 2014 WL 6589342, at *6 (Del. Ch. Nov. 20, 2014).
210 PI.'s Opening Post-Trial Br. 44.
211 Id. at 55. In the reply brief, Matthew frames the issue as a remedy for tortious interference, which the Court has already rejected. The Court will, however, consider the value of the employment contract for thoroughness and to address any lingering concern about Laudamiel's liability.
212 See Montgomery Cellular HIdg. Co. v. Dobler, 880 A.2d 206, 221 (Del.2005) ("In a statutory appraisal proceeding, each side has the burden of proving its respective valuation positions by a preponderance of the evidence. Even if one side fails to satisfy its burden, the Court ... must use its own independent judgment to determine fair value." (footnote omitted)). Again, the Court will consider FWGSA's damages arguments broadly.
213 See, e.g., Gearreald v. Just Care, Inc., 2012 WL 1569818, at *5 (Del. Ch. Apr. 30, 2012) ("The Court should consider all factors known or knowable as of the Merger Date that relate to the future prospects of the Companies, but should avoid including speculative costs or revenues." (internal quotation marks omitted)).
214 FWGSA argues that a discounted cash flow method does not produce a useable result in Aeosphere's case because it is not a going concern, it lacks a history of revenues, and lacks reliable inputs. See, e.g., Defs. Fläkt Woods Group SA and Flakt Woods Limited's Mem. in Further Supp. of Their Mot. In Limine to Preclude Testimony of Kevin Vannucci 4-6. Another problem is that it is difficult to place a value on specific Aeosphere assets, such as the Scent Opera, but that does not appear to have inflated Vannucci's calculations. Matthew contends that "this Court has not applied a liquidation-based valuation ... to appraise equity shares." PI.'s Post-Trial Reply Br. 31. He also raises concerns that using liquidation value "incentivize[s] fiduciaries to simply pursue dissolution of an entity and transfer its liquidated assets to a new business rather than through a merger that might trigger appraisal rights." Oral Arg. Tr. 44-45.
215 Aeosphere might have had a breach of contract claim, but that would not be a source of immediate and reliable funding to continue its operations.
216 The Court adopts this number for hypothetical purposes only. This figure is part of what Vannucci considered when determining that Aeosphere could be valued as a going concern. See Trial Tr. vol. IV, 990-91, 994-96 (Vannucci).
217 JX 287 at 4 (explaining that Barberich would temper Vannucci's "aggressive" calculations but emphasizing that even Vannucci's balance sheet shows that Aeosphere "had no value").
218 See JX 434 at Schedule 1 \& n.4.
219 Trial Tr. vol. IV, 1003 (Vannucci) (reasoning that Aeosphere's youth renders the CAPM less reliable than the established "VC rates of return"); JX 434 at Schedule 4.
220 Trial Tr. vol. IV, 1005-06 (Vannucci).
221 JX 287 at 32. Potentially acceptable discount rates for a start-up stage investment range from \(50 \%\) to \(125 \%\). JX 434 at Schedule 4.
222 JX 287 at 33 . Potentially acceptable discount rates for an early development stage investment range from \(40 \%\) to \(70 \%\). JX 434 at Schedule 4.
223 This fact is relevant because Prolitec was an existing technology that "appear[ed] viable"-even though its use would presumably reduce margins relative to the yet unperfected EFET technology-further justifying Aeosphere's "early development" classification.
224 JX 434 at Schedule 4.
225 While the Court adopts Vannucci's valuation model and discount rates, the Court finds credible Yule's testimony regarding the appropriate cash flow reduction to compensate for the uncertainty surrounding EFET.
226 By simply reducing Aeosphere's free cash flows, as opposed to adjusting its revenue and expenses independently, the Court assumes that Aeosphere's cost of goods sold and operating expenses vary proportionately to sales. Such an
assumption is not unreasonable in light of the fact that "Aeosphere, on its own, was not a capital-intensive company," and therefore incurred relatively few fixed costs, resulting in an unlevered cost structure. Trial Tr. vol. IV, 995 (Vannucci).
227 Trial Tr. vol. II, 428 (Yule) (stating that projections assuming Prolitec technology would be one-fifth to one-tenth of those assuming EFET).
228 Id. at 428, 524 (Yule).
229 Id. at 428 (Yule).
230 The Court reaches this figure by reducing the above one-fifth by the additional ninety percent suggested by Yule given the lack of an exclusive agreement with Prolitec. The Court notes, however, that a reasonable interpretation of Yule's testimony could result in a finding of one percent of the original projections. Id. (Yule stating that projections assuming Prolitec could be as low as ten percent of those assuming EFET; reducing that amount by a "factor of ... ten" results in projections at one percent of the originals).
231 The Court notes, however, that without additional data, equating the expected value of the EFET technology at the time of the valuation to the value added by reducing cash flows by a mere \(80 \%\) is somewhat of a rough estimate.
232 The Court adopts Vannucci's weights of \(60 \%\) for the FWGSA projections and \(40 \%\) for the Aeosphere projections. JX 434 at Schedule 1 n. 1 (Valuation Synthesis and Conclusion).
233 While Vannucci's calculations primarily consider the Scent Project, Dep. Trs. of Kevin Vannucci ("Vannucci Dep.") 6668 , Aeosphere's portfolio of business opportunities contained sundry additional projects. JX 285 at 3 . Vannucci, however, stated that any projected cash flows for such additional projects would be "too speculative" to include in the valuation model. Vannucci Dep. 67. Thus, the value of Aeosphere represented by Vannucci's and the Court's calculations stems primarily from the Scent Project.
234 JX 434 at Schedule 1.
235 Trial Tr. vol. I, 88 (Matthew).
236 Matthew supports his expert's valuation by observing Capua's commitment to fund salaries. PI.'s Opening Post-Trial Br . 48-49. Capua would not have done so. If the Court accepts that Aeosphere was a going concern despite its inability to make payroll, it is fair to assume that Matthew would not have continued to work without compensation.
237 The Court has chosen to reach this decision without being aware of the amount for which Capua and Action 1 settled.
238 The pre-trial order does not squarely address FWGSA's cross-claims. Nonetheless, with this conclusion, the cross-claims of FWGSA are moot and, thus, are dismissed.

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\section*{UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.}

> Court of Chancery of Delaware.

> MERION CAPITAL, L.P., Magnetar
> Capital Master Fund Ltd., Magnetar Global Event Driven Master Fund Ltd., Magnetar SC Fund Ltd., Hipparchus Master Fund Ltd., Compass Offshore HTV PCC Limited, Compass HTV LLC, and Blackwell Partners LLC, Petitioners, V. 3M COGENT, INC., Respondent.

\author{
Civil Action No. 6247-VCP | \\ Submitted: March 19, 2013 \\ | \\ Decided: July 8, 2013
}

\section*{Attorneys and Law Firms}

Kevin G. Abrams, Esq., John M. Seaman, Esq., Derrick B. Farrell, Esq., Abrams \& Bayliss LLP, Wilmington, Delaware; Attorneys for Petitioners.

Daniel A. Dreisbach, Esq., John D. Hendershot, Esq., Thomas A. Uebler, Esq., Richards, Layton \& Finger, P.A., Wilmington, Delaware; William A. Brewer III, Esq., Michael J. Collins, Esq., C. Dunham Biles, Esq., Jeremy D. Camp, Esq., Bickel \& Brewer, Dallas, Texas; Attorneys for Respondent.

\section*{MEMORANDUM OPINION}

PARSONS, Vice Chancellor.
*1 This is the post-trial decision in an appraisal brought pursuant to 8 Del. C. § 262 and arising out of a merger in which a global technology conglomerate and its acquisition subsidiary acquired a biometrics technology company at a price of \(\$ 10.50\) per share. Relying upon a discounted cash
flow ("DCF") analysis, the petitioners claim that each share of the biometrics company's common shares was worth \(\$ 16.26\) as of the merger date. By contrast, the respondent contends that the biometrics company's common shares were worth only \(\$ 10.12\) apiece as of the merger date. For the reasons set forth below, the Court concludes that, as of the merger date, the fair value of the biometrics company was approximately \(\$ 963.4\) million or \(\$ 10.87\) per share.

\section*{I. BACKGROUND}

\section*{A. The Parties}

Respondent, 3M Cogent, Inc. ("3M Cogent"), formerly known as Cogent, Inc. ("Cogent" or the "Company"), is a Delaware corporation that provides biometric \({ }^{1}\) technology. Specifically, Cogent offers automated fingerprint identification systems ("AFIS") technology and other fingerprint biometrics solutions to government, immigration, and law enforcement agencies.

Petitioners are Merion Capital, L.P., Magnetar Capital Master Fund Ltd., Magnetar Global Event Driven Master Fund Ltd., Magnetar SC Fund Ltd., Hipparchus Master Fund Ltd., Compass Offshore HTV PCC Limited, Compass HTV LLC, and Blackwell Partners LLC (collectively, the "Petitioners"). At the time of the merger, Petitioners beneficially owned \(5,835,109\) shares of Cogent common stock (the "Shares"). \({ }^{2}\) Petitioners dissented from the merger and perfected their appraisal rights.

Nonparty 3M Company ("3M") is a diversified technology conglomerate with a global presence in the following businesses: industrial and transportation; health care; consumer and office; safety, security, and protection services; display and graphics; and electro and communications. \({ }^{3} 3 \mathrm{M}\) acquired Cogent (or the "Company") through its acquisition subsidiary, nonparty Ventura Acquisition Corporation ("Ventura").

\section*{B. Facts}

\section*{1. The business}

Cogent was founded by Ming Hsieh in 1990. From 1990 until 2004, Cogent operated as a private company and was profitable during that entire period. \({ }^{4}\) Ultimately, Cogent went public on September 23, 2004, and thereafter was publicly traded on the NASDAQ Global Select Market under the symbol "COGT." \({ }^{5}\) At all relevant times, Hsieh was the President, Chairman, and Chief Executive Officer ("CEO") of Cogent, and Paul Kim was the Chief Financial Officer. Before the merger, Cogent's Board of Directors (the "Board") consisted of four members: Hsieh, John Bolger, John Stenbit, and Kenneth Thornton.

\section*{2. The transaction}
*2 In or around 2008, Cogent retained Credit Suisse to assist in the investigation and evaluation of potential strategic alternatives, including a sale of the Company. As part of that engagement, Credit Suisse contacted over twenty-five potential strategic and financial partners about the prospect of acquiring Cogent. \({ }^{6}\) Cogent also retained Goldman Sachs to pursue potential strategic alternatives with NEC, a competitor of Cogent. As a result of efforts by Cogent and its advisers, in 2010, 3M, Danaher Corporation ("Danaher"), Roper Industries ("Roper"), and NEC Corporation ("NEC") expressed interest in acquiring the Company. \({ }^{7}\)

Around that time, Cogent had direct meetings with executives of 3 M in which Cogent and its advisors informed 3 M that other potential suitors were in discussions with Cogent. \({ }^{8}\) In May 2010, 3M expressed interest in pursuing a strategic transaction with Cogent at a price range of \(\$ 9.25\) to \(\$ 10.25\) per share. \({ }^{9}\)

Shortly after 3M's verbal offer, Kim prepared financial projections for 2010-2015 (the "Five-Year Projections"). \({ }^{10}\) Up until that time, Cogent had not prepared projections beyond one year. \({ }^{11}\) Credit Suisse compiled the projections, but relied on information supplied by Kim, Hsieh, and Mary Jane Abalos, Cogent's vice president of finance. \({ }^{12}\) According to Kim, the Five-Year Projections were "bottomup" projections that did not rely on industry analysts or reports. \({ }^{13}\)

On July 2, 2010, after further discussions and due diligence with potential acquirers, Cogent received two nonbinding indications of interest: one from 3 M to acquire Cogent for
\(\$ 10.50\) per share and the other from Danaher to acquire Cogent at a range of \(\$ 10.00\) to \(\$ 10.50 .{ }^{14}\) Although Roper and Danaher eventually dropped out of the process, NEC and 3M remained interested in pursuing a strategic transaction with Cogent. \({ }^{15}\)

In August 2010, 3M submitted a nonbinding written proposal to acquire Cogent for \(\$ 10.50\) per share. \({ }^{16}\) The Board met on August 15, 2010, and instructed their advisor, Credit Suisse, to inform 3M that its proposal was not acceptable and to negotiate with 3 M on price and terms. \({ }^{17}\) Cogent also leveraged the offer from 3 M to pressure NEC to speed up its bid. \({ }^{18}\) Ultimately, NEC submitted a nonbinding indication of interest to acquire Cogent within the range of \(\$ 11.00\) to \(\$ 12.00\) per share. \({ }^{19}\) In a letter dated August 19, 2010, 3M advised Cogent that its bid would expire on August \(20 .{ }^{20}\) That day, the Board met to determine how to proceed. After considering updates on the ongoing discussions with NEC, the Board approved the negotiation of a definitive merger with 3 M , rejected the condition of exclusivity requested in 3 M 's letter, and instructed Credit Suisse to continue discussions with NEC. \({ }^{21}\)

Finally, on August 29, 2010, the Board held another special meeting at which it considered further updates on the discussions with NEC. \({ }^{22}\) Based on NEC's need to complete its due diligence, the existence of antitrust and regulatory issues with NEC, and Credit Suisse's opinion that the proposed merger with 3 M was fair, the Board unanimously determined that it was in the best interest of Cogent to enter into the proposed merger agreement with 3 M , and resolved to recommend that the shareholders approve the merger. \({ }^{23}\)
*3 The next day, Cogent and 3M publicly announced the merger. On September 10, 2010, 3M commenced a tender offer to acquire all of the issued and outstanding common stock of Cogent for \(\$ 10.50\) per share. The initial tender offer closed on October 7, 2010, after which 3 M controlled a majority of Cogent's outstanding shares. Because Cogent did not have enough shares to complete a short-form merger, on October 8, 2010, 3M commenced a subsequent tender offering at the same price, \(\$ 10.50\) per share. On October 26, 2010, the subsequent offering closed, and 3 M controlled \(73 \%\) of Cogent's outstanding common shares or approximately 64.9 million common shares. On December 1, 2010 (the "Merger Date"), the stockholders of Cogent approved the merger pursuant to 8 Del. C. § 251 (the "Merger"). As a
result, Cogent became a wholly owned subsidiary of 3 M and thereafter was renamed 3M Cogent, Inc.

\section*{C. Procedural History}

Following the Merger, Petitioners filed their Verified Petition for Appraisal on March 4, 2011. From November 28 through November 30, 2012, I presided over a three-day trial in this action. After extensive post-trial briefing, counsel presented their final arguments on March 19, 2013. This Memorandum Opinion constitutes my post-trial findings of fact and conclusions of law.

\section*{D. Parties' Contentions}

Petitioners contend that the fair value of Cogent was \(\$ 16.26\) per share. In support of this valuation, Petitioners rely on their expert, Dr. Bernard C. Bailey, a Ph.D. in management and Chairman and CEO of Authentix Inc., a Carlyle Group portfolio company and global leader in authentication technology. \({ }^{24}\) In valuing the Company, Bailey performed a DCF analysis, a comparable companies analysis, and a comparable transactions analysis. Bailey relied, however, only on his DCF analysis in reaching his valuation opinion because (1) Bailey believed there were no truly comparable companies or transactions to compare to Cogent and (2), to the extent there were any potentially comparable companies and transactions, he lacked sufficient data from which to draw comparisons.

3M Cogent claims that Cogent's fair value was \(\$ 10.12\) per share. In support of its valuation contentions, Respondent relies on the expert testimony and reports of Henry F. Owsley and Stephen M. Schiller (collectively, the "Gordian Experts"), a partner and managing director of Gordian Group, LLC ("Gordian Group"), respectively. \({ }^{25}\) The Gordian Experts valued the Company using a DCF analysis, a comparable companies analysis, and a comparable transactions analysis, giving each analysis equal, i.e., one-third, weight.

Under Section 262 of the Delaware General Corporation Law, stockholders who meet certain requirements are entitled to an appraisal by the Court of Chancery of the fair value of their shares of stock. \({ }^{26}\) During such an appraisal proceeding, the Court of Chancery
shall determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation, together with interest, if any, to be paid upon the amount determined to be the fair value. In determining such fair value, the Court shall take into account all relevant factors. \({ }^{27}\)
The Court's task is to perform an independent evaluation of "fair value." 28 "It is within the Court of Chancery's discretion to select one of the parties' valuation models as its general framework, or fashion its own, to determine fair value in the appraisal proceeding., \({ }^{29}\) Fair value in the context of an appraisal proceeding is the "value to a stockholder of the firm as a going concern, as opposed to the firm's value in the context of an acquisition or other transaction., 30 "Only the speculative elements of value that may arise from the 'accomplishment or expectation' of the merger," that is, any synergistic value, should be excluded from a fair value calculation on the date of the merger. \({ }^{31}\) "One of the most important factors to consider is the very 'nature of the enterprise' subject to the appraisal proceeding." 32
*4 In an appraisal proceeding, both sides have the burden of proving their respective valuations by a preponderance of the evidence. \({ }^{33}\) If neither party satisfies its burden, however, the Court must use its own independent judgment to determine the fair value of the shares. \({ }^{34}\) The Court may consider "proof of value by any techniques or methods which are generally considered acceptable in the financial community and otherwise admissible in court. \({ }^{, 35}\) Among the techniques that Delaware courts have relied on to determine the fair value of shares are the DCF approach, the comparable transactions approach, and comparable companies analyses. \({ }^{36}\)

\section*{B. Merger Price as Indication of "Fair Value"}

Respondent seeks to have this Court rely on the merger price as evidence of the fair value of Petitioners' shares. But, the cases that Respondent cites in support of that proposition \({ }^{37}\)
pre-date the Supreme Court's statements on this issue in Golden Telecom, Inc. v. Global GT LP. \({ }^{38}\)

In Golden Telecom, the Supreme Court stated:
Section 262(h) unambiguously calls upon the Court of Chancery to perform an independent evaluation of "fair value" at the time of a transaction. It vests the Chancellor and Vice Chancellors with significant discretion to consider "all relevant factors" and determine the going concern value of the underlying company. Requiring the Court of Chancery to defer-conclusively or presumptivelyto the merger price, even in the face of a pristine, unchallenged transactional process, would contravene the unambiguous language of the statute and the reasoned holdings of our precedent. It would inappropriately shift the responsibility to determine "fair value" from the court to the private parties. Also, while it is difficult for the Chancellor and Vice Chancellors to assess wildly divergent expert opinions regarding value, inflexible rules governing appraisal provide little additional benefit in determining "fair value" because of the already high costs of appraisal actions. Appraisal is, by design, a flexible process. Therefore, we reject [respondent's] contention that the Vice Chancellor erred by insufficiently deferring to the merger price, and we reject its call to establish a rule requiring the Court of Chancery to defer to the merger price in any appraisal proceeding. \({ }^{39}\)
*5 More recently, Chancellor Strine refused to give any weight to merger price, stating:
[Respondent] makes some rhetorical hay out of its search for other buyers. But this is an appraisal action, not a fiduciary duty case, and although I have little reason to doubt [respondent's] assertion that no buyer was willing to pay Dimensional \(\$ 25\) million for the preferred stock and an attractive price for [respondent's] common stock in 2009, an appraisal must be focused on [respondent's] going concern value. Given the relevant legal standard, the trial record did not focus extensively on the quality of marketing [respondent] by Dimensional or the utility of the "go shop" provision contained in the merger agreement....

Instead, the testimony at trial focused mostly on the question that is relevant under Cavalier Oil and its progeny, which is the going concern value of [respondent] as of the date of the [m]erger. In this opinion, I concentrate on answering the key questions raised by the parties relevant to determining that value, which are: (i) whether the preferred stock should be valued at the \(\$ 25\) million
liquidation preference value or on an as-converted basis in determining the value to subtract from [respondent's] equity value to derive a value for its common stock; and (ii) the enterprise value of [respondent] as a going concern on the Merger date. \({ }^{40}\)
Here, both sides have presented expert testimony as to the going concern value of Cogent on the Merger Date. Indeed, Respondent did not seek to use the merger price of \(\$ 10.50\) per share, but instead relies on the Gordian Experts' analyses to arrive at a lower price of \(\$ 10.12 .{ }^{41}\) Respondent and its experts also did not attempt to adjust the merger price to remove the "speculative elements of value that may arise from the 'accomplishment or expectation' of the merger.," 42 In other words, Respondent asks this Court to rely on a merger price that it has not relied on itself and that is not adjusted to produce the going concern value of Cogent. Those deficiencies render the merger price largely irrelevant to this case. Accordingly, I focus primarily on the evidence presented by the experts as to the going concern value of Cogent on the Merger Date, i.e., the experts' technical analyses presented in their expert reports and in their testimony at trial.

\section*{C. Which Valuation Method?}

As previously indicated, Petitioners relied solely on a DCF analysis to support their argument that the fair value of a Cogent common share on the date of the Merger was \(\$ 16.26\). By contrast, 3M Cogent's experts gave nearly equal weight to their DCF analysis, comparable companies analysis, and comparable transactions analysis in coming to a per common share value for Cogent of \(\$ 10.12\).

Generally speaking, "it is preferable to take a more robust approach involving multiple techniques-such as a DCF analysis, a comparable transactions analysis (looking at precedent transaction comparables), and a comparable companies analysis (looking at trading comparables/ multiples)-to triangulate a value range, as all three methodologies individually have their own limitations., \({ }^{43}\) A comparable or market-based approach endeavors to draw inferences about a company's future expected cash flows from the market's expectations about comparable companies. \({ }^{44}\) "[T]he utility of a market-based method depends on actually having companies that are sufficiently comparable that their trading multiples provide a relevant insight into the subject company's own growth prospects., 45 When there are a number of corporations competing
in a similar industry, these methods are most reliable. On the other hand, when the "comparables" involve companies that offer different products or services, are at a different stage in their growth cycle, or have vastly different multiples, a comparable companies or comparable transactions analysis is inappropriate. \({ }^{46}\) Therefore, I must examine the experts' respective selections of comparable companies and transactions to evaluate their reliability.

\section*{1. Comparable companies analysis}
*6 The comparable companies method of valuing a company's equity involves several steps including: (1) finding comparable, publicly traded companies that have reviewable financial information; (2) calculating the ratio between the trading price of the stocks of each of those companies and some recognized measure reflecting their income such as revenue, EBIT, or EBITDA; (3) correcting these derived ratios to account for differences, such as in capital structure, between the public companies and the target company being valued; and, finally, (4) applying the average multiple of the comparable companies to the relevant income measurement of the target company, here Cogent. \({ }^{47}\)

The Gordian Experts conducted a comparable companies analysis that began with the selection of ten companies. \({ }^{48}\) The Gordian Experts then determined multiples by dividing the enterprise value for each company by: (i) last twelve months ("LTM") revenue and EBITDA; and (ii) estimated forward revenue and EBITDA, as determined by public filings and other publicly available information. Next, the Gordian Experts applied a range of multiples to Cogent's LTM and estimated forward revenue and EBITDA to determine an estimated enterprise value for Cogent. Ultimately, the Gordian Experts' analysis yielded an estimated enterprise value of Cogent of \$296.3 million.

Here, Petitioners attack Respondent's first expert, Owsley, and his comparable companies analysis, claiming the analysis is "unreliable, unsupported and flawed." 49 Specifically, Petitioners note that the Gordian Experts' comparable companies analysis suffers from: (1) a paucity of data; (2) a selection of companies with either no profits, a different risk profile, no government-focused customer base, or no business in the biometrics industry; and (3) a generalized lack of consistent methodology.
"The burden of proof on the question [of] whether the comparables are truly comparable lies with the party making that assertion," here the Respondent. \({ }^{50}\) I find that Respondent and its Gordian Experts have not satisfied that burden.

As an initial matter, six of the ten comparable companies the Gordian Experts identified were significantly smaller than Cogent. Those companies each had enterprise values of less than \(\$ 50\) million, \({ }^{51}\) while Cogent's enterprise value was \(\$ 398.5\) million. \({ }^{52}\) This Court has rejected the use of companies as comparables where those companies were significantly different in size than the appraised company. \({ }^{53}\) That is because, as further discussed in Section II.D.2.d infra concerning the equity size premium, greater risk is typically associated with equity in a small company. \({ }^{54}\) In that regard, it would be inappropriate to compare a company with an enterprise value of \(\$ 14.7\) million, as was the case with BIOKey International, Inc., to a company, such as Cogent, with an enterprise value more than 25 times higher.
*7 Moreover, not one of those same six "comparable" companies had generated a profit. \({ }^{55}\) At trial, Schiller, who replaced Owsley as Respondent's expert, acknowledged that the type of companies that have revenue multiples but not EBITDA multiples tend to be "companies in the early stage of their growth and maturity" and "companies that are growing rapidly." \({ }^{56}\) In contrast, Cogent had been profitable from 1990 until 2005. \({ }^{57}\) In that regard, Schiller acknowledged that companies that had never turned a profit "are not close comparables" to Cogent. \({ }^{58}\)

The Gordian Experts also failed to select comparable companies from the same business or industry as Cogent. For example, five of the companies selected by Owsley had no biometrics business at all. \({ }^{59}\) Bailey, Petitioners' expert, also notes that of the ten comparable companies selected by the Gordian Experts, only one-BIO-Key International-listed Cogent as a competitor in its annual report. \({ }^{60}\)

Finally, the Gordian Experts' failure to identify L-1 as a comparable company to Cogent before trial causes me some concern. L-1 competed directly against Cogent in a number of markets, including the LiveScan market. \({ }^{61}\) Indeed, Schiller admitted that L-1 "was one of the closer comparables to Cogent. \({ }^{,{ }^{62}}\) Nonetheless, the Gordian Experts excluded L-1 based on their mistaken belief that a roughly
contemporaneous L-1 transaction had closed before the Merger. \({ }^{63}\) Importantly, L-1 had very positive financials that probably would have increased the values generated by the Gordian Experts' comparable companies analysis. \({ }^{64}\) In that sense, therefore, the Gordian Experts' analysis likely underestimates the value of Cogent.

Based on the problems identified in this subsection, I find the Gordian Experts' comparable companies analysis to be unreliable. Furthermore, because Respondent has not met its burden of proof to show that the selected companies are truly comparable, I accord no weight to that analysis

\section*{2. Comparable transactions analysis}

A comparable transactions analysis "involves identifying similar transactions, quantifying those transactions through financial metrics, and then applying the metrics to the company at issue to ascertain a value." \({ }^{36}\) As with the comparable companies analysis, " \([t] h e\) utility of the comparable transactions methodology is directly linked to the 'similarity between the company the court is valuing and the companies used for comparison.' ,"66

Here, the Gordian Experts began their analysis with the selection of eighteen transactions. \({ }^{67}\) They then calculated multiples by dividing the enterprise value (as determined by the terms of the relevant transactions) for each company involved by: (i) LTM revenue and EBITDA; and (ii) estimated forward revenue and EBITDA. \({ }^{68}\) Next, the Gordian Experts arrived at multiple ranges by eliminating the top and bottom quartile. \({ }^{69}\) Finally, they applied a \(20 \%\) discount to the multiples they obtained to take into account the need to eliminate any control or synergy premiums. \({ }^{70}\)
*8 Petitioners' expert Bailey criticized the Gordian Experts for using revenue multiples on the ground that they are less reliable than EBITDA multiples. At trial, Bailey explained that "it's inappropriate to use a revenue multiple as a multiple for trying to value [Cogent], because it was a very profitable cash-flow-positive company operating in a robust industry.," \({ }^{11}\)

In an expert report he submitted in another case, Owsley similarly criticized the use of revenue multiples, stating that "[w]hile it is true that many analysts regularly examine
revenue multiples[,] I believe that such multiples are inherently more suspect due to their relatively higher level of variance (once low and negative earners are eliminated) than EBITDA multiples., \({ }^{, 72}\) Owsley's inconsistent and contradictory positions undermine the Gordian Experts' credibility on this point, which they admitted was a "judgment call., \({ }^{, 73}\) Based on these facts and Bailey's reasoning, I find that Respondent has not met its burden of showing that the Gordian Experts' use of a revenue multiples approach is reliable. Therefore, I accord no weight to that part of Respondent's analysis.

Petitioners contend that the remainder of the Gordian Experts' comparable transactions analysis, i.e., the LTM and forward EBITDA multiples, is flawed because there are insufficient data points to support any meaningful conclusions. For the thirty-six potential EBITDA multiples identified, the Gordian Experts were able to provide only eight meaningful multiples. That number is even smaller after one eliminates the first and fourth quartiles. This Court has found comparable transactions analyses that used as few as five transactions and two transactions to be unreliable. \({ }^{74}\) Indeed, "[i]f it turns out that very few data points are available for a particular valuation multiple, that problem may lead to abandon[ing] that multiple or [ ] put[ting] relatively little weight on it.," 75 The dearth of data points here undermines the reliability of the EBITDA multiples.

This conclusion is buttressed by the high dispersion of the data points the Gordian Experts did obtain. "The extent to which the valuation multiples are tightly clustered or widely dispersed tends to indicate the extent to which the market focuses on that particular valuation multiple in pricing companies in the particular industry.," \({ }^{76}\) Here, the dispersion was "extremely large." \({ }^{, 77}\) For example, while the mean of the forward EBITDA multiple was 25.4 x , the standard deviation was \(25.1 \mathrm{x} .{ }^{78}\) Thus, because there are so few data points and the results are so widely dispersed, Respondent has failed to show that its EBITDA multiples analysis is reliable.
*9 For all of these reasons, I accord no weight to Respondent's comparable transactions analysis.

\section*{3. Delaware Rules of Evidence 702 and 705}

Petitioners also raised an evidentiary challenge to Schiller's testimony and rebuttal report. According to Petitioners, Schiller's testimony lacks a factual basis and should be excluded under D.R.E. 702(1) and 705(b). \({ }^{79}\) Petitioners also seek to exclude Schiller's testimony because an expert cannot act as
a mere conduit or transmitter of the content of an extrajudicial source. An 'expert' should not be permitted simply to repeat another's opinion or data without bringing to bear on it his own expertise and judgment. Obviously in such a situation, the non-testifying expert is not on the witness stand and truly is unavailable for crossexamination. \({ }^{80}\)
Finally, Petitioners note that an expert cannot materially change his opinions after the expert discovery cutoff. \({ }^{81}\)

To put Petitioners' objections in context, I review briefly the background of Schiller's participation in this case. In late July 2012, Owsley unexpectedly became ill and went on medical leave. \({ }^{82}\) In October 2012, Respondent asked Schiller to assume Owsley's role in this case by taking over the partially prepared rebuttal report and preparing himself to testify. \({ }^{83}\) As part of that preparation, Schiller read Owsley's expert report, spoke with members of the Gordian team, and ultimately adopted Owsley's conclusions. \({ }^{84}\) Schiller testified that he "independently assessed the validity of the judgments and conclusions of Mr. Owsley's report." \({ }^{85}\)

On October 22, 2012, Schiller submitted a rebuttal report that reflected his conclusions and judgments. \({ }^{86}\) Two weeks later, on November 5, Schiller sat for a deposition. At that deposition, Schiller admitted that he did not "know all the things that the team looked at as they evaluated these comparables. \({ }^{, 87}\) Schiller was unable to say, among other things, whether in selecting comparable companies the Gordian team had considered whether those companies were government contractors. \({ }^{88}\) Nor was Schiller able to identify the portion of each comparable company's business that was involved in the biometrics business. \({ }^{89}\)
*10 At trial, Schiller admitted that he had no role in preparing Owsley's initial report, never spoke to Owsley regarding his opening report, and had not reviewed all of the materials in Appendix C of Owsley's report. \({ }^{90}\) Schiller also
changed some of his deposition answers to reflect work he had done after the deposition. \({ }^{91}\)

Generally speaking, an expert can replace another expert who must drop out as a result of illness. Here, Schiller was a logical choice based on his understanding of the techniques that the Gordian Group regularly applies in its valuations. Moreover, Schiller apparently examined and relied on the judgments Owsley and his team made. Given these circumstances, I do not find Schiller's testimony inadmissible.

On the other hand, Schiller's deposition testimony demonstrated that, as to some topics, Schiller barely performed sufficient research to express an informed opinion, and instead relied heavily on the opinions and data of Owsley. Because Schiller's statements regarding the comparability of certain companies changed between his deposition and trial and Respondent provided no prior notice of that change to Petitioners, I have given no weight to Schiller's later testimony.

These problems with the evidence adduced from Schiller also undermine his reliability and credibility as a witness and create an independent basis for according Schiller's comparables analyses only minimal weight.

\section*{D. DCF Analysis of Cogent}

The basic premise underlying the DCF methodology is that the value of a company is equal to the value of its projected future cash flows, discounted to the present value at the opportunity cost of capital. \({ }^{92}\) Calculating a DCF involves three steps: (1) one estimates the values of future cash flows for a discrete period, where possible, based on contemporaneous management projections; (2) the value of the entity attributable to cash flows expected after the end of the discrete period must be estimated to produce a so-called terminal value, preferably using a perpetual growth model; and (3) the value of the cash flows for the discrete period and the terminal value must be discounted back using the capital asset pricing model or "CAPM." \({ }^{33}\) In simpler terms, the DCF method involves three basic components: (1) cash flow projections; (2) a discount rate; and (3) a terminal value. \({ }^{94}\) The experts in this case relied on conflicting inputs and assumptions as to all three elements of their respective DCF analyses. I now turn to those disputed inputs and assumptions.

\section*{1. Cash flow projections}
*11 A primary dispute between the parties is whether the Court should rely on the Five-Year Projections prepared by Kim and Credit Suisse. Petitioners would reject management's projections and adopt two key scenarios: (1) Bailey's "Industry Growth Scenario" that assumes an industry growth rate through 2015 of \(17 \%\); and (2) Bailey's "Cash Deployment Scenario" that assumes Cogent would spend \(\$ 396\) million of its cash on acquisitions. \({ }^{95}\) In contrast, Respondent urges this Court to rely on management's projections with only a few minor adjustments.

Generally, this Court "prefers valuations based on contemporaneously prepared management projections because management ordinarily has the best first-hand knowledge of a company's operations." \({ }^{96}\) In Gearreald v. Just Care, Inc., \({ }^{97}\) however, I held that projections prepared by management "are not entitled to the same deference usually afforded to contemporaneously prepared management projections" where "management had never prepared projections beyond the current fiscal year," "the possibility of litigation, such as an appraisal proceeding, was likely," and the projections "were made outside of the ordinary course of business." \({ }^{" 98}\) I also considered it relevant in Gearreald that the projections at issue there were prepared by directors and officers of the target company who "risked losing their positions if the ... bid succeeded and were involved in trying to convince the Board to pursue a different strategic alternative in which [they] were involved.,"9

A number of the circumstances in Gearreald also are present here: (1) Cogent had never prepared projections beyond the current fiscal year; \({ }^{100}\) (2) the management projections were prepared after 3 M communicated a verbal offer to Cogent, and Hsieh communicated to 3 M the price at which he was willing to recommend selling; \({ }^{101}\) and (3) the projections were prepared with significant input from Credit Suisse. \({ }^{102}\) On the other hand, Kim had no reason to believe his job was in jeopardy, nor was he involved in any alternate bid. This last factor is significant because neither this Court nor the Delaware Supreme Court ever has adopted a bright-line test under which management projections that were created during the merger process are deemed inherently unreliable. To the contrary, in a number of cases Delaware Courts have relied on projections that were prepared by management
outside of the ordinary course of business and with the possibility of litigation. \({ }^{103}\) On the other hand, this Court has expressed skepticism with respect to projections prepared with the benefit of hindsight by testifying experts. \({ }^{104}\)
*12 Moreover, Bailey's "Cash Deployment Scenario," which assumes that Cogent would have spent \(\$ 396\) million on potential targets and realized positive returns as a result of those acquisitions, is too speculative. The record shows that even though Cogent was open to acquiring companies and had examined more than twenty companies, "none of them fit into [Cogent's] acquisition target." \({ }^{105}\) Furthermore, even if I were to assume that Cogent would have made an acquisition, which I am not inclined to do, I would not be willing to speculate as to the rate of return on that hypothetical acquisition, because it would amount to nothing more than mere conjecture and supposition.

Similarly, the record does not support adopting Bailey's "Industry Growth Scenario," as opposed to management's projections. \({ }^{106}\) In his scenario, Bailey used industry growth rates to assume a compound annual growth rate ("CAGR") through 2015 of \(17 \%\), while the CAGR implicit in management's projections over the same period was only \(12.1 \%\). Notably, from 2006 to 2009, Cogent fell far short of industry growth rates in the biometrics industry. \({ }^{107}\) Similarly, in 2010, management projected Cogent's revenues to grow by \(8 \%\) (from \(\$ 129.6\) million in 2009 to \(\$ 140\) million in 2010). \({ }^{108}\) In the first three quarters of 2010, however, Cogent had earned only \(\$ 78.2\) million in revenues. \({ }^{109}\) If Cogent had maintained that pace for the final quarter of 2010, Cogent's 2010 revenues would have been just \(\$ 104.3\) million, \({ }^{110}\) resulting in negative year-on-year revenue growth between 2009 and 2010.

Based on the evidence adduced at trial, Delaware's longstanding preference for management projections, and the absence of any persuasive evidence that Kim was at risk of losing his job, involved in another bid, or entangled in other extraordinary circumstances, I accept management's projections here as a reliable starting point for the DCF analysis in this case.

\section*{a. Free cash flow adjustments}

In their respective DCF analyses, both Bailey and Owsley made adjustments to the free cash flows. First, Owsley
deducted share based compensation ("SBC") from Cogent's projected cash flows, whereas Bailey did not. And second, Owsley increased working capital based on an assumption that Cogent would have working capital equal to \(32.2 \%\) of revenues. Bailey, on the other hand, assumed that Cogent would need to retain only \(22.9 \%\) of its incremental revenues as working capital. I examine each of those proposed adjustments next.

\section*{i. Treatment of SBC}

Questions about the treatment of SBC often arise in this Court when fairness opinions fail to disclose whether the individual or entity rendering the opinion treated SBC as a non-cash expense in its DCF analysis. In those cases, the Court's standard practice has been to treat SBC as a non-cash expense. \({ }^{111}\) Valuation literature also supports the view that a non-qualified stock option plan \({ }^{112}\) is cash neutral or cash flow positive. \({ }^{113}\)
*13 Respondent's authority to the contrary is inapposite. 3 M Cogent relies on a blog post by Damodaran that states, "It is absurd to add back stock-based compensation (it is an operating expense ...)." \({ }^{114}\) That blog post, however, deals with the reporting of operating income, not the appropriate treatment of SBC for cash flow purposes. \({ }^{115}\) I agree with Damodaran that it makes sense to adjust earnings to take into account the dilutive effect of SBC. Respondent has made no showing in this case, however, that SBC will have any effect on the actual cash flows of the Company. Therefore, I conclude that SBC should not be treated as a cash expense here. \({ }^{116}\)

\section*{ii. Working capital adjustment}
"Working capital is derived by subtracting current liabilities from current assets and represents the capital the business has at its disposal to fund operations." \({ }^{117}\) Both Petitioners and Respondent included in their revenue categories -i.e., current assets-"billed accounts receivable," "unbilled accounts receivable," and "inventory and contracted related costs." They both also included in their liabilities category -i.e., current liabilities-"accounts payable." The parties disagreed, however, as to the proper treatment of the following asset and liability categories for purposes of their
working capital adjustment: "prepaid expenses," "long-term inventory and contracted related costs," "accrued expenses," and "other liabilities."

The Gordian Experts criticized Bailey for including those accounts in his computation of working capital, describing them as "long-term" accounts and "subject to random movement." 118 At least one treatise, however, supports Bailey's view that working capital should include the disputed categories. That treatise states:

Operating working capital equals operating current assets minus operating current liabilities. Operating current assets comprise all current assets necessary for the operation of the business, including working cash balances, trade accounts receivable, inventory, and prepaid expenses. Specifically excluded are excess cash and marketable securities-that is cash greater than the operating needs of the business. Excess cash represents temporary imbalances in the company's cash position....

Operating current liabilities include those liabilities that are related to ongoing operations of the firm. The most common operating liabilities are those related to suppliers (accounts payable), employees (accrued salaries), customers (deferred revenue), and the government (income taxes payable). \({ }^{119}\)
Rather than relying on any professional or academic valuation literature, the Gordian Experts characterize their position as a "judgment" based on their "experience in looking at many companies and many projections." \({ }^{120}\)
*14 Bailey's approach appears to be well supported and generally accepted by the financial community. \({ }^{121}\) The explanation proffered by the Gordian Experts for their approach, on the other hand, was essentially conclusory. Based on the strong support for his view, I adopt Bailey's approach and assume that Cogent will need working capital equal to \(22.9 \%\) of incremental revenues.

\section*{b. Unlevered free cash flows}

The following table reflects the projections of unlevered free cash flows that the Court intends to use in conducting a DCF analysis here. These projections incorporate the SBC and working capital adjustments discussed above.

Tabular or Graphical Material not displayable at this time

The preceding image contains the reference for footnote \({ }^{122}\).

\section*{2. Cogent's cost of capital}

To discount the cash flow projections for the Company to present value, the experts for both sides computed their respective weighted average costs of capital ("WACC"). The formula used to derive WACC is:
\[
\begin{aligned}
& W A C C=\left[K_{D} \times W_{D} \times(1-\mathrm{t})\right]+\left(K_{E} \times W_{E}\right)^{123} \\
& \text { Where } K_{D}=\text { Cost of debt capital } \\
& W_{D}=\text { Average weight of debt in capital structure } \\
& t=\text { Effective tax rate for the company } \\
& K_{E}=\text { Cost of equity capital } \\
& W_{E}=\text { Average weight of equity capital in capital structure }
\end{aligned}
\]

Where the capital structure is \(100 \%\) equity and \(0 \%\) debt, as is the case here, WACC is equal to the cost of equity. \({ }^{124}\) To calculate the cost of equity capital, the experts for both Petitioners and Respondent used the Capital Asset Pricing Model, or CAPM, which can be expressed as:
\(K_{E}=R_{F}+\left(\beta \times R_{E R P}\right)+R_{E S P}{ }^{125}\)
Where \(K_{E}=\) Cost of equity
\(R_{F}=\) Risk-free rate
\(\beta=\) Beta
\(R_{E R P}=\) Equity risk premium
\(R_{E S P}=\) Equity size premium
In simpler terms, the cost of equity equals the risk-free rate plus an equity size premium plus the company's beta times the market risk premium.
*15 The following table summarizes the parties' respective inputs for WACC or cost of equity:

\section*{Tabular or Graphical Material not displayable at this time}

In the sections that follow, I discuss, in turn, the disputes between the parties as to each of the listed variables.

\section*{a. Risk-free rate}

Petitioners determined Cogent's risk-free rate using the \(20-\) year Treasury bond yield, which was \(3.80 \%\) on November 30, 2010, whereas 3M Cogent used the 10-year Treasury bond yield, which was approximately \(2.96 \%\) on December 1, 2010. \({ }^{126}\) Both sides acknowledged that either the \(10-\) year or 20 -year Treasury bond yields would be appropriate metrics for the risk-free rate. \({ }^{127}\)

In the appraisal context, this Court has used the 20 -year Treasury bond yield on numerous occasions in its calculation of the risk-free rate. \({ }^{128}\) It does not appear from these cases, however, that the issue of a 10 -year versus a \(20-\) year bond was disputed or that the Court based its use of a twentyyear rate on professional or academic valuation literature. To the contrary, the literature suggests that the 10-year Treasury bond yield is the appropriate metric for the risk-free rate in this case. For example, Damodaran states, "we believe that using the 10 -year bond as the risk-free rate on all cash flows is a good practice in valuation, at least in mature markets." \({ }^{129}\) Another well-known treatise on valuation also suggests a \(10-\) year time horizon. \({ }^{130}\) And, yet another source states: "[m]any analysts use the yield on a 10-year [Treasury bond] as a proxy for the risk-free rate, although the yields on a 20 -year or 30year [Treasury bond] are also reasonable proxies." \({ }^{131}\) Based on the referenced literature and the fact that Cogent is a mature firm-as evidenced by its history of positive cash flows-I conclude that the 10 -year Treasury bond yield, i.e., \(2.96 \%\), espoused by Respondent is the appropriate metric for the riskfree rate in this case.

\section*{b. Beta}
*16 As a matter of valuation theory, "companies that are more unstable and leveraged, less established and financially and competitively secure, and in colloquial terms 'riskier,' should have higher betas." \({ }^{132}\) Betas also can take into account considerations like political risk to the extent such risks are priced by the market. \({ }^{133}\) The experts' calculations of beta diverge in significant respects and are the largest driver of the price difference in their respective DCF calculations.

Petitioners advocate for a beta of 0.87 , while Respondent espouses a much higher beta of \(1.52 .{ }^{134}\) In this regard, the parties clash over three main topics: (1) whether to use a 1 -year Bloomberg weekly raw beta or a 2 -year Bloomberg weekly adjusted beta; (2) the order of operations; and (3) whether to adjust for all cash or only excess cash.

The first issue is whether the Court should start with Bailey's 1 -year Bloomberg weekly raw beta of 0.708 or the Gordian Experts' 2-year Bloomberg weekly adjusted beta of 0.67. \({ }^{135}\) At this point, the experts agree that the Court should use an observation period of one week. They differ, however, as to the sample period and whether the beta should be adjusted or raw. \({ }^{136}\) Bailey explained that he chose a 1 -year sample period to avoid the "significant noise associated with movements in the market due to the impact of the Global Financial Crisis through the period late 2007 through early 2009." \({ }^{137}\) Owsley, on the other hand, provided no explanation of the reasons for his selection of a \(2-\) year sample period. Accordingly, I adopt Bailey's selection of a 1-year sample period for this case.

Turning to what I have referred to as the "order of operations" issue, both Petitioners and Respondent agree that it is necessary to adjust the beta of Cogent to reflect Cogent's large cash position. To do that, Bailey cash adjusted the Bloomberg raw beta. In contrast, the Gordian Experts cash adjusted the Bloomberg adjusted beta, which is equal to (Raw Beta \(x 0.67\) ) \(+[1.00 \times(0.33)]\). In this context, it strikes me as inappropriate to cash adjust a market-adjusted beta because it effectively cash adjusts the market. Accordingly, I conclude that the appropriate number to begin the development of beta with is the 1 -year Bloomberg weekly raw beta, i.e., 0.708 .

The process for adjusting asset beta estimates for excess cash and investments is outlined by Pratt and Grabowski:

The assets of the guideline public companies used in estimating beta often include excess cash and marketable securities. If you do not take into account the excess cash and marketable securities, you can arrive at an incorrect estimate of the asset beta for the operating business. This will lead to an incorrect estimate of the beta for the subject company. After unlevering the beta for the guideline public companies, you adjust the unlevered beta estimates for any excess cash or marketable securities held by each guideline public company. This adjustment is based on the principle that the beta of the overall company is the market-value
weighted average of the businesses or assets (including excess cash) comprising the overall firm. \({ }^{138}\)
The formula for that adjustment is as follows:
\[
\begin{aligned}
& \text { *17 } \beta_{U} \text { or overall company unlevered or asset beta } \\
& =[\text { Asset beta for operations } \times(\text { Operating Assets } / \text { Total Assets } \\
& \text { ) }] \\
& +[\text { Asset beta for surplus assets } \times(\text { Surplus Assets } / \text { Total Assets } \\
& \text { ) }]
\end{aligned}
\]

If we assume that cash has a beta of zero, \({ }^{139}\) the equation is simply:
\[
\begin{aligned}
& \beta_{U}=\text { Asset beta for operations } \times(\text { Operating Assets } / \text { Total Assets } \\
& )
\end{aligned}
\]

That equation can be restated as:
\[
\begin{aligned}
& \text { Asset beta for operations }=\beta_{U} \times\left({ }^{\text {Total Assets }} /\right. \text { Operating Assets } \\
& )
\end{aligned}
\]

Here, Cogent's total assets were approximately \(\$ 868.7\) million. \({ }^{140}\) Operating assets are calculated using the following formula:
\[
\text { Operating assets }=\text { total assets }- \text { surplus assets }
\]

Predictably, the parties disagree as to what proportion of Cogent's large cash reserves should be considered "surplus." Bailey treats approximately \(\$ 100\) million as surplus, whereas the Gordian Experts consider all of Cogent's cash, i.e., \(\$ 533.2\) million, to be excess. At the very least, the parties agree that the \(\$ 100\) million the Cogent board announced it would use to execute a share buyback is excess cash. As for the remaining \(\$ 433.2\) million in cash, Bailey asserts that it should be treated as an operational asset because Cogent's executives signaled "to the market that Cogent intended to utilize their cash balance to support the operations of the business in order to take advantage of the significant growth opportunities in the marketplace." \({ }^{141}\) Yet, that view of surplus cash contradicts the Pratt and Grabowski treatise upon which Bailey explicitly relied. Pratt and Grabowski define surplus assets as "[a]ssets that could be sold or distributed without impairing company operations." \({ }^{142}\) Using that broader view and a simplifying assumption that Cogent would need \(\$ 50\) million in maintenance cash for operations, \({ }^{143}\) its excess cash
would be \(\$ 483.2\) million. \({ }^{144}\) The operational assets of Cogent then would be just \(\$ 385.5\) million. \({ }^{145}\) Thus, the ratio of total assets to operating assets would be \(2.253 .{ }^{146}\) Applying previously mentioned formula, the asset beta for operations equals the overall company unlevered or asset beta (0.708) times the ratio of total assets to operating assets (2.253) or 1.595 .
*18 Empirical studies have shown that measures of risk, including beta, "tend to revert towards the mean over time. \({ }^{147}\) Where a good set of comparables for industry betas do not exist, one can "smooth" beta by adjusting historical beta by a market beta of 1 , using a \(1 / 3\) weighting factor for the market and a \(2 / 3\) weighting for the subject company's beta, in this case Cogent. \({ }^{148}\) Here, that would result in a forward estimated beta of approximately 1.397. \({ }^{149}\)

The Respondent also calculated beta using a peer group method, i.e., a comparable companies analysis. For the reasons stated in subsection C above, I do not find the Gordian Experts' comparable companies analysis reliable. Accordingly, I rely solely on my calculation of a Cogent forward beta of 1.397 for purposes of determining the appropriate WACC here.

\section*{c. Equity risk premium}

There is very little difference between the parties as to the appropriate equity risk premium. Bailey supports the use of a supply-side equity risk premium of \(5.0 \%\) as published in the 2010 Ibbotson yearbook. \({ }^{150}\) The Gordian Experts relied on a \(5.2 \%\) equity risk premium, which they derived from multiple sources, including Damodaran and Ibbotson. \({ }^{151}\)

Bailey cited a number of treatises and articles in support of his view that the Court should apply a supply-side equity risk premium. \({ }^{152}\) Owsley's report, on the other hand, did not explain how he calculated equity risk premium (beyond identifying sources). \({ }^{153}\) In addition, Schiller testified that he was unfamiliar with the distinction between a supply-side equity risk premium and a historic equity risk premium. \({ }^{154}\)

Because Bailey demonstrated a stronger understanding of this subject and explained his methodology more convincingly, I
conclude that the \(5.20 \%\) equity risk premium used by Bailey is the appropriate value to use in this case. \({ }^{155}\)

\section*{d. Equity size premium}
*19 "In addition to the equity risk premium, an equity size premium generally is added to the company's cost of equity in the valuation of smaller companies to account for the higher rate of return demanded by investors to compensate for the greater risk associated with small company equity." 156 "A size premium is an accepted part of CAPM because there is evidence in empirical returns that investors demand a premium for the extra risk of smaller companies." \({ }^{157}\) The opposing experts came to similar values in their determination of an equity size premium: \(1.73 \%\) for Petitioners and \(2.0 \%\) for Respondent. \({ }^{158}\)

Bailey selected his equity size premium of \(1.73 \%\) based on decile 7 of Ibbotson Associates' ("Ibbotson") 2010 yearbook, which encompasses companies with a market capitalization between \(\$ 685,129,000\) and \(\$ 1,063,308,000 .{ }^{159}\) The Gordian Experts, on the other hand, used Ibbotson's 2009 yearbook and adjusted Cogent's market capitalization to exclude its large cash reserves.

The Ibbotson table headings clearly state "market capitalization." \({ }^{160}\) In addition, the relevant treatises focus on the market value of common equity and do not suggest making an adjustment to exclude cash reserves. \({ }^{161}\) Consistent with Ibbotson's headings and the treatises, the Court of Chancery consistently has used market capitalization as the benchmark for selecting the equity size premium. \({ }^{162}\)

Despite those authorities and Schiller's awareness that "the definition [for equity size premium] says market capitalization," the Gordian Experts chose a size premium by "look[ing] at the size of the market value less cash of Cogent." \({ }^{163}\) That adjustment was based on Schiller's view that
> *20 we're valuing ... Cogent absent its cash. We're not valuing Cogent in the DCF. Because the way the DCF works is, we value the cash streams the company throws off and then we add the cash on top of it. So we split the baby in two parts and look at the values of each. \({ }^{164}\)

I am not persuaded, however, that Schiller's approach is consistent with the proper use of the Ibbotson tables. The Ibbotson tables were based on important research in 1981 by Rolf Banz, who found an empirical relationship between the market value of stocks and higher rates of return. \({ }^{165}\) Put differently, the Ibbotson tables look at the statistical relationship between market capitalization and equity size premium. The Gordian Experts failed to present a convincing explanation as to why their use of a different metricenterprise value-more accurately reflects the correlation that the equity size premium attempts to reflect.

While some studies-notably the Duff \& Phelps Risk Premium Report \({ }^{166}\)-use a metric other than the market value of equity, Respondent's expert chose to use Ibbotson's Valuation Yearbook. In doing so, they effectively embraced the view that there is a relationship between market capitalization and rate of return.

Finally, the Gordian Experts' exclusion of cash is counterintuitive. The Ibbotson tables are based on the insight that smaller companies are more risky than larger companies. The Gordian Experts' exclusion of cash decreases the "size" of the company involved, thereby increasing its equity size premium. Here, that would mean that Cogent would be more risky as a result of its cash reserves. Intuitively, however, one would expect that, all other things being equal, having cash reserves, as opposed to debt, would decrease the riskiness of a company.

For all of these reasons, I adopt Bailey's selection of an equity size premium of \(1.73 \%\).

\section*{e. Calculating Cogent's WACC}

As previously discussed, the equation for CAPM is:
\[
K_{E}=R_{F}+\left(\beta \times R_{E R P}\right)+R_{E S P}
\]

Inputting my conclusions as to the risk-free rate, beta, equity risk premium, and equity size premium into that equation yields:
\[
K_{E}=2.96+(1.397 \times 5.2)+1.73=11.954 \%
\]

Based on Cogent's capital structure of \(100 \%\) equity, Cogent's WACC would equal its cost of equity, or \(11.954 \%\).

\section*{f. The present value of Cogent's unlevered free cash flows}

Using the WACC of \(11.954 \%\), the following table represents the present value ("PV"), as of the Merger date, of Cogent's five-year projected unlevered free cash flows:
*21 Tabular or Graphical Material not displayable at this time

The sum of the present value of the cash flows for 2010-2015 is \(\$ 42\) million.

\section*{3. Terminal value}
"In a DCF analysis, future cash flows are projected for each year during a set period, typically five years. After that time, a terminal value is calculated to predict the company's cash flow into perpetuity." 167 "The two established methods for computing terminal value are the exit multiples model (a market approach) and the growth in perpetuity model [i.e., the Gordon Growth Model]." 168 "Both approaches have been accepted by this court in the past." \({ }^{169}\)

Both Bailey and the Gordian Experts estimated the terminal value of Cogent based on the perpetuity growth model or the Gordon Growth Model. The Gordian Experts also used an exit multiples approach that estimated a terminal value based on the multiples of enterprise value to estimated forward 2011 EBITDA for the set of comparable companies. \({ }^{170}\)

\section*{a. The Gordon Growth Model}

The Gordon Growth Model can be expressed as follows \({ }^{171}\) :
\[
T V=\mathrm{FCFt}+1 / \mathrm{WACC}-\mathrm{g}
\]
\(T V=\) Terminal value
\(F C F_{t+1}=\) Free cash flow in the first year after the explicit forecast period
\(W A C C=\) Weighted average cost of capital
\(g=\) Expected growth rate of free cash flow into perpetuity

To calculate terminal value using the Gordon Growth Model, the Court must select a long-term growth rate, i.e., the expected growth rate of free cash flows into perpetuity. "A viable company should grow at least at the rate of inflation and ... the rate of inflation is the floor for a terminal value estimate for a solidly profitable company that does not have an identifiable risk of insolvency." \({ }^{172}\) But, a terminal growth rate should not be greater than the nominal growth rate for the United States economy, because "[i]f a company is assumed to grow at a higher rate indefinitely, its cash flow would eventually exceed America's [gross national product].,"173

Relying on historical GDP and inflation data, economic analysts projections, and the growth prospects of the biometrics industry, Bailey selected a perpetuity growth rate of \(4.5 \% .{ }^{174}\) The Gordian Experts, on the other hand, used a range of growth rates between \(2 \%\) and \(5 \%\), and implicitly selected the midpoint of \(3.5 \% .{ }^{175}\) The Gordian Experts, however, provided no analysis or explanation in support of the number they chose for the terminal growth rate. \({ }^{176}\) Because Bailey was the only expert who sought to justify his conclusion, and his conclusion is within the range of rates identified by Respondent's expert and appears to be reasonable based on the evidence, I adopt Bailey's estimate of a \(4.5 \%\) perpetuity growth rate.
*22 The parties also disagree as to whether the Court should use a two-stage or a three-stage DCF model. The Gordian Experts used a two-stage model whereby, at the end of the management projections in 2015, they estimated a single percentage figure that they would use as a proxy for Cogent's perpetual rate of growth beyond that period. Bailey, on the other hand, "gradually step[ped] down Cogent's growth rate using a linear progression over the period from 2016 through the terminal year, 2021," before applying his terminal growth percentage. \({ }^{177}\)
"As a general matter, neither approach is inherently preferable." \({ }^{178}\) Damodaran notes, however, that the two-stage model "is best suited for firms that are in high growth and expect to maintain that growth rate for a specific time period, after which the sources of the high growth are expected to disappear." \({ }^{179}\) Damodaran provides two examples where this might apply:

One scenario ... is when a company has patent rights to a very profitable product for the next few years and is expected to enjoy supernormal growth during this period.

Once the patent expires, it is expected to settle back into stable growth. Another scenario where it may be reasonable to make this assumption about growth is when a firm is in an industry that is enjoying super-normal growth, because there are significant barriers to entry (either legal or as a consequence of infrastructure requirements), which can be expected to keep new entrants out for several years. \({ }^{180}\)
The three-stage model, on the other hand, "is the most general of the models because it does not impose any restrictions on the payout ratio. This model assumes an initial period of stable high growth, a second period of declining growth, and a third period of stable low growth that lasts forever., \({ }^{181}\) Damodaran notes that the three-stage model is best suited "for a firm whose earnings are growing at very high rates, are expected to continue growing at those rates for an initial period, but are expected to start declining gradually toward a stable rate as the firm become[s] large and loses its competitive advantages." \({ }^{182}\)

Based on my assumptions, Cogent's earnings are expected to grow at a high rate of \(11.45 \%\) for the initial period before moving to a stable growth rate of \(4.5 \%{ }^{183}\) I expect that decline will occur gradually as Cogent loses its competitive advantages in the field. Cogent is not in an industry where there are significant barriers that will disappear after 2015. Nor does Respondent identify any other reason to assume a precipitous drop-off. Accordingly, I believe that Bailey's three-stage model best reflects Cogent's expected growth over time and adopt that approach.

The following table represents my calculation of Cogent's unlevered free cash flow for the years 2016 through 2021, using a linear progression to step Cogent's growth rate down to \(4.5 \%\) in 2021:
Tabular or Graphical Material not displayable at this time

Discounting those values back to the Merger Date using the WACC of \(11.954 \%\) yields the following values:
Tabular or Graphical Material not displayable at this time
Thus, the sum of the present values of the cash flows for 2016-2020 is \(\$ 111.5\) million.
*23 Finally, using in the Gordon Growth Model equation for the third and final period, a WACC of \(11.954 \%\), a perpetuity growth rate of \(4.5 \%\), and free cash flows in 2021
of \(\$ 64.4\) million, I calculated Cogent's terminal value to be approximately \(\$ 864\) million. \({ }^{184}\) Discounting that value using a WACC of \(11.954 \%\) leads to a present value of the terminal value of \$276.7 million.

\section*{b. EBITDA multiples}
"Multiples approaches assume that a company will be worth some multiple of future earnings or book value in the continuing period." \({ }^{185}\) "[A] good industry comparison is crucial if a multiplier methodology is employed." \({ }^{186}\) Here, the Gordian Experts selected a terminal EBITDA multiple range of 6.5 x to 8.5 x using the companies in their comparable companies analysis. Petitioners seek to exclude Respondent's terminal multiples approach for many of the same reasons they asserted in opposition to Respondent's other market approaches. I agree with Petitioners' objections.

As discussed in Part II.C. 1 supra, the comparable companies selected by the Gordian Experts are not sufficiently comparable to Cogent to support a reliable analysis and do not provide a good industry comparison. There are also serious evidentiary problems with Schiller's trial testimony on this subject. \({ }^{187}\) As with the EBITDA multiples analysis of the comparable companies, here only four of the purportedly comparable companies have data from which to calculate an equity value to estimated forward EBITDA ratio. \({ }^{188}\)

\section*{PV of 2010-2015 Cash Flows \\ PV of 2016-2020 Cash Flows \\ PV of Terminal Value \\ Enterprise Value \\ Less: Net Debt \\ Equity Value \\ In sum, the equity value of Cogent as of the Merger Date was approximately \(\$ 963.4\) million. Assuming shares outstanding of approximately 88.6 million, \({ }^{193}\) the price per share would be \(\$ 10.87 .{ }^{194}\)}

Furthermore, Owsley's report on this issue is internally inconsistent. At one point, the report states that its range of 6.5 x to 8.5 x is "based on ... 1st and 3rd quartile 2011 EBITDA multiples." \({ }^{189}\) Elsewhere, the report indicates that the 1st and 3rd quartile 2011 EBITDA multiples were actually 7.5 x to \(9.8 \mathrm{x} .{ }^{190}\) At trial, Schiller defended the selection of multiples reflected in Owsley's report and described them as a "judgment call" or an "educated estimate based on what historical multiples have been adjusted for the sense that growth will have slowed to something much closer to GDP growth by that time. \({ }^{" 191}\) Beyond that, however, the Gordian Experts did not provide any authorities or analysis to justify their use of an EBITDA multiples approach to determine terminal value.

For these reasons, I reject Respondent's use of terminal EBITDA multiples and instead rely solely on the Gordon Growth Model for my determination of terminal value.

\section*{4. DCF Valuation}

The following table represents the Court's calculation of the valuation of Cogent using essentially Bailey's model, the aforementioned assumptions, and Cogent's cash balance of \(\$ 533.2\) million as of September 30, 2010 \({ }^{192}\) :
(\$ millions)
42.0
111.5
\(\underline{276.7}\)
430.2
(533.2)
963.4

\section*{E. Are Petitioners Entitled to Statutory Interest at the Legal Rate?}
*24 Section 262(h) of the Delaware appraisal statute provides:

Unless the Court in its discretion determines otherwise for good cause shown, interest from the effective date of the merger through the date of payment of the judgment shall be compounded quarterly and shall accrue at \(5 \%\) over the Federal Reserve discount rate (including any surcharge) as established from time to time during the period between the effective date of the merger and the date of payment of the judgment. \({ }^{195}\)
Nevertheless, "[a]dopting a different rate may be justified where it is necessary to avoid an inequitable result, such as where there has been improper delay or a bad faith assertion of valuation claims.," \({ }^{196}\)

Here, Respondent argues that this Court should not apply the statutory rate of interest because: (1) awarding prejudgment interest to shareholders who acquired shares after the announcement of the acquisition would be an inequitable result; and (2) Petitioners improperly delayed the resolution of this action.

\section*{1. Petitioners' post-merger acquisition of shares}

3M Cogent emphasizes that Petitioners acquired shares after the Merger was announced. In such circumstances, Respondent contends, it would be inequitable to award interest at the legal rate because Delaware law disfavors the purchase of a lawsuit and statutory interest is not intended to benefit purchasers of after-acquired shares.

In Salomon Brothers Inc. v. Interstate Bakeries Corp., \({ }^{197}\) this Court addressed whether one who purchases stock after notice of a transaction is entitled to seek appraisal pursuant to 8 Del . C. § 262. The Court stated:

I find nothing in the purpose or language of § 262 that would defeat [petitioner's] entitlement to an appraisal and I find nothing inequitable about an investor purchasing stock in a company after a merger has been announced with the thought that, if the merger is consummated on the announced terms, the investor may seek appraisal. \({ }^{198}\)
In other words, Delaware law does not disfavor the purchase of shares after the announcement of a merger. Indeed, after the trial in Salomon Brothers, the Court awarded an \(11 \%\) rate of interest to the petitioner. \({ }^{199}\) As 3M Cogent correctly notes, however, the Court in Salomon Brothers did not address
whether any reduction or elimination of prejudgment interest might be appropriate.

In support of denying Petitioners an award of statutory interest, Respondent avers that statutory interest was not intended to compensate shareholders who acquired their shares after the merger was announced. In Cede \& Co. v. Technicolor, Inc., \({ }^{200}\) for example, the Delaware Supreme Court stated that " \([t]\) he underlying assumption in an appraisal valuation is that the dissenting shareholders would be willing to maintain their investment position had the merger not occurred. \({ }^{201}\) In the same vein, Respondent relies on cases that have recognized that the appraisal right was intended to protect "stockholders-who by reason of the statute lost their common law right to prevent a merger-by providing for the appraisement of their stock and the payment to them of the full value thereof in money.,"202
*25 I am mindful, however, that statutory interest also serves to avoid an undeserved windfall to the respondent in an appraisal action, who "would otherwise have had free use of money rightfully belonging to" the petitioners. \({ }^{203}\) Even though a respondent may have been cash-rich, "the [respondent] derived a benefit from having the use of the [petitioners'] funds at no cost., \({ }^{204}\)

In sum, the plain language of the appraisal statute calls for the payment of statutory interest unless the Court determines otherwise for good cause shown. Respondent, 3M Cogent, has not shown that it would be inequitable for Petitioners to receive the legal rate of interest for shares acquired after the merger. \({ }^{205}\)

\section*{2. Petitioners' purported "delay"}

Respondent next argues that the Court should refuse to award any interest for the period from April 28, 2011 to February 2, 2012 because Petitioners unreasonably delayed in prosecuting their case. Specifically, Respondent complains that Petitioners failed to respond in a timely manner to certain discovery requests, as well as to an inquiry by Respondent as to whether Petitioners intended to proceed with this case.

Petitioners counter that Respondent cannot complain about Petitioners' purported delay because Respondent itself failed to move with alacrity. On November 11, 2011, Petitioners proposed a schedule that called for a trial in April 2012.

Notably, Respondent counter-offered, seeking a much later, October 2012 trial date. In January 2012, after extensive back-and-forth, I entered a stipulated scheduling order setting the trial for September 5 through 7, 2012. As a result of Owsley's unforeseen unavailability for medical reasons, I later postponed the trial until late November 2012.

For a case of this size and complexity, the trial was completed within a reasonable time period. \({ }^{206}\) Even with some excusable delay, the trial was conducted within 20 months of the initial petition. Accordingly, I find that Respondent has not shown any unreasonable or improper delay and, therefore, deny Respondent's request to limit the award of interest on that basis.
*26 For the reasons discussed in this Memorandum Opinion, I find that the fair value of Cogent as of December 1, 2010 was \(\$ 963.4\) million or \(\$ 10.87\) per share.

The parties should confer to verify that the Court accurately has calculated Cogent's value based on the rulings herein and, assuming that it has, present a final judgment using an amount of \(\$ 10.87\) per share of Cogent, plus interest from December 1,2010 to the date of the judgment at the statutory rate, compounded quarterly. Petitioners shall submit, on notice, a proposed form of final judgment within ten (10) business days.

\section*{All Citations}

Not Reported in Atl. Rptr., 2013 WL 3793896

\section*{III. CONCLUSION}

\section*{Footnotes}

1 "Biometrics" is defined as "the measurement and analysis of unique physical characteristics (as fingerprint or voice patterns) especially as a means of verifying personal identity." Merriam-Webster's Collegiate Dictionary 124 (11th ed. 2004).

2 Unless otherwise noted, the facts are drawn from the stipulated facts section of the parties' Joint Pre-Trial Order (Feb. 4, 2013).
3 3M Co., 2012 Annual Report (10-K) at 3 (Feb. 14, 2013), available athttp://media.corporate-ir.net/media_files/ irol/80/80574/Annual_Report2012.pdf.
4 Tr. 427 (Hsieh). References in this form are to the trial transcript. Where the identity of the testifying witness is not clear from the text, it is indicated parenthetically after the cited page of the transcript.
5 ld.
6 JX 122 at 3.
7 Bolger Dep. 53-66; JX 157 at 17. In Cogent's proxy statement, NEC was "Company D," Danaher was "Company G," and Roper was "Company E."
8 JX 157 at 17.
\(9 \quad\) Id. at 18.
10 JX 165. The Five-Year Projections include the latter part of 2010.
11 Tr. 404-05(Kim).
12 ld. at 389-90, 408-09.
13 Id. at 395.
14 JX 157 at 18-19.
15 Id. at 19-20.
16 Id. at 20.
17 Id. at 20-21.
18 JX 157 at 20-21.
19 Id. at 20.
20 ld. at 20-21.
21 ld.
22 Id. at 23.
23 Id. The trading price at closing on the last trading day before the announcement of the merger was \(\$ 8.92\) per share.

34 Gonsalves v. Straight Arrow Publ'rs, Inc., 701 A.2d 357, 362 (Del. 1997); Taylor v. Am. Specialty Retailing Gp., 2003 WL 21753752, at *2 (Del. Ch. July 25, 2003).
35 Weinberger, 457 A.2d at 713.
36 SeeDobler v. Montgomery Cellular Hldg. Co., 2004 WL 2271592, at *8 (Oct. 4, 2004); see also Cede \& Co. v. JRC Acq. Corp.,2004 WL 286963, at *2 (Del. Ch. Feb. 10, 2004) (utilizing the DCF approach); Gentile v. Singlepoint Fin., Inc., 2003 WL 1240504, at *6 (Del. Ch. Mar. 5, 2003) (utilizing the comparable transactions approach); Borruso v. Commc'ns Telesystems Int', 753 A.2d 451, 455 (Del. Ch.1999) (utilizing the comparable company approach).
37 Highfields Capital, Ltd. v. AXA Fin., Inc., 939 A.2d 34, 42 (Del. Ch.2007) ("ll ... the transaction giving rise to the appraisal resulted from an arm's-length process between two independent parties, and if no structural impediments existed that might materially distort 'the crucible of objective market reality,' a reviewing court should give substantial evidentiary weight to the merger price as an indicator of fair value."); Union Illinois 1995 Inv. Ltd. P'ship v. Union Fin. Gp., Ltd., 847 A.2d 340, 357 (Del. Ch.2004) ("IO]ur case law recognizes that when there is an open opportunity to buy a company, the resulting market price is reliable evidence of fair value."); Van de Walle v. Unimation, Inc., 1991 WL 29303, at *17-18 (Del. Ch. Mar. 7, 1991) ("The most persuasive evidence of the fairness of the ... merger price is that it was the result of arm's-length negotiations between two independent parties, where the seller ... was motivated to seek the highest available price, and a diligent and extensive canvass of the market had confirmed that no better price was available.").
3811 A.3d 214 (Del. 2010).
39 Id. at 217-18.
40 In re Orchard Enters., Inc., 2012 WL 2923305, at *5 (Del. Ch. July 18, 2012) (citing Cavalier Oil Corp. v. Harnett, 564 A.2d 1137 (Del. 1989)), aff'd,2013 WL 1282001 (Del. 2013) (ORDER).

41 See JX 1 at 33, Ex. 13.
42 Weinberger v. UOP, Inc., 457 A.2d 701, 713 (Del. 1983).
43 Muoio \& Co. v. Hallmark Entm't Invs. Co., 2011 WL 863007, at *20 (Del. Ch. Mar. 9, 2011), aff'd,35 A.3d 419, 2011 WL 6396487 (Del. 2011) (ORDER).
44 In re Orchard Enters., Inc., 2012 WL 2923305, at *9 (Del. Ch. July 18, 2012).
45 ld.
46 ld.
47 Andaloro v. PFPC Worldwide, Inc., 2005 WL 2045640, at *16 (Del. Ch. Aug. 19, 2005) (citing Agranoff v. Miller, 791 A.2d 880, 892 (Del. Ch. 2001)).

48 JX 1 at 17-18, 66-78.
49 Pet'rs' Opening Br. 40.
50 ONT, Inc. v. Integra Bank, 751 A.2d 904, 916 (Del. Ch. 1999).
51 Those companies are (1) Authentec, Inc., (2) Aware, Inc., (3) BgenuineTec, (4) BIO-Key International, Inc., (5) Intellicheck Mobilisa, Inc., and (6) Precise Biometrics.
52 See JX 1 app. G at 69.

54 See Tr. 227-28 (Bailey).
55 See JX 1 at 70.
56 Tr. 598.
57 Tr. 427 (Hsieh).
58 Tr. 599 (Schiller). This comment applies to six of Respondent's ten comparable companies.
59 Tr. 615 (Schiller) ("Q. So half of your entire comparable companies analysis is based on companies which do no biometrics business at all; is that right? A. Yes. And as we have discussed, we judged that they were businesses that people would look at in a similar way to biometrics businesses.").
60 JX 4 at 8.
61 Tr. 102-03 (Bailey).
62 Tr. 604 (Schiller).
63 ld.
64 ld. at 607-08; JX 152.
Highfields Capital, Ltd. v. AXA Fin., Inc., 939 A.2d 34, 54 (Del. Ch. 2007) (citing In re U.S. Cellular Operating Co., 2005 WL 43994, at *17 (Del. Ch. Jan. 6, 2005)).
66 Id. (quoting In re U.S. Cellular Operating Co., 2005 WL 43994, at *17).
67 JX 1 app. H.
68 JX 1 at 22 .
69 ld.
70 Bailey did not challenge Respondent's \(20 \%\) discount. Based on that implied acceptance, and this Court's previous observation that because "merger and acquisition data undoubtedly contains post-merger value, such as synergies with the acquiror, that must be excluded from appraisal value," it appears that some discount would be appropriate. SeeKleinwort Benson Ltd. v. Silgan Corp., 1995 WL 376911, at *4 (Del. Ch. June 15, 1995).
71 Tr. 242 (Bailey).
72 Expert Report of Henry Owsley, In re Sponsion Inc., No. 09-10690, 2009 WL 8179260, at If 46 (D. Del. Bank. 2009).
73 Tr. 534 (Schiller).
74 Seeln re John Q. Hammons Hotels Inc. S'holder Litig., 2011 WL 227634, at *5 (Del. Ch. Jan. 14, 2011) ("CC]omparable transactions analysis was based on a set of only five transactions, which is too small a sample set in the circumstances of this case to draw meaningful conclusions."); In re U.S. Cellular Operating Co., 2005 WL 43994, at *18 (Del. Ch. Jan. 6 , 2005) ("Indeed, with that in mind, the Court found only two of the twenty transactions Harris identified actually to be comparable. Therefore, Petitioners and Harris have failed to persuade me that their approach, based on the price per subscriber acquired, is sufficiently reliable that it should be used instead of Sanders' more established approach."). But see id. at \({ }^{*} 18-19\) (relying on an analysis of only five comparable transactions).
Shannon Pratt, Valuing a Business: The Analysis and Appraisal of Closely Held Companies 321 (5th ed. 2008).
ld. at 322.
Tr. 250-52 (Bailey).
Id.; JX 4 at 15 .
79 D.R.E. 702 provides in pertinent part: "... a witness qualified as an expert by knowledge, skill, experience, training or education may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data...." D.R.E. 705(b) states that "An adverse party may object to the testimony of an expert on the ground that the expert does not have a sufficient basis for expressing an opinion."
80 Pennsylvania Brandt v. Rokeby Realty Co., 2005 WL 1654362, at *5 (Del. Super. May 9, 2005) (quoting Primavera v. Celotex Corp., 608 A.2d 515, 521 (Pa.Super.Ct.1992)).

81 IQ HIdgs., Inc. v. Am. Comm. Lines Inc., 2012 WL 3877790, at *1 (Del. Ch. Aug. 30, 2012) ("For an expert to create a new analysis or materially change his opinions after the expert discovery cutoff risks trial by surprise and deprives the opposing party of an orderly process in which to confront and respond to the expert's views. Equally important, a new or materially changed analysis imposes burdens on the Court, which must attempt to evaluate the expert's opinions without the full benefits of adversarial testing.").
82 Tr. 488 (Schiller).
83 Id. at 488-89, 494.
84 Id. at 489-92.
85 ld.
86 Id. at 493; JX 3.
87 JX 179 at 42.
88 Id. at 44 ("Q. Is that one of the factors that was applied to identify companies, the fact that companies are government contractors? A. I believe it was, but I was not part of the team that selected these. Certainly exposure to government contracting would have struck [ ] me as an interesting metric."); id. at 45 ("Q. ... [l]s it the case your team identified those as comparables because their customers include the government? A. As I said, I wasn't part of the team that selected these, so I can't speculate.").
89 See, e.g.,id. at 45 ("Q. ... Do you know what portion of Intellicheck's business is in the biometrics industry? A. I do not."); id. at 46 ("Q. ... Do you have an understanding of what portion of VASCO's business was in the biometrics industry? A. I do not").

90 Tr. 494.
91 See JX 179 at 50 (from the deposition: "Q: Credit Suisse identified Verint Systems as a comparable company. Are you of the view that Verint Systems is not an appropriate comparable for Cogent? A: I don't have a view. I don't know Verint."); Tr. 526 (from trial: "Q: .... Why did you think Verint was not a good comparable? A. Verint would have made the cut but for the fact that they had trouble filing financial statements upon which one could rely. They had had, as I recall, a stock compensation challenge a number of years before, and they were still trying to get their house in order from an accounting perspective. We made the judgment that we should not put it in if it doesn't have numbers upon which we can rely."); see also Pet'rs' Opening Br. apps. A, B.
92 Seeln re Orchard Enters., Inc., 2012 WL 2923305, at *12 (Del. Ch. July 18, 2012) (citing Richard Brealey, Stewart Myers \& Franklin Allen, Principles of Corporate Finance 102 (9th ed. 2008); Bradford Cornell, Corporate Valuation: Tools for Effective Appraisal and Decision Making 102 (1993); R. Franklin Balotti \& Jesse Finkelstein, 1 The Delaware Law of Corporations \& Business Organizations § 9.45[B][1], at 9-134 (3d ed. 2009)); see alsoAndaloro v. PFPC Worldwide, Inc., 2005 WL 2045640, at *9 (Del. Ch. Aug. 19, 2005).
93 Andaloro, 2005 WL 2045640, at *9.
94 In re Orchard Enters., Inc., 2012 WL 2923305, at *12.
95 See JX 2.
96 SeeDoft \& Co. v. Travelocity.com Inc., 2004 WL 1152338, at *5 (Del. Ch. May 20, 2004); see alsoCede \& Co. v. Technicolor, Inc., 2003 WL 23700218, at *7 (Del. Ch. Dec. 31, 2003) ("When management projections are made in the ordinary course of business, they are generally deemed reliable."), aff'd in part, rev'd in part,884 A. 2 d 26 (Del.2005).
972012 WL 1569818 (Del. Ch. Apr. 30, 2012).
98 Id. at *5; see also Technicolor,2003 WL 23700218, at *7 ("[P]ost hoc, litigation-driven forecasts have an 'untenably high' probability of containing 'hindsight bias and other cognitive distortions.' ").
99 Gearreald, 2012 WL 1569818, at *5.
100 Tr. 405-06(Kim) ("Q. Prior to June 2010, Cogent never developed a multiyear financial model like the management projections through 2015 that Cogent disclosed in its proxy statement; right? A. I don't believe so.").
101 JX 140 at 0002722 ("Ventura [i.e., Cogent] says they turned down other offer[s] @ \$11; however, if 3 M hits the bid-they will sell."); Tr. 63-64 (Copman) ("Q. All right. Isn't it a fact that Cogent prepared its five year projections as part of the sales process specifically in part because 3 M asked them to do so? A. We asked them to do that and they did prepare it."); id. at 67 ("Q. ... When Mr. Hsieh communicated to you at some point that he was looking for \(\$ 11\) a share, that's a data point and you would have no reason to make an offer above \(\$ 11\) a share; right? A. Most likely not.").
102 Tr. 409 (Kim) ("Q. There was a back and forth, though, between you and Credit Suisse where Credit Suisse would ask questions and you would ask questions. It was a process where you worked together; right? A. Yes.").

103 See, e.g.,Gilbert v. MPM Enters., Inc., 709 A.2d 663, 669-70 (Del. Ch. 1997), aff'd, 731 A.2d 790 (Del. 1999) ("Petitioner asserts that the April forecast was prepared in anticipation of the merger and implies that the upcoming merger provided some reason for management deliberately to cut anticipated revenue growth and to increase [research and development] expenses.... I conclude that management was in the best position to forecast MPM's future before the merger, and finding no evidence that the April forecast included benefits to be obtained via the merger or that the April forecast represented a deliberate attempt to falsify MPM's projected revenues and expenses, I accept management's projections with minor changes to reflect MPM's actual financial results and other financial information obtained after the preparation of the projections, but before the merger."); Union III. 1995 Inv. Ltd. P'ship v. Union Fin. Gp., Ltd., 847 A.2d 340, 350-51 (Del. Ch. 2004) (accepting management projections prepared "[d]uring the course of the sales process"); In re Orchard Enters., Inc., 2012 WL 2923305, at *13 (Del. Ch. July 18, 2012) ("I adopt the fairness opinion projections because they were prepared closest to the Going Private Merger and they are therefore the best indicator of Orchard management's thencurrent estimates and judgments."); Gray v. Cytokine Pharmasciences, Inc., 2002 WL 853549, at *4-5, *8 (Del. Ch. Apr. 25,2002 ) (disregarding "litigation-driven projections" prepared by petitioner's expert in favor of projections prepared by management while an offer was pending and the company was exploring merger opportunities).
104 See Cede \& Co. v. JRC Acq. Corp.,2004 WL 286963, at *2 (Del. Ch. Feb. 10, 2004) ("[T]his Court prefers valuations based on management projections available as of the date of the merger and holds a healthy skepticism for post-merger adjustments to management projections or the creation of new projections entirely. Expert valuations that disregard contemporaneous management projections are sometimes completely discounted.").
105 Tr. 437-39 (Hsieh).
106 SeeHarris v. Rapid-American Corp., 1990 WL 146488, at *7 (Del. Ch. Oct. 2, 1990) (rejecting analysis based on "general trends" such as "industry-wide growth rates"), aff'd in part, rev'd in part,603 A.2d 796 (Del. 1992); Cede \& Co. v. Technicolor, Inc., 2003 WL 23700218, at *3 (Del. Ch. Dec. 31, 2003) (finding it unreasonable to reject management's forecast and create "hindsight forecasts based upon the industry as a whole").
107 JX 3 I 15 ("For instance, the CAGR in the biometric industry from 2006 to 2009 was \(29 \%\). By contrast, Cogent's CAGR in revenue for the same period was \(8.4 \%\).").
108 JX 165 at 6.
109 JX 153 at 2. Revenues for the first three quarters of 2009 had been \(\$ 91.7\) million. Id.
\(110 \$ 78.2 \times \frac{4}{3}=\$ 104.3\)
111 See, e.g.,In re Celera Corp. S'holder Litig., 2012 WL 1020471, at *19 (Del. Ch. Mar. 23, 2012) (describing the assumption that the company's "stock-based compensation should be treated as a cash expense for purposes of its [DCF] analysis" as unusual (alteration in original)), aff'd in part, rev'd in part,59 A.3d 418 (Del.2012); In re 3Com S'holders Litig., 2009 WL 5173804 , at *3 (Del. Ch. Dec. 18, 2009) ("[l]t is plainly disclosed that Goldman treated stock-based compensation as a cash expense in its DCF Analysis. Thus, shareholders can plainly determine from reading the proxy that Goldman made a departure from the norm in conducting its discounted cash flow analysis." (citation omitted)); Laborers Local 235 Benefit Funds v. Starent Networks, Corp., 2009 WL 4725866, at * 1 (Del. Ch. Nov. 18, 2009) (describing the treatment of SBC as a cash expense as a "change in norms" and the treatment of SBC as a non-cash expense as the traditional methodology).
112 Schiller did not know whether Cogent's plan was non-qualified. Tr. 616-17. The evidence shows, however, that at least one of Cogent's stock option plans was a non-qualified plan. See JX 10 at 55.
113 See Conrad Ciccotello, C. Terry Grant \& Gerry Grant, Impact of Employee Stock Options on Cash Flow, 60 Fin. Analysts J. 2, 39 (Mar.-Apr. 2004) ("Exercise of [non-qualified stock options] actually increases operating cash flows.").

114 JX 1 at 14 n. 40 (quoting Aswath Damodaran, From revenues to earnings: Operating, financing and capital expenses...., Musings on Markets (June 15, 2011), available at http://aswathdamodaran.blogspot.com/2011/06/from-revenues-to-earnings-operating.htm).
115 JX 4 at 24-25.
116 See Tr. 175-76 (Bailey).
117 Gholl v. Emachines, Inc., 2004 WL 2847865, at *14 n. 97 (Del. Ch. Nov. 24, 2004) (citing Shannon Pratt, The Lawyer's Business Valuation Handbook 422 (2000)), aff'd,875 A.2d 632, 2005 WL 1413205 (Del.2005) (ORDER).
118 Resp't's Answering Br. 26.
119 Tim Koller, Marc Goedhart \& David Wessels, Valuation: Measuring and Managing the Value of Companies 137-40 (5th ed. 2010) (emphasis omitted) [hereinafter Koller et al., Valuation].
120 Tr. 614-15 (Schiller). In fact, Schiller admitted that he did not consult any treatises in determining what accounts needed to be adjusted. Id.

121 This Court has relied on the fifth edition of Valuation in at least two other cases. Seeln re Orchard Enters., Inc., 2012 WL 2923305, at *9 n.60, *17 n.111, \& *19 n. 122 (Del. Ch. July 18, 2013); Global GT LP v. Golden Telecom, Inc., 993 A.2d 497, 513 nn. 91 \& 94 (Del. Ch. 2010), aff'd,11 A.3d 214 (Del.2010). The Court also has relied on other editions of Valuation.SeeRegal Entm't Gp. v. Amaranth LLC, 894 A.2d 1104, 1110 (Del. Ch. 2006). Respondent criticizes Petitioners for not offering that treatise into evidence or submitting it with their papers. In an effort to reach the correct result, however, this Court regularly relies on authoritative treatises that were not entered into evidence. SeeDuPont DCV HIdgs., Inc. v. ConAgra, Inc., 889 A.2d 954, 962 n. 14 (Del. 2005) ("The Sellers argue that Mr. Freund's book cannot be relied on as persuasive authority, because case law precludes Delaware courts from relying on books or treatises that are not introduced into evidence. However, the cases the Sellers cite stand for the proposition that courts cannot rely on medical books not placed into evidence. As the Buyer correctly notes, Mr. Freund's book has been relied on by this Court and the Court of Chancery as secondary persuasive authority on several occasions." (citation omitted)).
122 In calculating Cogent's fourth quarter cash flows, Bailey "subtract[ed] Cogent's year-to-date financial metrics from its 2010 projections to arrive at its 2010 cash flows for the valuation model." JX 2 at 63.
123 SeeGholl v. Emachines, Inc., 2004 WL 2847865, at *12 n.79; Lane v. Cancer Treatment Ctrs. of Am., Inc., 2004 WL 1752847, at *30 (Del. Ch. July 30, 2004).
124 I have not adjusted Cogent's forward capital structure because it has such a strong cash position and a proven ability to generate significant positive cash flows.
125 SeeCede \& Co. v. JRC Acq. Corp., 2004 WL 286963, at *8 (Del. Ch. Feb. 10, 2004) ("Under CAPM the cost of equity is equal to the risk-free rate (the yield on 20 year Treasury bonds) plus a large company equity risk premium multiplied by the specific company adjusted beta.... Added to this figure is an equity size premium.").
126 See JX 1 app. I n.4; JX 2 at 47-48; United States Department of the Treasury, Daily Treasury Yield Curve Rates, http://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx? data=yieldYear\&year=2010 (last visited May 16, 2013).
127 See JX 2 at 48 (Bailey's Rep.: "[T]he 10-year or 20-year Treasury bond yield is used as the risk-free rate of return."); Tr. 564-55 (Schiller) ("Q. Risk-free rate of return. You used the yield on the U.S. treasury ten-year bond, as of December 1, 2010, came up with 2.95 percent. Mr. Bailey used the \(20-\) year bond and reached actually a higher rate, 3.8 percent. Is that a judgment call or is there something to disagree with there? A. It's a judgment call.").
128 See, e.g.,Gearreald v. Just Care, Inc., 2012 WL 1569818, at *9 n. 61 (Del. Ch. Apr. 30, 2012) (applying 20-year riskfree rate); Cede \& Co., Inc. v. MedPointe Healthcare, Inc., 2004 WL 2093967, at *18 (Del. Ch. Sept. 10, 2004) ("[U]sing the 20-year Treasury rate is more reasonable under the circumstances and in keeping with the accepted practice."); JRC Acq. Corp.,2004 WL 286963, at *8 ("Under CAPM the cost of equity is equal to the risk-free rate (the yield on 20 year Treasury bonds)....").
129 See Aswath Damodaran, The Dark Side of Valuation 149 (2d ed. 2010); Aswath Damodaran, What Is the Riskfree Rate? A Search for the Basic Building Blocks, at 10 (Dec. 2008) (unpublished manuscript), available athttp://people.stern.nyu.edu/ adamodar/pdfiles/papers/riskfreerate.pdf ("[T]his would lead to use [of] the 10-year treasury bond rate as the riskfree rate on all cash flows for most mature firms."). But cf. id. at 9-10 ("The duration of equity will rise for higher growth firms and could be as high as 20-25 years for young firms with negative cash flows in the initial years. In valuing these firms, an argument can be made that we should be using a 30-year treasury bond rate as the riskfree rate.").
130 Koller et al., Valuation, supra note 119, at 236-38 ("For U.S.-based corporate valuation, the most common proxy is 10year government STRIPS."). But see Shannon Pratt \& Alina Niculita, The Lawyer's Business Valuation Handbook 24-25 (2d ed. 2010) ("As noted earlier, the risk-free rate usually is a yield-to-maturity rate available on U.S. Treasury securities as of the effective valuation date. Analysts usually use one of three maturities: 30-day, five-year, or 20-year. These maturities are used because they are the maturities for which [lbbotson] has developed matching general equity risk premium series.... Analysts generally prefer the 20-year maturity. They recognize that it has an element of risk called horizon risk, or interest rate risk, meaning that the value of the principal will fluctuate with changing levels of interest rates, but investors generally accept this risk. The longer rates are preferable partly because they are more stable over time and less subject to short-term influences. Also, the longer maturity more closely matches the assumed long life of most businesses.").
131 Eugene Brigham \& Michael Ehrhardt, Financial Management 347 (12th ed. 2008).
132 Global GT LP v. Golden Telecom, Inc., 993 A.2d 497, 521 (Del. Ch. 2010).
133 ld.
134 JX 1 app. I; JX 2 at 54.

135 JX 1 app. I; JX 2 at 51. At his deposition and at trial, Schiller corrected an erroneous statement in Owsley's report that beta was calculated on a monthly basis for five years. In particular, Owsley's report conflicted with the appendix, which stated that beta was calculated on a weekly basis for two-years. JX 179 at 22-24.
136 Because the selection of adjusted versus raw beta is intertwined with the cash adjustment issue, I defer discussion of that aspect of the beta dispute until later in this section.
137 JX 2 at 51.
138 Shannon Pratt \& Roger Grabowski, Cost of Capital: Applications and Examples 203 (4th ed. 2010).
139 See Pet'rs' Opening Br. 29 ("[T]he beta for cash should be zero."); Resp't's Answering Br. 32 (stating that Cogent's cash should have a beta of zero).
140 See JX 2 at 52-54 (multiplying average ending day price by average outstanding shares during the period).
141 ld. at 53.
142 Pratt \& Grabowski, supra note 138, at 203.
143 This \(\$ 50\) million number is based on management's projections, which assumed a "minimum cash balance" of \(\$ 50\) million for the years 2010-2015. See JX 1 at 60 . Credit Suisse adopted that assumption in the preparation of its financial analysis regarding the Merger. See JX 122 at 32 n.4. Finally, an examination of Cogent's historical cash balance shows that of the \(\$ 533.2\) million in cash and cash equivalents only \(\$ 32.99\) million was actual cash, with the other approximately \(\$ 500.2\) million being in either short term or long term investments in marketable securities. See JX 3 at 43; JX 153 at 3, 9.
144 \$533.2 million - \(\$ 50\) million \(=\$ 483.2\) million.
145 \$868.7 million - 483.2 million \(=\$ 385.5\) million.
\(146 \quad(\$ 868.7\) million \(/ \$ 385.5\) million \()=2.253\).
147 Marshall E. Blume, On the Assessment of Risk, 26 J. Fin. 1, 10 (1971); see also Pratt \& Grabowski, supra note 138, at 167.
148 See Pratt \& Grabowski, supra note 138, at 203 ("An alternative adjustment that is used by Bloomberg and Value Line adjusts the historical beta to a "forward" estimated beta by averaging the historical beta estimate by two-thirds and the market beta of 1.0 by one-third."); Koller et al., Valuation, supra note 119, at 253 ("For well-defined industries, an industry beta will suffice. But if few direct comparables exist, an alternative is beta smoothing.").
\(149 \#\) COGT \(=(\# \times 1)+(2 / 3 \times 1.595)=1.397\).
150 JX 2 at 55-56.
151 JX 1 app. I.
152 JX 2 at 55-56.
153 JX 1 app. I.
154 Tr. 630 (Schiller) ("Q. Your equity risk premium used a rate of 5 percent; right? A. Yes. Q. Your report doesn't explain how ... that [equity risk premium] was calculated, does it? A. No, it does not. Q. It doesn't explain whether it's a historic equity risk premium or a supply-side equity risk premium, does it? A. No. Q. Do you know which one it is? A. I'm not familiar with those analyses. The stuff l've seen does not draw a distinction between those two.").
155 Selection of a supply-side equity risk premium is consistent with prior decisions by this Court. See, e.g., In re Orchard Enters., Inc., 2012 WL 2923305, at *19 (Del. Ch. July 18, 2012) ("I therefore find that the Ibbotson Yearbook's supplyside equity risk premium of \(5.2 \%\) is an appropriate metric to be applied in valuing Orchard under the CAPM."); Gearreald v. Just Care, Inc., 2012 WL 1569818, at *10 (Del. Ch. Apr. 30, 2012) ("[A]lthough experts and this Court traditionally have applied the historical equity risk premium, the academic community in recent years has gravitated toward greater support for utilizing the supply side equity risk premium."); Global GT LP v. Golden Telecom, Inc., 993 A.2d 497, 517 (Del. Ch. 2010) (referring to the Court's adoption of a supply-side equity risk premium, the Court stated "when the relevant professional community has mined additional data and pondered the reliability of past practice and come, by a healthy weight of reasoned opinion, to believe that a different practice should become the norm, this court's duty is to recognize that practice if, in the court's lay estimate, the practice is the most reliable available for use in an appraisal").
156 Gearreald v. Just Care, Inc., 2012 WL 1569818, at *10 (Del. Ch. Apr. 30, 2012).
157 In re Orchard Enters., Inc., 2012 WL 2923305, at *21.
158 JX 1 at 29; JX 2 at 57, 84 n.6.
159 JX 2 at 57; Ibbotson SBBI, 2010 Valuation Yearbook, Market Results for Stocks, Bonds, Bills, and Inflation 1926-2009. Cogent's market capitalization at the time of the Merger was approximately \(\$ 931\) million.
160 Ibbotson SBBI, 2010 Valuation Yearbook, Market Results for Stocks, Bonds, Bills, and Inflation 1926-2009.

161 See, e.g., Pratt \& Grabowski, supra note 138, at 233 ("Morningstar, Inc. [the parent of Ibbotson], segregates New York Stock Exchange (NYSE) stock returns into deciles by size, as measured by the aggregate market value of common equity." (emphasis added)); id. at 240 ("Traditionally, researchers have used market value of equity as a measure of size in conducting historical rates of return research. For instance, this is the basis of the small-company return series published in the SBBI Yearbooks." (emphasis added)); James R. Hitchner, Financial Valuation: Applications and Models 247 (3d ed. 2011) (noting that in the Valuation Yearbook "Ibbotson presents index-based returns weighted on the market capitalization of each stock").
162 See, e.g.,In re Orchard Enters., Inc., 2012 WL 2923305, at *21 ("The Ibbotson Yearbook divides the stock returns of public companies into deciles by size, measured by the aggregate market value of the companies' common equity." (emphasis added)); Cede \& Co. v. JRC Acq. Corp.,2004 WL 286963, at *8 (Del. Ch. Feb. 10, 2004) (selecting "market capitalization" as the benchmark over "fair value implied market capitalization"); In re Sunbelt Beverage Corp. S'holder Litig., 2010 WL 26539, at *11 (Del. Ch. Jan. 5, 2010) ("The lbbotson table assumes one already knows or has an estimate of a company's market capitalization. Based on that knowledge or estimate, one can determine which decile the company falls into and then select the corresponding premium from the lbbotson table.").
163 Tr. 565 (Schiller). Schiller also admitted that he was "not aware of any authority" that says that when looking at a company's market capitalization, it's appropriate to adjust it based on its cash. Id. at 631.
164 Id. at 566.
165 See Tr. 201 (Bailey) ("Those tables were developed all from seminal work that was done by Professor Rolf Banz back in 1981, in which Professor Banz did a seminal paper on adjusting the risk value of a company based upon the market value of the company."); Rolf Banz, The Relationship Between Returns and Market Value of Common Stock, 9 J. Fin. Econ. 3 (1981) ("The results show that, in the 1936-1975 period, the common stock of small firms had, on average, higher riskadjusted returns than the common stock of large firms.").
166 See Duff \& Phelps, Risk Premium Report 2013 (18th ed. 2013).
167 Global GT LP v. Golden Telecom, Inc., 993 A.2d 497, 511 (Del. Ch. 2010).
168 Gholl v. Emachines, Inc., 2004 WL 2847865, at *13 (Del. Ch. Nov. 24, 2004).
169 ld.
170 JX 1 at 32.
171 Pratt \& Grabowski, supra note 138, at 30-34.
172 SeeGolden Telecom, Inc., 993 A.2d at 511; see alsoLane v. Cancer Treatment Ctrs. of Am., Inc., 2004 WL 1752847, at *31 (Del. Ch. July 30, 2004) ("I find [the] assumption that no growth would occur beyond the projected five-year period unreasonable; it must be assumed that [the company] would continue to grow at least at the rate of inflation.").
173 Bradford Cornell, Corporate Valuation: Tools for Effective Appraisal and Decision Making 146-47 (1993).
174 JX 2 at 58-60 (citing lan Wyatt \& Kathryn Byun, The U.S. Economy to 2018: From Recession to Recovery, Monthly Labor Review (Nov. 2009), available athttp://www.bls.gov/opub/mlr/2009/11/art2full.pdf; Federal Reserve Bank of Philadelphia, The Livingston Survey (2010), available at http://www.philadelphiafed.org/research-and-data/real-time-center/livingstonsurvey/2010/livdec10.pdf).
175 JX 1 at 31-33, 50, 86.
176 Tr. 635-36 (Schiller) ("Q. And you don't have any specific explanation as to why the growth rate drops from 9.2 percent to 2 to 5 percent, do you? A. No.... Q.... [Y]ou don't provide any analysis in connection with the opinion that you're offering to the Court as to what GDP would be in the future, do you? A. No, we don't. Q. And you didn't consult any authorities as to what terminal growth rate should be in 2015 or beyond, do you? A. No. We see these numbers often, but we didn't consult any authorities, no.").
177 JX 2 at 20.
178 Andaloro v. PFPC Worldwide, Inc., 2005 WL 2045640, at *12 (Del. Ch. Aug. 19, 2005).
179 Aswath Damodaran, Investment Valuation: Tools and Techniques for Determining the Value of Any Asset 329 (3d ed. 2012).

180 Id. at 331.
181 Id. at 340.
182 Id. at 342.
183 Using management's projections, Bailey calculated a CAGR of \(11.45 \%\) for the period 2009 through 2015. JX 2 at 21.
\(\$ 64.4 / 11.954 \%-4.5 \%=\sim \$ 864\)

Koller et al., Valuation, supra note 119, at 227.

186 Crescent/Mach I P'ship, L.P. v. Turner, 2007 WL 2801387, at *14 (Del. Ch. May 2, 2007).
187 See supra Part II.C.3.
188 JX 1 at 44, 74.
189 Id. at 86 n. 1 .
190 Id. at 44.
191 Tr. 580, 636-37.
192 See JX 3 at 43; JX 153 at 3, 9.
193 There were 88.616 million shares issued and outstanding as of November 2, 2012. See JX 157 at 2.
194 \$963.4/88.6 = \$10.87
1958 Del. C. § 262(h); see alsoid. § 262(i) ("The Court shall direct the payment of the fair value of the shares, together with interest, if any.").
196 In re Appraisal of Metromedia Int’l Gp., Inc., 971 A.2d 893, 907 (Del. Ch. 2009).
197576 A.2d 650 (Del. Ch. 1989), appeal refused,571 A.2d 787, 1990 WL 18152 (Del. 1990) (ORDER).
198 ld. at 654.
199 Solomon Bros. Inc. v. Interstate Bakeries Corp., 1992 WL 94367, at *8 (Del. Ch. May 4, 1992).
200684 A.2d 289 (Del. 1996).
201 Id. at 298 (citing Cavalier Oil Corp. v. Harnett, 564 A.2d 1137, 1145 (Del. 1989)).
202 Schenley Indus., Inc. v. Curtis, 152 A.2d 300, 301 (Del.1959) (citing Chicago Corp. v. Munds, 172 A. 452, 455 (Del. Ch.1934)).
203 Lane v. Cancer Treatment Ctrs. of Am., Inc., 2004 WL 1752847, at *36 (Del. Ch. July 30, 2004); see alsoGholl v. Emachines, Inc., 2004 WL 2847865, at *18 (Del. Ch. Nov. 24, 2004) ("An award of interest serves two purposes. It compensates the petitioner for the loss of use of its capital during the pendency of the appraisal process and causes the disgorgement of the benefit respondent has enjoyed during the same period." (emphasis added)).
204 Ryan v. Tad's Enters., Inc., 709 A.2d 682, 705 (Del. Ch. 1996), aff'd,693 A.2d 1082, 1997 WL 188351 (Del. 1997) (ORDER).
205 In a footnote, Respondent argues that in the current interest rate environment-where the statutory rate of interest is more than seven times the federal discount rate-Petitioners have distorted incentives to seek appraisal. There are risks to both sides in an appraisal proceeding, however, and the applicable interest rate is only one of them. Moreover, "[i]t is beyond the province of courts to question the policy or wisdom of an otherwise valid law. Rather, [I] must take and apply the law as [I] find it, leaving any desirable changes to the General Assembly." Sheehan v. Oblates of St. Francis de Sales, 15 A.3d 1247, 1259 (Del. 2011).
206 Seeln re Appraisal of Metromedia Int'l Gp., Inc., 971 A.2d 893, 907 (Del. Ch. 2009) ("For example, petitioners cannot point to unreasonable or improper delay, as this matter was tried before the Court roughly one year after the first appraisal petition was filed, a remarkably short period of time by appraisal litigation standards."). Although the Court is working to reduce the average time to trial in the future, recent appraisal actions have taken longer than this case. See, e.g.,Towerview LLC v. Cox Radio, Inc., 2013 WL 3316186 (Del. Ch. June 28, 2013) (39 months to trial); Highfields Capital, Ltd. v. AXA Fin., Inc., 939 A.2d 34 (Del. Ch. 2007) ( 30 months to trial).

11] KeyCite Yellow Flag - Negative Treatment
Distinguished by In re Appraisal of Dell Inc., Del.Ch., May 31, 2016
2015 WL 6164771
Only the Westlaw citation is currently available.

\section*{UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.}

Court of Chancery of Delaware.

\section*{MERION CAPITAL LP and Merion Capital II LP, Petitioners, v.}

BMC SOFTWARE, INC., Respondent.
C.A. No. 8900-VCG
|
Date Submitted: July 20, 2015
|
Date Decided: October 21, 2015

\section*{Attorneys and Law Firms}

Stephen E. Jenkins, Steven T. Margolin, Marie M. Degnan, and Phillip R. Sumpter, of Ashby \& Geddes, Wilmington, Delaware, Attorneys for Petitioners.

David E. Ross and S. Michael Sirkin, of Ross Aronstam \& Moritz LLP, Wilmington, Delaware; of counsel: Yosef J. Riemer, P.C., and Devora W. Allon, of Kirkland \& Ellis LLP, New York, New York, Attorneys for Respondent.

\section*{MEMORANDUM OPINION}

\section*{GLASSCOCK, Vice Chancellor}
*1 This case presents what has become a common scenario in this Court: a robust marketing effort for a corporate entity results in an arm's length sale where the stockholders are cashed out, which sale is recommended by an independent board of directors and adopted by a substantial majority of the stockholders themselves. On the heels of the sale, dissenters (here, actually, arbitrageurs who bought, not into an ongoing concern, but instead into this lawsuit) seek statutory appraisal of their shares. A trial follows, at which the dissenters/ petitioners present expert testimony opining that the stock was wildly undervalued in the merger, while the company/
respondent presents an expert, just as distinguished and learned, to tell me that the merger price substantially exceeds fair value. Because of the peculiarities of the allocation of the burden of proof in appraisal actions-essentially, residing with the judge - it becomes my task in such a case to consider "all relevant factors" and determine the fair value of the petitioners' shares.

Here, my focus is the fair value of shares of common stock in BMC Software, Inc. ("BMC" or the "Company") circa September 2013, when BMC was taken private by a consortium of investment firms (the "Merger"), including Bain Capital, LLC, Golden Gate Private Equity, Inc., and Insight Venture Management, LLC (together, the "Buyer Group"). Our Supreme Court has clarified that, in appraisal actions, this Court must not begin its analysis with a presumption that a particular valuation method is appropriate, but must instead examine all relevant methodologies and factors, consistent with the appraisal statute. \({ }^{1}\) Relevant to my analysis here are the sales price generated by the market, and the (dismayingly divergent) discounted cash flow valuations presented by the parties' experts (only Respondent's expert conducted an analysis based on comparable companies, and only as a "check" on his DCF valuation). Upon consideration of these factors in light of a record generated at trial, I find it appropriate to look to the price generated by the market through a thorough and vigorous sales process as the best indication of fair value under the specific facts presented here. My analysis follows.

\section*{I. BACKGROUND FACTS \({ }^{2}\)}

\section*{A. The Company}

\section*{1. The Business}

BMC is a software company-one of the largest in the world at the time of the Merger-specializing in software for information technology ("IT") management. \({ }^{3}\) Specifically, BMC sells and services a broad portfolio of software products designed to "simplif[y] and automate[ ] the management of IT processes, mainframe, distributed, virtualized and cloud computing environments, as well as applications and databases." \({ }^{4}\) In addition, the Company provides professional consulting services related to its products, including "implementation, integration, IT process, organizational design, process re-engineering and education
services." \({ }^{, 5}\) From fiscal years 2011 to 2013, \({ }^{6}\) BMC's software sales, which it offers through either perpetual or term licenses, accounted for approximately \(40 \%\) of total revenues, which share was steadily decreasing leading up to the Merger; BMC's maintenance and support services, which it offers through term contracts, accounted for approximately \(50 \%\) of total revenues, which share was steadily increasing leading up to the Merger; and BMC's consultation services accounted for approximately \(10 \%\) of total revenues, which share was also steadily increasing leading up to the Merger. \({ }^{7}\)
*2 The Company is organized into two primary business units: Mainframe Service Management ("MSM") and Enterprise Service Management ("ESM"). \({ }^{8}\) As explained by BMC's CEO and Chairman Robert Beauchamp, MSM consists primarily of two product categories: mainframe products, which are designed to maintain and improve the efficiency and performance of IBM mainframe computers; and workload automation products, which are designed to orchestrate the multitude of back-end "jobs"-each a series of executions of specific computer programs-that a computer system must perform to carry out a complex computing process, such as a large corporation running its biweekly payroll. \({ }^{9}\) ESM, on the other hand, is concerned more with providing targeted software solutions to a business's needs, and consists primarily of the Company's consulting division as well as three product categories: performance and availability products, which are designed to alert BMC's customers in real time as to delays and outages among their non-mainframe computer systems, and to diagnose and fix the underlying problems; data center automation products, which are designed to automate BMC customers' routine tasks concerning the design, construction, and maintenance of data centers, both in local data centers and cloud data centers; and IT service management products, which are designed to assist BMC's customers troubleshoot their own customers' IT problems. \({ }^{10}\) In each of fiscal years 2011, 2012, and 2013, MSM and ESM accounted for approximately \(38 \%\) and \(62 \%\) of BMC's total revenues, respectively. \({ }^{11}\)

\section*{2. Stunted but Stable Performance}

Beauchamp and BMC's CFO Stephen Solcher both testified that, at the time of the Merger, BMC's business faced significant challenges to growth due to shifting technologies. Foremost, MSM was in a state of stagnation, as hardly any businesses were buying into the outdated, so-called "legacy"
technology at the heart of MSM products and services -the IBM mainframe computer-and indeed some of BMC's MSM customers were moving away from mainframe technology altogether. \({ }^{12}\) Even though the market's migration away from the heavily entrenched mainframe computer was expected to continue at only a crawl-in the words of Beauchamp, a "very slow, inexorable decline"-the steadily falling price of new mainframe computers meant that BMC still faced shrinking margins in renewing MSM product licenses with customers that stayed with the technology. \({ }^{13}\) BMC had managed to ease the downward pressure on its MSM business by increasing the number of products it sold to each customer that remained with MSM, \({ }^{14}\) but this side of the business remained flat, at best, in the years leading up to the Merger. \({ }^{15}\)

As a result of the decline in mainframe computing, BMC had become entirely dependent on its ESM business for growth. \({ }^{16}\) Specifically, Solcher identified ESM license bookings as the primary driver of growth for the Company. \({ }^{17}\) However, the ESM side of BMC's business faced its own challenges, principally high levels of competition-from a handful of the most established software companies in the world to a sea of startups-brought on by the constant innovation of ESM technologies, which competition in turn created significantly lower margins on the ESM side of the business. \({ }^{18}\)

Notwithstanding these challenges to its growth, BMC's business remained relatively stable leading up to the Merger, aided in part by BMC's role as an industry leader in several categories of products, in part by the overall diversity and "stickiness" of its products, and in part by its multiyear, subscription-based business model, which spreads its customer-retention risk over several years. \({ }^{19}\) In fiscal years 2011, 2012, and 2013, BMC generated total revenues of \(\$ 2.07\) billion, \(\$ 2.17\) billion, and \(\$ 2.20\) billion, respectively, and net earnings of \(\$ 456.20\) million, \(\$ 401.00\) million, and \(\$ 331.00\) million, respectively. \({ }^{20}\) During this period, total bookings remained essentially flat, while ESM license bookings fell \(11.3 \%\) from fiscal years 2011 to 2012 and another \(1.2 \%\) from fiscal years 2012 to \(2013 .{ }^{21}\)

\section*{3. \(M \& A\) Activity}
*3 The primary way that BMC has historically dealt with the high rate of innovation and competition in the IT
management software industry is to lean heavily on mergers and acquisitions ("M \& A") to grow and compete. \({ }^{22}\) Along with a corporate department devoted solely to M \& A, the Company maintained a standing \(\mathrm{M} \& \mathrm{~A}\) committee among its board of directors that met quarterly to oversee the Company's M \& A activity (the "M \& A Committee"), which Beauchamp explained was designed to spur the Company's management to continuously and rapidly seek out and execute favorable transactions. \({ }^{23}\) Management played an active role in all \(\mathrm{M} \& \mathrm{~A}\) activity, but formal decision-making authority was stratified across the board, the M \& A Committee, and management based on the size of potential transactions (as estimated by management): deals over \(\$ 50\) million were evaluated and recommended by the M \& A Committee and had to be approved by the board as a whole; deals between \(\$ 20\) million and \(\$ 50\) million were evaluated by the \(\mathrm{M} \& \mathrm{~A}\) Committee and could be approved by that Committee without prior approval or consideration by the board; and transactions under \(\$ 20\) million could be evaluated and approved by management, without prior approval or consideration of the M \& A Committee or the board. \({ }^{24}\)

At trial, Beauchamp and Solcher both conceptually clustered the Company's M \& A activity into two general categories, what they referred to as "strategic" transactions and "tuck-in" transactions. \({ }^{25}\) As they described it, strategic transactions are large "move-the-needle type transactions," \({ }^{26}\) ones that would change the Company in a fundamental way, such as acquiring a new business unit. \({ }^{27}\) These types of transactions were relatively rare for the Company, it having only engaged in one such acquisition in the five years leading up to the Merger -the approximately \(\$ 800\) million acquisition of a company called "BladeLogic" in fiscal year 2009, through which BMC acquired its current data center automation business. \({ }^{28}\) Tuckin transactions, on the other hand, are everything elsesmaller transactions by which the Company would buy an individual product or technology that it could "tuck in" or "bolt on" to an existing business unit. \({ }^{29}\)

As explained by Beauchamp and Solcher, it was these latter, smaller acquisitions that formed the basis of BMC's inorganic growth strategy. \({ }^{30}\) The Company carried out over a dozen tuck-in transactions in the years leading up to the Merger: three deals totaling \(\$ 117\) million in fiscal year 2008; one deal totaling \(\$ 6\) million in fiscal year 2009, the same year of the \(\$ 800\) million acquisition of BladeLogic; three deals totaling \(\$ 97\) million in fiscal year 2010; two deals totaling \(\$ 54\) million
in fiscal year 2011; six deals totaling \(\$ 477\) million in fiscal year 2012; and one deal totaling \(\$ 7\) million in fiscal year 2013, the year in which BMC began and ran much of the sales process for the Merger. \({ }^{31}\) Beauchamp and Solcher explained that, had the Company remained public, it had every intention of continuing its tuck-in \(\mathrm{M} \& \mathrm{~A}\) activity into the future, \({ }^{32}\) and indeed the M \& A Committee's presentation materials throughout fiscal year 2013 and into fiscal year 2014, after BMC had agreed to the Merger, identified dozens of tuck-in merger targets of varying sizes and stages of development in the Company's M \& A pipeline. \({ }^{33}\)

\section*{4. Stock-Based Compensation}
*4 Like many technology companies, in order to attract and maintain talented employees, BMC compensated a significant portion of their employees using stock-based compensation ("SBC"). \({ }^{34}\) The Company had two forms of SBC: (1) timebased stock options that vested over a specific period of time, which the Company valued using the price of BMC's stock on the date of the grant; \({ }^{35}\) and (2) performance-based stock options, reserved for select executives, that vested based on the performance of BMC's stock compared to a broad index and were valued using a Monte Carlo simulation which accounted for the likelihood that the performance targets would be met. \({ }^{36}\) The Company expensed the fair value of the stock options, less expected amount of forfeitures, on a straight-line basis over the vesting period. \({ }^{37}\) SBC expense grew substantially each year and in 2013 was approximately seven percent as a percentage of revenue. \({ }^{38}\)

Because the Company believed SBC was vital to maintaining the strength of its employee base, management had no plans to stop issuing SBC had it remained a public company. \({ }^{39}\)

\section*{5. Financial Statements}

\section*{a. Regular Management Projections}

BMC in the ordinary course of business created financial projections-which it called its "annual plan" \({ }^{40}\)-for the upcoming fiscal year. \({ }^{41}\) Under the oversight of Solcher, \({ }^{42}\) management began formulating its annual plan in October using a bottom-up approach that involved multiple layers of
management representing each business unit. \({ }^{43}\) Preliminary projections were presented to the board in the fourth quarter, \({ }^{44}\) who then used a top-down approach to provide input before the annual plan was finalized. \({ }^{45}\)

The annual plan was limited to internal use and represented optimistic goals that set a high bar for future performance. \({ }^{46}\) Although management intended the projections to be a "stretch" and the Company often did, in fact, fail to meet its goals, management maintained that meeting the projections included in its annual plan was always attainable. \({ }^{47}\)

Also in October of each year, BMC would begin to prepare high-level three-year projections that were not as detailed as the one-year annual plan. \({ }^{48}\) Additionally, as part of a separate process, the finance group prepared detailed three-year projections that Solcher presented to ratings agencies, usually on an annual basis. \({ }^{49}\) Although the projections presented to the ratings agencies were prepared in the ordinary course of business, they were prepared under the direction of Solcher and were not subject to the same top-down scrutiny as the high-level three-year projections. \({ }^{50}\)

\section*{b. Reliability of Projected Revenue from Multiyear Contracts}
*5 Although management's projections required many forecasts and assumptions, BMC benefited from the predictability of their subscription-based business model. A significant amount of the Company's revenue derived from multiyear contracts that typically spanned a period of five to seven years. \({ }^{51}\) Depending on the nature of the contract, the Company did not immediately recognize revenue for the entire contract price in the year of sale. \({ }^{52}\) Instead, general accounting principles dictated that the sales price be proportionately recognized over the life of the contract. \({ }^{53}\) Therefore, upon the signing of certain multiyear contracts-such as an ESM or MSM software license \({ }^{54}\) the Company recorded deferred revenue as an asset on the balance sheet and then, in each year for the life of the contract, recognized revenue for a portion of the contract. \({ }^{55}\) As a result, management was able to reliably predict a significant portion of revenue from multiyear contracts many years into the future.

\section*{c. Management Projections Leading Up to the Merger}

BMC created multiple sets of financial projections leading up to the Merger. In July 2012, BMC began preparing detailed multiyear projections as the Company began exploring various strategic alternatives, including a potential sale of the Company. \({ }^{56}\) Building off of the 2013 annual plan, management created three-year financial projections using a similar top-down and bottom-up approach that was historically employed to create the Company's internal annual plan. \({ }^{57}\) Consistent with their regular approach, management used optimistic forecasts in their detailed multiyear projections. \({ }^{58}\) In October 2012, management finalized their first set of projections (the "October Projections") that were included in a data pack used by the financial advisors to shop the Company. \({ }^{59}\)

As discussed in more detail below, the Company quickly abandoned their initial efforts to sell the company. In January 2013, however, following poor financial results in the third quarter, BMC again decided to explore strategic alternatives, requiring management to update the October Projections. \({ }^{60}\) In February, using the same approach, the Company revised the multiyear projections (the "February Projections"), resulting in lower projected results that were provided to the financial advisors to create a second data pack. \({ }^{61}\) Finally, in April, management provided the financial advisors a slight update to their projections (the "April Projections"), on which the financial advisors ultimately based their fairness opinion and used to create a final data pack. \({ }^{62}\) The financial advisors also extrapolated the April Projections to extend the forecast period an additional two years, creating a total of five years of projections that were provided to potential buyers. \({ }^{63}\)

\section*{d. SBC in Management Projections}

As I have described above, SBC was an integral part of BMC's business before the Merger and management had no reason to believe that SBC would decrease if the Company had remained public. Additionally, because BMC had a regular practice of buying shares to offset dilution, management believed SBC was a true cost and, therefore, included SBC expense in their detailed projections. \({ }^{64}\) With the help of human resources and third-party compensation consultants, management projected SBC expenses of \(\$ 162\) million for
both fiscal years 2014 and 2015, and \(\$ 156\) million for fiscal year 2016. \({ }^{65}\)

\section*{e. M \& A in Management Projections}
*6 Management believed tuck-in M \& A was integral to the Company's revenue growth and, therefore, its projected revenues took into account continued growth from tuck-in M \& A transactions. \({ }^{66}\) Furthermore, management believed that BMC would continue investing in tuck-in M \& A if it had remained a public company. \({ }^{67}\) Since growth from tuck-in M \& A was built into their revenue projections, management also included projected tuck-in M \& A expenditures. \({ }^{68}\) Larger strategic deals, however, were too difficult to predict and were, therefore, excluded from management's projections. \({ }^{69}\) Based on the first three quarters of M \& A activity in fiscal year 2014, management projected \(\$ 200\) million in total tuck-in M \& A expense for fiscal year 2014 and, based on the Company's historical average tuck-in M \& A activity, management projected \(\$ 150\) million in \(\mathrm{M} \& \mathrm{~A}\) expenditures for both fiscal years 2015 and 2016. \({ }^{70}\)

\section*{B. The Sales Process}

\section*{1. Pressure from Activist Stockholder}

In May 2012, in response to "sluggish growth" and "underperformance," activist investors Elliott Associates, L.P. and Elliott International, L.P. (together, "Elliot") disclosed that Elliot had increased its equity stake in BMC to \(5.5 \%\) with the intent to urge the Company to pursue a sale. \({ }^{71}\) To accelerate a sales process, Elliott commenced a proxy contest and proposed a slate of four directors to be elected to BMC's board. \({ }^{72}\) According to Beauchamp, BMC's CEO, Elliot's engagement had a negative impact on the Company's business operations: BMC's competitors used customer concerns as a tool to steal business; it hurt BMC's ability to recruit and retain sales employees; and it generally damaged BMC's reputation in the marketplace. \({ }^{73}\)

On July 2, 2012, after discussions with other large stockholders, BMC agreed to a settlement with Elliott that ended its proxy contest. \({ }^{74}\) Under the settlement, the Company agreed to increase the size of the board from ten to twelve directors and to nominate John Dillion and Jim Schaper
-two members of Elliott's proposed slate-as directors at the upcoming annual meeting. \({ }^{75}\) In return, Elliott agreed to immediately terminate its proxy contest and agreed to a standstill agreement that restricted Elliott's ability to initiate similar significant stockholder engagement moving forward. \({ }^{76}\)

\section*{2. The Company on the Market}
a. The First Auction

In July 2012, in conjunction with its settlement with Elliott, BMC's board formed a committee (the "Strategic Review Committee") to explore all potential strategic options that could create shareholder value, including a sale. \({ }^{77}\) BMC retained Bank of America Merrill Lynch to help explore strategic options and to alleviate any concerns that Morgan Stanley, the Company's longstanding financial advisor, was too close to management. \({ }^{78}\)
*7 On August 28, 2012, the board instructed Beauchamp to begin contacting potential strategic buyers and instructed the team of financial advisors to begin contacting potential financial buyers to gage their interest in an acquisition. \({ }^{79}\) Even though all potential strategic buyers ultimately declined to submit an initial indication of interest, BMC received two non-binding indications of interest from potential financial buyers: one from Bain Capital, LLC ("Bain") for \$45-47 per share and one for \(\$ 48\) per share from a team of financial sponsors (the "Alternate Sponsor Group"). \({ }^{80}\)

The Strategic Review Committee evaluated the indications of interest and, encouraged by BMC's improved financial results in the second quarter of fiscal year 2013, \({ }^{81}\) unanimously recommended that the board reject the offers. \({ }^{82}\) On October 29, 2012, the board unanimously rejected a sale of the Company and, instead, approved a \(\$ 1\) billion accelerated share repurchase plan that was publicly announced two days later. \({ }^{83}\)

\section*{b. The Second Auction}

Despite the Company's renewed confidence following improved quarterly results, in December 2012 Elliott sent
a letter to the board that expressed continued skepticism of management's plans and reiterated its belief that additional drastic measures, like a sale, were required to maximize stockholder value. \({ }^{84}\) Shortly thereafter, BMC reported sluggish third quarter financial results which revealed that management's previous financial projections-specifically ESM license bookings-had been overly optimistic. \({ }^{85}\)

The board called a special meeting on January 14, 2013 to reevaluate their options, which included three strategic opportunities: (1) a strategic acquisition of Company A, another large software company; (2) a modified execution plan that included less implied growth and deep budget cuts; and (3) a renewed sales process targeted at the previously interested financial buyers. \({ }^{86}\) The board decided to pursue all three strategies. In late January, building on previous consulting work provided by BMC's management consultants, the Company began implementing Project Stanley Cup, which mainly focused on reducing costs to increase BMC's margins and earnings per share. \({ }^{87}\) In addition, the Company reached out to Company A regarding a potential acquisition of Company A by BMC. Although their initial meetings led to preliminary interest, the diligence efforts moved slowly and finally, following Company A's poor financial performance, BMC abandoned their pursuit of an acquisition. \({ }^{88}\)

In March 2013, after contacting potential financial buyers, \({ }^{89}\) the Company received expressions of interest from three buyers: one from a new financial sponsor ("Financial Sponsor A") for \$42-44 per share, one from the Alternate Sponsor Group for \(\$ 48\) per share, and one from Bain, who had received permission to partner with Golden Gate to form the Buyer Group, for \(\$ 46-47\) per share. \({ }^{90}\) Despite encouragement from BMC's financial advisors, Financial Sponsor A declined to increase its bid and was, therefore, not invited to proceed with due diligence. \({ }^{91}\) In early April, the Alternate Sponsor Group told the Company's financial advisors that it could not make the April 22 deadline the Company had established and needed more time to complete due diligence. \({ }^{92}\) The board decided that it was important to keep the Alternate Sponsor Group engaged and thus continue negotiations. \({ }^{93}\) On April 18, one of the financial sponsors dropped out of the process leaving its former partner to consider proceeding with a valuation that was closer to the then current trading price of \(\$ 43.75\) and requesting an extension of one month to submit a bid. \({ }^{94}\)
*8 On April 24, 2013, the Buyer Group submitted a bid of \(\$ 45.25 .{ }^{95}\) Over the next two days, the board met with the financial advisors to consider the developments and voted to create an ad hoc planning committee to review alternative options in the event a transaction was not approved or failed to close. \({ }^{96}\) On April 26, the financial advisors requested that the Buyer Group increase their price to at least \(\$ 48\) and that their bid also include a 30-day go-shop period. \({ }^{97}\) On that same day, the Buyer Group responded with a counteroffer of \(\$ 45.75\) that included a 30-day go-shop period. \({ }^{98}\) Following further pushback from BMC's financial advisors, on April 27, the Buyer Group responded with their final offer of \(\$ 46.25\). \({ }^{9}\)

\section*{3. The Company Accepts the Buyer Group's Offer}

Starting on April 27, 2013 and continuing over the next few days, the board met with the financial advisors to discuss the details of the Buyer Group's final offer, which included: a 30-day go-shop period that started upon signing the Merger agreement; a two-tiered termination fee of a \(2 \%\) and \(3 \%\); and a \(6 \%\) reverse termination fee. \({ }^{100}\) On May 3, the financial advisors presented their fairness opinion to the board, opining that the transaction was fair from a financial standpoint. \({ }^{101}\) On that same day, the board approved the signing of the Merger agreement and recommended that BMC's stockholders approve the Merger, which was formerly announced on May 6. \({ }^{102}\)

The go-shop period lasted from May 6, 2013 through June 5, 2013. \({ }^{103}\) During this period, the financial advisors contacted both financial and strategic entities-many of whom were contacted during the first and second sales processes \({ }^{104}\) and, in addition, the board waived any provisions pursuant to standstill agreements that would have prohibited a potential bidder from reengaging with the Company. \({ }^{105}\) Despite these efforts, only two parties entered into confidentiality agreements and, ultimately, no alternative proposals were submitted. \({ }^{106}\)

On May 10, 2013, a group of stockholders brought a breach of fiduciary duty action to challenge the sales process. \({ }^{107}\) On June 25, BMC filed its definitive proxy statement that urged stockholders to vote in favor of the Merger. \({ }^{108}\) The stockholders approved the transaction on July 24 with \(67 \%\)
of the outstanding shares voting in favor. \({ }^{109}\) On September 10, the Merger closed. On April 28, 2014 this Court approved a settlement between stockholders and the Company and described the sales process as fair and the Revlon claims as weak. \({ }^{110}\)

\section*{C. The Expert Opinions}

The Petitioners' expert witness, Borris J. Steffen, exclusively relied on the discounted cash flow (DCF?) method and determined that the fair value of BMC was \(\$ 67.08\) per share; \({ }^{111}\) that is, \(145 \%\) of the Merger price and \(148 \%\) of the pre-announcement market price. \({ }^{112}\) Steffen considered using other methodologies, such as the comparable company method and the comparable transaction method, but ultimately decided that those methodologies were not appropriate given the specific facts in this case. \({ }^{113}\)
*9 The Respondent's expert witness, Richard S. Ruback, similarly relied on the DCF method to conclude that the fair value of BMC was \(\$ 37.88\) per share, \({ }^{114} 16 \%\) below the pre-announcement market price and little more than half the fair value as determined by Steffen. In addition, Ruback performed two "reality checks" to test his DCF valuation for reasonableness: first, he performed a DCF analysis using projections derived from a collection of Wall Street analysts that regularly followed the Company, which he called the "street case"; second, he performed a comparable companies analysis using trading multiples from selected publicly-traded software companies. \({ }^{115}\)

Although the difference between the experts' estimates is large, the contrasting prices are the result of a few different assumptions, which I now describe below. \({ }^{116}\)

\section*{1. Financial Projections}

Steffen based his calculation of free cash flow on management's projections for 2014 through 2018 that BMC reported in its proxy statement dated June 25, 2013. \({ }^{117}\) He concluded the use of management's projections was reasonable based on his analysis of other contemporaneous projections prepared by management; BMC's historical operating results; and the economic outlook for the software industry. \({ }^{118}\)

Ruback, however, concluded that management's projections were biased by "overoptimism" and, therefore, reduced management's revenue projections used in his calculation of free cash flow by \(5 \% .{ }^{119} \mathrm{He}\) believed this reduction was appropriate because, although management thought their projections were "reasonable," a DCF model requires projections that are expected. \({ }^{120}\) Ruback's adjustment decreased his valuation by approximately \(\$ 2.82\) per share. \({ }^{121}\)

\section*{2. Discount Rate}

Steffen used a discount rate of \(10.5 \%\) while Ruback used a discount rate of \(11.1 \%\). The difference in discount rates is almost entirely explained by the experts' contrasting views of the equity risk premium ("ERP"). Steffen calculated his discount rate using a supply-side ERP of \(6.11 \%\), which he believed was preferable since valuation calculations are forward-looking. \({ }^{122}\) Ruback calculated his discount rate using the long-run historical ERP of \(6.7 \% .{ }^{123}\) Ruback used the long-run historical ERP because he believed it is the most generally accepted ERP and that any model that attempts to estimate future ERP is subject to intolerable estimation errors. \({ }^{124}\)

\section*{3. Terminal Growth Rate}
*10 Steffen selected a long-term growth rate of 3.75\%. \({ }^{125}\) To determine this number, Steffen first created a range of rates between expected long-run inflation of \(2 \%\) and nominal GDP rate of \(4.5 \% .^{126}\) Steffen ultimately concluded that BMC's long-term growth rate would be 50 basis points greater than the midpoint between this range. \({ }^{127}\) Ruback used a rate of inflation of \(2.3 \%\) as his long-term growth rate because he believed that the real cash flows of the business would stay constant in the long run; \({ }^{128}\) he viewed BMC as a "mature software business" in a "mature part of the software industry." 129

\section*{4. Excess Cash}

Steffen used an excess cash value of \(\$ 1.42\) billion, which he calculated by reducing cash and cash equivalents as of September 10, 2013 by the minimum cash required for BMC
to operate of \(\$ 350\) million. \({ }^{130}\) Steffen did not account for repatriation of foreign cash because he believed that it was the Company's policy-as publicly disclosed in its 10-K filings -to maintain its cash balance overseas indefinitely. \({ }^{131}\)

Ruback started with cash and cash equivalents as of June 30, \(2013{ }^{132}\) and, in addition to the same \(\$ 350\) million deduction for required operating expenses, further reduced excess cash by \(\$ 213\) million to account for the tax consequences of repatriating the cash held in foreign jurisdictions that the Company would be forced to pay tax in order to access it in the United States. \({ }^{133}\)

\section*{5. Stock-Based Compensation}

Steffen's analysis did not account for SBC in his free cash flow projections. \({ }^{134}\) Instead, Steffen calculated shares outstanding using the treasury stock method, which increases the number of shares outstanding to account for the dilutive economic effect of share-based compensation that has already been awarded. \({ }^{135}\)

Conversely, Ruback included SBC as a cash expense that directly reduced his free cash flow projections. \({ }^{136}\) Ruback used management's estimates of future SBC expense-an accounting value-to directly reduce free cash flow. \({ }^{137}\) The difference between the two approaches is that Steffen's analysis accounts for SBC that had been awarded as of the date of his report, whereas Ruback's analysis also accounts for SBC that is expected to be issued in the future.

\section*{6. \(M \& A\) Expenses}
*11 Steffen did not deduct M \& A expenditures from free cash flow. He believed that management's projections were not dependent on M \& A activity since he did not find that management deducted M \& A expenditures in their own analysis. \({ }^{138}\) Ruback, on the other hand, did include management's projections of \(M \& A\) expenditures in his valuation. Ruback believed that management's revenue projections included the impact of tuck-in M \& A and that the Company planned to continue tuck-in M \& A activity if it remained a public company. \({ }^{139}\) Moreover, although the financial advisors did not include M \& A
expenditures for years 2017 and 2018-these being the years the financial advisors extrapolated from management's projections-Ruback used the same \(\$ 150\) million in M \& A expenditures projected for 2016 in his projections for year 2017, 2018, and the terminal period. \({ }^{140}\)

\section*{D. Procedural History}

On September 13, 2013, Petitioners Merion Capital LP and Merion Capital II LP commenced this action by filing a Verified Petition for Appraisal of Stock pursuant to 8 Del. C. § 262. Immediately prior to the Merger, Petitioners owned 7,629,100 shares of BMC common stock. On July 28 2014, Respondent BMC filed a Motion for Summary Judgment, arguing that Petitioners lacked standing to pursue appraisal because they could not show that each of their shares was not voted in favor of the Merger. I denied the Motion in a Memorandum Opinion dated January 5, 2015. \({ }^{141}\)

I presided over a four-day trial in this matter from March 16 to March 19, 2015. The parties submitted post-trial briefing and I heard post-trial oral argument on June 23, 2015. Finally, in July the parties submitted supplemental post-trial briefing regarding the treatment of synergies. This is my Post-Trial Opinion.

\section*{II. ANALYSIS}

The appraisal statute, 8 Del. C. § 262, is deceptively simple; it provides stockholders who choose not to participate in certain merger transactions an opportunity to seek appraisal in this Court. When a stockholder has chosen to pursue its appraisal rights, Section 262 provides that:
[T]he Court shall determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation, together with interest, if any, to be paid upon the amount determined to be the fair value. In determining such fair value, the Court shall take into account all relevant factors. \({ }^{142}\)

Section 262 vests the Court with significant discretion to consider the data and use the valuation methodologies it deems appropriate. For example, this Court has the latitude to select one of the parties' valuation models as its general framework, or fashion its own, to determine fair value. The principal constraint on my analysis is that I must limit my
valuation to the firm's value as a going concern and exclude "the speculative elements of value that may arise from the accomplishment or expectation of the merger."143

Ultimately, both parties bear the burden of establishing fair value by a preponderance of the evidence. In assessing the evidence presented at trial, I may consider proof of value by any techniques or methods which are generally considered acceptable in the financial community and otherwise admissible in court. Among the techniques that Delaware courts have relied on to determine the fair value of shares are the discounted cash flow approach, the comparable transactions approach, and comparable companies approach. This Court has also relied on the merger price itself as evidence of fair value, so long as the process leading to the transaction is a reliable indicator of value and any mergerspecific value in that price is excluded.
*12 Here, the experts offered by both parties agreed that the DCF approach, and not the comparable transactions or comparable companies approach, is the appropriate method by which to determine the fair value of BMC. Thus, I will start my analysis there.

\section*{A. DCF Analysis}

In post-trial briefing and at closing argument, the parties helpfully laid out the limited areas of disagreement between their two experts as to DCF inputs. I will briefly explain my findings with respect to those areas in contention, but I note at the outset that, while I have some disagreements with the Respondent's expert, Ruback, I generally found him better able to explain-and defend-his positions than the Petitioners' expert, Steffen. Since I generally find Ruback more credible, I start with his analysis as a framework, departing from it as noted below.

\section*{1. Financial Projections}

The parties' experts both relied on the same management projections. Ruback, however, made a \(5 \%\) reduction to projected revenue based on his analysis that the Company had historically fallen short of its projected revenues. Although it is apparent to me that the management projections, while reasonable, harbored something of a bias towards optimism, I ultimately find Ruback's approach too speculative to accurately account for that bias. Thus, in conducting my
own DCF valuation of the Company, I use the management projections as is, without a \(5 \%\) deduction.

\section*{2. Discount Rate}

The parties contend that the key difference in their experts' respective discount rates is that the Petitioners' expert used a supply side ERP, while the Respondent's expert used a historical ERP. This calculation is forward-looking, and this Court has recently tended to employ the supply side ERP approach. In then-Chancellor Strine's decision in Global GT LP v. Golden Telecom, Inc., \({ }^{144}\) this Court noted that using the supply side ERP as opposed to the historical ERP is a decision "not free from doubt," but it nevertheless adopted it over a historical ERP as a more sound approach. \({ }^{145}\) The Chancellor followed that approach again in In re Orchard Enterprises, \({ }^{146}\) where he noted that the respondent there had "not provided [him] with a persuasive reason to revisit" the debate. \({ }^{147}\) In other cases, this Court has explicitly adopted a supply side ERP.

While it may well be the case that there is an argument in favor of using the historical ERP, nothing in Ruback's testimony convinces me to depart from this Court's practice of the recent past. I note, however, that the testimony at trial showed this to be a vigorously debated topic, not just between these two experts, but in the financial community at large; scholarship may dictate other approaches in the future. Here, though, I ultimately find the most appropriate discount rate, using the supply side ERP, to be \(10.5 \%\). \({ }^{148}\)

\section*{3. Terminal Growth Rate}
*13 The Respondent's expert adopted the inflation rate as the Company's growth rate, but I did not find sufficient evidence in the record to support the application of a growth rate limited to inflation. In Golden Telecom, and again in Towerview LLC v. Cox Radio, Inc., \({ }^{149}\) this Court noted that inflation is generally the "floor" for a terminal value. \({ }^{150}\) Testimony and documentary evidence are inconclusive on the Company's prospects for growth as of the time of the Merger. Ultimately, I find it most appropriate to follow this Court's approach in Golden Telecom and apply a terminal growth rate that is at the midpoint of inflation and GDP.

The Petitioners' expert purported to use this methodology, but arbitrarily opted to add 50 basis points to the midpoint of inflation and GDP, an approach I do not find supported in the record. Therefore, though I find the midpoint approach to be sound, I reject Steffen's addition of 50 basis points and use \(3.25 \%\) as my growth rate.

I note that the Respondent's expert did an analysis of implied EBITDA growth rates for comparable companies, which he found to be an average of \(-1.7 \%\). I do not find there to be sufficient evidence of the true comparability of those companies such that the approach I am adopting, just discussed, is unreasonable.

\section*{4. Excess Cash}

The Petitioners' expert used an excess cash figure as of the Merger date, while the Respondent's expert used a figure from the last quarterly report prior to the Merger. I found credible the testimony at trial that the Company was preserving its cash balance in contemplation of closing the Merger and that, but for the transaction, the Company would not have conserved an extra \(\$ 127\) million in cash. \({ }^{151}\)

The Respondent's expert also made an adjustment to excess cash for the expense associated with repatriating cash held abroad. The Petitioners argued that this was inappropriate because the Company's \(10-\mathrm{K}\) stated its intent to maintain cash balances overseas indefinitely. These funds, however, represent opportunity for the Company either in terms of investment or in repatriating those funds for use in the United States, which would likely trigger a taxable event. Accordingly, I find it appropriate to include a reasonable offset for the tax associated with repatriating those funds.

\section*{5. Stock-Based Compensation}

It is abundantly clear to me that, as a technology company, BMC's practice of paying stock-based compensation is an important consideration in this DCF valuation. Both experts accounted for stock-based compensation, but only the Respondent's expert did so in a way that accounted for future stock-based compensation, which I find to be the reasonable approach. His approach was to treat estimated stock-based compensation as an expense, which I find reasonable in light of the Company's history of buying back stock awarded to employees to prevent dilution; in that sense, it is clearly
in line with a cash expense. The Petitioners have argued strenuously that this overstates the cost, but they presented only the methodology of Steffen-which fails to account for future SBC-as an alternative. Accordingly, I adopt Ruback's calculation as it relates to stock-based compensation.

\section*{6. \(M \& A\) Expense}
*14 The parties also disagreed as to whether so-called "tuck-in" M \& A expenses should be deducted in calculating free cash flows. I find that the projections prepared by management and used throughout the sales process, including those projections that formed the basis for the fairness opinion, incorporated the Company's reliance on tuck-in M \& A activity in their estimation of future growth and revenues. Those projections expressly provided a line-item explaining the Company's expected tuck-in M \& A expenses in each year of the projections, and the Company's CFO, Solcher, credibly testified that, because the Company planned to continue with its inorganic growth strategy had it remained a public company, he prepared the management projections with growth from tuck-in M \& A in mind. \({ }^{152}\) Thus, those projections are inflated if M \& A, and its accompanying expense, is not taken into account in the valuation. Although it is not determinative of my analysis, I also note that the multiple potential buyers through the course of the Company's sales process must have similarly determined that tuck-in M \& A was embedded in the Company's growth projections, or else those buyers would have been forgoing up to \(\$ 1.89\) billion in value by not topping the Buyer Group's winning bid. In any event, because I find that management's projections incorporated M \& A in their forecast of future performance, the expenses of that \(M \& A\) must be deducted from income to calculate free cash flow.

\section*{7. Conclusion}

Taking all of these inputs and assumptions together, I conducted a DCF analysis that resulted in a per share price for BMC of \$48.00. \({ }^{153}\)

\section*{B. The Merger Price}

Having found a DCF valuation of \(\$ 48.00\), I turn to other "relevant factors" I must consider in determining the value of BMC. Neither expert presents a value based on comparables, although Ruback did such an analysis as a check on his DCF.

Thus, I turn to consideration of the merger price as indication of fair value. As our Supreme Court recently affirmed in Huff Fund Investment Partnership v. CKx, Inc., \({ }^{154}\) where the sales process is thorough, effective, and free from any spectre of self-interest or disloyalty, the deal price is a relevant measure of fair value. Even where such a pristine sales process was present, however, the appraisal statute requires that the Court exclude any synergies present in the deal price-that is, value arising solely from the deal.

\section*{1. The Sales Process Supports the Merger Price as Fair Value}

The record here demonstrates that the Company conducted a robust, arm's-length sales process, during which the Company conducted two auctions over a period of several months. In the first sales process, the Company engaged at least five financial sponsors and eight strategic entities in discussing a transaction from late August 2012 through October 2012. As a result, the Company received non-binding indications of interest from two groups of financial sponsors: one for \(\$ 48\) per share and another, from a group led by Bain, for \(\$ 45-\$ 47\) per share. Ultimately the Company decided at the end of October to discontinue the sales process based on management's confidence in the Company's stand-alone business plan, which was temporarily bolstered by positive second quarter financial results.

However, when the Company returned to underperforming in the third quarter, it decided to reinitiate the sales process. In the second sales process, which was covered in the media, the Company reengaged potential suitors that had shown interest in acquiring the Company in the previous sales process, from late January 2013 through March 2013. As a result, the Company received nonbinding indications of interest from three different groups of financial sponsors in mid-March, one for \(\$ 42-\$ 44\) per share, one from the Buyer Group, led by Bain, for \(\$ 46-47\) per share, and one from the Alternate Sponsor Group for \(\$ 48\) per share. Negotiations with the low bidder quickly ended after it refused to raise its bid. The Company, therefore, proceeded with due diligence with the two high bidders through April 2013, distributing a draft merger agreement to them, and setting the deadline for the auction process at April 22, 2013.
*15 On April 18, 2013, just days before the impending deadline, one of the sponsors in the Alternate Sponsor Group backed out of the auction and the remaining financial sponsor explained that it could no longer support its prior indication
of interest but was considering how to proceed in the auction at a valuation closer to the stock's then-current trading price of \(\$ 43.75\). The Company agreed to extend the auction deadline at the request of the Alternate Sponsor Group in an attempt to maintain multiple bidders. On April 24, the Buyer Group submitted an offer of \(\$ 45.25\) per share. The remaining financial sponsor told the Company that it was still interested in the auction, but that it would need an additional month to finalize a bid and reiterated that if it did ultimately make a bid, it would be below the initial indication of interest from the Alternative Sponsor Group. On April 26, the Company successfully negotiated with the Buyer Group to raise its offer to \(\$ 45.75\) per share, and then to raise its offer again, on April 27 , to \(\$ 46.25\) per share.

On May 6, 2013 the Company announced the Merger agreement, which included a bargained-for 30-day market check or "Go Shop," running through June 5. As part of the Go Shop process, the Company contacted sixteen potential bidders-seven financial sponsors and nine strategic entities -but received no alternative offers.

The sales process was subsequently challenged, reviewed, and found free of fiduciary and process irregularities in a class action litigation for breach of fiduciary duty. At the settlement hearing, plaintiffs' counsel noted that the activist investor, Elliot, had pressured the Company for a sale, but agreed that the auction itself was "a fair process."

I note that the Petitioners, in their post-trial briefing, attempt to impugn the effectiveness of the Company's sales process on three grounds. First, the Petitioners argue that Elliot pressured the Company into a rushed and ineffective sales process that ultimately undervalued the Company. However, the record reflects that, while Elliot was clearly agitating for a sale, that agitation did not compromise the effectiveness of the sales process. The Company conducted two auctions over roughly the course of a year, actively marketed itself for several months in each, as well as vigorously marketed itself in the 30-day Go Shop period. The record does not show that the pre-agreement marketing period or the Go Shop period, if these time periods can be said to be abbreviated, had any adverse effect on the number or substance of offers received by the Company. In fact, the record demonstrates that the Company was able to and did engage multiple potential buyers during these periods and pursue all indications of interest to a reasonable conclusion. The Petitioners' argument that Elliot could force the Company to carry out an undervalued sale is further undermined by
the fact that the Company chose not to pursue the offers it received in the first sales process, despite similar agitations from Elliot, because management was then confident in the Company's recovery. In sum, no credible evidence in the record refutes the testimony offered by the Company's chairman and CEO, which testimony I find to be credible, that the Company ultimately sold itself because it was underperforming, not because of pressure from Elliot. The pressure from Elliot, while real, does not make the sales price unreliable as an indication of value.

Second, the Petitioners argue that the Company's financial advisors were leaking confidential information about the sales process to the Buyer Group, allowing it to minimize its offer price. For this contention the Petitioners rely solely on a series of emails and handwritten notes prepared by individuals within the Buyer Group, which purport to show that the Buyer Group was getting information about the Alternate Sponsor Group from a source inside Bank of America, one of the Company's financial advisors. \({ }^{155}\) As a preliminary matter, I don't find sufficient evidence to conclude that the Company's financial advisors were actually leaking material information to the Buyer Group. But even if that could be sustained by the emails and handwritten notes presented by the Petitioners, nothing in those documents or elsewhere in the record shows that the Buyer Group had any knowledge as to the Alternate Sponsor Group's effective withdrawal from the sales process leading up to the bid deadline. To the contrary, the argument that the Buyer Group did have such information is directly contradicted by the actual actions of the Buyer Group, which increased its bid for the Company twice after its initial submission despite being (unbeknownst to the Buyer Group) the lone bidder in the auction. At trial, Abrahamson, the Bain principal leading the BMC deal, credibly testified that the Buyer Group raised its bid multiple times because it believed the auction was still competitive and that the Buyer Group did not learn it was the only party to submit a final bid until it viewed the draft proxy after executing the Merger agreement. And in fact, the emails and notes relied upon by the Petitioners actually indicate that at the time the Buyer Group submitted its bid, it had no idea where the Alternate Sponsor Group stood and was seeking out that information. \({ }^{156}\) Even as far along as April 29, 2013, two days after the Buyer Group had raised its bid for the second and final time, emails within the Buyer Group show that it believed the Alternate Sponsor Group was still vying for the Company. \({ }^{157}\) Therefore, I do not find that the sales process was compromised by any type of "insider back-channeling."
*16 Finally, the Petitioners argue that the same set of emails and notes from within the Buyer Group show that the Company made a secret "handshake agreement" or "gentleman's agreement" with the Buyer Group after receiving its final offer of \(\$ 46.25\) per share that the Company would not pursue any other potential bidders, including the Alternate Sponsor Group. The Petitioners allege that this handshake agreement prevented the Company from further extending the auction deadline to accommodate the additional month requested by the Alternate Sponsor Group and thus precluded a second bidder that would have maximized value in the sales process. Again, I note as a preliminary matter that I do not find that the Petitioners have sufficiently proven the existence of such a so-called handshake agreement. But in any case, even if the Company had made such an agreement, the record shows that by the time such an agreement would have been made the Alternate Sponsor Group had already notified the Company that one of its members had dropped out, that it could no longer support the figure in its prior indication of interest, and that if it was going to make a bid, that bid would come in closer to \(\$ 43.75\). I also note that by this time the Company had already extended its initial auction deadline by several days to accommodate the Alternate Sponsor Group. Finally, the Alternate Sponsor Group could have pursued a bid during the ensuing go-shop period, but did not do so. In light of these facts, the Company's decision not to wait the additional month requested by the Alternate Sponsor Group before moving forward with the only binding offer it had received was reasonable and does not to me indicate a flawed sales process.

For the reasons stated above, I find that the sales process was sufficiently structured to develop fair value of the Company, and thus, under Huff, the Merger price is a relevant factor I may consider in appraising the Company.

\section*{2. The Record Does Not Demonstrate that the Merger Price Must be Reduced to Account for Synergies in Calculating Fair Value}

The appraisal statute specifically directs me to determine fair value "exclusive of any element of value arising from the accomplishment or expectation of the merger...."158 The Court in Union Illinois 1995 Investment LP v. Union Financial Group, Ltd. \({ }^{159}\) thoughtfully observed that this statutory language does not itself require deduction of synergies resulting from the transaction at issue, where the synergies are simply those that typically accrue to a seller,
because "such an approach would not award the petitioners value from the particular merger giving rise to the appraisal" but instead would "simply give weight to the actual price at which the subject company could have been sold, including therein the portion of synergies that a synergistic buyer would leave with the subject company shareholders as a price for winning the deal. \({ }^{160}\) Instead, the mandate to remove all such synergies arises not from the statute, but from the common-law interpretation of the statute to value the company as a "going concern." 161 Mindful that this interpretation is binding on me here, to the extent I rely on the merger price for fair value, I must deduct from the merger price any amount which cannot be attributed to the corporation as an independent going concern, \({ }^{162}\) albeit one which employs its assets at their highest value in that structure. \({ }^{163}\) Understanding that such synergies may have been captured by the sellers in the case of a strategic acquirer is easily comprehended: if company B , holding a patent on the bow, finds it advantageous to acquire company A, a manufacturer of arrows, synergies could result from the combination that would not have composed a part of the going-concern or the market value of company A, pre-merger (and excluding merger-specific synergies). In other words, company B's patent on the bow might make it value company A more highly than the market at large, but that patent forms no part of the property held by the stockholders of company A, pre-merger. Assuming that the record showed that the acquisition price paid by company \(B\) included a portion of this synergistic value, this Court, if relying on deal price to establish statutory fair value, would be required to deduct that portion from the appraisal award.
*17 Here, the acquisition of BMC by the Buyer Group is not strategic, but financial. Nonetheless, the Respondent alleges that synergistic value resulted from the acquisition, and that if the Court relies on the purchase price to determine fair value, those synergies must be deducted. They point to tax savings and other cost savings that the acquirer professed it would realize once BMC is a private entity. If I assume that inherent in a public company is value, achievable via tax savings or otherwise, that can be realized by an acquirerany acquirer-taking the company private, such a savings is logically a component of the intrinsic value owned by the stockholder that exists regardless of the merger. Therefore, to the extent some portion of that value flows to the sellers, it is not value "arising from ... the merger," and thus excludable under the explicit terms of the statute; but is likely properly excluded from the going-concern value, which our case law
has explained is part of the definition of fair value as I must apply it here. \({ }^{164}\) However, as discussed below, to the extent value has been generated here by taking BMC private, the record is insufficient to show what, if any, portion of that value was included in the price-per-share the Buyer Group paid for BMC.

During trial and in post-trial briefing, Respondent offered the testimony of a Bain principal to show that the Buyer Group would have been unwilling to pay the Merger price had they not intended to receive the tax benefits and cost reductions associated with taking the Company private. In fact, had these savings not existed, the Buyer Group would have been willing to pay only \(\$ 36\) per share, an amount that resembles the goingconcern value posited by Respondent's expert. However, demonstrating the acquirer's internal valuation is insufficient to demonstrate that such savings formed a part of the purchase price. Here, the Respondent's expert did not opine on the fair value of the Company using a deal-price-less-synergies approach. Instead, the Respondent offered only the testimony of the buyer and its internal documents to show that the purported synergies were included in their analysis. While it may be true that the Buyer Group considered the synergies in determining their offer price, it is also true that they required a \(23 \%\) internal rate of return in their business model to justify the acquisition, \({ }^{165}\) raising the question of whether the synergies present in a going-private sale represent a true premium to the alternatives of selling to a public company or remaining independent. In other words, it is unclear whether the purported going-private savings outweighed the Buyer Group's rate of return that was required to justify the leverage presumably used to generate those savings.

When considering deal price as a factor-in part or in totofor computing fair value, this Court must determine that the price was generated by a process that likely provided market value, and thus is a useful factor to consider in arriving at fair value. Once the Court has made such a determination, the burden is on any party suggesting a deviation from that price to point to evidence in the record showing that the price must be adjusted from market value to "fair" value. \({ }^{166}\) A two-step analysis is required: first, were synergies \({ }^{167}\) realized from the deal; and if so, were they captured by sellers in the deal price? Neither party has pointed to evidence, nor can I locate any in the record, sufficient to show what quantum of value should be ascribed to the acquisition, in addition to going-concern value; and if such value was available to the Buyer Group, what portion, if any, was shared with the stockholders. I find,
therefore, that the Merger price does not require reduction for synergies to represent fair value.

\section*{C. Fair Value of the Company}
*18 I undertook my own DCF analysis that resulted in a valuation of BMC at \(\$ 48.00\) per share. This is compared to, on the one end, a value of \(\$ 37.88\) per share offered by the Respondent, and on the other, a value of \(\$ 67.08\) per share offered by the Petitioners. Although I believe my DCF analysis to rely on the most appropriate inputs, and thus to provide the best DCF valuation based on the information available to me, I nevertheless am reluctant to defer to that valuation in this appraisal. My DCF valuation is a product of a set of management projections, projections that in one sense may be particularly reliable due to BMC's subscription-based business. Nevertheless, the Respondent's expert, pertinently, demonstrated that the projections were historically problematic, in a way that could distort value. The record does not suggest a reliable method to adjust these projections. I am also concerned about the discount rate in light of a meaningful debate on the issue of using a supply side versus historical equity risk premium. \({ }^{168}\) Further, I do not have complete confidence in the reliability of taking the midpoint between inflation and GDP as the Company's expected growth rate.

Taking these uncertainties in the DCF analysis-in light of the wildly-divergent DCF valuation of the experts-together with my review of the record as it pertains to the sales process that generated the Merger, I find the Merger price of \(\$ 46.25\) per share to be the best indicator of fair value of BMC as of the Merger date.

\section*{III. CONCLUSION}

As is the case in any appraisal action, I am charged with considering all relevant factors bearing on fair value. A merger price that is the result of an arm's-length transaction negotiated over multiple rounds of bidding among interested buyers is one such factor. A DCF valuation model built upon management's projections and expert analysis is another such factor. In this case, for the reasons above, I find the merger price to be the most persuasive indication of fair value available. The parties should confer and submit an appropriate form of order consistent with this opinion.

\section*{All Citations}

Not Reported in Atl. Rptr., 2015 WL 6164771

\section*{Footnotes}

18 Del. C. § 262(h); see Global GT LP v. Golden Telecom, Inc., 11 A.3d 214, 217-18 (Del.2010).
2 The following are the facts as I find them by a preponderance of the evidence after trial. Facts concerning the Company pertain to the period prior and leading up to the Merger. References in footnote citations to specific page numbers indicate the exhibit's original pagination, unless unavailable.
3 JX 254 at 4.
4 ld.
\(5 \quad l d\). at 7.
6 The Company's fiscal year runs from April 1 to March 31 of the following calendar year and is denoted by the calendar year in which it ends. Trial Tr. 11:10-15 (Solcher).
7 See JX 254 at 7.
\(8 \quad l d\). at 5.
\(9 \quad\) Trial Tr. 362:3-364:3 (Beauchamp); see also JX 254 at 6.
10 Trial Tr. 367:8-370:10 (Beauchamp); see also JX 254 at 5-6.
11 JX 254 at 85-86; see also Trial Tr. 364:4-8 (Beauchamp).
12 See Trial Tr. 364:19-365:24 (Beauchamp); id. at 24:3-9 (Solcher).
13 Id. at 364:22-23, 366:1-18 (Beauchamp).
14 Id. at 366:19-367:7, 651:15-652:6 (Beauchamp).
15 See e.g., id. at 24:5-7 (Solcher).
16 See id. at 23:22-24:9 (Solcher).
17 Id. Bookings represent the contract value of transactions closed and recorded in any given period of time. E.g., JX 254 at 24; Trial Tr. 23:11-13 (Solcher).

32 E.g., Trial Tr. 85:5-93:5 (Solcher); id. at 392:16-20 (Beauchamp).
33 See JX 204 at 11; JX 312 at 10.
34 Solcher testified that approximately \(20 \%\) of BMC's employees were compensated, in part, by SBC. Trial Tr. 42:3-16 (Solcher).
35 Id. at 45:2-46:12 (Solcher); JX 254 at 78-79.
36 Trial Tr. 45:5-46:6 (Solcher); JX 254 at 78-79.
37 Trial Tr. 45:2-46:18 (Solcher); JX 254 at 78-79.
38 Trial Tr. 43:14-18 (Solcher).

40 See, e.g., id. at 329:4-10 (Solcher).
41 ld. at 11:16-18 (Solcher).
42 ld. at 11:23-12:3 (Solcher).
43
44
45
Trial Tr. 370:11-372:8 (Beauchamp); see also id. at 309:24-310:24 (Solcher) ("On the MSM side was where we had the larger margins. We're 60-plus percent. And on the ESM side, you're probably looking somewhere in the mid-20s.").
d. at 383:10-384:5 (Beauchamp).

JX 254 at 56.
JX 254 at 24; JX 39 at 23.
See, e.g., Trial Tr. 385:13-386:19 (Beauchamp); id. at 73:24-74:4, 91:8-16 (Solcher). Id. at 393:3-394:5 (Beauchamp); see also id. at 78:10-21 (Solcher).
See id. at 548:21-556:16 (Beauchamp).
See, e.g., id. at 388:18-390:19 (Beauchamp); id. at 74:5-75:5 (Solcher).
ld. at 86:19-24 (Solcher).
E.g., id. at 388:18-389:3 (Beauchamp).

JX 204 at 4; Trial Tr. 387:6-388:17 (Beauchamp); id. at 75:20-23 (Solcher); see also JX 254 at 5 (describing the BladeLogic suite of products).
29 E.g., Trial Tr. 390:7-16 (Beauchamp); id. at 74:5-75:5 (Solcher). At trial, the Petitioners stressed the fact that the M \& A Committee in its meeting presentation materials had consistently used a different, value-based categorization for M \& A deals in describing BMC's M \& A pipeline: deals over \(\$ 300\) million were labeled as "scale," deals over \(\$ 100\) million were labeled as "product," and deals under \(\$ 50\) million were labeled as "tuck-in." See, e.g., id. at 163:13-173:5 (Solcher). However, as my analysis below illustrates, the Petitioners' focus on this semantic difference misses the point. For the sake of this appraisal, I am concerned with how those who prepared the projections that will be used in my valuation (i.e., management) conceptualized BMC's M \& A activity, in order to understand how M \& A activity was forecasted in those projections and to what extent the forecasts are reasonable. Thus, in this Memorandum Opinion, I adopt management's nomenclature in reference to BMC's M \& A activity, referring to transactions so significant that they change the Company's business in a fundamental way-those valued at over \(\$ 300\) million and labeled "scale" by the M \& A Committee-as "strategic" and to all other transactions as "tuck-in." See, e.g., id. at 86:7-87:18 (Solcher).
See id. at 390:7-19 (Beauchamp) ("Q: ... [W]hat do you think of when you're talking about tuck-in? A: Well, tuck-in is ... if you're the president or the general manager of one of these units, you have a whole set of competitors and things are changing pretty quickly. And you also have a lot of customers telling you, 'We want this and we want that.' You have regular meetings with your customers. You either have to build those features or you have to go buy those features. And so tuck-ins, to me, is responding to the competitive pressures or the customer demands by using build versus buy. And frequently we use buy."); id. at 74:22-75:5 (Solcher) ("Q: ... [W]hy was tuck-in important at BMC? A: Well, we had to fill out our portfolio, for one. We had to acquire talent. This industry is rapidly evolving, and tech is something that you've got to constantly be thinking about the next move you're going to make. So we're always looking for that next widget to go acquire, whether it be the individual or the actual technology itself.").
See JX 204 at 4.

Id. at 42:12-43:7 (Solcher). Additionally, in order to avoid dilution of the Company's shares, each time the Company issued stock pursuant to SBC it would also buy BMC stock in the open market. Id. at 46:19-47:7 (Solcher).

Id. at 12:4-13:9 (Solcher).
Id. at 12:8-12 (Solcher).
Id. at 16:19-17:4 (Solcher).
Id. at 13:24-14:13 (Solcher).

47 Id. at 13:24-16:15 (Solcher).
48 See, e.g., id. at 264:11-268:22 (Solcher) ("Q: In the regular course of its business, did BMC management prepare statements of cash flows that projected out three years? A: We projected out captions within a statement of cash flow ... Q: So what you did internally was ... a six-line cash flow statement, not a 20 -line cash flow statement. A: Right.") (emphasis added); see also, e.g., id. at 276:8-16 (Solcher) ("I just would characterize it that the board and the rest of the management team did [three-year projections] at a very high level in the October time frame.").
49 Id. at 270:21-273:20 (Solcher).
50 See id. at 276:12-277:19 (Solcher).
51 Id. at 23:22-25:1 (Solcher).
52 Id. at 24:13-25:1 (Solcher); id. at 384:6-24 (Beauchamp).
53 Id. at 384:6-20 (Beauchamp); JX 254 at 27-28.
54 According to the Company's 2013 Form 10-K, of the software license transactions recorded in fiscal years 2011, 2012, and 2013 , only \(51 \%, 54 \%\), and \(54 \%\) of the transactions were recognized as license revenue upfront in each of those years, respectively. JX 254 at 27.
Trial Tr. 384:6-20 (Beauchamp); id. at 24:13-25:1 (Solcher); JX 254 at 27-28.
Trial Tr. 32:8-19 (Solcher).
Id. at 34:2-16 (Solcher). Solcher testified at trial that, although both approaches were used, projections for years two and three were generated using mainly a top-down approach. Id. at 34:15-6 (Solcher).
58 Id. at 34:17-35:8 (Solcher).
59 Id. at 33:6-34:1 (Solcher); see also JX 88.
60 Trial Tr. 36:12-37:6 (Solcher).
61 Id. at 36:12-38:12 (Solcher); see also JX 146.
62 Trial Tr. 38:13-39:11 (Solcher); see also JX 210.
63
See Trial Tr. 40:21-24 (Solcher).
See id. at 47:15-49:20 (Solcher) ("We had a historical practice of offsetting that dilution. So ... it's cash out the door.").
Id. at 47:15-49:20 (Solcher); JX 225 at 32. Although management and the financial advisors believed that the inclusion of SBC was the most accurate way to present BMC's financial projections, most of the presentations, as well as the proxy, also included financial projections that were "unburdened" by SBC. Trial Tr. 48:20-52:3 (Solcher). According to the proxy statement, the board requested that the financial advisors perform for "reference and informational purposes only" discounted cash flow analysis that included, among other changes, financial projections unburdened by SBC. Id. at 51:10-52:3 (Solcher) (emphasis added); JX 284 at 59.
66 Trial Tr. 91:13-92:1 (Solcher) (describing M \& A as part of the Company's "core fabric").
67 Id. at 92:24-93:5 (Solcher). BMC did reduce actual M \& A activity in January 2013. This was not a permanent shift in the Company's strategy, but was instead an intentional and temporary reduction in spending in order to conserve cash in anticipation of closing the Merger. See id. at 88:16-89:13 (Solcher); id. at 392:21-393:21 (Beauchamp).
68 See, e.g., id. at 81:15-82:9, 85:16-86:1 (Solcher). Despite management's repeated testimony that tuck-in M \& A was necessary to the Company's revenue projections, Petitioners argue that certain presentations made to potential buyers and lenders described \(M\) \& \(A\) as "upside" to management's base projections and were, therefore, not already included. See Pet'r's Opening Post-Trial Br. at 17-19. Management, however, included a separate line item for \(M\) \& \(A\) expenditures in its projections which informed each of the three data packs used during the sales process. See JX 88 at 6 (October Projections); JX 146 at 7 (February Projections); JX 210 at 6 (April Projections).
Trial Tr. 77:21-23 (Solcher).
Id. at 80:14-81:24 (Solcher); JX 146 at 7.
See JX 43.
See id.
Trial Tr. 526:9-527:20 (Beauchamp).
See id. at 396:1-399:7 (Beauchamp); JX 57.
See JX 57.
See id.
Trial Tr. 395:10-24, 399:23-400:14 (Beauchamp).
Id. at 401:17-403:4 (Beauchamp).

79
Id. at 403:17-408:23 (Beauchamp); JX 68 at 2.
80 Trial Tr. 409:19-410:6 (Beauchamp); JX 284 at 27.
81 See Trial Tr. 412:8-24 (Beauchamp); JX 104.
82 Trial Tr. 410:7-411:13 (Beauchamp).
83 Id. at 411:14-413:7 (Beauchamp); JX 105.
84 Trial Tr. 417:6-20 (Beauchamp); JX 112.
85 Trial Tr. 417:21-418:19 (Beauchamp).
86 Id. at 420:1-421:20 (Beauchamp); JX 116.
87 BMC believed that a strategic buyer would only show interest if it could obtain an extremely low price. Id. at 425:4-20 (Beauchamp).
90 Id. at 426:19-427:11 (Beauchamp); JX 225 at 3.
91 Trial Tr. 431:1-9 (Beauchamp); JX 284 at 31.
92 JX 196 at 2.
93 ld.
94 Trial Tr. 431:1-13 (Beauchamp); JX 465 at 1.
95 Trial Tr. 431:14-17 (Beauchamp).
96 Id. at 433:10-434:8 (Beauchamp); JX 464 at 1-5.
97 See Trial Tr. 431:14-432:12 (Beauchamp); JX 284 at 34-35.
98 See Trial Tr. 432:13-433:1 (Beauchamp); JX 284 at 35.
99 Trial Tr. 432:13-433:9 (Beauchamp); JX 284 at 35.
100 JX 284 at 35.
101 Trial Tr. 436:5-15 (Beauchamp); JX 229 at 1.
102 Trial Tr. 441:6-11 (Beauchamp); JX-229 at 3-9.
103 JX 284 at 37.
104 Trial Tr. 442:19-444:13 (Beauchamp).
105 Id. at 444:21-445:3 (Beauchamp).
106 JX 284 at 37.
107 The cases were consolidated as In re BMC Software, Inc. S'holder Litig., 8544-VCG (Del. Ch. June 6, 2013).
108 See JX 284.
109 See JX 316.
110 See In re BMC Software, Inc. S'holder Litig., 8544-VCG (Del. Ch. Apr. 28, 2014) (TRANSCRIPT).
111 Trial Tr. 831:11-832:9 (Steffen); JX 386 ๆ 109.
112 The Company's common stock closed at \(\$ 45.42\) on May 3, 2013, the last day trading day before the merger was announced. JX 284 at 105.
113 Trial Tr. 832:15-834:4 (Steffen); JX 386 ๆ 16-21.
114 JX 383 at 968.
115 Trial Tr. 1028:11-1030:12 (Ruback); JX 383 at \(9 \mathbb{I}\) 68-69.
116 In addition to the diverging key assumptions described in detail here, Steffen included an adjustment for additional cost savings that neither management nor Ruback included. Steffen believed-based on his interpretation of a chart presented to potential buyers-that certain cost savings were misidentified by management as "public-to-private" savings and thus improperly excluded from management's projections. Id. at 866:18-867:19 (Steffen); JX 386 ๆ 110-113. But at trial, Solcher testified that management had already implemented and included in its projections all cost saving strategies that it believed were available to BMC as a public company. Trial Tr. 58:12-59:11 (Solcher); see also id. 64:3-68:9 (Solcher) (specifically referring to those cost savings identified by Steffen). Without more evidence that management misclassified these expenses, Steffen's decision to include additional cost savings appears to be overly speculative and, therefore, my DCF analysis does not include a similar adjustment.

117 Trial Tr. 837:5-11 (Steffen).
118 Id. at 844:18-845:10 (Steffen). Steffen did not form an opinion as to whether BMC was more likely or not to meet its projections, but instead relied on management's assertion that they were reasonable. Id. at 846:16-22 (Steffen).
119 Id. at 1031:18-24 (Ruback). Ruback calculated the average amount by which the Company failed to meet their projections; he first recognized management's alleged bias after BMC's financial performance for the quarter following the announcement of the Merger fell short of management's projections and also after hearing Solcher's deposition where he characterized management's forecasts as a "stretch." Id. at 1032:1-1034:24 (Ruback).
120 Id. at 1036:3-19 (Ruback).
121 Id. at 1050:4-17 (Ruback).
122 Id. at 969:15-970:7 (Steffen); JX 386 at \(\boldsymbol{q} 94\). Steffen also cited his belief that Delaware law dictated the use of a supplyside ERP in Golden Telecom. See Trial Tr. 969:15-970:7 (Steffen).
123 Id. at 1056:18-1057:14 (Ruback).
124 Id. at 1061:10-1063:7 (Ruback).
125 JX 386 § 87.
126 Trial Tr. 848:14-849:17 (Steffen).
127 See id. at 849:13-17 (Steffen).
128 Id. at 1050:19-1051:20 (Ruback). Ruback tested the reasonableness of his growth rate by comparing it to other growth rates that he implied from exit multiples used by the financial advisors and the multiples used in his comparable company analysis. Id. at 1051:21-1056:17 (Ruback). Ultimately, Ruback noted that both experts in this case used a growth rate that was greater than those he implied in his reasonableness analysis. Id.
JX 383 ๆ 37.
130 Trial Tr. 858:3-8 (Steffen).
131 Id. at 858:9-21 (Steffen).
132 Id. at 1156:8-13 (Ruback).
133 Id. at 1065:12-21, 1163:8-19 (Ruback).
134 Id. at 998:21-1000:3 (Steffen).
135 Id. at 859:3-7 (Steffen) The treasury stock method assumes that all stock options are exercised immediately-thus resulting in the issuances of new shares-and the cash proceeds received from the exercise are used to repurchase shares, the net of effect of which increases the number of shares outstanding and, in turn, decreases the value per share. See id. at 859:8-20.
136 Id. at 1015:13-1016:10 (Ruback). Ruback illustrated his belief that SBC expense is a reduction in the value of the Company by showing that a hypothetical company would supposedly lose the same amount of value if it compensated its employees in cash or in stock. See id. at 1017:9-1023:12 (Ruback).
137 Id. at 1152:23-1153:14 (Ruback).
138 Id . at 870:15-871:12 (Steffen).
139 Id. at 1025:10-21 (Ruback).
140 Id. at 1026:10-1027:2 (Ruback).
141 See Merion Capital LP v. BMC Software, Inc., 2015 WL 67586 (Del. Ch. Jan. 5, 2015).
1428 Del. C. § \(262(\mathrm{~h})\) (emphasis added).
143 Weinberger v. UOP, Inc., 457 A.2d 701, 713 (Del.1983) (quotations omitted).
144993 A. \(2 d 497\) (Del. Ch.), aff'd, 11 A. \(3 d 214\) (Del.2010).
145 ld. at 516.
1462012 WL 2923305 (Del. Ch. July 18, 2012).
147 Id. at *19.
148 I find it of some relevance to note, however, that had I used a discount rate of \(10.8 \%\)-which is the midpoint between the experts' diverging discount rates-my DCF analysis would have resulted in a per share price for BMC of \(\$ 46.44\), closely consistent with the \(\$ 46.25\) Merger price.
1492013 WL 3316186 (Del. Ch. June 28, 2013).
150 Id. at *27 ("As noted, the rate of inflation generally is the "floor" for a terminal value. Generally, once an industry has matured, a company will grow at a steady rate that is roughly equal to the rate of nominal GDP growth."); Global GT LP \(v\). Golden Telecom, Inc., 993 A.2d 497, 511 (Del. Ch.) ("A viable company should grow at least at the rate of inflation and,
as Golden's expert Sherman admits, \({ }^{85}\) the rate of inflation is the floor for a terminal value estimate for a solidly profitable company that does not have an identifiable risk of insolvency."), aff'd, 11 A.3d 214 (Del.2010).
151 See Trial Tr. 114:11-115:1 (Solcher); see also id. 952:7-953:15 (Steffen) (noting that he was not aware of the Company's merger-driven conservation of cash before trial and did not account for it); Gearreald v. Just Care, Inc., 2012 WL 1569818, at *8 (Del. Ch. Apr. 30, 2012) ("This Court previously has rejected the proposition that changes to a company's capital structure in relation to a merger should be included in an appraisal.").
152 See Trial Tr. 92:12-23 (Solcher) ("Q: And when you prepared those projections, were you assuming there would be revenue through companies bought through tuck-in M \& A? A: We did. Q: If you had not assumed that there would be such tuck-in M \& A, would the revenues you were showing have been higher or lower? A: Lower."); id. at 119:7-120:15 (Solcher).
153 Because I ultimately rely on deal price here, I will not attempt to set out my DCF analysis in further detail.
1542015 WL 631586 (Del. Feb. 12, 2015), aff'g 2013 WL 5878807 (Del. Ch. Nov. 1, 2013).
155 See Trial Tr. 489:20-526:1; JX 497.
156 See JX 497.
157 See id. at Tab F; Trial Tr. 665:21-667:3.
1588 Del. C. § 262(h) (emphasis added).
159847 A.2d 340 (Del. Ch.2003).
160 Id. at 356.
161 Id. The well-known standard that requires a corporation to be valued as a going concern was established over 65 years ago in Tri-Continental Corp v. Battye, where the Supreme Court declared that the appraisal statute entitles a dissenting stockholder "to be paid for that which has been taken from him, viz., his proportionate interest in a going concern." 74 A.2d 71, 72 (Del.1950); see, e.g., Montgomery Cellular Holding Co. v. Dobler, 880 A.2d 206, 220 (Del.2005) (citing Cede \& Co. v. Technicolor, Inc., 684 A.2d 289, 298 (Del.1996)). However, the Court in Tri-Continental also described what the stockholder is entitled to receive as the "intrinsic value" of his stock, which, I note, may not be equal to the goingconcern value of the corporation. See 74 A.2d at 72.
162 See Union Illinois, 847 A.2d at 356 (stating the Court is bound to employ "going concern" valuation).
163 See ONTI v. Integra Bank, 751 A.2d 904, 910-11 (Del. Ch.1999) (stating that valuation using assets at highest use is consistent with case law interpreting appraisal statute).
164 See In re Sunbelt Beverage S'holder Litig., 2010 WL 26539 (Del. Ch. Feb. 15, 2010) (holding increased value inherent in taking company from a C corp. to an S corp. not recoverable as "fair value"). It is interesting to compare Sunbelt with ONTI, 750 A.2d at 910-11, and to note that non-speculative increases in value that could be realized by a company as a going concern-even though management may have eschewed them-are part of fair value; but non-speculative increases in value requiring a change in corporate form are excluded from fair value: this is an artifact of the policy decision to engraft "going concern" valuation onto the explicit language of the appraisal statute itself. See Union Illinois, 847 A. 2 d at 356.
165 Trial Tr. 719:4-720:5 (Abrahamson).
166 Merlin P'ship v. AutoInfo, Inc. 2015 WL 2069417 (Del. Ch. Apr. 30 2015).
167 Of course, the Petitioner may point to market distortions imposed on the sellers as well.
168 Had I used a discount rate equal to the median of the rates suggested by the parties' experts, but kept my other inputs the same, my DCF value would be remarkably close to the deal price. See supra note 148.
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\section*{UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.}

Court of Chancery of Delaware.

\section*{MERION CAPITAL L.P. and Merion Capital II L.P., Petitioners, v. \\ LENDER PROCESSING SERVICES, INC., Respondent.}

\author{
C.A. No. 9320-VCL \\ | \\ Date Submitted: September 21, 2016 \\ Date Decided: December 16, 2016
}

\section*{Attorneys and Law Firms}

Steven T. Margolin, GREENBERG TRAURIG, LLP, Wilmington, Delaware; Stephen E. Jenkins, Richard D. Heins, Marie M. Degnan, Peter H. Kyle, ASHBY \& GEDDES, Wilmington, Delaware; Counsel for Petitioners.

Bradley R. Aronstam, S. Michael Sirkin, ROSS ARONSTAM \& MORITZ LLP, Wilmington, Delaware; John A. Neuwirth, Evert J. Christensen, Jr., Matthew S. Connors, Elizabeth Kerwin-Miller, WEIL, GOTSHAL \& MANGES LLP, New York, New York; Counsel for Respondent.

\section*{MEMORANDUM OPINION}

\section*{LASTER, Vice Chancellor.}
*1 Petitioners Merion Capital L.P. and Merion Capital II L.P. (together, "Merion") brought this statutory appraisal proceeding to determine the fair value of their shares of stock in Lender Processing Services, Inc. ("LPS" or the "Company"). The valuation date is January 2, 2014, when Fidelity National Financial, Inc. ("Fidelity" or "FNF") completed the merger by which it acquired the Company (the "Merger"). This post-trial decision determines that the fair value of the Company's common stock at the effective time of the Merger is \(\$ 37.14\).

\section*{I. FACTUAL BACKGROUND}

Trial took place over four days. The parties submitted 357 exhibits and lodged eight depositions. Four fact witnesses and two experts testified live. The following facts were proven by a preponderance of the evidence.

\section*{A. The Company}

At the time of the Merger, the Company provided integrated technology products, data, and services to the mortgage lending industry, and it had a market leading position in mortgage processing in the United States. Its business operated through two principal divisions: Transaction Services ("Services" or "TS") and Technology, Data \& Analytics division ("Analytics" or "TD \& A").

The primary segment within the Services division focused on loan originations. It supported lenders by facilitating many of the steps necessary to originate a loan. Most of the originations, however, were not new loans, but refinancings of existing loans. The Services division also had a segment that supported lenders, servicers, and investors by facilitating many of the steps necessary to foreclose on a property.

The Analytics division focused on providing ongoing support to lenders and loan servicers. Its "MSP platform" automated many of the loan servicing functions performed during the life of a loan. A smaller business segment specialized in troubled loans.

\section*{B. The Company's Origins}

The Company started as the financial and mortgage services division of Alltel Information Services. PTO 『 11. In 2003, Alltel sold that division to Fidelity, which is a leading provider of (i) title insurance, escrow, and other title-related services, and (ii) technology and transactional services for the real estate and mortgage industries. \(I d\). \(\boldsymbol{\top T \|} 6,11\). Thomas H. Lee Partners ("THL") is a private equity firm that worked with Fidelity on the acquisition but did not co-invest at the time of the deal.

Fidelity reorganized the former Alltel division as part of a subsidiary called FNF National Information Services, Inc. ("FNF Services"). PTO 『 11. In 2005, THL invested in FNF Services. In 2006, Fidelity spun off FNF Services. Id.

In 2008，FNF Services spun off the Company．Its shares traded on the New York Stock Exchange until the Merger closed．Id．Because of the Company＇s historic ties to Fidelity， the Company continued to share an office campus with its former parent（although occupying separate buildings）．The two companies also shared private jets，hangar facilities，and server space．

\section*{C．The Effect Of The Great Recession On The Company＇s Business}
＊2 The Company＇s spinoff coincided with the Great Recession of 2008．Although devastating to many households，the financial crisis was a boon to the Company， because loan defaults drove key segments of its business． Revenue grew by approximately \(80 \%\) from pre－recession levels to peak in 2010．JX 111 at 21.

But the Company also was involved in some of the problematic loan protocols that led to the Great Recession， colloquially known as＂robo－signing．＂In 2010，the United States Department of Justice，the Federal Bureau of Investigation，and attorneys general from all fifty states commenced civil and criminal investigations into the Company＇s practices．Stockholders also filed lawsuits．PTO － 12.

\section*{D．Fidelity＇s Early Overtures}

In April 2010，amidst the negative publicity from the robo－signing allegations，Fidelity，THL，and the Blackstone Group made an unsolicited offer to buy the Company．The Company＇s board of directors（the＂Board＂）retained the Goldman Sachs Group，Inc．（＂Goldman＂）as its financial advisor．The discussions did not go far．PTO 『 13 ．

In early 2011，THL and Blackstone approached the Company again．Goldman continued in its advisory role．Again，no deal was reached．PTO 『 14.

In late 2011，the Company＇s CEO retired due to medical issues．In October，the Board hired Hugh Harris to serve as President and CEO．He also became a director．

Harris had ties to Fidelity．In 2003，he worked for Fidelity and THL as a consultant on the Alltel deal．Afterwards，Fidelity hired Harris to run one of the new business units．Harris continued to work for FNF Services after its spinoff．He retired in 2007，before the Company＇s spinoff in 2008.

Harris also had ties to THL．In addition to consulting on the Alltel deal，he worked with THL for several years in the mid－ 1990s．Tr． 9 （Harris）．He also was a friend of and owned hunting land with one of THL＇s principals．Tr． 12 （Harris）． Given these relationships，the Board excluded Harris from its deliberations about any potential transaction with THL and Fidelity，and Harris recused himself from voting as a director． The Board determined that Harris could，however，＂do all the normal things that the CEO would do as far as presenting the company，the business，what was going on with the company， our projections，our results，et cetera．＂ \(\operatorname{Tr} 25\)（Harris）；see PTO 『 7.

In late November 2011，THL reached out to Harris．He referred the call to Lee Kennedy，the Company＇s Chairman． This time，the discussions progressed further．In December， the Company and THL signed a confidentiality agreement．In February 2012，after conducting due diligence，THL offered to buy the Company for \(\$ 26.50\) per share．THL＇s offer noted that Blackstone and Fidelity would participate in the deal， and THL later explained that Fidelity would contribute its ServiceLink business to the surviving entity．The ServiceLink business competed with LPS and was a source of synergies．

On February 28，2012，the Board met to discuss the offer．Goldman continued in its advisory role．The Board determined that a transaction was potentially attractive，but not at that price．PTO 『 19．The Board decided to explore whether someone might pay more by reaching out to other financial sponsors and strategic buyers．Tr． 27 （Harris）．

In March 2012，Goldman reviewed the Company＇s financial performance with the Board．After analyzing several market－ based metrics，Goldman opined that＂the Company was fully valued at current trading prices．＂JX 33 at 2．Goldman＇s illustrative discounted cash flow analysis，which used LPS＇s historical discount rate and assumed a \(1 \%\) perpetuity growth rate，produced a valuation of \(\$ 25.91\) per share．Id．at 17 ．The Company＇s stock closed at \(\$ 24.66\) that day．Id．at 13.
＊3 In April 2012，after additional due diligence，THL， Blackstone，and Fidelity increased their offer to \(\$ 28.00\) per share，comprising \(\$ 26.00\) in cash and \(\$ 2.00\) in Fidelity stock． The Board rejected that price as inadequate．PTO ब\｜l 22－23．

In May 2012，THL，Blackstone，and Fidelity increased their offer to \(\$ 29\) per share，payable entirely in cash or in a combination of \(\$ 27.00\) in cash and \(\$ 2.00\) in Fidelity stock．JX 38 at 2 ．The bidding group explained that the
premium depended in part on anticipated synergies with the ServiceLink business. JX 260 at 53.

By this point, with the country emerging from the Great Recession, management was concerned that the Company's performance would deteriorate. During a series of meetings in May 2012, management provided the Board with updated financial forecasts that contemplated revenue declining approximately \(25 \%\) by 2017. JX 44 at 927 . The forecasts projected that EBITDA would decrease by \(7.2 \%\) through 2017 before increasing by \(7.5 \%\) through 2022. Id. Despite the weaker forecasts, the Board told THL that the proposed consideration "was inadequate and should be raised to a price in the \(\$ 30\) s." JX 44 at 3 .

During the last week of May 2012, Goldman contacted three financial sponsors: Texas Pacific Group Capital ("TPG"), Kohlberg Kravis Roberts \& Co. L.P. ("KKR"), and Advent International. Goldman also contacted seven potential strategic buyers: Accenture, Berkshire Hathaway, IBM, Infosys, Oracle, Tata Consultancy Services, and Total Systems Services. Several of the parties entered into confidentiality agreements, conducted due diligence, and received management presentations. None made an offer. Five of the strategic buyers had no interest. Two said they needed more time to evaluate the opportunity. KKR and Advent said they could not pay a premium and meet their internal hurdle rates. TPG was only interested if it could be part of the THL/Blackstone/Fidelity consortium.

On June 8, 2012, THL told the Company that the consortium would not offer more than \(\$ 29.00\) per share. PTO \| 25 . The directors felt that was a good price but remained committed to \(\$ 30.00\) per share. They rejected THL's offer, but decided to negotiate the terms of the transaction documents in case the consortium changed its collective mind.

In June 2012, two strategic bidders-Total Systems Services and Infosys-expressed interest in buying the Company, only to promptly change their minds. Total Systems wanted to team up with a financial sponsor but said it could not find one. Infosys cited LPS's size, lack of strategic fit, and legacy issues.

The Board and the consortium negotiated a draft merger agreement that included a go-shop, but neither would budge on price. One critical issue dividing the parties was the extent of the Company's legal risk due to the pending investigations
and lawsuits. In August 2012, discussions terminated. PTO ๆ 27.

\section*{E. The Board Hires BCG.}

In October 2012, the Board hired the Boston Consulting Group ("BCG") to evaluate the Company's core businesses, research market trends, assess the legal and regulatory environment, and test the reliability of management's projections. The Board also asked BCG to evaluate the Company's strategic alternatives with a focus on two particular opportunities: (i) continuing to operate the Company in its existing configuration, or (ii) splitting up the Company's two businesses.
*4 BCG would spend the next six months conducting an in-depth review of the Company's business that included over 120 interviews with LPS employees, customers, and investors. Based on its work, BCG generated a report that spanned more than 200 pages. See JX 111. Through this process, BCG "pressure tested" each element of the Company's five-year projections based on macroeconomic factors, industry trends, and the Company's specific product lines. See Tr. 226 (Schilling); Tr. 19 (Harris).

\section*{F. The Company Addresses Its Legal Problems.}

On January 31, 2013, the Company announced that it had entered into a settlement agreement with the attorneys general from forty-six states and the District of Columbia. PTO - 31 . As part of the settlement, the Company agreed to make a settlement payment of \(\$ 127\) million. The Company also entered into a non-prosecution agreement with the Department of Justice that contemplated a payment of \$35 million. The Company settled the outstanding stockholder litigation for a payment of \(\$ 14\) million. Although the regulators charged some of the Company's employees with criminal activity, they did not charge the Company. The settlement was profoundly good news, and the Company's shares rose \(7.5 \%\) to \(\$ 24.08\) on the announcement. JX 71 at 1.

Part of the settlement with the Department of Justice required the Company to operate under the terms of a consent order. Ironically, the consent order gave the Company "a competitive advantage" because many loan servicers were still trying to adjust to the new post-financial crisis regulatory regime. Tr. 61 (Harris). The Company's settlement signaled that the Company had achieved compliance. Management believed this would result in a "flight to quality" as customers
chose the Company over competitors whose systems had not yet been validated. See Tr. 61 (Harris).

Around this time, Harris told the Board he planned to retire at the end of 2013.

\section*{G. Offers From Fidelity And Altisource}

After the Company announced the settlements, two of the Company's competitors expressed interest in buying the Company. Fidelity was first out of the gate. On January 31, 2013, Fidelity and THL made a joint proposal to acquire the Company for \(\$ 30.00\) per share, consisting of \(\$ 13.20\) in cash and \(\$ 16.80\) in Fidelity common stock. PTO © 32. The proposal represented a premium of approximately \(32 \%\) over the Company's average closing stock price during the five previous trading days. JX 72 at 3 .

Four days later, Altisource Portfolio Solutions S.A. ("Altisource") proposed to acquire the Company in a transaction valued at \(\$ 31.00\) per share, consisting of \(\$ 21.50\) in cash and \(\$ 9.50\) in Altisource common stock. PTO \(\mathbb{\|}\) 33. The offer represented a \(28 \%\) premium over the Company's closing price on February 1 and a \(32 \%\) premium over its trailing 30day weighted average. JX 74 at 2 . Altisource competed with the Company's Analytics business. Tr. 30 (Harris).

During a meeting on February 6, 2013, the Board received a presentation from the Company's finance team. They advised the Board that 2013 would "continue to be a challenging year for the mortgage industry and for LPS." JX 75 at 464. They noted that "new entrants will emerge" and that the Company would face continuing competition from entities like Ocwen and NationStar. Id. They projected that the Company's revenue for 2013 would be "down about 4\% compared to 2012, with a \(4 \%\) increase in [Analytics] revenue being offset by a \(9 \%\) decline in [Services] revenue." Id. They expected EBITDA to be flat, EBITDA margin to increase from \(26.7 \%\) to \(27.5 \%\), and earnings per share to decline from \(\$ 2.80\) to \(\$ 2.74\) due to increased shares outstanding. Id.
*5 The Board also heard from the Company's investor relations team. Although the Company's stock had risen by \(63 \%\) in 2012 versus only a \(12 \%\) increase for the \(\mathrm{S} \& \mathrm{P}\) 500 , the investor relations team believed that the market did not appreciate the Company's strong fundamentals. To address this, the team had launched a strategy to explain to the market that "LPS is a stronger company today" with "[s]ustainable competitive advantages" and "[l]ong-term growth opportunities." JX 76 at 497. The goal for 2013 was
to "Achieve Fair Value of LPS Securities." Id. at 509; see Schilling Dep. 151; see also Tr. 358 (Schilling).

Against this backdrop, the directors considered the offers from Fidelity and Altisource. In light of Harris' prior ties to Fidelity and THL, the Board limited his role to responding to the overtures in his capacity as CEO. Lee Kennedy was the Company's Chairman, had previously served as a director of a THL portfolio company, and had served as CEO of Information Services from 2006 until 2009. The Board determined that he did not have a conflict. James Hunt was a non-management director who had served as an officer of one of THL's portfolio companies. The Board determined that he should not be involved in any discussions about a sale. The Board decided to tell Fidelity and Altisource that their offers undervalued the Company and that the Company was not interested. PTO ब\& 7, 34, 35.

\section*{H. More Expressions Of Interest}

Over the ensuing weeks, four more unsolicited expressions of interest arrived. One was an increased bid from Fidelity and THL. By letter dated February 26, 2013, they increased their proposal by \(7 \%\) to \(\$ 32.00\) per share, with \(\$ 14.72\) paid in cash and \(\$ 17.28\) in Fidelity common stock. PTO \(\mathbb{1} 36\). Their letter stated that \(\$ 32.00\) was the highest price they would offer. JX 89 at 99.

In March 2013, First American National Financial Corporation expressed interest in a joint venture between its mortgage servicing arm and the Services business. First American's proposal valued the Services business at \$450\(\$ 600\) million. First American said it could complete diligence in four to six weeks. Also in March, two private equity firms expressed interest in the Services business. Flexpoint Ford LLC proposed to buy the business on a cash-free, debt-free basis for \(5.0 \mathrm{x}-5.5 \mathrm{x}\) normalized EBITDA. PTO \(\boldsymbol{9} \boldsymbol{\|}\) 41-42. Golden Gate Capital also proposed to buy the business but did not suggest a price. PTO \(\mathbb{4} \mid \mathbf{~ 3 7 , ~ 4 1 - 4 2 . ~}\)

Having received a flurry of proposals, the Board engaged Credit Suisse Securities (USA) LLC ("Credit Suisse") as a second financial advisor. The Board decided to defer considering the offers until after BCG completed its strategic review.

\section*{I. The March 2013 Board Meeting}

On March 21, 2013, the Board met to consider the Company's alternatives. The meeting began with a presentation from

BCG. Based on its six months of work, BCG projected that without any new business initiatives, "[m]arket headwinds" would cause the Company's revenue to decline by \(\$ 470\) to \(\$ 510\) million by 2015 and \(\$ 580\) to \(\$ 680\) million by 2017. JX 111 at 37 . BCG attributed the declines to a \(75-\) \(80 \%\) drop in refinancings and a \(60-70 \%\) drop in defaults. \(I d\). at 31 . The declines would affect the Services business disproportionately, which would suffer \(95 \%\) of the net impact. \(I d\). at 70. The Analytics business would experience slow and steady growth, but not enough to offset the decline in the Services business.

BCG next presented three sets of five-year projections created in collaboration with management: (i) a Reduced Base Case, (ii) a Base Case, and (iii) an Optimistic Case. BCG regarded its Base Case as "the most likely scenario." Id. at 27. The Base Case started with the macro-economic trend line then added "additional initiatives and opportunities" to increase revenue. \(I d\). at 28 . BCG identified ten initiatives, almost all involving the Analytics business, that could generate roughly \(\$ 350\) million in revenue. To succeed, the Company would have to devote resources to all ten and capture market share with new products. Because the Analytics division's two biggest products already had captured \(56 \%\) and \(80 \%\) of their respective markets, the bulk of the Company's growth would come from new initiatives. See Tr. 20 (Harris); Tr. 511 (Geller); JX 111 at 51, 65. Even then, under the Base Case, 2017 revenue still would be less than 2012 revenue: Projected \(6 \%\) compound annual growth rate for the Analytics business and \(-11 \%\) compound annual growth rate for the Services business, resulting in combined compound annual growth for the Company of \(-3 \%\). JX 111 at 66.
*6 The Reduced Base Case contemplated a forecast between doing nothing and the Base Case in which the initiatives did not fully succeed and revenue decreased by \(\$ 485\) million by 2017. JX 196 - 89. The Optimistic Case contemplated that the initiatives would succeed to a greater degree than the Base Case and generate between \(\$ 651\) million to \(\$ 1\) billion in new
\begin{tabular}{lllll}
\hline & \(5.00 x\) & \(6.00 x\) & \(\mathbf{7 . 0 0 x}\) & \(\mathbf{8 . 0 0 x}\) \\
\hline \(\mathbf{8 . 0 \%}\) & \(\$ 27.14\) & \(\$ 31.78\) & \(\$ 36.36\) & \(\$ 40.83\) \\
\hline \(9.0 \%\) & \(\$ 25.76\) & \(\$ 30.23\) & \(\$ 34.63\) & \(\$ 38.93\) \\
\hline \(10.0 \%\) & \(\$ 24.45\) & \(\$ 28.76\) & \(\$ 32.96\) & \(\$ 37.12\)
\end{tabular}

The bankers separately analyzed the ability of strategic bidders and financial sponsors to finance a transaction. For strategic bidders, the bankers examined the level of accretion or dilution that a transaction would involve and the acquirer's post-transaction debt-to-equity levels, without accounting for synergies, and assuming either an all-cash deal or a

Illustrative Purchase Price Per Share
transaction involving \(50 \%\) cash and \(50 \%\) stock at prices ranging from \(\$ 30\) to \(\$ 34\) per share. \(I d\). at 42 . For financial sponsors, the bankers calculated the internal rates of return that a sponsor could expect at prices of \(\$ 28\) to \(\$ 33\) per share, assuming total leverage of 5.0x and a January 1, 2018 exit. They following chart summarizes the results:
\begin{tabular}{lllllll}
\hline Exit Multiple & \(\mathbf{\$ 2 8 . 0 0}\) & \(\mathbf{\$ 2 9 . 0 0}\) & \(\mathbf{\$ 3 0 . 0 0}\) & \(\mathbf{\$ 3 1 . 0 0}\) & \(\mathbf{\$ 3 2 . 0 0}\) & \(\mathbf{\$ 3 3 . 0 0}\) \\
\hline \(\mathbf{6 . 0 x}\) & \(20.3 \%\) & \(18.1 \%\) & \(16.2 \%\) & \(14.4 \%\) & \(12.8 \%\) & \(11.3 \%\) \\
\hline \(\mathbf{6 . 5 x}\) & \(23.3 \%\) & \(21.0 \%\) & \(19.0 \%\) & \(17.2 \%\) & \(15.5 \%\) & \(14.0 \%\) \\
\hline \(7.0 x\) & \(26.0 \%\) & \(23.7 \%\) & \(21.6 \%\) & \(19.8 \%\) & \(18.0 \%\) & \(16.5 \%\) \\
\hline \(7.5 x\) & \(28.4 \%\) & \(26.1 \%\) & \(24.0 \%\) & \(22.1 \%\) & \(20.4 \%\) & \(18.8 \%\) \\
\hline \(8.0 x\) & \(30.7 \%\) & \(28.4 \%\) & \(26.2 \%\) & \(24.3 \%\) & \(22.5 \%\) & \(20.9 \%\) \\
\hline
\end{tabular}
financial sponsor (Golden Gate). All had expressed interest earlier in 2013; most had also expressed interest in 2012.
\(I d\). at 43. A financial sponsor thus could not pay \(\$ 33\) or more per share and still clear a hurdle rate of \(20 \%\) unless it projected an exit at 8.0x EBITDA.
*7 At the conclusion of the Board meeting, Credit Suisse and Goldman recommended "in light of the strategic plan review, the indications of interest that the Company had received and the Company's prior negotiating history with certain of the interested parties, that the Company would be best off if it could proceed with soliciting and evaluating offers for the sale of the Company (or its Transaction Services business)." JX 114 at 5. BCG "concurred that in their view, the best alternative for the Company would be to pursue a potential sale of the Company at an attractive price." Id. Management agreed, citing the "unfavorable macroeconomic trends and the market and execution risks inherent in the strategic initiatives." Id.

The directors decided to task Credit Suisse with contacting parties about a sale of the Company or the Services business. They asked the bankers to develop a recommendation for a sale process that the Board could evaluate and approve. PTO - 43.

\section*{J. The Recommended Sale Process}

To implement the Board's directive, Company management and the financial advisors developed a list of the most likely bidders. It included six strategic buyers (Fidelity, Altisource, First American, Nationstar, CoreLogix, and IBM) and one

The financial advisors recommended a three-step sale process. They proposed that "given the history of discussions with [Fidelity]," the Company should first reach out to First American, Altisource, Nationstar, and Golden Gate "to create credible competitive tension in the process." JX 115 at 1. After getting "feedback" from those firms, the bankers would contact Fidelity. Then, after receiving a first round of bids, the bankers would contact CoreLogix and IBM. The bankers also contemplated approaching other parties that were less likely to be interested in or capable of completing a transaction, such as Infosys. Tr. 515 (Geller). The bankers envisioned announcing a deal on June 11, 2013.

On March 25, 2013, the Board approved the process. PTO ๆ 44.

\section*{K. The Actual Sale Process}

The Company and its bankers did not follow the recommended process. Rather than delaying the approach to Fidelity, management met with Fidelity on April 1, 2013. JX 121 at 3 . During the same period, the bankers reached out to the other parties. Everyone but Altisource expressed interest. Altisource said it would not participate, citing the Company's exposure to declining refinancings and defaults. PTO § 46.

The Company entered into confidentiality agreements with Fidelity, THL, Nationstar, Golden Gate, and First American.

Management made presentations to Fidelity and Golden Gate. Management was scheduled to make a presentation to Nationstar, but they dropped out on April 9, 2013. PTO § 51.

Fidelity and THL took less than two weeks to update their analysis of the Company and make a revised offer. By letter dated April 18, 2013, they offered to acquire LPS for \(\$ 32.00\) per share, consisting of \(\$ 16.00\) in cash and \(\$ 16.00\) in Fidelity common stock. PTO § 53. It was the same price they offered in late February, but with more cash. Fidelity and THL made their offer more than a month-and-a-half faster than the timeline that the bankers had recommended.
\begin{tabular}{llll} 
*8 Revenue: & \(\mathbf{2 0 1 3}\) & \(\mathbf{2 0 1 4}\) & \(\mathbf{2 0 1 5}\) \\
\hline Updated Base Case & \(\$ 1,868.3\) & \(\$ 1,789.5\) & \(\$ 1,669.7\) \\
\hline Analyst Consensus & \(\$ 1,861.1\) & \(\$ 1,795.7\) & \(\$ 1,845.9\) \\
\hline \% Difference & \(0.4 \%\) & \(-0.3 \%\) & \(-9.5 \%\) \\
\hline EBITDA: & & \\
\hline Updated Base Case & \(\$ 523.0\) & \(\$ 536.9\) & \(\$ 506.6\) \\
\hline Analyst Consensus & \(\$ 493.7\) & \(\$ 485.8\) & \(\$ 503.1\) \\
\hline \% Difference & \(5.9 \%\) & \(10.5 \%\) & \(0.7 \%\) \\
\hline EBITDA Margin: & & & \\
\hline Updated Base Case & \(28.0 \%\) & \(30.0 \%\) & \(30.3 \%\) \\
\hline Analyst Consensus & \(26.5 \%\) & \(27.1 \%\) & \(27.3 \%\) \\
\hline \% Difference & \(5.5 \%\) & \(10.9 \%\) & \(11.3 \%\)
\end{tabular}

Golden Gate controlled entity in which LPS would retain a "substantial interest." JX 146 at 2. Golden Gate valued its proposal at \(\$ 800\) million. PTO ๆ 54.

On May 3, 2013, the Board met with its financial advisors to discuss the proposals. The bankers generated a range of values, including:
- Comparable companies: \(\$ 21.46\) to \(\$ 30.35\) per share.
- Precedent transactions: \(\$ 28.09\) to \(\$ 34.00\) per share.
- DCF analysis: \(\$ 27.95\) to \(\$ 40.11\) per share.
"[T]he modifications did not result in any significant impact" on the bankers' valuations of the Company. JX 149 at 2. The Company provided the Updated Base Case to Fidelity, First American, and Golden Gate. PTO 『 45; JX 189.

\section*{L. The Board Decides To Sell The Company.}

On May 1 and 2, 2013, First American and Golden Gate submitted their indications of interest. First American proposed to buy the Services business for \(\$ 450-550\) million in cash. PTO 『 55; JX 145. First American said that it preferred a joint venture and would increase its valuation of Services by \(15-20 \%\) as part of that structure. Golden Gate proposed to have the Company contribute the Services business to a

On April 25, 2013, the Company announced results for the first quarter. Compared to the prior quarter, revenue decreased by \(6 \%\) and EBITDA decreased by 7\%. JX 133 at 3. Year over year, revenue decreased by \(3 \%\) and EBITDA increased by \(7 \%\). As expected, the bulk of the decline came from the Services business. The numbers matched management's guidance and the analysts' consensus.

Management updated the Base Case in light of the Company's first quarter (the "Updated Base Case"). The new projections lowered the numbers for 2013 and 2014 but kept the figures for 2015:

\section*{20142015}
\$ 1,789.5 \$ 1,669.7
1,795.7 \$ 1,845.9
-9.5\%
\$ 506.6
503.1

JX 147 at 16. At the time, LPS's stock was trading around \(\$ 27.28\). The Company's \(52-\) week low was \(\$ 21.14\) and its \(52-\) week high was \(\$ 30.88\).

To enable the Board to compare a sale of the Company with a transaction involving the Services business, the bankers analyzed the EBITDA trading multiples that the latter implied for the Analytics business, which ranged from 8.0x to 9.1 x . The Fidelity offer implied a range of EBITDA trading multiples for Analytics of 9.3 x to 10.4x . The Board concluded that selling the Company as a whole was the better course.

In their original plan for the sale process, the bankers envisioned using a bid from Altisource to create competition for Fidelity. Without Altisource, the Board decided to counter at \(\$ 34.50\) per share and ask Fidelity for a collar to support the stock component. PTO 『 56; JX 150. After the Board meeting on May 3, 2013, Credit Suisse conveyed this proposal to Fidelity's banker.

Instead of having its banker respond, Fidelity's Chairman called the Company's Chairman directly. Fidelity's Chairman was Foley, who previously had served as the Chairman of FNF Services. The Company's Chairman was Kennedy, who had served as Chairman, President, and CEO of a company that Fidelity acquired in 2006 in connection with the spinoff of FNF Services. Kennedy then served as CEO of FNF Services under Foley from 2006 through 2009. The petitioners perceive Foley's call as a way for Fidelity to capitalize on Foley's history with Kennedy and to take advantage more generally of the relationships among Fidelity, THL, and the members of the LPS Board.

The call took place on Sunday, May 5, 2013. Foley proposed to split the difference between Fidelity's offer and the Company's counter by increasing the proposed consideration to \(\$ 33.25\) per share. PTO 『 57. The composition would remain \(50 \%\) cash and \(50 \%\) stock, but with a one-way collar that would provide protection against a decline in Fidelity's stock price of more than \(7.5 \%\). He conveyed that Fidelity wanted the right to increase the cash component to offset the dilutive effect of issuing additional shares.
*9 The next day, after a meeting of the Board, Credit Suisse contacted Fidelity's banker to ask for a price increase and a reduction in the percentage decline necessary to trigger the collar. Fidelity refused to increase its price but offered to improve the collar. Fidelity also agreed that if the average price of its stock increased by more than \(6 \%\) and Fidelity
substituted cash for shares, then the cash would reflect the upside that the Company's stockholders would have enjoyed if they received shares.

On May 14, 2013, the Board held a telephonic meeting. Credit Suisse reported on the negotiations, and the Board instructed management and the deal team to begin due diligence on Fidelity and negotiate a merger agreement. The parties used the merger agreement they had negotiated in 2012 as a template, which included a go-shop. The parties kept the go-shop largely because of legal advice the Board received regarding its ability to mitigate potential legal risk. See Carpenter Dep. 124. The concept of a go-shop was not part of the bankers' design for the sale process.

On May 22, 2013, the Wall Street Journal reported that Fidelity and the Company were in merger talks. JX 171 at 1. In response, Macquarie Capital (USA) Inc. issued a report titled, "Best Outcome for LPS is to be Acquired." JX 173 at 1. Macquarie argued that "the [loan] cycle has peaked" and the deal would "rescue[ ] shareholders from pending fundamental slowdown." Id. At the time, Macquarie valued LPS at \(\$ 22\) per share. Id.

\section*{M. The Board Approves The Merger Agreement.}

On May 27, 2013, the Board met to consider the agreement and plan of merger (the "Merger Agreement"). It contemplated consideration of \(\$ 33.25\) per share, paid \(50 \%\) in cash and \(50 \%\) in Fidelity stock (the "Original Merger Consideration"). The formula for the stock component built in a one-way collar that protected against a decline of more than \(5 \%\) in the value of Fidelity's common stock and established a floor for the stock component at \(\$ 15.794\) per share. The Merger Agreement gave Fidelity the right to increase the cash portion and contained a formula that specified how much gain from an increase in Fidelity's stock price would flow through to the Company's stockholders.

The Merger Agreement provided for (i) a 40-day go-shop that would expire on July 7, 2013, (ii) a five-day initial match right that fell back to a two-day unlimited match right, and (iii) a \(\$ 37\) million termination fee for a deal generated during the go-shop. Otherwise the termination fee was \(\$ 74\) million. The lower fee represented \(1.27 \%\) of the equity value of the deal ( \(\$ 2.9\) billion); the higher fee represented \(2.5 \%\) of equity value. Once the go-shop ended, LPS could continue negotiating with any party that had achieved excluded party status or if a party made a bid that met the terms of the fiduciary out.

Credit Suisse and Goldman opined that the transaction consideration was fair. The bankers' valuations had not changed materially since their earlier assessments. Credit Suisse's ranges included:
- Comparable companies: \(\$ 21.25\) to \(\$ 32.93\) per share.
- Precedent transactions: \(\$ 27.81\) to \(\$ 33.67\) per share.
- DCF analysis: \(\$ 27.67\) to \(\$ 39.76\) per share.

JX 175 at 12. Goldman's ranges included:
- Comparable companies: \(\$ 20.35\) to \(\$ 31.74\) per share.
- Precedent transactions: \(\$ 25.42\) to \(\$ 34.41\) per share.
- DCF analysis: \(\$ 26.50\) to \(\$ 37.25\) per share.
- Present value of future share price: \(\$ 21.32\) to \(\$ 32.97\) per share.
JX 177 at 17.

The Board unanimously adopted and approved the Merger Agreement and recommended that the LPS stockholders vote in favor of the transaction.

\section*{N. The Go-Shop}
*10 On May 28, 2013, the bankers started the go-shop process. They contacted twenty-five potential strategic buyers and seventeen potential financial buyers. JX 213 at 5. Only Altisource and two financial sponsors expressed interest and executed confidentiality agreements. PTO \| 61.

The discussions with the financial sponsors never gained traction. Altisource, however, brought in a large team and conducted a "very rigorous level of diligence." Tr. 277 (Schilling). Altisource accessed the data room, received a management presentation, and was given the Company's projections. JX 194; JX 202; Tr. 123 (Harris). Altisource appeared serious and said they would make an offer that included an equity component. In response, the Company began conducting reverse due diligence on Altisource. Tr. 279 (Schilling); JX 199. Management generally preferred Altisource over Fidelity because they thought they would keep their jobs after a deal with Altisource. Tr. 419 (Carpenter).

On June 21, 2013, Altisource withdrew without explaining why. JX 206; Tr. 42 (Harris). There were rumors that several LPS clients did not want a competitor to acquire LPS. See

JX 357 at 1; Tr. 189 (Harris). Credit Suisse had previously estimated that Altisource would face "a net revenue dissynergy" from acquiring the Company because many of LPS's clients would have concerns if it were owned by a competitor, and "any theoretical cost synergy" available to Altisource "would likely be more than offset by the revenue dis-synergy with customers." JX 103.

On July 7, 2013, the go-shop ended. No one had submitted an indication of interest, much less a topping bid.

\section*{O. The Period Leading Up To The Stockholder Vote}

In July 2013, management reported on the Company's second quarter results. Revenues decreased by \(1 \%\) and EBITDA remained flat. Year over year, revenue decreased by \(9 \%\) and EBITDA by \(13 \%\). These results were consistent with management guidance and the consensus forecast.

On August 29, 2013, Fidelity filed a Form S-4 in connection with the transaction. The filing included the Updated Base Case, marking the first time it was publicly disclosed.

In October 2013, management reported on the Company's third quarter results. Revenue declined by \(10.6 \%\) and EBITDA by \(18.4 \%\). Year over year, revenue declined by \(15.8 \%\) and EBITDA by \(25 \%\). The results fell within management's guidance but at the lower end of the range. They came in below analysts' consensus estimates.

On October 31, 2013, LPS filed its definitive proxy statement relating to the Merger. The proxy statement included the Updated Base Case.

Institutional Shareholder Services and Glass Lewis \& Co. recommended that stockholders vote in favor of the Merger. At a meeting of stockholders held on December 19, 2013, holders of \(78.6 \%\) of the outstanding shares voted in favor of the deal. Of the shares that voted, \(98.4 \%\) voted in favor.

Goldman received \(\$ 22.8\) million for its work on the transaction. The proxy statement revealed that Goldman had a lucrative relationship with THL that generated \(\$ 97\) million during the previous two years. Goldman had not previously disclosed these amounts to the Board or LPS management. They learned about the figures when they saw the proxy statement. Tr. 171 (Harris).

Credit Suisse received \(\$ 21.8\) million for its work on the deal. The proxy statement revealed that Credit Suisse had received
\$26 million from THL during the previous two years. Credit Suisse had not previously disclosed these amounts to the Board or LPS management. The directors learned about the figures when they saw the proxy statement.

\section*{P. The Merger Closes.}
*11 On January 2, 2014, the Merger closed. Fidelity's stock price had increased in the interim, resulting in an increase in the merger consideration. Fidelity elected twice to increase the cash component, which ended up at \(\$ 28.10\) per share. The collar yielded a stock component valued at \(\$ 9.04\) per share. The aggregate merger consideration received by the Company's stockholders at closing was \(\$ 37.14\) per share (the "Final Merger Consideration"). The equity value of the final deal was \(\$ 3.4\) billion, an increase of approximately \(\$ 500\) million over the value at signing. Net of \(\$ 287\) million in cash and \(\$ 1.1\) billion in debt, the enterprise value of the deal was \(\$ 4.2\) billion.

The Initial Merger Consideration of \(\$ 33.25\) per share and the Final Merger Consideration of \(\$ 37.14\) per share represented premiums of \(14 \%\) and \(28 \%\) respectively over the Company's unaffected market price on May 22, 2013, the last trading day before the Wall Street Journal reported on the merger discussions. The Final Merger Consideration provided a premium of approximately \(20 \%\) over Altisource's expression of interest in February 2013.

Evidence in the record indicates that the Initial Merger Consideration and the Final Merger Consideration included a portion of the value that Fidelity and THL expected to generate from synergies.
- In May 2012, when THL, Blackstone, and Fidelity made an offer of \(\$ 29\) per share to acquire the Company, they explained that the offer price depended in part on anticipated synergies with Fidelity's ServiceLink business. JX 260 at 53.
- In March 2013, Credit Suisse made a preliminary estimate that a transaction with Fidelity could generate annual synergies of \(\$ 50\) to \(\$ 65\) million, with \(\$ 40\) to \(\$ 50\) million coming from the combination of Services and ServiceLink and another \(\$ 10\) to \(\$ 15\) million from reduced corporate overhead. JX 103.
- In May 2013, in its presentation to the Board, Credit Suisse estimated "Potential Synergies- \(\$ 50 \mathrm{~mm}\) in cost synergies in 2013E, \(\$ 100 \mathrm{~mm}\) in 2014 E and \(\$ 100 \mathrm{~mm}\) thereafter. JX 180 at 45 . Goldman estimated that "net synergies include \(\$ 100 \mathrm{~mm}\) in run-rate cost savings." JX 178 at 34.
- In May 2013, Fidelity made a presentation to the rating agencies that forecasted " \(\$ 75\) million of [annual] cost synergies" from the transaction. JX 164 at 4. Fidelity cited its "strong history of overachieving forecasted synergies." Id. at 8 .
- The press release announcing the deal attributed the following quote to Foley, Fidelity's Chairman: "We believe there are meaningful synergies that can be generated through the similar businesses in centralized refinance and default related products, elimination of some corporate and public company costs and the shared corporate campus. We have set a target of \(\$ 100\) million for cost synergies and are confident that we can meet or exceed that goal." JX 186, Ex. 99.1 at 2.
- Merion internally modeled \(\$ 100\) million in synergies as part of its investment analysis. JX 310.
- The respondent's expert cited an analyst report which described the synergy estimate as "conservative, considering business overlap between [Services] and ServiceLink ( \(\sim 2 B\) in combined revenue) and the potential elimination of corporate and management cost redundancies." JX 296 『 126.

The prospect of \(\$ 100\) million in synergies was a significant source of value. Using a higher discount rate than this decision adopts, the Company's expert calculated that the \(\$ 100\) million target would translate into approximately \(\$ 660.4\) million of present value, or \(\$ 7.50\) per share. \(I d\). ब 128 .

\section*{Q. The Company's Post-Closing Performance}

Post-closing, Fidelity divided the Company's operations into two separate subsidiaries, combined the Services business with its ServiceLink business, and issued a \(35 \%\) interest in each subsidiary to THL. On March 31, 2014, KPMG LLP issued a final financial report for the combined entity. Across the board, the Company's results came in below the Updated Base Case.
*12 Actual Updated Base Case Actual v. Updated Base Case
\begin{tabular}{lllll}
\hline TD \& A & \(\$ 757.2\) & \(\$ 800.9\) & \((\$ 43.7)\) & \((5.5 \%)\) \\
\hline Transaction Services & \(\$ 965.8\) & \(\$ 1,067.3\) & \((\$ 101.5)\) & \((9.5 \%)\) \\
\hline Total Revenue & \(\$ 1,723.5\) & \(\$ 1,868.3\) & \((\$ 144.8)\) & \((7.8 \%)\) \\
\hline Operating Expense & \(\$ 1,285.1\) & \(\$ 1,345.3\) & \((\$ 60.2)\) & \((4.5 \%)\) \\
\hline EBITDA & \(\$ 438.4\) & \(\$ 523.0\) & \((\$ 84.6)\) & \((16.2 \%)\) \\
\hline \% Margin & \(25.4 \%\) & \(28.0 \%\) & \((9.1 \%)\) \\
EBIT & \(\$ 333.0\) & \(\$ 415.1\) & \((\$ 82.1)\) & \((19.8 \%)\) \\
\hline
\end{tabular}

JX 296 Ex. 15 (summarizing documents).

\section*{R. This Litigation}

Merion purchased 5,682,276 shares after the announcement of the Merger and before the stockholder vote. Merion demanded appraisal, did not withdraw its demand or vote in favor of the Merger, and eschewed the Final Merger Consideration. Merion pursued this appraisal action to obtain a judicial determination of the fair value of its shares.

\section*{II. LEGAL ANALYSIS}
"An appraisal proceeding is a limited legislative remedy intended to provide shareholders dissenting from a merger on grounds of inadequacy of the offering price with a judicial determination of the intrinsic worth (fair value) of their shareholdings." Cede \& Co. v. Technicolor, Inc. (Technicolor I), 542 A.2d 1182, 1186 (Del. 1988). Section 262(h) of the Delaware General Corporation Law (the "DGCL") states that the Court shall determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation, together with interest, if any, to be paid upon the amount determined to be the fair value. In determining such fair value, the Court shall take into account all relevant factors.
8 Del. C. § 262(h).

Because of the statutory mandate, the allocation of the burden of proof in an appraisal proceeding differs from a liability proceeding. "In a statutory appraisal proceeding, both sides have the burden of proving their respective valuation positions by a preponderance of evidence." M.G.

Bancorporation, Inc. v. Le Beau, 737 A.2d 513, 520 (Del. 1999).

Each party also bears the burden of proving the constituent elements of its valuation position by a preponderance of the evidence, including the propriety of a particular method, modification, discount, or premium. If both parties fail to meet the preponderance standard on the ultimate question of fair value, the Court is required under the statute to make its own determination.
Jesse A. Finkelstein \& John D. Hendershot, Appraisal Rights in Mergers \& Consolidations, 38-5th C.P.S. §§ IV(H)(3), at A-89 to A-90 (BNA) (collecting cases) [hereinafter Appraisal Rights]. "Proof by a preponderance of the evidence means proof that something is more likely than not. It means that certain evidence, when compared to the evidence opposed to it, has the more convincing force and makes you believe that something is more likely true than not." Agilent Techs., Inc. v. Kirkland, 2010 WL 610725, at *13 (Del. Ch. Feb. 18, 2010) (Strine, V.C.) (internal quotation marks omitted). "Under this standard, [a party] is not required to prove its claims by clear and convincing evidence or to exacting certainty. Rather, [a party] must prove only that it is more likely than not that it is entitled to relief." Triton Constr. Co. v. E. Shore Elec. Servs., Inc., 2009 WL 1387115, at *6 (Del. Ch. May 18, 2009), aff'd, 988 A.2d 938 (Del. 2010) (TABLE).
*13 The standard of "fair value" is "a jurisprudential concept that draws more from judicial writings than from the appraisal statue itself." Del. Open MRI Radiology Assocs., P.A. v. Kessler, 898 A.2d 290, 310 (Del. Ch. 2006) (Strine, V.C.). "The concept of fair value under Delaware law is not equivalent to the economic concept of fair market value. Rather, the concept of fair value for purposes of Delaware's appraisal statute is a largely judge-made creation, freighted with policy considerations." Finkelstein v. Liberty Dig., Inc.,

2005 WL 1074364, at *12 (Del. Ch. Apr. 25, 2005) (Strine, V.C.).

In Tri-Continental Corp. v. Battye, 74 A.2d 71 (Del. 1950), the Delaware Supreme Court explained in detail the concept of value that the appraisal statute employs:

The basic concept of value under the appraisal statute is that the stockholder is entitled to be paid for that which has been taken from him, viz., his proportionate interest in a going concern. By value of the stockholder's proportionate interest in the corporate enterprise is meant the true or intrinsic value of his stock which has been taken by the merger. In determining what figure represents the true or intrinsic value, \(\ldots\) the courts must take into consideration all factors and elements which reasonably might enter into the fixing of value. Thus, market value, asset value, dividends, earning prospects, the nature of the enterprise and any other facts which were known or which could be ascertained as of the date of the merger and which throw any light on future prospects of the merged corporation are not only pertinent to an inquiry as to the value of the dissenting stockholder's interest, but must be considered .... \({ }^{1}\)
When applying this standard, the corporation "must be valued as a going concern based upon the operative reality' of the company as of the time of the merger, taking into account its particular market position in light of future prospects." M.G. Bancorporation, 737 A.2d at 525. A determination of fair value assesses "the value of the company ... as a going concern, rather than its value to a third party as an acquisition." M.P.M. Enters., Inc. v. Gilbert, 731 A.2d 790, 795 (Del. 1999).
"The statutory obligation to make a single determination of a corporation's value introduces an impression of false precision into appraisal jurisprudence." In re Appraisal of Dell Inc. (Dell Fair Value), 2016 WL 3186538, at *22 (Del. Ch. May 31, 2016). "The value of a corporation is not a point on a line, but a range of reasonable values, and the judge's task is to assign one particular value within this range as the most reasonable value in light of all the relevant evidence and based on considerations of fairness." Cede \& Co. v. Technicolor, Inc., 2003 WL 23700218, at *2 (Del. Ch. July 9, 2004), aff'd in part, rev'd on other grounds, 884 A.2d 26 (Del. 2005).

\section*{A. The Deal Price As Evidence Of Fair Value}

The Company contends that the Final Merger Consideration establishes a ceiling for the fair value of the Company. As the proponent of this valuation methodology, the Company
bears the burden of establishing its reliability. In this case, the Initial Merger Consideration provides reliable evidence of the Company's fair value at the time of signing, and the Final Merger Consideration provides reliable evidence of the Company's fair value at the effective time.

\section*{1. Deal Price As One Form Of Market Evidence}
*14 "The consideration that the buyer agrees to provide in the deal and that the seller agrees to accept is one form of market price data, which Delaware courts have long considered in appraisal proceedings." Dell Fair Value, 2016 WL 3186548, at *22. See generally Appraisal Rights, supra, at A-57 to A-59. Chancellor Allen summarized the law on the use of market price data as follows:

It is, of course, axiomatic that if there is an established market for shares of a corporation the market value of such shares must be taken into consideration in an appraisal of their intrinsic value. ... It is, of course, equally axiomatic that market value, either actual or constructed, is not the sole element to be taken into consideration in the appraisal of stock. \({ }^{2}\)
Numerous cases support Chancellor Allen's observations that (i) pricing data from a thick and efficient market should be considered \({ }^{3}\) and (ii) market price alone is not dispositive. \({ }^{4}\) The trial court "need not accord any weight to [values derived from the market] when unsupported by evidence that they represent the going concern value of the company at the effective date of the merger." M.P.M., 731 A.2d at 796.
"Recent jurisprudence has emphasized Delaware courts' willingness to consider market price data generated not only by the market for individual shares but also by the market for the company as a whole." Dell Fair Value, 2016 WL 3186548 , at \(* 23\). If the merger giving rise to appraisal rights "resulted from an arm's-length process between two independent parties, and if no structural impediments existed that might materially distort the 'crucible of objective market reality,'" then "a reviewing court should give substantial evidentiary weight to the merger price as an indicator of fair value."5
*15 "Here too, however, the Delaware Supreme Court has eschewed market fundamentalism by making clear that market price data is neither conclusively determinative of nor presumptively equivalent to fair value." Dell Fair Value, 2016 WL 3186548, at *23.

Section 262(h) neither dictates nor even contemplates that the Court of Chancery should consider the transactional market price of the underlying company. Rather, in determining "fair value," the statute instructs that the court "shall take into account all relevant factors." Importantly, this Court has defined "fair value" as the value to a stockholder of the firm as a going concern, as opposed to the firm's value in the context of an acquisition or other transaction. Determining "fair value" through "all relevant factors" may be an imperfect process, but the General Assembly has determined it to be an appropriately fair process. ...

Section 262(h) unambiguously calls upon the Court of Chancery to perform an independent evaluation of "fair value" at the time of a transaction. It vests the Chancellor and Vice Chancellors with significant discretion to consider "all relevant favors" and determine the going concern value of the underlying company. Requiring the Court of Chancery to defer-conclusively or presumptivelyto the merger price, even in the face of a pristine, unchallenged transactional process, would contravene the unambiguous language of the statute and the reasoned holdings of our precedent. It would inappropriately shift the responsibility to determine "fair value" from the court to the private parties. Also, while it is difficult for the Chancellor and Vice Chancellors to assess wildly divergent expert opinions regarding value, inflexible rules governing appraisal provide little additional benefit in determining "fair value" because of the already high costs of appraisal actions. ... Therefore, we reject ... [the] call to establish a rule requiring the Court of Chancery to defer to the merger price in any appraisal proceeding.
Golden Telecom, Inc. v. Glob. GT LP (Golden Telecom II), 11 A.3d 214, 217-18 (Del. 2010) (footnotes omitted).

Since Golden Telecom II, the Court of Chancery has regularly considered the deal price as a relevant factor when determining fair value, but it has not deferred automatically or presumptively to the deal price. The court also has not equated satisfying the standards of review that govern fiduciary duty claims with carrying the burden of proof in an appraisal proceeding. Because the two inquiries are different, a sale process might pass muster for purposes of a breach of fiduciary claim and yet still constitute a sub-optimal process of an appraisal. \({ }^{6}\)
*16 In evaluating the persuasiveness of the deal price, this court has cautioned that " \([t]\) he dependability of a transaction
price is only as strong as the process by which it was negotiated." Merlin P'rs LP v. AutoInfo, Inc., 2015 WL 2069417, at *11 (Del. Ch. Apr. 30, 2015). What is required is "a proper transactional process likely to have resulted in an accurate valuation of [the] acquired corporation." LongPath Capital, LLC v. Ramtron Int'l Corp., 2015 WL 4540443, at *21 (Del. Ch. June 30, 2015). Under this standard, the court will rely "on the merger price itself as evidence of fair value, so long as the process leading to the transaction is a reliable indicator of value and any merger-specific value in that price is excluded." Merion Capital LP v. BMC Software, Inc., 2015 WL 6164771, at *11 (Del. Ch. Oct. 21, 2015). "[T]he Court will give little weight to a merger price unless the record supports its reliability." AutoInfo, 2015 WL 2069417, at *11. The deal price "is informative of fair value only when it is the product of not only a fair sale process, but also of a well functioning market." In re Appraisal of DFC Glob. Corp., 2016 WL 3753123, at *21 (Del. Ch. July 8, 2016).

Evaluating the reliability and persuasiveness of the deal price for purposes of establishing fair value in an appraisal proceeding is a multifaceted, fact-specific inquiry. The relevant factors can vary from case to case depending on the nature of the company, the overarching market dynamics, and the areas on which the parties focus. The last is perhaps an underappreciated aspect of appraisal jurisprudence. Because an appraisal decision results from litigation in which adversarial parties advance arguments and present evidence, the issues that the court considers and the outcome that it reaches depend in large part on the arguments that the advocates make and the evidence they present. An argument may carry the day in a particular case if counsel advance it skillfully and present persuasive evidence to support it. The same argument may not prevail in another case if the proponents fail to generate a similarly persuasive level of probative evidence or if the opponents respond effectively.

\section*{2. The Persuasiveness Of The Initial Merger Consideration}

The Company demonstrated at trial that the Initial Merger Consideration provides a reliable indicator of the Company's fair value at the time of the signing of the Merger Agreement. Multiple factors contribute to this court's determination that the sale process that the Board conducted provided an effective means of price discovery.

\section*{a. Meaningful Competition During The Pre-Signing Phase}

The first factor supporting the persuasiveness of the Company's sale process is the existence of meaningful competition among multiple bidders during the pre-signing phase. \({ }^{7}\) Scholars who study auction design agree on the importance of creating competition among multiple bidders. \({ }^{8}\) Renowned M \& A practitioner Marty Lipton has contrasted the effects of adding another interested party at the front end of a negotiation with the effect of bargaining more vigorously with a single counterparty at the back end. Lipton even roughly quantified the added value of adding another interested party: "The ability to bring somebody into a situation is far more important than the extra dollar a share at the back end. At the front end, you're probably talking about \(50 \%\). At the back end, you're talking about 1 or 2 percent." \({ }^{\prime}\)
*17 Equally important, the Company's process involved different types of bidders, which is critical for promoting competition. \({ }^{10}\) "[T]he most important driver of market efficiency for [change of control] transactions [is] heterogeneous buyers." Subramanian, supra, at 713. Among homogenous bidders, a sale process functions as a commonvalue auction, but with heterogeneous bidders, the sale process functions as a private-value auction. \({ }^{11}\) The latter is better for the seller because in a private-value auction, "honest reporting of values is a dominant strategy for bidders." \({ }^{12}\) Finding heterogeneous bidders generally means involving strategic buyers. \({ }^{13}\) Financial sponsors, by contrast, predominantly use the same pricing models, the same inputs, and the same value-creating techniques. \({ }^{14}\) Absent distorted market conditions, "strategic bidders are systematically willing to pay more than financial bidders," \({ }^{15}\) and the fact that "average returns to [strategic] acquirers are close to zero or even negative" suggests that acquirers pay full value for targets, inclusive of the benefits of control and synergies. See Gorbenko \& Malenko, supra, at 2537. Financial buyers, by contrast, generally pay lower premiums \({ }^{16}\) and are hampered by limitations on leverage and the need to achieve their internal hurdle rates. \({ }^{17}\)
*18 In this case, the Board conducted a sale process that involved a reasonable number of participants and created credible competition among heterogeneous bidders during the
pre-signing phase. The process began after the Board received five unsolicited indications of interest, with three from strategic buyers (Fidelity, Altisource, and First American) and two from financial sponsors (Flexpoint and Golden Gate). The Board did not immediately enter into negotiations or launch a sale process. Instead it awaited the results of BCG's analysis and obtained input from management and its financial advisors about strategic alternatives. With the benefit of that information, including estimates of the Company's standalone value based on BCG's scenarios, the Board was well-positioned to solicit bids for the Company and its Services business and to evaluate those bids against other possibilities, including remaining a standalone entity. Having decided to solicit bids, the Board went beyond the parties who had submitted unsolicited expressions of interest by identifying three additional strategic buyers. The Board's financial advisors approached all of the potential bidders on equal terms, and all knew that the Board was conducting a sale process and so faced the prospect of competition when formulating their offers.

The petitioners have argued that although the Board may have set out to generate competition, its efforts failed because Altisource decided not to bid. They say that this left Fidelity without any competition as the only strategic bidder for the whole Company. It is possible that a single-bidder process, even one that would be defensible from a fiduciary duty standpoint, could be unpersuasive for purposes of price discovery for an appraisal. In \(C K x\), for example, the court relied exclusively on the market price, but stressed that the case involved meaningful pre-signing competition and was not one in which "the only evidence that a merger price was the result of 'market' forces was a post-signing goshop period (which failed to produce competing bids) ...." 2013 WL 5878807, at *13. Likewise in Orchard Enterprises, the court declined to give weight to the merger price in an appraisal action where "the trial did not focus extensively on the quality of marketing ... or the utility of the 'go shop' provision in the merger agreement, which could obviously have been affected by [a large stockholder's] voting power and expressed interest to acquire all of [the company] for itself." 2012 WL 2923305, at *5.

Importantly, however, if bidders perceive a sale process to be relatively open, then a credible threat of competition can be as effective as actual competition:

Even when there is only one buyer, that buyer could feel compelled to act as if there were more. In a perfectly contestable market, competitive pressures exerted by the
perpetual threat of entry (as well as by the presence of actual rivals) induce competitive behavior. Free entry is a sufficient condition for a market to be perfectly contestable. ...
Aktas et al., supra, at 242-43. Consequently, "competition need not be observed ex post for the M \& A market to be efficient." Id. at 242. "Competition, or the threat of competition, is a strong incentive for buyers to make higher bids for sellers." Bulletproof, supra, at 884 (emphasis added); see also id at 879-80 (surveying literature on auction theory and concluding that " \([\mathrm{t}]\) he two key insights are that competition, or the threat of competition, will lead to a price closer to the buyer's reservation price and that the price effect of one additional competitor is greater than the price effects attributable to bargaining").

During the pre-signing phase, Fidelity and THL did not know that Altisource had dropped out. They instead knew that the Company was conducting a sale process involving multiple parties, and they also knew that the merger agreement that they had negotiated with the Company in 2012 and planned to use as the framework for their 2013 deal included a go-shop, which could create a path for post-signing competition by a strategic competitor. \({ }^{18}\) In this case, the Company established the presence of a competitive dynamic during the pre-signing phase that that generated meaningful price discovery.
*19 Reinforcing the threat of competition from other parties was the realistic possibility that the Company would reject the Fidelity/THL bid and pursue a different alternative. Fidelity and THL had approached the Company previously in 2010, 2011, and 2012. Each time, the Board had declined to pursue a transaction. In 2012, the Board had rejected premium bids of \(\$ 26.50, \$ 28.00\), and \(\$ 29.00\) per share, choosing instead to continue operating the Company on a stand-alone basis. In early 2013, the Board also rejected Fidelity/THL's preliminary indication of interest of \(\$ 30.00\) per share. The Board's track record of saying "no" gave Fidelity/THL a credible reason to believe that the Board would not sell below its internal reserve price. See Tr. 483 (Carpenter) ("And I might add that [Fidelity] had learned in prior times that we would walk away when they didn't raise their bid.").

By citing the involvement of multiple, heterogeneous bidders during the pre-signing phase, this decision is not suggesting any legal requirement to engage with multiple bidders. There may be sound business reasons for not doing so, and "[n]othing in our jurisprudence suggests that an auction process need conform to any theoretical standard." CKx, 2013

WL 5878807, at *14. As this court has observed, "a multibidder auction of a company" is not a "prerequisite to finding that the merger price is a reliable indicator of fair value." Ramtron, 2015 WL 4540443, at \(* 21\). The point of citing the involvement of multiple bidders in this case is more limited. It is simply that because the Company contacted a reasonable number of heterogeneous bidders during the presigning phase, its argument for reliance on the deal price (all else equal) is more persuasive. \({ }^{19}\)

\section*{b. Adequate And Reliable Information During The PreSigning Phase}

Another factor supporting the effectiveness of the sale process in this case was that adequate and reliable information about the Company was available to all participants, which contributed to the existence of meaningful competition. Delaware cases have questioned the validity of a sale process when reliable information is unavailable for reasons that have included regulatory uncertainty \({ }^{20}\) and persistent misperceptions about the corporation's value. \({ }^{21}\) A company also can create informational inadequacies by providing disparate information to bidders. See Goeree \& Offerman, supra, at 600 . If a seller only makes information available to one bidder, then the seller has given that bidder a subsidy. See id. The effect of disparate information is greater in a common value auction than in a private value auction. \({ }^{22}\) Strategic buyers, who have their own private sources of value and trade-based informational advantages, are less affected by information disparities than financial buyers, who are more susceptible to the winner's curse. See Dell Fair Value, 2016 WL 3186538, at *42; Denton, supra, at 1546.
*20 In this case, all bidders received equal access to information about the Company. All had the opportunity to conduct due diligence before submitting their bids, and several did so. There is no evidence in the record suggesting that the Company or its advisors provided any particular bidder with informational advantages. This is also not a case where the size of the Company or the nature of its business made it difficult to understand and assess. Cf. Dell Fair Value, 2016 WL 3186538, at *40-41. Every bidder who submitted an indication of interest, including Altisource in early 2013, identified a limited amount of time for conducting due diligence, typically four weeks.

The record in this case lacked persuasive evidence of factors that would undermine the reliability of information that bidders received, such as a regulatory overhang or a significant disconnect between the Company's unaffected market price and informed assessments of fair value by insiders. Compare DFC Glob., 2016 WL 3753123, at *21; Dell Fair Value, 2016 WL 3186538, at *32-36. The petitioners have pointed to the legal uncertainty that surrounded the Company and the proximity of the sale process to the settlements that the Company announced in January 2013. They argue that stockholders did not sufficiently understand the Company's significant value once its legal risk had been addressed. It is true that there was a regulatory overhang from the investigations in the Company's involvement in robo-signing and related stockholder litigation, but the settlements cleared up those issues. The weight of the evidence at trial indicated that the settlements made the Company easier to understand, and the Company's stock price increased substantially following the announcement of the settlements.

The record in this case lacked persuasive indications of irrational or exaggerated pessimism, whether driven by shorttermism or otherwise, that could have anchored the price negotiations at levels below fair value. \({ }^{23}\) A variety of factors indicated that the market price was providing a reliable valuation indicator. Management believed that its efforts to educate the market had succeeded, that the Company's stockholders understood its business, and that they were focused on its long-term prospects. Since 2011, analysts had established a pattern of accurately predicting the Company's performance. The valuation ranges that the Company's advisors generated in 2012 and 2013 using DCF analyses were also generally consistent with market indicators. See JX 33 at 17.

\section*{c. Lack Of Collusion Or Unjustified Favoritism Towards Particular Bidders}
*21 A third factor supporting the effectiveness of the sale process in this case was the absence of any explicit or implicit collusion, whether among bidders or between the seller and a particular bidder or subset of bidders. \({ }^{24}\) Under Delaware law, only an "arms-length merger price resulting from an effective market check" is "entitled to great weight in an appraisal." Glob. GT LP v. Golden Telecom, Inc. (Golden Telecom I), 993 A.2d 497, 508-09 (Del. Ch. 2010) (Strine, V.C.), aff'd, 11 A.3d 214 (Del. 2010). A common risk in
corporate sale processes is the possibility that management will favor a particular bidder for self-interested reasons, even if the favoritism does not rise to the level of an actionable breach of duty; a reliable sales process avoids that taint. \({ }^{25}\)
*22 The Merger was not an MBO. To the contrary, the Company's management team believed that Fidelity would not retain them if it acquired the Company. This gave the management team a powerful personal incentive not to favor Fidelity and not to seek (consciously or otherwise) to deliver the Company to Fidelity at an advantageous price. Instead it gave the management team an additional incentive to seek out other bidders and create competition for Fidelity.

The petitioners have pointed to ties among Fidelity, THL, and members of the Board which they say undermined the sale process in general and the price negotiation in particular. It is true that there were relationships among Fidelity, THL, and members of the Board, in large part because of the Company's history. Recall that Fidelity purchased the Alltel financial division that eventually became the Company in 2003, reorganized it as part of FNF Services, then spunoff FNF Services in 2006. FNF Services in turn spun off the Company in 2008. The Company's CEO, Harris, had consulted for Fidelity and THL on the Alltel acquisition and managed FNF Services from 2002 through 2006. Kennedy, the Company's Chairman, had served as CEO of FNF Services from 2006 through 2009, and during that time Foley, the Chairman of Fidelity, was Executive Chairman of FNF Services. Hunt, another outside director, served as an officer of one of THL's portfolio companies. The Company and Fidelity also shared a common business campus in Jacksonville, Florida (although they occupied separate office buildings).

These relationships warranted close examination, but they did not compromise the sale process. Harris interacted with Fidelity and other bidders in his capacity as CEO, but he recused himself from deliberating as a director during the 2013 sale process. Hunt also recused himself. Kennedy participated only after the Board determined that he did not have a conflict. All of the members of the Board and management were net sellers in the deal, and they collectively expected to receive approximately \(\$ 100\) million from the Merger in stock-based compensation. See JX 260 at 91-99; Tr. 784 (Hausman). Harris in particular had an incentive to maximize the value of his shares, because he planned to retire. As noted, the management team as a whole believed that if Fidelity acquired the Company, they would not retain their positions, meaning that maximizing the value of the merger
consideration was the best way for them to obtain value from the deal. There also was a history of competition between Fidelity's ServiceLink business and the Company, and during the sale process management resisted providing sensitive information to what it regarded as its closest competitor. See JX 46.

The petitioners complain the loudest about the call that Foley made to Kennedy, where Foley proposed consideration of \(\$ 33.25\) per share, essentially splitting the difference between Fidelity's offer of \(\$ 32\) per share and the Company's counteroffer of \(\$ 34.50\) per share. Although the Company's bankers made one more try to get more consideration, the headline price term was effectively set during that telephone call, and negotiations from that point on revolved around the collar and other aspects of the deal. The petitioners seem to believe that during that call, Kennedy committed to \(\$ 33.25\) per share, ending the negotiations at a point below where they would have ended up otherwise. But Kennedy did not have authority to lock the Board in to \(\$ 33.25\) per share, and the Board in fact had its bankers push back once more. Nor is it clear that the negotiations would have ended in a different place if Fidelity's banker had responded to Credit Suisse, as the petitioners would have preferred.
*23 More importantly, the record indicates that even at \(\$ 33.25\) per share, the deal price included a portion of the synergies that Fidelity and THL hoped to achieve from the transaction, including revenue synergies from combining the Company's Services business with Fidelity's ServiceLink unit. Assuming for the sake of argument that a negotiator without a historical relationship with Foley might have extracted more than \(\$ 33.25\) per share, the record indicates that the additional amount would have represented a portion of the combinatorial value of the Company to Fidelity, not increased going concern value to which the petitioners would be entitled in an appraisal. "A merger price resulting from arms-length negotiations ... is a very strong indication of fair value," but it "must be accompanied by evidence tending to show that it represents the going concern value of the company rather than just the value of the company to one specific buyer." M.P.M., 731 A. 2 d at 797. "The fact that a board has extracted the most that a particular buyer (or type of buyer) will pay does not mean that the result constitutes fair value." Dell Fair Value, 2016 WL 3186538, at *29. Likewise, the fact that a negotiator has failed to extract the most a particular buyer (or type of buyer) will pay does not mean that what the negotiator obtained did not already exceed fair value. In Dell, the former was true. In this case, the latter was true.

\section*{d. Conclusion Regarding The Initial Merger Consideration}

The evidence at trial established that the Initial Merger Consideration is a reliable indicator of fair value as of the signing of the Merger Agreement. The evidence indicating that the transaction price included synergies suggests that the fair value of the Company as of the signing of the Merger Agreement would not have exceeded the value of the Initial Merger Consideration. The valuation date for purposes of an appraisal, however, is not the date on which the Merger Agreement was signed, but rather the date on which the merger closes.

\section*{3. Evidence From The Post-Signing Period}

Over seven months elapsed between the signing of the Merger Agreement on May 27, 2013, and the closing of the merger on January 2, 2014. The parties have to address this temporal gap, because " \([t]\) he time for determining the value of a dissenter's shares is the point just before the merger transaction 'on the date of the merger.' "Appraisal Rights A33 (quoting Technicolor I, 542 A.2d at 1187). Consequently, if the value of the corporation changes between the signing of the merger and the closing, the fair value determination must be measured by the "operative reality" of the corporation at the effective time of the merger. Cede \& Co. v. Technicolor, Inc. (Technicolor II), 684 A.2d 289, 298 (Del. 1996).

Neither side presented analyses of the potential for valuation change between signing and closing. Neither analyzed changes in value of market indices or (arguable) peer companies. Neither attempted to use these metrics to bring the Company's market price forward, as parties sometimes historically did under the Delaware Block Method. See Appraisal Rights, supra, at A-58 (collecting cases). The petitioners pointed to the existence of the temporal gap as a reason not to rely on either the deal price or market-based metrics associated with the signing of the deal. They argued that in light of the temporal gap, the court should construct its own valuation as of the closing date.

The respondent approached the temporal gap differently. They argued that (i) the failure of a topping bid to emerge between announcement of the deal and the stockholder vote validated the deal price, (ii) the Company's performance declined during the gap period, and (iii) Fidelity's stock traded
up, resulting in the Company's stockholders receiving the higher Final Merger Consideration. The respondent argued that the Final Merger Consideration therefore exceeded fair value, particularly because of evidence that the deal included combinatorial synergies.

Taken as a whole, the evidence at trial established that the Final Merger Consideration was a reliable indicator of fair value as of the closing of the Merger and that, because of synergies and a post-signing decline in the Company's performance, the fair value of the Company as of the closing date did not exceed the Final Merger Consideration.

\section*{a. The Absence Of A Topping Bid}
*24 During the seven-month period between signing and closing, no other bidder submitted an indication of interest or made a competing proposal. During the first forty days of the post-signing period, the Company conducted a go-shop. After that, until the meeting of stockholders on December 19, 2014, the Company was free to respond to a topping bid that constituted a Superior Proposal. The time leading up to the meeting of stockholders amounted to a five-month windowshop.

A go-shop period is less common in deals involving strategic buyers like Fidelity than in MBOs involving private equity sponsors. \({ }^{26}\) MBOs in which a management team has affiliated with an incumbent financial sponsor rarely generate topping bids, particularly from other financial sponsors. \({ }^{27}\) It is not clear how a go-shop in a deal with a strategic acquirer would affect the behavior of other strategic bidders. It seems logical that relative to a deal without a go-shop, a strategic buyer would be more likely to compete when a deal involved a goshop.

In this case, however, several factors undermined the efficacy of the go-shop. First, it was not part of the bankers' plan for the sale process. The parties appear to have kept the goshop because of legal advice indicating that it would help mitigate litigation risk in the event a stockholder sued the board for breach of fiduciary duty. The bankers gave no advice regarding the timing or structure of the go-shop, and the respondent's counsel invoked the attorney-client privilege to block discovery into discussions regarding the go-shop. The go-shop appears to have been a lawyer-driven add-on.

Second, the quality of the contacts during the goshop is suspect. It is true that the Company's financial advisors contacted twenty-five potential strategic buyers and seventeen potential financial buyers, which are impressive headline numbers. The bulk of those companies, however, already had demonstrated that they were not interested in acquiring the Company, had been ruled out by the Board and its bankers as unlikely transaction partners, or were "the usual opportunities." Carpenter Dep. 129-30.

Only Altisource and two financial buyers expressed interest during the go-shop period. Neither bid. One could view the lack of interest and absence of bidding during the go-shop phase as providing support for the proposition that the Initial Merger Consideration equaled or exceeded fair value. See Highfields Capital, Inc. v. AXA Fin., Inc., 939 A.2d 34, 62 (Del. Ch. 2007) ("The more logical explanation for why no bidder ever emerged is self-evident: MONY was not worth more than \(\$ 31\) per share."). The more logical explanation on the facts of this case is that potential overbidders did not see a realistic path to success. To make it worthwhile to bid, a potential deal jumper must not only value the target company above the deal price, but also perceive a pathway to success that is "sufficiently realistic to warrant incurring the time and expense to become involved in a contested situation, as well as the potential damage to professional relationships and reputation from intervening and possibly being unsuccessful." Dell Fair Value, 2016 WL 3186538, at *39. The lack of a realistic path to success explains why a bidder "would choose not to intervene in a go-shop, even if it meant theoretically leaving money on the table by allowing the initial bidder to secure an asset at a beneficial price." Id.
*25 In this case, the most persuasive explanation is that the existence of an incumbent trade bidder holding an unlimited match right was a sufficient deterrent to prevent other parties from perceiving a realistic path to success. \({ }^{28}\) Put differently, for another bidder to warrant intervening, the bidder would have had to both (i) value the Company more highly than \(\$ 33.25\) per share and (ii) believe that it could outbid Fidelity, recognizing that Fidelity could achieve synergies from acquiring the Company and therefore would be likely to be able to outbid any competitor that lacked similar access to synergies or a comparable source of private value. Without the second half of the equation, an overbidder could force Fidelity to pay more, but it could not ultimately prevail. Without a realistic path to success, it made no sense to get involved.

At first blush, Altisource's decision not to bid during the go-shop phase appears to suggest that the Initial Merger Consideration exceeded fair value. Altisource was a trade bidder and therefore might have been expected to generate synergies from a transaction with the Company. If so, and if the Initial Merger Consideration was equivalent to or less than fair value, than Altisource could have contested Fidelity's position. But there is also evidence in this case that because Altisource competed with some of the Company's clients, Altisource actually faced revenue dis-synergies as part of a potential deal, and that those dis-synergies would outweigh any cost savings that Altisource might achieve.

On the facts presented, the probative value of the go-shop is inconclusive. The same is true for the post-signing period between the end of the go-shop and the stockholder vote. During that nearly six-month period, the Company could no longer solicit additional bids, and the termination fee doubled from \(\$ 37\) million to \(\$ 74\) million, but otherwise the Company could entertain a bid that qualified as a Superior Proposal. Just as during the go-shop period, however, a topping bidder needed a realistic path to success to make it rational to intervene. The marginally greater impediments to a topping bid made that path less realistic, rather than more realistic, than during the post-go-shop phase.

\section*{b. Post-Closing Performance And The Operation Of The Collar}
*26 Immediately after the announcement of the Merger, Fidelity's stock price rose. It continued to rise during the postsigning period. Due to the collar, these increases caused the value of the merger consideration to increase. Fidelity twice exercised its right to increase the cash component, resulting in the Final Merger Consideration of \(\$ 37.04\) per share.

During the same time period that Fidelity's stock price was going up, the Company's financial performance was going down. In October 2013, the Company announced that quarter over quarter, revenue had declined by \(10.6 \%\) and EBITDA by \(18.4 \%\). Compared to the Updated Base Case's projections for FY 2013, actual revenues were down 7.8\% and EBITDA was down \(16.2 \%\).

The petitioners might have sought to address these issues. They might have attempted to show by reference to other companies or indices that but for the Merger, the Company's stock price would have risen as well, perhaps even more than

Fidelity's. Or they might have sought to show that the declines in the Company's performance resulted from the Merger itself and therefore should be excluded as a valuation consideration, perhaps because the sale process diverted management's attention and harmed employee morale. They petitioners did not advance these or other arguments, which they would have had to support with persuasive evidence. The record rather indicates that Fidelity's performance improved, causing an increase in the value of the merger consideration, while the Company's performance declined.

Instead, the petitioners argued the declines in the Company's performance post-closing did not require any adjustments to the Updated Base Case and that management reaffirmed the Company's belief in the reliability of its projections. Accepting that as true, it suggests that the going concern value of the Company did not change such that the Initial Merger Consideration remained a reliable indicator of fair value and the Final Merger Consideration established a ceiling for fair value. See Union Ill., 847 A. 2 d at 343 (relying on merger price in appraisal case despite six-month lag between signing and closing because "nothing occurred between the signing of the Merger Agreement and the effective date of the Merger that resulted in an increase in the value of UFG").

A final factor pertinent to the Company's post-signing, preclosing performance is the extensive evidence indicating that the Initial Merger Consideration included a portion of the value that Fidelity and THL expected to generate from synergies. The Final Merger Consideration logically incorporated an additional portion of this value because of the component consisting of Fidelity stock, which drew some (admittedly unquantified) portion of its value from the synergies that Fidelity and its stockholders would enjoy. The existence of combinatorial synergies provides an additional reason to think that the Final Merger Consideration exceeded the fair value of the Company.

\section*{B. The DCF Analysis As Evidence Of Fair Value}

Both the petitioners and the Company submitted valuation opinions from distinguished experts. The petitioners' expert, Professor Jerry A. Hausman, used a DCF analysis to opine that the Company's fair value at closing was \(\$ 50.46\) per share. The respondent's expert, Daniel Fischel, used a DCF analysis to opine that the Company's fair value at closing was \(\$ 33.57\) per share. The Final Merger Consideration was \(\$ 37.14\) per share.
*27 "[T]he DCF ... methodology has featured prominently in this Court because it is the approach that merits the greatest confidence within the financial community." Owen v. Cannon, 2015 WL 3819204, at *16 (Del. Ch. June 17, 2015) (quotation marks omitted).

Put in very simple terms, the basic DCF method involves several discrete steps. First, one estimates the values of future cash flows for a discrete period .... Then, the value of the entity attributable to cash flows expected after the end of the discrete period must be estimated to produce a socalled terminal value, preferably using a perpetual growth model. Finally, the value of the cash flows for the discrete period and the terminal value must be discounted back .... Andaloro v. PFPC Worldwide, Inc., 2005 WL 2045640, at *9 (Del. Ch. Aug. 19, 2005) (Strine, V.C.) (footnote omitted). This decision does not exhaustively describe the DCF methodology; it only addresses the areas of substantial disagreement between the experts.

\section*{1. The Projection Period}

The first issue for any DCF analysis is to determine the appropriate forecasts to use for the projection period. Both experts used the Updated Base Case with minor adjustments. Hausman added back deferred income taxes and subtracted accounts payable, accrued liabilities, and other liabilities for 2014. JX 297 - 67. Fischel added back deferred tax income and other investments. JX 296, Ex. 23. Neither provided a detailed explanation for their adjustments. This decision adopts the Updated Base Case and averages the adjustments that the experts made.

\section*{2. The Terminal Period}

The next challenge for a DCF analysis is to extend the forecasts beyond the projection period to derive an estimate of cash flows during the terminal period. The experts disagreed on two aspects of the calculation.

The experts disagreed initially over the level of capital expenditures needed to sustain the Company's business during the terminal period. Over the long run, capital expenditures should equal depreciation. Robert W. Holthausen \& Mark E. Zmijewski, Corporation Valuation Theory, Evidence \& Practice 232 (2014). In the last year of the projection period, however, the Updated Base Case
contemplated an amount for depreciation that exceeded capital expenditures. To bring the two into harmony, Hausman assumed that capital expenditures would exceed depreciation over time by an amount sufficient to cause net amortizable assets to grow at the Company's long-term growth rate. Fischel chose to increase capital expenditures to equal depreciation. The record shows that the Company historically had high levels of depreciation relative to capital expenditures, so it is more reasonable to assume depreciation would decrease during the terminal period to match capital expenditures. This decision adopts that approach.

The experts also disagreed over the perpetuity growth rate. Hausman used \(3.4 \%\), which he derived from the projected rate of loan originations. Fischel used \(2.2 \%\), equal to the long-term rate of inflation.
"This Court often selects a perpetuity growth rate based on a reasonable premium to inflation." DFC Glob., 2016 WL 3753123 , at *17. This is because " \([\mathrm{i}] \mathrm{n}\) a steady state, it is typically assumed that future business growth will approximate that of the overall economy." In re Trados S'holder Litig., 73 A.3d 17, 73 (Del. Ch. 2013). "[O]nce an industry has matured, a company will grow at a steady rate that is roughly equal to the rate of nominal GDP growth." Golden Telecom I, 993 A.2d at 511. The risk-free rate is a viable proxy for expected nominal GDP growth. See DFC Glob., 2016 WL 3753123, at *17.
*28 The Company was a mature firm, so ordinarily it would grow at a rate approximating GDP growth. The Company's operative reality on the closing date, however, included the Services business, which had declining prospects, and a smaller Analytics business, which was growing. Given this business mix, the Company should grow over the long-term at a rate between inflation and nominal GDP that is closer to the latter. Hausman's rate of \(3.4 \%\) better fits the operative reality of the Company, so this decision adopts his figure.

\section*{3. The Discount Rate}

The final issue is the appropriate discount rate, which the experts derived by calculating the Company's weighted average cost of capital ("WACC"). They disagreed on virtually every input except the appropriate tax rate, where they both used \(37 \%\).

Hausman used a capital structure consisting of \(81.1 \%\) equity, relying on the Company's financial statements from 2013 and the equity value implied by his DCF analysis. Fischel used a capital structure consisting of \(70 \%\) equity, relying on the Company's pre-announcement debt-to-equity ratio. This decision adopts Fischel's approach, which is consistent with precedent and avoids the circularity in Hausman's method.

Hausman opined that the Company's cost of debt was \(5.0 \%\) without citing any support. Fischel used a cost of debt of \(5.02 \%\), explaining that the Company's was rated \(\mathrm{BB}+\) from 2008 through 2014 and that the yield to maturity of a BBrated bond index as of January 2, 2014 was \(5.02 \%\). Fischel provided a better justification for his number, so this decision uses it.

The experts disagreed about the risk-free rate. Hausman used \(3.63 \%\), which was the return on a 20 -year U.S. Treasury bond as of December 2013. Fischel used \(3.68 \%\), which was the return on a 20-year U.S. Treasury bond as of January 2, 2014. Fischel's measurement was closer to the closing date, so this decision adopts it.

Both experts used the supply-side equity risk premium. Hausman used \(6.11 \%\), which he obtained from Ibbotson's 2013 Valuation Yearbook. Fischel used \(6.18 \%\), which he obtained from the 2014 Duff \& Phelps Valuation Handbook. Fischel's figure better captures the Company's operative reality on the closing date. See Ancestry.com, 2015 WL 399726, at *21 (rejecting argument that court should have used 2012 Ibbotson Yearbook instead of 2013 Yearbook for merger that closed on December 28, 2012, because the 2013 Yearbook would not have been available to investors yet when the merger closed).

The experts chiefly disagreed over beta. Hausman derived a beta of 0.845 from five years of daily observations. Fischel used a beta of 1.395 , which represented the average of (i) a beta derived from five years of monthly observations and (ii) a beta derived from two years of weekly observations. The beta drives the bulk of the valuation difference between the experts. Inserting Hausman's beta into Fischel's model generates a value of \(\$ 51.18\) per share.
"Beta, like cost of capital itself, is a forward-looking concept. It is intended to be a measure of the expected future relationship between the return on an individual security (or portfolio of securities) and the overall market." Duff \& Phelps, 2015 Valuation Handbook: Guide to Costs of

Capital 5-3 (2015). The Company's performance during the measuring period therefore should match, to the extent possible, the anticipated performance of the Company going forward. The financial literature indicates that using a fiveyear measurement period is both acceptable and common, but that a shorter period should be used if a five-year look back encompasses significant changes in the macroeconomic environment \({ }^{29}\) or the company's business. \({ }^{30}\) In this case, five years covers the Great Recession and attendant housing crisis, which benefitted the Company and caused it to outperform the S \& P 500. Company management and BCG anticipated that the Company would perform going forward at substantially lower levels. Looking back five years also covers a period when the Company was more dependent on Services, while going forward the Company will rely more on Analytics. These factors counsel in favor of using a two-year period as a better predictor of the Company's operative reality at the time of the Merger.
*29 Discarding the five-year betas leaves Fischel's measurement of 1.503, which relied on weekly observations. The financial literature supports using a two-year beta with weekly observations, so this decision could adopt this estimate. \({ }^{31}\) Fischel, however, used a lower beta of 1.395. By doing so, Fischel favored the petitioners. That fact enhances the credibility of his selection, so this decision uses his figure.

The last input is the size premium. Hausman added a size premium of \(0.92 \%\). Fischel did not add a size premium, arguing that there "is no consensus in the academic literature as to whether such a premium still exists." JX 296 ब 113 n .163 . Adding a size premium increases the discount rate and lowers the value of the Company. As with his estimate of beta, Fischel's judgment favored the petitioners, so this decision uses it.

These inputs result in a WACC of \(9.56 \%\), which this decision adopts. Adding a size premium of \(0.92 \%\) to the cost of equity would increase the WACC to \(10.2 \%\).

\section*{4. The DCF Valuation}

A DCF valuation using the foregoing inputs produces a value of \(\$ 38.67\) per share, which is \(4 \%\) higher than the Final Merger Consideration of \(\$ 37.14\) per share. Using a WACC of \(10.02 \%\) would produce a value of \(\$ 34.50\) per share, or \(8 \%\) less than the Final Merger Consideration. These figures bracket what the stockholders received. Nevertheless, the figure of \$38.67
per share is my best estimate of the fair value of the Company based on the DCF method.

\section*{B. The Weight Given To The Methodologies}

When presented with multiple indicators of fair value, the court must determine how to weigh them. "In discharging its statutory mandate, the Court of Chancery has discretion to select one of the parties' valuation models as its general framework or to fashion its own." M.G. Bancorporation, 737 A.2d at 525-26. "The Court may evaluate the valuation opinions submitted by the parties, select the most representative analysis, and then make appropriate adjustments to the resulting valuation., \({ }^{32}\) The court also may "make its own independent valuation calculation by either adapting or blending the factual assumptions of the parties' experts." M.G. Bancorporation, 737 A. 2 d at 524 . "When ... none of the parties establishes a valuation that is persuasive, the Court must make a determination based on its own analysis., 33
*30 Delaware law does not have a rigid hierarchy of valuation methodologies, nor does it have a settled formula for weighting them. "Appraisal is, by design, a flexible process." Golden Telecom II, 11 A.3d at 218. The statute "vests the Chancellor and Vice Chancellors with significant discretion to consider 'all relevant factors' and determine the going concern value of the underlying company." Id. (quoting 8 Del. C. § 262(h)).

In a series of decisions since Golden Telecom II, this court has considered how much weight to give the deal price relative to other indications of fair value. In five decisions since Golden Telecom II, the Court of Chancery has given exclusive weight to the deal price, particularly where other evidence of fair value was unreliable or weak. In five other decisions since Golden Telecom II, the court has declined to give exclusive weight to the deal price in situations where the respondent failed to overcome the petitioner's attacks on the sale process and thus did not prove that it was a reliable indicator of fair value.

CKx was the first post-Golden Telecom II decision to rely exclusively on the merger price. The court found that " \([t]\) he company was sold after a full market canvass and auction," the process was "free of fiduciary and process irregularities," and "the sales price [was] a reliable indicator of value." 2013 WL 5878807 at * 1 . By contrast, the parties' experts in \(C K x\) did not establish the reliability of their methods. The court found
that (i) the company lacked sufficiently comparable peers and (ii) that "the evidence [was] overwhelming" that a key element of management's projections "was not prepared in the ordinary course of business" and "was otherwise unreliable." \(I d\). at *10. "In the absence of comparable companies or transactions to guide a comparable companies analysis or a comparable transactions analysis, and without reliable projections to discount in a DCF analysis," the court relied "on the merger price as the best and most reliable indication of [the company's] value." Id. at *11. The court stressed that the "conclusion that merger price must be the primary factor in determining fair value is justified in light of the absence of any other reliable valuation analysis." Id. at *13.

In Ancestry.com, the court again relied exclusively on the merger price. The court found that the company was sold after an "auction process" which involved "a market canvass and uncovered a motivated buyer. 2015 WL 399726, at *1. The court concluded that the sale process "represent[ed] an auction of the Company that is unlikely to have left significant stockholder value unaccounted for." Id. at *16. As in CKx, there were "no comparable companies to use for purposes of valuation." Id. at *18. The court also had "reason to question management['s] projections, which were done in light of the transaction and in the context of obtaining a fairness opinion," and where "management did not create projections in the normal course of business." Id. at *18. The court prepared its own DCF analysis, which it regarded as a reliable indicator of value, but the answer was reasonably close to the deal price. That outcome gave the court "comfort that no undetected factor skewed the sales process." Id. at *23. The court found that "fair value in these circumstances [was] best represented by the market price." Id.

In AutoInfo, the court again relied exclusively on the merger price. The company conducted an extensive sale process in which its financial advisor contacted 165 potential strategic and financial acquirers, seventy signed NDAs, ten submitted indications of interest after conducting due diligence, nine received management presentations, five submitted verbal valuations or written letters of intent, and the company ultimately negotiated exclusively with the highest bidder. 2015 WL 2069417, at *3-6. The court concluded that "evidence regarding AutoInfo's sales process substantiates the reliability of the Merger price." Id. at *11. The court later reiterated that "the sales process was generally strong and can be expected to have led to a Merger price indicative of fair value." \(I d\). at *14. The expert's valuation methodologies lacked similar persuasiveness. Management had prepared
projections as part of the sale process, but management had never prepared projections before, and the court found them unreliable. \(I d\). at *8. The court also found that there were no comparable companies that could be used for valuation purposes. Id. The court rejected both sides' valuation analyses as unreliable, but as in Ancestry, prepared its own DCF analysis. \(I d\). at * 16 . Despite noting that the " \([\mathrm{u}]\) nder Delaware law, it would be appropriate to provide weight to the value as implied by the Court's DCF analysis," the decision elected to put "full weight" on the deal price as "the best estimate of value." Id.
*31 In Ramtron, the court once again relied exclusively on the merger price. The company conducted a "thorough" sale process in response to an unsolicited tender offer. 2015 WL 4540443, at *1. The company rejected the hostile bid on multiple occasions and "actively solicited every buyer it believed could be interested in a transaction." Id. at *21. The company ultimately agreed to a transaction with the unsolicited bidder only after extracting five separate price increases. Id. at *24. As in CKx, management's projections were "not reliable," and the parties' experts agreed that there were "no comparable companies." Id. at *1, *18.

In \(B M C\), the court relied exclusively on the merger price yet again. The company engaged in "a thorough and vigorous sales process" that involved outreach to financial and strategic buyers. 2015 WL 6164771, at *1. The court found that the merger price was "sufficiently structured to develop fair value" and hence a reliable indicator of value. \(I d\). at *16. The court also constructed a DCF analysis based on a set of management projections, which the court believed represented "the best DCF valuation based on the information available to me." Id. at *18. The court nevertheless declined to give weight to the DCF valuation, reasoning as follows:

My DCF valuation is a product of a set of management projections, projections that in one sense may be particularly reliable due to BMC's subscriptionbased business. Nevertheless, the Respondent's expert, pertinently, demonstrated that the projections were historically problematic, in a way that could distort value. The record does not suggest a reliable method to adjust these projections. I am also concerned about the discount rate in light of a meaningful debate on the issue of using a supply side versus historical equity risk premium. Further, I do not have complete confidence in the reliability of taking the midpoint between inflation and GDP as the Company's expected growth rate.

Taking these uncertainties in the DCF analysis-in light of the wildly-divergent DCF valuation of the expertstogether with my review of the record as it pertains to the sales process that generated the Merger, I find the merger price ... to be the best indicator of fair value. ...
Id. at *18.

In five other decisions since Golden Telecom II, the Court of Chancery has considered the deal price, but has either not relied on it or given it limited weight. In Orchard Enterprises, the court declined to give weight to the merger price in an appraisal proceeding that followed a merger between a corporation and an affiliate of a large stockholder, observing that "the trial did not focus extensively on the quality of marketing ... or the utility of the 'go shop' provision in the merger agreement, which could obviously have been affected by [a large stockholder's] voting power and expressed interest to acquire all of [the company] for itself." 2012 WL 2923305, at \(* 5\). Similarly in \(3 M\) Cogent, the court gave no weight to a deal price of \(\$ 10.50\) per share where the respondent corporation did not seek to have the court award that amount as fair value and relied instead on its experts' opinions that proposed a fair value award of \(\$ 10.12\) per share. Merion Capital, L.P. v. \(3 M\) Cogent, Inc., 2013 WL 3793896, at *5 (Del. Ch. July 8, 2013). The court also noted that the respondent corporation and its experts had not made any attempt to adjust the merger price for synergies or similar elements of value that arose from the merger. \({ }^{34}\)
*32 In Dell, I gave limited weight to the deal price, finding that the respondent corporation "did not establish that the outcome of the sale process offer[ed] the most reliable evidence of the Company's value as a going concern." Dell Fair Value, 2016 WL 3186538, at *44. I nevertheless found that the market data was sufficient
to exclude the possibility, advocated by the petitioners' expert, that the Merger undervalued the Company by \(\$ 23\) billion. Had a value disparity of that magnitude existed, then [a strategic bidder] would have emerged to acquire the Company on the cheap. What the market data [did] not exclude is an underpricing of a smaller magnitude.
Id. A confluence of multiple factors caused me not to give greater weight to the deal price, including (i) the transaction was an MBO, (ii) the bidders used an LBO pricing model to determine the original merger consideration, (iii) there was compelling evidence of a significant valuation gap driven by the market's short-term focus, and (iv) the transaction was not subjected to meaningful pre-signing competition. See id.
at *29-37. Although the deal price increased as a result of post-signing developments, the pattern of bidding by financial sponsors during the go-shop reinforced the conclusion that the consideration did not represent fair value, and the petitioners proved that there were structural impediments to a topping bid on the facts of the case, particularly in light of the size and complexity of the company and the sell-side involvement of the company's founder. See id. at *37-44. I relied instead on a DCF analysis to determine fair value. \(I d\). at \(* 51\).

More recently, in DFC Global, the court gave equal weight to the deal price, the court's DCF valuation, and one of the expert's comparable companies analysis. 2016 WL 3753123 , at \(* 23\). The court found that the merger giving rise to the appraisal proceeding had been "negotiated and consummated during a period of significant company turmoil and regulatory uncertainty, calling into question the reliability of the transaction price as well as management's financial projections." Id. at *1. The company's competitors faced similar challenges, and the resulting uncertainty undermined the projections. Id. at *22. It also meant that the company was sold during a valuation trough, which suggested that "the transaction price would not necessarily be a reliable indicator." Id. The court also noted that the financial sponsor who acquired the company had focused "on achieving a certain internal rate of return and on reaching a deal within its financing constraints," which could generate an outcome different from fair value. Id. To a lesser degree, the uncertainly also undermined the multiples-based valuation, because that valuation relied on two years of management projections. The court concluded that "all three metrics suffer from various limitations but ... each of them still provides meaningful insight into [the company's] value." Id. at *23. The court also observed that "all three of them fall within a reasonable range." Id. The court therefore elected to weight them equally.

Most recently, in Dunmire v. Farmers \& Merchants Bancorp of Western Pennsylvania, Inc., 2016 WL 6651411 (Del. Ch. Nov. 10, 2016), the court declined to rely on the deal price where a controlling stockholder set the exchange ratio for a stock-for-stock transaction between the company and another entity controlled by the same family. The decision noted that (i) "the Merger was not the product of an auction," (ii) no third parties were solicited, (iii) a controlling stockholder stood on both sides of the deal, (iv) although a special committee negotiated with the controller, the record did "not inspire confidence that the negotiations were truly arms-length," and (v) the transaction was not conditioned on a majority-ofthe minority vote. Id. at *7-8. The only surprising aspect of

Dunmire is the respondent argued in favor of deference to the deal price.
*33 This case is most similar to AutoInfo and BMC. The Company ran a sale process that generated reliable evidence of fair value. The Company also created a reliable set of projections that support a meaningful DCF analysis. Small changes in the assumptions that drive the DCF analysis, however, generate a range of prices that starts below the merger price and extends far above it. My best effort to resolve the differences between the experts resulted in a DCF valuation that is within 3\% of the Final Merger Consideration. The proximity between that outcome and the result of the sale process is comforting. See S. Muoio \& Co. LLC v. Hallmark Entm't Invs. Co., 2011 WL 863007, at *19 (Del. Ch. Mar. 9, 2011) ("[W]hat you actually like to see when you're doing a valuation is some type of overlap between the various methodologies." (quotation marks omitted)), aff'd, 35 A.3d 419 (Del. 2011) (TABLE).

As noted, a DCF analysis depends heavily on assumptions. Under the circumstances, as in AutoInfo and BMC, I give \(100 \%\) weight to the transaction price.

\section*{C. Whether To Make An Adjustment For Combinatorial Synergies}

The Company argued belatedly that the court should make a finding regarding the value of the combinatorial synergies and deduct some portion of that value from the deal price to generate fair value. That is a viable method. See, e.g., Union Ill., 847 A.2d at 353 n.26; Highfields, 939 A.2d at 61. In this case, however, the Company litigated on the theory that the Final Merger Consideration represented the "maximum fair value" of the shares. JX 296 『 128. In his expert report, Fischel declined to offer any opinion on the quantum of synergies or to propose an adjustment to the merger price. Id. At trial, Fischel affirmed that he did not have any basis to opine regarding a specific quantum of synergies. Tr. 982 (Fischel). Having taken these positions, it was too late for the Company to argue in its post-trial briefs that the court should deduct synergies.

\section*{III. CONCLUSION}

The fair value of the Company on the closing date was \(\$ 37.14\) per share. The legal rate of interest, compounded quarterly, shall accrue on this amount from the date of closing until
the date of payment. The parties shall cooperate on preparing a final order. If there are additional issues that need to be resolved before a final order can be entered, the parties shall submit a joint letter within two weeks that identifies them and recommends a schedule for bringing this matter to a conclusion, at least at the trial court level.

\section*{All Citations}

Not Reported in Atl. Rptr., 2016 WL 7324170

\section*{Footnotes}

1 Id. at 72. Subsequent Delaware Supreme Court decisions have adhered consistently to this definition of value. See, e.g., Montgomery Cellular Hldg. Co. v. Dobler, 880 A.2d 206, 222 (Del. 2005); Paskill Corp. v. Alcoma Corp., 747 A.2d 549, 553 (Del. 2000); Rapid-Am. Corp. v. Harris, 603 A.2d 796, 802 (Del. 1992); Cavalier Oil Corp. v. Hartnett, 564 A.2d 1137, 1144 (Del. 1989); Bell v. Kirby Lumber Corp., 413 A.2d 137, 141 (Del. 1980); Universal City Studios, Inc. v. Francis I. duPont \& Co., 334 A.2d 216, 218 (Del. 1975).
2 Cede \& Co. v. Technicolor, Inc., 1990 WL 161084, at *31 (Del. Ch. Oct. 19, 1990) (quoting In re Del. Racing Ass'n, 213 A.2d 203, 211 (Del. 1965) (citing Tri-Cont'l, 74 A.2d; Chicago Corp. v. Munds, 172 A. 452 (Del. Ch. 1934)), rev'd on other grounds, 636 A.2d 956 (Del. 1994).
3 See ONTI, Inc. v. Integra Bank, 751 A.2d 904, 915 (Del. Ch. 1999); Gonsalves v. Straight Arrow Publ'rs, Inc., 793 A.2d 312, 316 (Del. Ch. 1998), aff'd in pertinent part, rev'd on other grounds, 725 A.2d 442 (Del. 1999) (TABLE); Cooper v. Pabst Brewing Co., 1993 WL 208763, at *8 (Del. Ch. June 8, 1993). Relatedly, when this court considers comparable company analyses in valuations, it effectively relies upon the market prices of the comparable companies to generate valuation metrics. See, e.g., Andaloro v. PFPC Worldwide, Inc., 2005 WL 2045640, at *18-20 (Del. Ch. Aug. 19, 2005) (Strine, V.C.); Doft \& Co. v. Travelocity.com Inc., 2004 WL 1152338, at *8 (Del. Ch. May 20, 2004); Taylor v. Am. Specialty Retailing Gp., Inc., 2003 WL 21753752, at *9 (Del. Ch. July 25, 2003).
4 See, e.g., Rapid-Am. Corp., 603 A. 2 d at 806 ("[T]he Court of Chancery long ago rejected exclusive reliance upon market value in an appraisal action."); Kirby Lumber, 413 A.2d at 141 ("[M]arket value may not be taken as the sole measure of the value of the stock."); Del. Racing, 213 A.2d at 211 ("It is, of course, equally axiomatic that market value, either actual or constructed, is not the sole element to be taken into consideration in the appraisal of stock."); Jacques Coe \& Co. v. Minneapolis-Moline Co., 75 A.2d 244, 247 (Del. Ch. 1950) (observing that market price should not be exclusive measure of value); Munds, 172 A. at 455 ("There are too many accidental circumstances entering into the making of market prices to admit them as sure and exclusive reflectors of fair value.").
5 Highfields Capital, Inc. v. AXA Fin., Inc., 939 A.2d 34, 42 (Del. Ch. 2007); see also M.P.M., 731 A. 2 d at 796 ("A merger price resulting from arms-length negotiations where there are no claims of collusion is a very strong indication of fair value."); Prescott Gp. Small Cap, L.P. v. Coleman Co., 2004 WL 2059515, at *27 (Del. Ch. Sept. 8, 2004) (explaining that "the price actually derived from the sale of a company as a whole ... may be considered as long as synergies are excluded"); see also Van de Walle v. Unimation, Inc., 1991 WL 29303, at *17 (Del. Ch. Mar. 6, 1991) (commenting in an entire fairness case that " \([\mathrm{t}]\) he fact that a transaction price was forged in the crucible of objective market reality (as distinguished from the unavoidably subjective thought process of a valuation expert) is viewed as strong evidence that the price is fair").
6 See In re Appraisal of Ancestry.com, Inc., 2015 WL 399726, at *16 (Del. Ch. Jan. 30, 2015) ("[A] conclusion that a sale was conducted by directors who complied with their duties of loyalty is not dispositive of the question of whether that sale generated fair value."); Huff Fund Inv. P'ship v. CKx, Inc., 2013 WL 5878807, at *13 (Del. Ch. Nov. 1, 2013) ("[T]he issue in this case is fair value, not fiduciary duty."); In re Orchard Enters., Inc., 2012 WL 2923305, at *5 (Del. Ch. July 18, 2012) (Strine, C.) ("[Respondent] makes some rhetorical hay out of its search for other buyers. But this is an appraisal action, not a fiduciary duty action, and although I have little reason to doubt [respondent's] assertion that no buyer was willing to pay Dimensional \(\$ 25\) million for the preferred stock and an attractive price for [respondent's] common stock in 2009, an appraisal must be focused on [respondent's] going concern value"); see also M.P.M., 731 A.2d at 797 ("A fair merger price in the context of a breach of fiduciary duty claim will not always be a fair value in the context of determining going concern value."); In re Orchard Enters., Inc. S'holder Litig., 88 A.3d 1, 30 (Del. Ch. 2014) ("A price may fall within the range of fairness for purposes of the entire fairness test even though the point calculation demanded by the appraisal statute yields an award in excess of the merger price."). Compare Cinerama, Inc. v. Technicolor, Inc., 663 A.2d 1156, 1176-77 (Del. 1995) (affirming that merger consideration of \(\$ 23\) per share was entirely fair), with Cede \& Co. v. Technicolor, Inc.,

884 A.2d 26, 30 (Del. 2005) (awarding fair value in appraisal of \(\$ 28.41\) per share). See generally Charles R. Korsmo \& Minor Myers, Appraisal Arbitrage and the Future of Public Company M \& A, 92 Wash. U.L. Rev. 1551, 1608 (2015) (explaining that "[s]atisfying one of the various Revlon-type tests ... is not necessarily a market test" sufficient to establish fair value for purposes of appraisal); Lawrence A. Hamermesh \& Michael L. Wachter, The Fair Value of Cornfields in Delaware Appraisal Law, 31 J . Corp. L. 119, 154 (2005) ("The dissenting shareholders need not prove breach of fiduciary duty, although such a claim is available to them, but only that the sale process was defective in some manner.").
See, e.g., BMC, 2015 WL 6164771, at *14-15 (giving exclusive weight to merger process where the company conducted "a robust, arm's-length sales process" that involved "two auctions over a period of several months," where the company "was able to and did engage multiple potential buyers during these periods," and where the lone remaining bidder "raised its bid multiple times because it believed the auction was still competitive"); Autolnfo, 2015 WL 2069417, at *12 (giving exclusive weight to merger price that "was negotiated at arm's length, without compulsion, and with adequate information" and where it was "the result of competition among many potential acquirers"); Ancestry.com, 2015 WL 399726, at *1 (giving exclusive weight to the deal price where the transaction resulted from an "auction process, which process itself involved a market canvas and uncovered a motivated buyer"); id. at *18 (describing sale effort as "an open auction process"); CKx, 2013 WL 5878807, at *14 (evaluating sale process and concluding that "the bidders were in fact engaged in a process resembling the English ascending-bid auction" involving direct competition between bidders); see also Ramtron, 2015 WL 4540443, at *9 (relying on "thorough" sale process initiated in response to "a well-publicized hostile bid and a target actively seeking a white knight"); id. at *21 (observing that "Ramtron actively solicited every buyer it believed could be interested in a transaction" before signing a merger agreement with the hostile bidder); Union III. 1995 Inv. Ltd. P'ship v. Union Fin. Gp., Ltd., 847 A.2d 340, 359 (Del. Ch. 2003) (Strine, V.C.) (using merger price as "best indicator of value" where the merger "resulted from a competitive and fair auction" in which "several buyers with a profit motive" were able to evaluate the company and "make bids with actual money behind them"); cf. In re Del Monte Foods Co. S'holders Litig., 25 A.3d 813, 840 n. 5 (Del. Ch. 2011) (noting "the importance of the pre-signing phase to developing price competition among private equity bidders"). See generally Brian JM Quinn, Bulletproof: Mandatory Rules for Deal Protection, 32 J. Corp. L. 865, 879-80 (2007) [hereinafter Bulletproof] (surveying literature on auction theory and concluding that " \([t]\) he two key insights are that competition, or the threat of competition, will lead to a price closer to the buyer's reservation price and that the price effect of one additional competitor is greater than the price effects attributable to bargaining").
8 See Jacob K. Goeree \& Theo Offerman, Competitive Bidding in Auctions with Private and Common Values, 113 Econ. J. 598, 611 (2003) (explaining that having "all potentially interested bidders participate" before signing produces "more competition [and] results in a more efficient allocation" of surplus between the buyer and seller); id. at 600 ("Another factor improving efficiency is an increase in competition: expected efficiency and expected revenue increase with each extra bidder. In the limit when the number of bidders goes to infinity, an efficient allocation again materializes. Interestingly, the effect of more competition on efficiency and revenues is stronger than the effect of information provided by the auctioneer. When the seller has the choice between finding more interested bidders or providing information about the value of the commodity, she should choose the former."); Jeremy Bulow \& Paul Klemperer, Auctions Versus Negotiations, 86 Am. Econ. Rev. 180, 180 (1996) (conducting empirical study and concluding that "a single extra bidder more than makes up for any diminution in negotiating power" such that "there is no merit in arguments that negotiation should be restricted to one or a few bidders to allow the seller to maintain more control of the negotiating process, or to credibly withdraw the company from the market"); cf. Nihat Aktas et al., Negotiations Under the Threat of an Auction, 98 J . Fin. Econ. 241, 242 (2010) (finding that "that target-initiated deals are more often auctions while negotiations are more frequently initiated by bidders").
9 Guhan Subramanian, The Drivers of Market Efficiency in Revlon Transactions, 28 J. Corp. L. 691, 691 (2003) (quoting Author's Interview with Martin Lipton, Senior Partner, Wachtell, Lipton, Rosen \& Katz, in New York, NY (June 14, 2000)).
10 See DFC Glob., 2016 WL 3753123, at *21 (giving weight to deal price where sale process "involved DFC's advisor reaching out to dozens of financial sponsors as well as several potential strategic buyers"); BMC, 2015 WL 6164771, at *14 (giving exclusive weight to merger process where the company conducted "a robust, arm's-length sales process" that included "two auctions over a period of several months" and involved both financial sponsors and strategic buyers); Autolnfo, 2015 WL 2069417, at *3 (relying exclusively on deal price where financial advisor contacted 164 potential strategic and financial acquirers, approximately 70 signed NDAs and received a confidential information memorandum, interested parties received several weeks of due diligence, ten bidders submitted indications of interest, and nine moved on to a second round); Ramtron, 2015 WL 4540443, at *23 (relying exclusively on deal price where financial advisor "(1) contacted twenty-four third parties ...; (2) sent non-disclosure agreements ('NDAs') to twelve ...; (3) received executed

NDAs from six ...; and (4) remained in discussions with [three]"); Ancestry.com, 2015 WL 399726, at *3 (relying exclusively on deal price where process that involved discussion with fourteen potential bidders, including six potential strategic buyers and eight financial sponsors); CKx, 2013 WL 5878807, at *4-5 (relying exclusively on deal price where sale process in which sell-side financial advisor reached out to multiple financial and strategic buyers). Compare Dell Fair Value, 2016 WL 3186538, at *7-10, *29, *36-37 (giving limited weight to deal price where pre-signing phase involved no strategic bidders and only two financial sponsors, one of which dropped out, as did the firm invited to replace it).
11 A common value auction is one in which "every bidder has the same value for the auctioned object." Peter Cramton \& Alan Schwartz, Using Auction Theory to Inform Takeover Regulation, 75 L. Econ. \& Org. 27, 28-29 (1991). A private value auction is one in which "the value of the auctioned object differs across potential acquirers." Id.
12 Jeremy Bulow \& John Roberts, The Simple Economics of Optimal Auctions, 97 J. Pol. Econ. 1060, 1065 (1989); accord Paul Klemperer, Auction Theory: A Guide to the Literature, 13 J. Econ. Survs. 227, 230 (1999).
13 See Paul Povel \& Rajdeep Singh, Takeover Contests with Asymmetric Bidders, 19 Rev. Fin. Stud. 1399, 1399-1400 (2006); Christina M. Sautter, Auction Theory and Standstills: Dealing with Friends and Foes in A Sale of Corporate Control, 64 Case W. Res. L. Rev. 521, 529 (2013).
14 See Dell Fair Value, 2016 WL 3186538, at *30 ("[T]he outcome of competition between financial sponsors primarily depends on their relative willingness to sacrifice potential IRR."); see also Povel \& Singh, supra, at 1399-1400. See generally Paul Gompers, Steven N. Kaplan, \& Vladimir Mukharlyamov, What Do Private Equity Firms Say They Do?, 121 J. Fin. Econ. 449, 450 (2016) (noting predominance of similar techniques and strategies across private equity firms). An exception would be a financial buyer with a synergistic portfolio company, which would provide a source of private value.
15 Alexander S. Gorbenko \& Andrey Malenko, Strategic \& Financial Bidders in Takeover Auctions, 69 J. Fin. 2513, 2514 (2014); see id. at 2532 (finding that the "average valuation of a strategic (financial) bidder of an average target is 16.7\% \((11.7 \%)\) above its value under the current management"); id. at 2538 ("Not only do strategic acquirers pay, on average, higher premiums than financial acquirers, but the maximum premiums that they are willing to pay are considerably higher."); Mark E. Thompson \& Michael O'Brien, Who Has the Advantage: Strategic Buyers or Private Equity Funds?, Financier Worldwide (Nov. 2005) ("Strategic buyers have traditionally had the advantage over private equity funds, particularly in auctions, because strategic buyers could pay more because of synergies generated from the acquisition that would not be enjoyed by a fund.").
16 See Steven N. Kaplan \& Per Strömberg, Leveraged Buyouts and Private Equity, 23 J. Econ. Perspectives 121, 122 (2009) ("[T]here is also evidence consistent with private equity investors taking advantage of market timing (and market mispricing) between debt and equity markets particularly in the public-to-private transactions of the last 15 years."); id. at 136 ("[P]rivate equity firms pay lower premiums than public company buyers in cash acquisitions. These findings are consistent with private equity firms identifying companies or industries that turn out to be undervalued. Alternatively, this could indicate that private equity firms are particularly good negotiators, and/or that target boards and management do not get the best possible price in these acquisitions."); id. at 135-36 ("[P]ost-1980s public-to-private transactions experience only modest increases in firm operating performance, but still generate large financial returns to private equity funds. This finding suggests that private equity firms are able to buy low and sell high.").
17 See DFC Glob., 2016 WL 3753123, at *22; Dell Fair Value, 2016 WL 3186538, at *29; see also Joshua Rosenbaum \& Joshua Pearl, Investment Banking: Valuation, Leveraged Buyouts, and Mergers \& Acquisitions 235-36 (2009) (explaining that a sponsor's ability to pay in a leveraged buy-out is constrained by "leverage capacity, credit market conditions, and the sponsor's own IRR hurdles").
18 See Dell Fair Value, 2016 WL 3186538 , at *36 ("[T]he prospect of post-signing competition can help raise the price offered during the pre-signing phase."); Brian JM Quinn, Omnicare: Coercion and the New Unocal Standard, 38 J . Corp. L. 835, 844 (2013) ("KK]nowing that a transaction will include a go-shop, wherein the seller will treat the initial bidder as a stalking horse to generate an active post-signing auction, may incent initial bidders to offer a preemptive bid to deter subsequent bids. In that view, the prospect of competition, even if no competition subsequently emerges, should be sufficient incentive for a bidder to shift transaction surplus to the seller.").
19 The focus is on a reasonable number of bidders, rather than all potential bidders, because as the number of bidders increases, the marginal value of each additional bidder declines. "At about 10 bidders, you'll get \(85 \%\) of the revenue that you could expect to get from an auction with 50 bidders." Guhan Subramanian, Negotiation? Auction? A Deal Maker's Guide, Harv. Bus. Rev. (Dec. 2009), https://hbr.org/2009/12/negotiation-auction-a-deal-makers-guide.
20 See DFC Glob., 2016 WL 3753123, at *21.
21 See Dell Fair Value, *32 ("A second factor that undermined the persuasiveness of the Original Merger Consideration as evidence of fair value was the widespread and compelling evidence of a valuation gap between the market's perception
and the Company's operative reality."). In the Dell Fair Value decision, the misperception resulted from "(i) analysts' focus on short-term, quarter-by-quarter results and (ii) the Company's nearly \(\$ 14\) billion investment in its transformation, which had not yet begun to generate the anticipated results." Id.
22 J. Russel Denton, Note, Stacked Deck: Go-Shops \& Auction Theory, 60 Stan. L. Rev. 1529, 1536 (2008) (citing Jeremy Bulow, Ming Huang \& Paul Klemperer, Toeholds and Takeovers, 107 J. Pol. Econ. 427, 430 (1999)). In an ascending private value auction, the winning bidder is more likely to have prevailed because it has a greater private value than the next highest bidder. See Denton, supra, at 1536. In common value auctions, the prospect of information asymmetries drives the winner's curse. See Dell, 2016 WL 3186538, at *42; Paul Povel \& Rajdeep Singh, Takeover Contests with Asymmetric Bidders, 19 Rev. Fin. Stud. 1399-1400 (2006).
23 See Dell Fair Value, 2016 WL 3186538, at *33-36 (explaining why record supported existence of significant valuation gap, driven by short-term pessimism, that depressed the market price and anchored price negotiations below fair value); Malcom Baker, Xin Pan, \& Jeffery Wurgler, The Effect of Reference Point Prices on Mergers and Acquisitions, 106 J. Fin. Econ. 49, 50 (2012) (finding the " 26 -week high price [of a particular stock] has a statistically and economically significant effect on offer prices [in mergers and acquisitions], and the 39-, 52 -, and 65 -week high prices also have independent explanatory power" and speculating as to the causes of this reference point effect); id. at 64-65 (finding that deals with higher premiums tend to close more often, which is "consistent with reference point behavior."); Inga Chira \& Jeff Madura, Reference Point Theory and Pursuit of Deals, 50 Fin. Rev. 275, 277, 299 (2015) ("Our analysis reveals that a higher target 52 -week reference point, relative to the target's current stock price, ... increases the likelihood of a management buyout (MBO).... Overall, the results from our analyses offer strong evidence that target and bidder reference points serve as potent anchors that shape the outcomes and structures of mergers."); Sangwon Lee \& Vijay Yerramilli, Relative Values, Announcement Timing, and Shareholder Returns in Mergers and Acquisitions 2 (January 2016) (unpublished manuscript) (adopting finding of Baker, Pan, \& Wurger, supra, that "key decision makers in the bidding and target firms and investors are likely to use recent prices as reference points"). See generally Guhan Subramanian, Negotiauctions: New Dealmaking Strategies for a Competitive Marketplace, 16-18 (2010) (explaining that anchoring "works by influencing your perceptions of where the [zone of possible agreement] lies").
24 See M.P.M., 731 A. 2 d at 796 ("A merger price resulting from arms-length negotiations where there are no claims of collusion is a very strong indication of fair value."); Paul Klemperer, What Really Matters in Auction Design, 16 J . Econ. Persp. 169, 170 (2002) (citing "the risk that participants may explicitly or tacitly collude to avoid bidding up prices"). See DFC Glob., 2016 WL 3753123, at *21 (giving weight to deal price where "[t]he deal did not involve the potential conflicts of interest inherent in a management buyout or negotiation to retain existing management"); CKx, 2013 WL 5878807, at *13 (giving exclusive weight to sales process where "[t]he record and the trial testimony supports a conclusion that the process by which [the company] was marketed to potential buyers was thorough, effective, and free from any spectre of self-interest or disloyalty."). For these and other reasons, "the weight of authority suggests that a claim that the bargained-for price in an MBO represents fair value should be evaluated with greater thoroughness and care than, at the other end of the spectrum, a transaction with a strategic buyer in which management will not be retained." Dell Fair Value, 2016 WL 3186548, at *28. See Iman Anabtawi, Predatory Management Buyouts, 49 U.C. Davis L. Rev. 1285, 1320 (2016) (discussing factors that undermine pricing efficiency in the market for corporate control when the transaction is an MBO); Matthew D. Cain \& Steven M. Davidoff, Form Over Substance? The Value of Corporate Process and Management BuyOuts, 36 Del. J. Corp. L. 849, 862 (2011) ("There is a more concrete argument against MBOs on fairness grounds. It is the prospect that management is utilizing inside information when it arranges an MBO. Management by its inherent position has in its possession non-public knowledge of the corporation, and management can use this informational asymmetry between itself and public shareholders to time the buy-out process. MBOs can thus be arranged at advantageous times in the business cycle or history of the corporation." (footnotes omitted)); Marcel Canoy, Yohanes E. Riyanto \& Patrick van Cayseele, Corporate Takeovers, Bargaining and Managers' Incentives to Invest, 21 Managerial \& Decision Econs. 1, 2, 14 (2000) ("Long-term investments, such as R \& D investments, are slow yielding and more difficult to be evaluated by the market, despite the fact that they could generate higher profits. Consequently, firms investing heavily in long-term projects may be more susceptible to a takeover attempt. ... If being taken over is better than taking over [for target management] ... then obviously, [management] would like to overinvest to facilitate a takeover ...."); Deborah A. DeMott, Directors' Duties in Management Buyouts and Leveraged Recapitalizations, 49 Ohio St. L.J. 517, 536 (1988) (explaining that overhang from past acquisitions may artificially depress a company's stock market price and make the buyout price appear generous); James R. Repetti, Management Buyouts, Efficient Markets, Fair Value, and Soft Information, 67 N.C. L. Rev. 121, 125 (1988) ("Other methods for management to realize large gains in management buyouts are not as innocuous as the use of leverage or as apparently innocuous as increasing cash flow. Management
may actively depress the price of the shares prior to the management buyout in order to reduce the price they have to pay. Management may accomplish this by ... channeling investments into long-term projects which will not provide shortterm returns."); James Vorenberg, Exclusiveness of the Dissenting Stockholder's Appraisal Right, 77 Harv. L. Rev. 1189, 1202-03 (1964) ("Far more difficult is ensuring to departing stockholders the benefit of improved prospects, where, at the time of appraisal, the evidence of improvement is more intuitive than tangible. ... The appraisal process will tend to produce conservative results where the values are speculative, and the majority's power to pick the time at which to trigger appraisal may encourage them to move when full values may be temporarily obscured." (footnote omitted)); see also Benjamin Hermalin \& Alan Schwartz, Buyouts in Large Companies, 25 J. Legal Stud. 351, 356 (1996) ("With respect to timing, the firm could initiate a freeze-out (i) before it invests effort, (ii) after it invests effort but before the value of the firm conditional on effort is revealed, or (iii) after the value of the firm is revealed but before earnings are realized. We generally assume that the firm would wait until point iii because waiting in the model is costless but produces gains: were the firm to initiate a freeze-out before it learns its value, it might have to pay too much.").
26 See JX 296 IT 79 (finding that a merger agreement contained a go-shop in only \(4 \%\) of sample of transactions that involved a strategic entity buying a publicly traded U.S. target for a deal price above \(\$ 100\) million); id. \(\mathbb{I} 80\) (finding that only \(1 \%\) of transactions had an auction and a go-shop where strategic buyers acquired a U.S. publicly traded target for a deal price above \(\$ 100\) million).
27 See Denton, supra, at 1547 ("In the sixty-three deals that utilized go-shop provisions, there have been nine deals with jump bids. Furthermore, there were jump bids in none of the MBOs containing go-shops .... Of the nine jump bids that were made, strategic buyers made seven." (footnotes omitted)); id. at 1549 ("[G]o-shops have structures that discourage bidding wars between financial buyers. Management involvement with the initial private equity bidder only increases the advantages that are given to the initial bidder, since it gives the initial bidder better information about the value of the target. Despite appearing to encourage additional bidders and a post-signing auction, go-shop provisions are structured in a way that discourages financial buyers from bidding for the company.").
28 A matching right is the functional equivalent of a right of first refusal and can foreclose a topping bidder from having a realistic path to success. See Bulletproof, supra, at 870 ("The presence of rights of first refusal can be a strong deterrent against subsequent bids. ... Success under these circumstances may involve paying too much and suffering the 'winner's curse.' "); see also Frank Aquila \& Melissa Sawyer, Diary Of A Wary Market: 2010 In Review And What To Expect In 2011, 14 M \& A Law. Nov.-Dec. 2010, at 1 ("Match rights can result in the first bidder 'nickel bidding' to match an interloper's offer, with repetitive rounds of incremental increases in the offer price. ... Few go-shops are successful as it is ... and match rights are just one more factor that may dissuade a potential competing bidder from stepping in the middle of an alreadyannounced transaction."); Marcel Kahan \& Rangarajan K. Sundaram, First-Purchase Rights: Rights of First Refusal and Rights of First Offer, 14 Am. L. \& Econ. Rev. 331, 331 (2012) (finding "that a right of first refusal transfers value from other buyers to the right-holder, but may also force the seller to make suboptimal offers"); David I. Walker, Rethinking Rights of First Refusal, 5 Stan. J.L. Bus. \& Fin. 1, 20-21 (1999) (discussing how a right of first refusal affects bidders); cf. Steven J. Brams \& Joshua R. Mitts, Mechanism Design in M \& A Auctions, 38 Del. J. Corp. L. 873, 879 (2014) ("The potential for a bidding war remains unless interlopers are restricted-say, to one topping bid, which then can be matched.").
29 Duff \& Phelps, 2015 Valuation Handbook, supra, at 5-7 ("If a fundamental change in the business environment in which an individual company (or even an industry) operates occurs, the valuation analyst should consider whether using historical data from before the change should be included in the overall [beta] analysis."). As an example, the Duff and Phelps 2015 Valuation Handbook cites the effect of the Great Recession on the financial sector, suggesting it would not be appropriate for an analyst to include pre-crisis data. Id.
30 Holthausen \& Zmijewski, supra, at 300 ("Using more recent data might better reflect a company's current (and more forward-looking) systematic risk. Betas can shift because of changes in capital structure or because of changes in the underlying business risk of the company, or because of fundamental changes in the market. ..."); Tim Koller, Marc Goedhart \& David Wessels, Valuation: Measuring and Managing the Value of Companies 247 (5th ed. 2010) (advocating for five-year monthly but noting that "changes in corporate strategy or capital structure often lead to changes in risk for stockholders. In this case, a long estimation period would place too much weight on irrelevant data"); Shannon P. Pratt \& Roger J. Grabowski, Cost of Capital: Applications and Examples 208 (5th ed. 2014) ("Most services that calculate beta use a two- or five-year sample measurement or look-back period. Five years is the most common ... But if the business characteristics change during the sampling period ..., it may be more appropriate to use a shorter sampling period. However, as the sampling period used is reduced, the accuracy of the estimate is generally reduced."); see DFC Glob., 2016 WL 3753123, at *10 n. 124 ("[L]ong estimation period may be inappropriate when analysis of the five-year historical chart shows changes in corporate strategy or capital structure that could render prior data irrelevant." (citing

Koller, Goedhart \& Wessels, supra, at 247)); see also James R. Hitchner, Financial Valuation: Applications and Models 256 (3d ed. 2011) (noting that in measuring closely-held companies, sources "use anywhere from a two- to five-year period to measure beta, with the five-year period being the most common").
31 John Y. Campbell, Andrew W. Lo \& A. Craig Mackinlay, The Econometrics of Financial Markets 184 (1997); Holthausen \& Zmijewski, supra, at 301 (noting that Bloomberg's default is to use " 104 weeks of weekly observations or two years of data"); id. at 300 ("The most commonly used intervals for estimating betas are monthly, weekly, and, to a lesser extent, daily returns. The precision of regression parameters tends to increase with more observations; hence, all else equal, we prefer to use more observations."); id. at 302 ("When using daily beta, a common rule of thumb is to use one to two years of data .... When using weekly data, it is a fairly common practice to use two years of data ....); see also Hitchner, supra, at 256 (noting that in valuing closely-held companies, "the frequency of the data measurements varies, with monthly data being the most common, although some sources use weekly data").
32 Appraisal Rights, supra, at A-31 (citing ONTI, 751 A.2d at 907) (basing fair value calculation on one expert's valuation, "modifying it where appropriate by the primary adjustment claims asserted by [the company]"); Kleinwort Benson Ltd. v. Silgan Corp., 1995 WL 376911, at *5 (Del. Ch. June 15, 1995) ("I will not construct my own DCF model. From the evidence presented by [the] experts, I will choose the DCF analysis that best represents Silgan's value. Next, ... I will scrutinize that DCF analysis to remove the adversarial hyperbole that inevitably influences an expert's opinion in valuation proceedings." (citation omitted))).
33 Pabst Brewing Co., 1993 WL 208763, at *8; accord Del. Open MRI Radiology Assocs., 898 A.2d at 310-11 ("I cannot shirk my duty to arrive at my own independent determination of value, regardless of whether the competing experts have provided widely divergent estimates of value, while supposedly using the same well-established principles of corporate finance.").
34 Id. If the respondent corporation had relied affirmatively on the deal price and made some attempt to deal with synergies, it seems likely that the court would have given the deal price at least some weight. The transaction resulted from a process that involved a pre-signing outreach to twenty-five potential strategic and financial partners, followed by competition among four strategic bidders to acquire the company. See id. at *2-3. Using a DCF analysis, the court ultimately determined that the fair value of the company as \(\$ 10.87\) per share, just above the deal price. Id. at * 26 . If the respondent had made a different tactical decision, the \(3 M\) Cogent court could well have relied on the deal price.

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\section*{UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.}

> Court of Chancery of Delaware.

MERLIN PARTNERS LP, and AAMAF, LP, Petitioners, v.

AUTOINFO, INC., a Delaware corporation, Respondent.
C.A. No. 8509-VCN
|
Submitted: January 9, 2015
|
Decided: April 30, 2015

\section*{Attorneys and Law Firms}

Ronald A. Brown, Jr., Esquire, Marcus E. Montejo, Esquire, Kevin H. Davenport, Esquire, and Eric J. Juray, Esquire of Prickett, Jones \& Elliott, P.A., Wilmington, Delaware, Attorneys for Petitioners.
A. Thompson Bayliss, Esquire and David A. Seal, Esquire of Abrams \& Bayliss LLP, Wilmington, Delaware, Attorneys for Respondent.

\section*{MEMORANDUM OPINION}

NOBLE, Vice Chancellor.
*1 Petitioners Merlin Partners LP and AAMAF, LP are former common stockholders of Respondent AutoInfo, Inc. ("AutoInfo" or the "Company"). Pursuant to 8 Del. C. § 262, they demanded appraisal of their shares in connection with a merger (the "Merger") whereby AutoInfo's common stockholders were cashed out at a price of \(\$ 1.05\) per share. This memorandum opinion sets forth the Court's post-trial findings of fact and conclusions of law.

\section*{I. BACKGROUND}

\section*{A. AutoInfo's Business}

At the time of the Merger, AutoInfo was a public non-asset based transportation services company operating through two wholly-owned subsidiaries. \({ }^{1}\) It did not own any equipment and provided brokerage and contract carrier services through a network of independent sales agents in the United States and Canada. AutoInfo and its agents split fees generated by freight transportation transactions. \({ }^{2}\) The agents developed and maintained all important client relationships. \({ }^{3}\)

The Company also provided support services to its agents. Its assistance was primarily financial, such as making longterm loans and short-term advances. AutoInfo also supplied non-financial services, such as training, marketing assistance, market segment data, and business analysis tools. \({ }^{4}\)

The Company's \(100 \%\) agent-based model distinguished it from many others in the transportation logistics industry that rely on a "company store" model. While AutoInfo's brokers were independent contractors, " \([\mathrm{b}]\) rokers [in a company store model] are direct employees of the company." 5

\section*{B. AutoInfo's Board and Management}

AutoInfo's management (the "Management") consisted of Harry Wachtel ("Wachtel"), the Chairman and Chief Executive Officer ("CEO"); Michael Williams ("Williams"), the President, Chief Operating Officer, and General Counsel; William I. Wunderlich ("Wunderlich"), an Executive Vice President and the Chief Financial Officer ("CFO"); Mark Weiss ("Weiss"), an Executive Vice President; and David Less, the Chief Information Officer and Vice President.

Throughout the sales process, and at the time of the Merger, AutoInfo's board (the "Board") consisted of five directors. Two, Wachtel and Weiss, were inside directors. The others, Peter Einselen, Thomas C. Robertson, and Mark K. Patterson ("Patterson"), were outside directors. Wachtel served as the Board's chairman. \({ }^{6}\)
C. The Merger
1. AutoInfo Considers Strategic Alternatives

During a regularly scheduled meeting in the first quarter of 2011, the Board discussed AutoInfo's financial results, budget, business, and financial prospects. It was concerned that the market undervalued AutoInfo relative to comparable agent-based, non-asset based transportation services companies. Part of the problem was that the Company was small, thinly traded on the Nasdaq Over-theCounter Bulletin Board, and did not receive much analyst coverage. The Board decided that exploring strategic options, including a potential sale, was in the best interests of AutoInfo's stockholders. \({ }^{7}\)
*2 The Board was not the only AutoInfo constituent disappointed with the Company's stock price. Around this time, Patterson (a Board member) was contacted by Kinderhook, LP ("Kinderhook"), a stockholder with which he had a relationship. \({ }^{8}\) Kinderhook believed that AutoInfo's stock price failed to reflect its financial performance. Although it did not push for a sale of the Company, it encouraged the Board to develop a strategy to increase the stagnant stock price, which was then trading in the \(\$ 0.50-0.60\) per share range. \({ }^{9}\)

\section*{2. AutoInfo Retains Stephens}

In summer 2011, Patterson contacted Stephens Inc. ("Stephens"), an investment bank with experience in the transportation industry, to explore AutoInfo's strategic options. Stephens prepared and presented on July 29, 2011, a Strategic Initiatives Overview, outlining avenues for enhancing stockholder value. \({ }^{10}\) While AutoInfo had "built a solid legacy within the transportation and logistics industry," it "consistently traded at valuation multiples well below its peer group due to the Company's relatively small scale and corresponding lack of interest from the investment community." \({ }^{11}\) Stephens believed that if the Company could grow its market capitalization from \(\$ 20\) million to approximately \$400-500 million, then it would gain greater Wall Street attention and access capital at a lower cost. \({ }^{12}\) The investment bank concluded that AutoInfo might need to alter its strategy to achieve the necessary growth. \({ }^{13}\)

Stephens thus proposed strategic alternatives, including organic projects, shareholder distributions, and acquisitions. \({ }^{14}\) It identified pros and cons for each option. For example, it suggested that "[e]xecution risk," related to Management's ability to execute, would be a concern should
the Company decide to pursue an organic project. \({ }^{15}\) Stephens also preliminarily valued the Company within a range of \(\$ 0.59\) to \(\$ 1.76\) per share. \({ }^{16}\) The average of its valuations was \(\$ 0.98\) per share, above the Company's then-current \(\$ 0.60\) price. \({ }^{17}\)

In August 2011, after considering its various options, the Board began reaching out to potential purchasers. \({ }^{18}\) Patterson contacted parties that were active in mergers and acquisitions in the transportation industry. While there was some interest, AutoInfo could not reach a satisfactory agreement. \({ }^{19}\)

Several months later, in November 2011, activist hedge funds Baker Street Capital L.P. and Khrom Capital Management, through affiliated entities ("Baker Street"), acquired a \(13 \%\) equity interest in AutoInfo. \({ }^{20}\) Baker Street began expressing its desire that AutoInfo be sold. According to Patterson, those demands did not impact the Board's sales process, which was already underway. \({ }^{21}\)

In early 2012, after interviewing several investment banks, AutoInfo formally retained Stephens to run a sales process. \({ }^{22}\) The parties agreed to an incentive-based fee structure whereby Stephens would be paid \(2 \%\) on the first \(\$ 54\) million of a transaction price and \(5 \%\) on any additional value \({ }^{23}\) Stephens had extensive industry experience; Michael Miller ("Miller"), who worked on AutoInfo's engagement, had focused on the transportation logistics space since 2002. \({ }^{24}\)

\section*{3. Management's Financial Projections}
*3 To implement the sales process, Stephens asked Management to prepare a bottoms-up five-year financial forecast (the "Management Projections"). \({ }^{25}\) Stephens specified that because they would be used to market the Company, the projections should be optimistic. \({ }^{26}\) Management had never prepared multi-year projections before and its first attempt fell largely on Wunderlich's (its CFO) shoulders. \({ }^{27}\) Internally, Management doubted its ability to forecast the Company's future performance accurately and perceived its attempt as "a bit of a chuckle and a joke.," 28 It questioned how to go about a process it had never before attempted. \({ }^{29}\)

Recognizing that the Management Projections would be used to shop the Company, Wunderlich focused on painting
an "aggressively optimistic" picture. \({ }^{30}\) Williams, AutoInfo's President, helped develop the forecast by projecting agent revenue. \({ }^{31} \mathrm{He}\) started with each agent's historical revenue and "took the most optimistic view of [the] agents' performance in the marketplace...., 32 He categorized agents by size and assumed that larger agents would grow at a lower percentage than smaller agents." \({ }^{33}\) Williams testified that there "was no science" behind those assumptions. \({ }^{34} \mathrm{He}\) also looked at agent-by-agent historical results and predicted, based on knowledge of the individual agents, how much the agent's business could grow during 2012-2013. \({ }^{35}\) Those growth assumptions were extrapolated to later years. \({ }^{36}\) The Management Projections also included estimates of how successfully the Company would recruit new agents. \({ }^{37}\)

\section*{4. Comvest Emerges as the Highest Bidder}

In the spring of 2012, Stephens contacted 164 potential strategic and financial acquirers, focusing on those most interested in the transportation space. \({ }^{38}\) Approximately seventy bidders signed non-disclosure agreements ("NDAs") and received a Confidential Information Memorandum ("CIM"). \({ }^{39}\) Those interested were provided several weeks for due diligence before a deadline to submit an indication of interest ("IOI"). \({ }^{40}\) By the end of May, ten bidders had presented IOIs, with bids ranging from \(\$ 0.90-\$ 1.36\) per share. \({ }^{41}\) Nine moved on to a second round of the sales process, at which point they attended Management presentations and received access to an electronic data room. \({ }^{42}\)
*4 On June 28, 2012, the Board formed a special committee (the "Special Committee") to evaluate the competing offers. The Special Committee consisted of the three outside directors, with Patterson serving as chair. \({ }^{43}\) It proceeded, with the assistance of a legal advisor and a financial advisor, to review the bids. \({ }^{44}\)

By July, three would-be acquirers had submitted written letters of intent ("LOI") and two others had presented verbal valuation ranges. \({ }^{45}\) After receiving legal advice regarding its fiduciary duties, the Special Committee weighed the proposals as against each other and the alternative option of foregoing a sale at that time. \({ }^{46}\) It decided to continue with the sales process and instructed Stephens to negotiate with the bidders over price. \({ }^{47}\)

Later that month, Stephens updated the Special Committee with final terms for the written bids. HIG Capital ("HIG") had made the highest offer at \(\$ 1.30\) per share. \({ }^{48}\) The Special Committee determined that the highest offer was also the best and recommended that the Board pursue a transaction with HIG. The Board accepted this determination and on August 14,2012 , executed an LOI at the \(\$ 1.30\) per share price, which provided for a forty-five day exclusivity period to negotiate and perform further due diligence \({ }^{49}\)

HIG conducted due diligence for the next thirty days but by mid-September, it decided not to proceed with the purchase. \({ }^{50}\) HIG's lead partner on the deal had left the firm, apparently due to various disagreements with his colleagues, including whether HIG should decrease its offer for AutoInfo. \({ }^{51}\) After that partner's departure, HIG opted against pursuing AutoInfo. \({ }^{52}\) The parties terminated their LOI, and AutoInfo decided to continue with the sales process. Stephens contacted previously interested parties, as well as others it recommended to AutoInfo. \({ }^{53}\)

By October 2012, two interested parties had submitted written LOIs and two others had indicated interest verbally. The highest offer came from Comvest Partners ("Comvest") and valued the Company at \(\$ 1.26\) per share. \({ }^{54}\) The others were substantially lower, ranging from \(\$ 1.00-\$ 1.07\) per share. \({ }^{55}\) After determining that Comvest's offer was the best, the Special Committee recommended that the Board pursue that transaction. The Board unanimously agreed and on November 12, 2012, AutoInfo executed an LOI with Comvest at \(\$ 1.26\) per share with a thirty day exclusivity period. \({ }^{56}\) Comvest then hired accounting, legal, industry, and other advisors to conduct due diligence. \({ }^{57}\)

\section*{5. Comvest's Due Diligence Process}

Comvest hired L.E.K. Consulting ("LEK"), a strategy consultant, to assess AutoInfo's competitive positioning in the trucking freight brokerage market. \({ }^{58}\) LEK evaluated growth trends and dynamics in the brokerage market generally, as well as concerns associated with AutoInfo's agent-based business. \({ }^{59}\) Comvest considered LEK's findings as very positive. \({ }^{60}\)
*5 LEK's analysis came relatively early in the due diligence process, and as that process evolved, Comvest learned of potential issues associated with AutoInfo's business. \({ }^{61}\) For example, AutoInfo's infrastructure for recruiting new agents, which represented the lifeblood of the Company, was lacking. \({ }^{62}\) Comvest determined that it would need to address that deficiency, and others, before it could effectively recruit agents and grow AutoInfo's business. \({ }^{63}\) Its biggest concerns, however, arose during its accounting due diligence.

Comvest retained McGladrey LLP ("McGladrey") to perform financial due diligence; its work included conducting a quality of earnings analysis to test the accuracy of the Company's stated historical earnings and its ability to achieve projections. \({ }^{64}\) McGladrey began its review in November 2012, with Wunderlich, AutoInfo's CFO, serving as its primary Company contact. McGladrey was immediately taken aback by the poor quality of AutoInfo's financial records, which were unusually bad for a publicly traded company. \({ }^{65}\) The state of the financials caused the due diligence process to be more difficult than McGladrey had anticipated. \({ }^{66}\)

McGladrey was surprised that AutoInfo used QuickBooks, accounting software popular among small businesses, but rarely employed by public companies. \({ }^{67}\) Also troubling to McGladrey was the fact that a Florida-based public company would engage a one-office, Connecticut-based accounting firm as its outside auditor. \({ }^{68}\) More importantly, McGladrey believed that some of AutoInfo's accounting practices violated generally accepted accounting principles. \({ }^{69}\) McGladrey raised these concerns with an increasingly troubled Comvest. \({ }^{70}\)

In December 2012, McGladrey reported its findings to Comvest (the "McGladrey Report"). \({ }^{71}\) AutoInfo's Management had estimated the Company's 2012 adjusted EBITDA as \(\$ 10\) million. \({ }^{72}\) McGladrey concluded that \(\$ 7.7\) million was an appropriate estimate, representing a \(23 \%\) reduction. \({ }^{73}\) Comvest considered the McGladrey Report a "huge problem" with the potential to "blow[ ] up" the deal. \({ }^{74}\) Not only was AutoInfo's EBITDA apparently much lower than initially assumed, but there was "a whole series of weaknesses in the company's financial reporting practices...., 75

AutoInfo responded to the McGladrey Report through a memorandum prepared by Wunderlich. \({ }^{76}\) McGladrey considered the rebuttal unconvincing. \({ }^{77}\) At the beginning of January, Wunderlich, Wachtel, and a representative from Stephens met with a Comvest representative to discuss the McGladrey Report and AutoInfo's response. \({ }^{78}\) While Comvest listened to AutoInfo's arguments, it remained convinced that the McGladrey Report raised valid issues and McGladrey did not change its conclusions.

After that meeting, Comvest lowered its offer to \(\$ 0.96\) per share and AutoInfo countered at \(\$ 1.15 .^{79}\) During ensuing negotiations, Comvest learned that AutoInfo had guaranteed some loans, the existence of which had been undisclosed and unreported. Some of the borrower's creditors had filed an involuntary bankruptcy petition and AutoInfo was facing the possibility of having to satisfy the guarantees. \({ }^{80}\) Comvest was concerned not only by AutoInfo's increased liabilities, but more importantly, it was troubled by the fact that the guarantees had not been properly identified in the first place. \({ }^{81}\) Its confidence in the quality of AutoInfo's financial information and controls further deteriorated. \({ }^{82}\)
*6 On January 18, 2013, the Special Committee and Comvest agreed to a new price of \(\$ 1.06\) per share. \({ }^{83}\) Comvest had successfully negotiated for Wachtel (AutoInfo's CEO) to roll over \(\$ 500,000\) and for Weiss (another executive) to roll over \(25 \%\) of his deal proceeds. \({ }^{84}\) The deal process then resumed, until discovery of another accounting deficiency. AutoInfo had improperly booked a transaction, worth approximately \(\$ 1,000,000\) in EBITDA, in the third quarter of 2012 before the deal had closed. \({ }^{85}\) Comvest was shocked at this revelation and was worried that AutoInfo would need to restate its financials. Characterizing his reaction, John Caple, Comvest's lead partner on the AutoInfo deal, testified, "As much as I had seen financial weaknesses in the business, the fact that the company could book a million dollar transaction that hadn't actually happened, I've just never seen that before in any business I've worked with, public or private., \({ }^{86}\) AutoInfo determined, after an approximately two week review, that its financials would not need to be restated. \({ }^{87}\) Nonetheless, Comvest was "disturb[ed that the error] could have happened at all, particularly given the size and the impact of the transaction. \({ }^{88}\) Comvest's already low confidence in AutoInfo's Management and internal controls eroded further and it revised its offer to \(\$ 1.00\) per share. \({ }^{89}\)

On February 28, 2013, after additional negotiations, the parties ultimately reached an agreement at \(\$ 1.05\) per share, with Wachtel entering into an indemnification agreement for potential breaches of AutoInfo's representations and warranties, whereby \(\$ 500,000\) of his proceeds would be held in escrow. \({ }^{90}\) The Board approved the Merger pursuant to the Special Committee's unanimous recommendation. Stephens had provided a fairness opinion and presentation to the Special Committee. AutoInfo announced the Merger on March 1, 2013. \({ }^{91}\)

On April 25, 2013, AutoInfo's stockholders approved the deal and the transaction closed later that day. No topping bids had emerged between the deal's announcement and closing. \({ }^{92}\)

\section*{II. THE PARTIES' COMPETING VALUATIONS}

Both parties retained well-qualified experts to opine on the fair value of Petitioners' stock as of the date of the Merger. Petitioners' expert, Donald Puglisi ("Puglisi"), suggests that AutoInfo's fair value was \(\$ 2.60\) per share. He places equal weight on three valuation calculations: a discounted cash flow ("DCF") analysis, and two comparable companies analyses, one using a historical based multiple and the other a forward looking multiple. \({ }^{93}\)

AutoInfo's expert, Mark Zmijewski ("Zmijewski"), submits that AutoInfo's fair value on the date of the Merger was \(\$ 0,967\) per share. Unlike Puglisi, Zmijewski does not believe that a DCF or comparable companies analysis can be reliably performed with available data. Instead, he analyzed the Merger price and the market evidence regarding the strength of AutoInfo's sales process. He concluded that the Merger price, minus cost savings arising from the Merger, is the best available evidence of the Company's fair value on the Merger date. \({ }^{94}\)

\section*{III. ANALYSIS}

\section*{A. The Appraisal Statute}

Under 8 Del. C. § 262, stockholders who elect against participating in certain merger transactions may petition the Court to determine the fair value of their stock. \({ }^{95}\) Assuming all procedural requirements are satisfied, the Court
*7 determine[s] the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation, together with interest, if any, to be paid upon the amount determined to be the fair value. In determining such fair value, the Court ... take[s] into account all relevant factors. \({ }^{96}\)
"Fair value" represents "the value to a stockholder of the firm as a going concern, as opposed to the firm's value in the context of an acquisition or other transaction."97 To discharge its statutory responsibility, the Court independently evaluates the evidence concerning fair value and does not presumptively defer to any particular valuation metric. \({ }^{98}\) The Court may consider "any techniques or methods which are generally considered acceptable in the financial community and otherwise admissible in court.....99 Depending on the case, a DCF analysis, a comparable transactions analysis, a comparable companies analysis, or the merger price itself may inform the Court's determination. \({ }^{100}\) " \([\mathrm{A}] \mathrm{n}\) arms-length merger price resulting from an effective market check" is a strong indicator of actual value. \({ }^{101}\)

In a Section 262 appraisal proceeding, "both sides have the burden of proving their respective valuation positions by a preponderance of the evidence., \({ }^{102}\) The Court may select one of the parties' valuation models, make adjustments to a proffered model, or fashion its own framework. \({ }^{103}\)

\section*{B. Puglisi's DCF Analysis}

Puglisi bases his valuation of AutoInfo in part on a DCF analysis. "DCF, in theory, is not a difficult calculation to make -five-year cash flow projections combined with a terminal value are discounted to their present value to produce an overall enterprise value., \({ }^{104}\) However, when reliable inputs are unavailable, "any values generated by a DCF analysis are meaningless." \({ }^{105}\) Puglisi used the Management Projections in his DCF calculation. The first question is: are those projections reliable? \({ }^{106}\)

The Court will often give weight to management projections made in the regular course of business because "management ordinarily has the best first-hand knowledge of a company's operations." \({ }^{107}\) Nonetheless, "management projections [may be disregarded] where the company's use of such projections was unprecedented, where the projections were created in
anticipation of litigation, or where the projections were created for the purpose of obtaining benefits outside the company's ordinary course of business." \({ }^{108}\) If management had never prepared projections beyond the current fiscal year, the Court may be skeptical of its first attempt. \({ }^{109}\)
*8 Here, Petitioners have failed to establish that the Management Projections can be relied upon. \({ }^{110}\) Management prepared them at Stephens's request and with the guidance that they "need[ed] to be optimistic" to maximize the effort to market the Company. \({ }^{111}\) Management had never prepared anything resembling the Management Projections before and "hadn't analyzed the business historically in a way that would allow [it] to predict the future." \({ }^{112}\) Stephens had advised, "You're trying to sell the business. You need to paint the most optimistic and bright current and future condition of the company that you can. All positive. Let's get the most interest by painting the most positive picture of this business."113

As discussed in Section I.C. 3 above, the Management Projections were indisputably optimistic. \({ }^{114}\) Puglisi, Petitioners' own expert, testified that he would have implied a discount factor to back out the optimism if the record had provided a basis for calculating one. \({ }^{115}\) Even if Management had not been motivated to paint a bright picture, its projections would have been unreliable. Again, Management itself had no confidence in its ability to forecast. \({ }^{116}\) If Management could not have been trusted to produce credible projections in the ordinary course of business, the projections it created during the sales process deserve little deference. Because Petitioners have failed to establish the credibility of a key component in their expert's DCF analysis, the Court gives that analysis no weight. \({ }^{117}\)

\section*{C. Puglisi's Comparable Companies Analyses}

Puglisi performed two comparable companies analyses, one using a 2012 EBITDA figure derived from AutoInfo's 2012 10-K, and the other using an estimated 2013 EBITDA created by modifying the Management Projections. To perform a comparable companies analysis, one must first identify a set of actively traded public companies sharing similar business characteristics with the subject company. Using available information, one then derives a valuation multiple that, when multiplied by a relevant financial performance metric, such as EBITDA, provides an estimate of the value of a company as a whole.

The Court may credit a comparable companies analysis in an appraisal proceeding; however, " \([t]\) he utility of the comparable company approach depends on the similarity between the company the court is valuing and the companies used for comparison." \({ }^{118}\) Petitioners bear the burden of proving that Puglisi's "comparables are truly comparable."119 Because they fail to meet their burden, the Court gives no weight to Puglisi's comparable companies analyses. \({ }^{120}\)

\section*{1. AutoInfo is Significantly Smaller than Puglisi's Supposed Comparables}
*9 The Court may reject comparable companies analyses based on purported comparables that differ significantly in size from the company being appraised. \({ }^{121}\) It is undisputed that Puglisi's comparables are all significantly larger than AutoInfo. As of the Merger date, their market capitalizations ranged from more than twice, to more than 300 times, AutoInfo's size. \({ }^{122}\) All but two of Puglisi's comparables had a market capitalization more than ten times AutoInfo's. While recognizing this fact, Petitioners argue that size, while relevant in other contexts, is not a determining factor here.

Puglisi testified that he did not observe a meaningful relationship between a company's size and its multiple among his comparables. He could not recall "ever discriminating inclusion in comparable companies based on company size ... [because] size itself should not have an impact on the ultimate valuation." \({ }^{123}\) Although there may be little theoretical basis for discriminating comparables based on size, doing so has empirical support and is common both in practice and in this Court. \({ }^{124}\) Zmijewski suggests that it would be inappropriate to select comparables without regard to relative market capitalization without otherwise controlling for risk and other differences. \({ }^{125}\)

All else equal, smaller firms are riskier and thus face higher costs of equity capital. This higher cost of capital leads to lower market multiples. \({ }^{126}\) Miller, Stephens's representative, suggests

Typically in this sector, small cap companies tend to be valued at lower multiples. That's generally been the case in the ... dozen years that I've spent covering this sector. The market tends to ascribe premium multiples to companies that are larger ... [and] are considered more
stable businesses. And therefore, investors are willing to ... afford those companies ... a higher trading multiple. \({ }^{127}\)
*10 Before delivering its fairness opinion, Stephens performed a comparable companies analysis. Based on its experience in the transportation services industry, Stephens, unlike Puglisi, did not rely on the median multiple of its comparables. It selected a lower multiple range, based on differences between AutoInfo and the comparables, including size, business model, and the quality of management. \({ }^{128}\) Stephens grouped its comparable companies by size, which showed a relationship between size and multiples. \({ }^{129}\)

While Petitioners criticize Stephens's size grouping as arbitrary and self-serving, in its initial July 29, 2011, Strategic Initiatives Overview presentation to AutoInfo, Stephens highlighted the fact that AutoInfo had "consistently traded at valuation multiples well below its peer group due to the Company's relatively small scale...." \({ }^{130}\) Petitioners have failed to show that the size difference between AutoInfo and Puglisi's supposedly comparable companies is immaterial. \({ }^{131}\)

\section*{2. AutoInfo's \(100 \%\) Agent-Based Model}

Puglisi did not consider the differences between freight brokerage businesses that use the company store model and those that employ an agent-based model as important for valuation purposes. \({ }^{132}\) As described in Section I.A above, in a company store model, " \([b]\) rokers are direct employees of the company," while in an agent-based model, the brokers are independent contractors. \({ }^{133}\) According to Miller, who has years of experience in the transportation sector, "agent-based models ... are generally less desirable. They're perceived as riskier. The company does not have control over the customer relationship. The agent does. And so the agent-based models are generally ... less desirable and generally they tend to trade at lower multiples than the company store models." \({ }^{134}\)

That the market perceives the agent-based model as inferior was corroborated by the reaction that one AutoInfo stockholder received while soliciting topping bids for the Company. That stockholder learned that "the agent-based model with no company-owned locations, especially in important shipping hubs, was a bigger deal to potential acquirers than ... [initially] realized." \({ }^{135}\) AutoInfo's \(100 \%\) agent-based model was a "problem" for potential buyers. \({ }^{136}\)
*11 At trial, Puglisi, who lacks Miller's experience in the freight brokerage sector, could not identify which of his comparable companies used which type of business model, but suspected that the majority were agent-based. \({ }^{137}\) Miller testified specifically regarding the business models of Stephens's comparables and explained that they mostly use company store models. \({ }^{138}\) In its fairness opinion, Stephens had taken advantage of its industry experience and its knowledge of AutoInfo's business to select a belowmedian multiple for its comparable companies analysis. \({ }^{139}\) Petitioners have not established that the differences between AutoInfo's business model and those of Puglisi's comparable companies are unimportant.

\section*{3. Summary of Puglisi's Comparable Companies Analyses} Because the weight of the evidence suggests that size and business model affect the multiples at which companies trade in the freight brokerage industry, Puglisi's comparable companies analyses are not reliable indicators of value. The Court's confidence in this conclusion is bolstered by the facts that (i) all of the bids received by AutoInfo during the sales process implied market multiples well below Puglisi's, and (ii) AutoInfo ultimately sold, through a thorough sales process, at a price less than half of Puglisi's comparable companies valuations. \({ }^{140}\) The Court was unable independently to derive in any reasoned manner a valuation multiple from the purported comparables. Accordingly, the Court gives no weight to any comparable companies analysis.

\section*{D. Merger Price}

Zmijewski, AutoInfo's expert, relies on the Merger price as a reliable indication of AutoInfo's fair value at the time of the Merger. "[W]here no comparable companies, comparable transactions, or reliable cash flow projections exist, ... the merger price [may be] the most reliable indicator of value., 141 Nonetheless, the Court will give little weight to a merger price unless the record supports its reliability.

The dependability of a transaction price is only as strong as the process by which it was negotiated. \({ }^{142}\) For example, a transaction that implicates self-interested parties or an inadequate market check may generate a price divergent from fair value. Conversely, where a company "was marketed to potential buyers ... [through a process that was] thorough, effective, and free from any spectre of self-interest or disloyalty," the outcome of that process is significant. \({ }^{143}\)

Petitioners argue that the Merger price deserves no weight because (i) the Merger price is not a business valuation methodology, (ii) the Court cannot rely on the price if no business valuation methodology, e.g., a DCF analysis, was performed to corroborate the price, and (iii) even if the Merger price could be considered, AutoInfo's sales process was deficient.

Petitioners' first two contentions are easily dismissed. As discussed, this Court can, and has, relied on a merger price when appraising a company. When it is the best indicator of value, the Court may assign \(100 \%\) weight to the negotiated price. \({ }^{144}\) Although the Court may not presumptively defer to price, no particular valuation methodology must provide corroboration. Rather, the Court may, in its discretion, look to any "evidence tending to show that [the merger price] represents the going concern value of the company rather than just the value of the company to one specific buyer." \({ }^{145}\) Here, evidence regarding AutoInfo's sales process substantiates the reliability of the Merger price.
*12 The manner by which AutoInfo was sold is described in Section I.C. above. This case does not involve self-interest or disloyalty; nothing like a controlling stockholder's freezing out the minority is at issue. The Merger was negotiated at arm's length, without compulsion, and with adequate information. It was the result of competition among many potential acquirers. However, Petitioners argue that the sales process was flawed and cannot be expected to have produced a price representative of value. Based on the evidence, the Court concludes that Petitioners' objections, discussed next, are either unwarranted or overblown.

\section*{1. Lack of Analyst Coverage}

AutoInfo was thinly traded and lacked financial analyst coverage. Petitioners contend that the market underpriced the Company because it was ignorant of its potential. While " \([t]\) he court cannot defer to market price as a measure of fair value if the stock has not been traded actively in a liquid market," \({ }^{, 146}\) the Merger price does not reflect the value that a potentially uninformed market attributed to AutoInfo. The Merger price represented a \(22 \%\) premium to AutoInfo's average stock price during the six months before February 28, 2013, the last trading day before public announcement of the Merger. \({ }^{147}\) At no time in the two years before the Merger's announcement had the market price for the Company's stock
reached \(\$ 1.00 .{ }^{148}\) Further, the Merger price exceeded the highest price that AutoInfo stock had reached during the previous five years. \({ }^{149}\)

To shop the Company, AutoInfo retained an experienced investment bank with knowledge of the transportation industry. Stephens's fee had an incentive-based component, which allowed the bank to earn a higher percentage fee the larger the deal. \({ }^{150}\) Stephens reached out to and provided information on AutoInfo to many potential bidders. Part of the reason for hiring the bank would have been to educate the market and assure the Company that it was not leaving value on the table. \({ }^{151}\) The Board formed a Special Committee to pursue the sales process. Ultimately, AutoInfo was sold at a premium to market. Despite attempts by a stockholder to solicit interest, no topping bid emerged during the time frame between announcement and closing of the Merger. \({ }^{152}\) While the market may have been uninformed about AutoInfo before the sales process, it subsequently gained ample information.

\section*{2. Alleged Pressure from Large Stockholders}

Petitioners contend that large stockholders pressured the Board to sell quickly. Approximately 31.4\% of AutoInfo's voting power was held by Baker Street and Kinderhook. \({ }^{153}\) According to Petitioners, those hedge funds sent a clear message that if a liquidity event were not achieved, then they would get active and Management would potentially face a control contest.
*13 Baker Street purchased its stake in the Company in November 2011. By that time, AutoInfo had already begun to consider strategic alternatives, including a potential sale. The Board had reached out informally to potential purchasers months before Baker Street became a stockholder. Stephens's July 29, 2011, presentation to AutoInfo had indicated "that now is an opportune time to explore initiatives to maximize shareholder value, including ... [a c]hange of control transaction." \({ }^{154}\) By the time Baker Street arrived on the scene, AutoInfo was already contemplating the selection of a bank to lead the formal sales process. \({ }^{155}\)

Unlike Baker Street, Kinderhook was not adamant that AutoInfo be sold. Rather, like the Board, Kinderhook desired change to address AutoInfo's low stock price. \({ }^{156}\) Patterson, the Special Committee's chair, testified that neither Baker Street nor Kinderhook impacted the sales process. Before
retaining Stephens, the Board had received early indications of interest and "absolutely" could have sold quickly if the terms had been right. \({ }^{157}\) Instead, the Board retained Stephens and embarked on a sales process lasting over a year. Near the end of that process, Patterson told the rest of the Special Committee "I plan to tell [Comvest] to pay \(\$ 1.06\) or walk away." \({ }^{, 158}\) If necessary, the Special Committee was prepared to "regroup, push some changes through and clean up" for a future sale. \({ }^{159}\) Based on the evidence, neither Baker Street nor Kinderhook appear to have materially impacted the sales process.

\section*{3. Negotiations with Comvest}

Petitioners next argue that Comvest completely overwhelmed AutoInfo's Management and Board during negotiations. More specifically, they contend that Comvest commissioned the McGladrey Report as a tool to drive down the Merger price. According to Petitioners, AutoInfo was incapable of adequately responding to that report.

Hiring an accounting firm to conduct due diligence is standard practice for Comvest. \({ }^{160}\) While due diligence sometimes flags issues, in other cases, the process is positive and the accounting firm concludes that the target company is actually a better deal than Comvest initially believed. \({ }^{161}\) McGladrey was not the only outside firm hired to conduct due diligence. For example, Comvest engaged a strategy consultant, whose review of AutoInfo's business was very positive. \({ }^{162}\)

It is mostly undisputed that AutoInfo's CFO was belowaverage, the Company used relatively unsophisticated accounting software, and its accounting records contained errors discovered throughout negotiations. There is room to debate whether all of McGladrey's adjustments to AutoInfo's financials were necessary. However, the record does not support the notion that McGladrey's auditors would have sacrificed their professional independence to benefit Comvest on this one particular transaction. AutoInfo did attempt to rebut the McGladrey Report, but many of McGladrey's findings "were valid issues." 163 Because AutoInfo had sub-par accounting and financial controls, McGladrey was understandably alert to potential problems, and Comvest was understandably concerned by the issues raised. Comvest viewed the agreement it eventually reached with AutoInfo as inferior to the deal it had initially anticipated. \({ }^{164}\) The record
does not support the allegation that McGladrey was a hired gun employed to overwhelm AutoInfo. \({ }^{165}\)

\section*{4. Stephens's Process}
*14 Petitioners suggest that (i) Stephens's market canvas was unfocused, (ii) Stephens improperly suggested a valuation of AutoInfo to some bidders, (iii) Stephens did not provide a formal valuation of the Company until the Merger was negotiated, and (iv) the Board did not adequately oversee the sales process.

The sales process is described supra Section I.C. The weight of the evidence discredits Petitioners' stated concerns. The Court concludes that the sales process was generally strong and can be expected to have led to a Merger price indicative of fair value. Accordingly, it deserves weight in the Court's valuation.

\section*{E. The Court's Determination}

Any real-world sales process may be criticized for not adhering completely to a perfect, theoretical model. Nonetheless, AutoInfo's process was comprehensive and nothing in the record suggests that the outcome would have been a merger price drastically below fair value, as Petitioners' expert suggests. Placing heavy weight on the Merger price "is justified in light of the absence of any other reliable valuation analysis." \({ }^{166}\) Not only are other credible valuations unavailable, but the record also contains evidence corroborating the Merger price's reliability. Even Petitioners' expert agrees that AutoInfo was "shopped quite a bit" and that the sales process was arm's length. \({ }^{167}\) The Merger was the result of "an adequate process." \({ }^{168}\) The Merger price is thus a strong indicator of value. \({ }^{169}\)

Before placing full weight on the Merger price, the Court performed its own DCF analysis. Having rejected the Management Projections, the Court relied on financial projections that Comvest had prepared for internal use in evaluating the AutoInfo deal. \({ }^{170}\) In a February 25, 2013, Investment Committee Memo, Comvest projected five-year financials for AutoInfo based on both a base case (the "Base Case Projections") and a downside case scenario. Comvest's projections were prepared during due diligence to provide more detail than the Management Projections. They represented Comvest's then-current belief regarding AutoInfo's likely future performance. \({ }^{171}\) After Comvest's
investment committee requested "a number of alternative scenarios below the down side case," a revised downside case and a "shock case" were also produced. \({ }^{172}\)

When preparing his expert report, Zmijewski considered using the Base Case Projections in a DCF valuation. While he concluded that those projections would not yield a reliable indication of fair value, he did use them to conduct a DCF analysis included in his rebuttal report. AutoInfo has argued that Comvest's projections are a better forecast of the Company's future performance as of the date of the Merger than are the Management Projections.

In his rebuttal expert report, Puglisi analyzed the Comvest Base Case Projections. He considered them reasonably reliable, observing that
after months of due diligence and hundreds of thousands of dollars spent, up until days prior to the stockholder vote on the transaction, Comvest continued to focus its internal investment committee presentations on its Base case projections, including in its closing memo, noting the Company's strong 2013 first quarter results, and highlighting that the Company had outperformed revenue and gross margins stated in its Base case projections. \({ }^{173}\)
*15 Because the Base Case Projections are the most reliable forecast in the record, the Court employed them in its DCF analysis. The Court generally adopted the DCF framework used by Zmijewski in his rebuttal expert report. \({ }^{174}\) However, as explained in Section 3.F below, the record does not support Zmijewski's decision to remove \(\$ 1,449,000\) per year (before \(\operatorname{tax}\) ) in purported merger cost savings. The Court added back that value to arrive at a corrected estimate of AutoInfo's forecasted free cash flows. The Court otherwise credited the uncontroversial assumptions underlying Zmijewski's model, as well as his use of \(17.57 \%\) as AutoInfo's weighted average cost of capital ("WACC").

The parties disagree on AutoInfo's WACC, which is used in a DCF analysis to discount cash flow projections and a terminal value to estimate the Company's enterprise value as of the Merger. Zmijewski used a WACC of \(17.57 \%\), while Puglisi used \(11.30 \%\). The difference stems entirely from debate regarding the appropriate equity size premium to be added to AutoInfo's cost of equity. \({ }^{175}\) The most common method for estimating a company's cost of equity, and the method employed by both experts, is application of the capital asset pricing model (the "CAPM"). Because
empirical evidence suggests that the CAPM understates small companies' costs of equity, valuation professionals often add a size premium, based on historically observed data, to a CAPM-derived cost of equity. \({ }^{176}\) Zmijewski and Puglisi each added a size premium to AutoInfo's CAPM-based cost of equity; Zmijewski used \(11.65 \%\), and Puglisi selected \(3.81 \%\).

Following standard practice, both experts derived the size premium using data from Ibbotson Associates ("Ibbotson"). The 2013 edition of Ibbotson breaks down publicly traded stocks into deciles based on market capitalization. \({ }^{177}\) It further breaks down the 10th decile, which includes the smallest companies, into four subdeciles. Subdecile \(10 z\) subsumes the smallest companies in Ibbotson's data set.

Puglisi chose the size premium for Ibbotson's micro-cap category, which includes the 9 th and 10th deciles, i.e., companies with market capitalizations ranging from \(\$ 1.139\) million to \(\$ 514.209\) million. Zmijewski looked to the 10 z subdecile, which consists of companies with market capitalizations from \(\$ 1,139\) million to \(\$ 96.164\) million. At the time of the Merger, AutoInfo had a market capitalization of approximately \(\$ 30\) million. AutoInfo thus fell comfortably within subdecile 10 z based on its market capitalization. For several reasons, the Court relied on the 10 z size premium.

First, Puglisi testified that he "would have used [a size premium] close to the 10 z category, if not 10 z itself," had he not believed it necessary to strip out a marketability factor. \({ }^{178}\) Puglisi's adjustment to the size premium runs counter to Delaware law. \({ }^{179}\) In Gearreald v. Just Care, Inc., this Court "decline[d] to reduce the Company's size premium to less than what is implied by its actual size. \({ }^{180}\) In that case, as here, the parties agreed as to which Ibbotson subdecile applied based on size alone, yet petitioners' expert used a lesser size premium to "eliminate[e] the 'well-documented liquidity effect' contained within the size premium." \({ }^{181}\) The Court rejected the adjustment "because the liquidity effect at issue relate[d] to the Company's ability to obtain capital at a certain cost, ... [and was therefore] related to the Company's intrinsic value as a going concern and should be included when calculating its cost of capital." \({ }^{, 182}\) Petitioners attempt to distinguish between a marketability discount and an illiquidity discount, which may represent distinct concepts in a separate context. However, AutoInfo's cost of capital directly affects transactions between the Company and providers of capital, and is thus part of its value as a going concern. Because in these circumstances there is an
insufficient factual basis for doing so, the Court declines to depart from the size premium implied by AutoInfo's actual size. \({ }^{183}\)
*16 The Court also considered the fact that Stephens, when valuing AutoInfo, used a size premium and WACC even higher than what Zmijewski recommends. Stephens believed that AutoInfo would need to significantly increase its market capitalization to benefit from a lower WACC. \({ }^{184}\) Perhaps most importantly, relying on Puglisi's WACC produces an estimate of fair value completely divorced from the negotiated Merger price (and the other bids offered for the Company). The discrepancy between Puglisi's estimates and the market's valuation of AutoInfo cannot be explained by anything in the record. \({ }^{185}\)

Using a WACC of \(17.57 \%\) and the Base Case Projections, the Court performed a DCF analysis that resulted in a fair value determination of approximately \(\$ 0.93\) per share on the date of the Merger. \({ }^{186}\) Under Delaware law, it would be appropriate to provide weight to the value as implied by the Court's DCF analysis. \({ }^{187}\) Nonetheless, because the Merger price appears to be the best estimate of value, the Court will put full weight on that price. \({ }^{188}\)

\section*{F. Must the Merger Price Be Adjusted for Cost Savings?} While the Merger price was the baseline for Zmijewski's fair value opinion, he adjusted that amount downward to account for the portion of the price that he deemed attributable to the consummation or prospect of the Merger. \({ }^{189}\) In this, as in any appraisal action, the Court must value Petitioners' shares "exclusive of any element of value arising from the accomplishment or expectation of the merger..... \({ }^{190}\) AutoInfo argues that two categories of cost savings, which increased the price that Comvest was willing to pay for it, must be backed out of the Merger price to arrive at AutoInfo's fair value as a going-concern as of the Merger date. Those categories are (i) public company costs that Comvest could eliminate once AutoInfo ceased trading as a public company, and (ii) executive compensation costs that Comvest planned to eliminate. AutoInfo bears the burden of showing that adjustments should be made to the Merger price. \({ }^{191}\)

Zmijewski suggests backing out these cost savings because AutoInfo's stockholders likely captured \(100 \%\) of the value created by those savings and, thus, the value is embedded
in the Merger price. \({ }^{192} \mathrm{He}\) cites academic literature that concludes that target firms capture virtually all of the value created by corporate combinations through the price paid by the acquirer. \({ }^{193}\) Because the \(\$ 1.05\) price would be expected to reflect anticipated cost savings, Zmijewski adjusted the Merger price downwards to account for Merger-related effects on the stock's value.

This Court only excludes from an appraisal award value that is merger-specific. \({ }^{194}\) An appraisal award does not include "the amount of any value that the selling company's shareholders would receive because a buyer intends to operate the subject company, not as a stand-alone going concern, but as a part of a larger enterprise, from which synergistic gains can be extracted." \({ }^{195}\)
*17 Zmijewski based his calculation of cost savings on adjustments that Comvest made to AutoInfo's earnings when preparing the Base Case Projections. Comvest apparently anticipated savings related to public company costs and executive compensation. It assumed that the savings would not grow over time and would persist into perpetuity. \({ }^{196}\)

In Huff Fund, the respondent company urged the Court to subtract \(\$ 0.29\) from the merger price to arrive at fair value. \({ }^{197}\) Its rationale was that prior to the merger, the acquirer had identified \(\$ 4.6\) million in annual cost savings that it hoped to realize by converting the target from a publicly held corporation to a privately held firm. \({ }^{198}\) The evidence for those anticipated cost savings was an investment memorandum that the acquirer had prepared. The Court did not need to "reach[ ] the theoretical question of under what circumstances cost-savings may constitute synergies excludable from goingconcern value under Section 262(h)" because the record did not establish that the acquirer had based its bid on cost savings that the target could not have itself realized had it continued as a going concern. \({ }^{199}\)

Accepting Zmijewski's adjustments would appear to require the Court to reduce for cost savings the fair value established in an appraisal proceeding through reliance on the transaction price. Allowing a near automatic reduction in price would reverse the burden that is on the party arguing that adjustments are warranted. Zmijewski derived his cost savings figures from three lines of data included in Comvest's development of its Base Case Projections. \({ }^{200}\) The Court does not know how Comvest arrived at its numbers or even what it included
as "public company costs." Unlike the Merger price, which was corroborated by a thorough and public sales process, the reliability of the purported cost savings has not been tested. \({ }^{201}\) AutoInfo has thus failed to establish that any downward adjustment to the Merger price is warranted. \({ }^{202}\)

\section*{IV. CONCLUSION}

Where, as here, the market prices a company as the result of a competitive and fair auction, "the use of alternative valuation techniques like a DCF analysis is necessarily a second-best method to derive value., 203 The result of a DCF analysis depends critically on its inputs. For example, small changes to the assumed cost of capital can dramatically impact the result.
*18 AutoInfo's expert, a tenured professor at the University of Chicago Booth School of Business, concluded that there is no reliable data to input into a DCF or comparable companies model. He determined that the process by which AutoInfo was marketed and sold would be expected to have led to a price indicative of the fair value of the Company's stock. The Court has independently reached these same conclusions.

For the reasons set forth above, the fair value of one share of AutoInfo at the time of the Merger was \$1.05. Petitioners are entitled to interest at the legal rate. Counsel are requested to confer and to submit an implementing form of order.

\section*{All Citations}

Not Reported in Atl. Rptr., 2015 WL 2069417

\section*{Footnotes}

1 This memorandum opinion does not distinguish between Autolnfo and its subsidiaries; they are collectively referred to as Autolnfo.
\(2 \quad\) Trial Tr. 145 (Puglisi).
3 Trial Tr. 34 (Patterson).
4 JX 335 ("AutoInfo 2012 Form 10-K") at 2.
5 JX 179 ("L.E.K. Consulting Due Diligence Presentation") at 32.
6 Autolnfo 2012 Form 10-K at 28.
7 JX 334 ("Apr. 1, 2013, Autolnfo Schedule 14A") at 23.
8 Trial Tr. 7 (Patterson). Kinderhook controlled 6,278,312 Autolnfo shares, representing approximately \(18.3 \%\) of the Company's outstanding common shares. JX 336 ("Apr. 1, 2013, AutoInfo Form DEFM14A") at 72.
9 Trial Tr. 12, 23-24 (Patterson).
10 JX 19 ("Stephens's Strategic Initiatives Overview").
11 Id. at 5.
12 Trial Tr. 276-77 (Miller); Stephens's Strategic Initiatives Overview 12.
13 Stephens's Strategic Initiatives Overview 5.
14 Id. at 14.
15 Id. at 15; Trial Tr. 16 (Patterson).
16 Stephens's Strategic Initiatives Overview 19.
17 ld.
18 Trial Tr. 17 (Patterson).
19 Trial Tr. 19 (Patterson).
20 JX 23 (Baker Street November 10, 2011, Schedule 13D); JX 86 (Baker Street Apr. 20, 2012, Schedule 13D, Amendment No. 1).
21 Trial Tr. 20 (Patterson).
22 Trial Tr. 25 (Patterson).
23 Trial Tr. 280 (Miller).
24 Trial Tr. 274 (Miller).
25 Trial Tr. 281 (Miller).
26 ld.
27 Trial Tr. 481-82 (Wachtel).

28
Williams Dep. 170.
29 Trial Tr. 354 (Williams).
30 Wunderlich Dep. 49. See also Caple Dep. 38 ("[The Management Projections were] about the most optimistic you could make them."); Trial Tr. 237 (Puglisi) ("They were optimistic. I didn't see anybody who said they weren't optimistic."); Trial Tr. 359 (Williams) ("Overly optimistic, really to the exclusion of external and internal risk factors that otherwise are part of the business."); Trial Tr. 399 (Williams) ("[W]e prepared those projections with the most optimistic view of the future that we could possible conceive.").
31 Williams Dep. 168-70. Weiss and Autolnfo's director of corporate marketing and communications assisted this effort. Trial Tr. 395 (Williams).
32 Trial Tr. 396 (Williams).
33 Williams Dep. 175.
34 ld.
35 Id. at 169.
36 Id. at 169-70.
37 Id. at 168.
38 Trial Tr. 33 (Patterson); Trial Tr. 282-83 (Miller). The Board opted against publicly announcing a sales process because it did not want to disrupt its agent base. The possibility of losing agents is particularly troublesome for a \(100 \%\) agentbased company because the agents maintain all client relationships. Trial Tr. 33-34 (Patterson). If a public announcement caused agents to leave the company, then Autolnfo would not likely have maintained its revenue and earnings. Trial Tr. 34 (Patterson).
39 Trial Tr. 285 (Miller).
40 ld.
41 JX 295 ("Stephens's Special Committee Presentation") at 9.
42 Id. The one party that did not advance to the next round had provided the lowest IOI. Trial Tr. 287 (Miller).
43 JX 114 (June 28, 2012, Board minutes).
44 Patterson Dep. 102-03.
45 Stephens's Special Committee Presentation 9. Comvest Partners was one of the bidders which expressed verbal interest with the caveat that it would need additional time for due diligence because of conflicts with other transactions. JX 117 (Stephens's July 2, 2012, Process Update) at 4.
46 Apr. 1, 2013, Autolnfo Schedule 14A at 26.
47 Id. at 26-27.
48 Stephens's Special Committee Presentation 9.
49 Apr. 1, 2013, AutoInfo Schedule 14A at 27.
50 ld.
51 Trial Tr. 290 (Miller).
52 ld.
53 ld.
54 Stephens's Special Committee Presentation 9.
55 ld.
56 ld.
57 ld.
58 L.E.K. Consulting Due Diligence Presentation 3.
59 Trial Tr. 445 (Caple).
60 Trial Tr. 446 (Caple).
61 Id.
62 ld.
63 Trial Tr. 447 (Caple).
64 Trial Tr. 405, 408 (Spizman).
65 Trial Tr. 412 (Spizman); JX 159 (emails among McGladrey personnel).

66 Trial Tr. 414 (Spizman); JX 159. McGladrey also considered Wunderlich to be "in over his head" as a public company CFO. Trial Tr. 424 (Spizman).
67 Trial Tr. 414-15 (Spizman).
68 Trial Tr. 415 (Spizman).
69 Spizman Dep. 65-66.
70 Trial Tr. 417 (Spizman).
71 JX 223.
72 Trial Tr. 418-19 (Spizman).
73 Trial Tr. 419 (Spizman).
74 Trial Tr. 453 (Caple).
75 Caple Dep. 116.
76 JX 208; Trial Tr. 419-20 (Spizman).
77 Trial Tr. 420 (Spizman).
78 JX 211 (email from Wachtel to Patterson regarding Comvest meeting).
79 Trial Tr. 294 (Miller).
80 JX 231 (memo to Special Committee).
81 Trial Tr. 460 (Caple).
82 Caple Dep. 176-77.
83 JX 236 (emails among Comvest employees).
84 Id. Comvest demanded the rollover agreements as a condition to executing at \(\$ 1.06\) so that Management would retain an economic stake in Autolnfo's business moving forward. Trial Tr. 458-59 (Caple).
85 Trial Tr. 460 (Caple).
86 Id.
87 Trial Tr. 461 (Caple). "The auditors determined that because the transaction could be closed now that it was simply ... sort of a paperwork error." ld.
88 ld.
89 ld.
90 Trial Tr. 462 (Caple); Apr. 1, 2013, Autolnfo Form DEFM14A at 5. Wachtel, Williams, and Weiss entered a rollover agreement whereby they acquired an indirect ownership interest in Autolnfo upon the closing of the Merger. Wachtel and Williams also entered into new employment agreements with Autolnfo. Id.
91 JX 302.
92 This was despite at least one stockholder's attempts to solicit topping bids. See, e.g., JX 309; JX 314; JX 318.
93 JX 380 ("Puglisi Opening Report").
94 JX 381 ("Zmijewski Opening Report"). Zmijewski did conduct a DCF analysis, for illustrative purposes, for his rebuttal expert report. See JX 415 ("Zmijewski Rebuttal Report") at 22. That did not affect his fair value conclusion.
958 Del. C. § 262.
968 Del. C. § \(262(\mathrm{~h})\). There is no dispute that Petitioners have met all procedural requirements.
97 Golden Telecom, Inc. v. Global GT LP, 11 A.3d 214, 217 (Del.2010).
98 Id. at 217-18.
99 Weinberger v. UOP, Inc., 457 A.2d 701, 713 (Del. 1983).
100 Huff Fund Inv. P'ship v. CKx, Inc., 2013 WL 5878807, at *9 (Del. Ch. Nov. 1, 2013), aff'd, —— A.3d ——, 2015 WL 631586 (Del. Feb. 12, 2015) ("Huff").
101 Global GT LP v. Golden Telecom, Inc., 993 A.2d 497, 507 (Del. Ch.2010), aff'd, 11 A.3d 214 (Del.2010).
102 M.G. Bancorporation, Inc. v. Le Beau, 737 A.2d 513, 520 (Del.1999).
103 Cede \& Co. v. Technicolor, Inc., 684 A.2d 289, 299 (Del. 1996).
104 Huff, 2013 WL 5878807, at *9.
105 ld.
106 That the projections were not ultimately realized does not foreclose the potential conclusion that they were reliable as of their preparation date.
107 Doft \& Co. v. Travelocity.com Inc., 2004 WL 1152338, at *5 (Del. Ch. May 20, 2004).

108 Huff, 2013 WL 5878807, at *9.
109 Merion Capital, L.P. v. 3M Cogent, Inc., 2013 WL 3793896, at *11 (Del. Ch. July 8, 2013) (citing Gearreald v. Just Care, Inc., 2012 WL 1569818, at *4 (Del. Ch. Apr. 30, 2012)).
110 Autolnfo's expert agrees that "the Management Projections are not a reliable forecast of the Company's expected future performance and, thus, would not yield a reliable indication of the Fair Value of Autolnfo common stock." Zmijewski Opening Report \(\mathbb{I} 53\).
111 Trial Tr. 281-82 (Miller).
112 Trial Tr. 354 (Williams).
113 Trial Tr. 355 (Williams).
114 See supra note 30.
115 Trial Tr. 237 (Puglisi).
116 See supra text accompanying note 28 (describing the Management Projections as "a bit of a chuckle and a joke").
117 This conclusion is corroborated by the dramatic difference between Puglisi's DCF value and the Merger price. As discussed below, the Merger price, unlike Puglisi's DCF output, is indicative of fair value.
118 In re Radiology Assocs., Inc. Litig., 611 A.2d 485, 490 (Del. Ch.1991).
119 In re AT \& T Mobility Wireless Operations HIdgs. Appraisal Litig., 2013 WL 3865099, at *2 (Del. Ch. June 24, 2013) (quoting ONTI, Inc. v. Integra Bank, 751 A.2d 904, 916 (Del. Ch.1999)).
120 Of course, if the Court had accepted that the comparables are truly comparable, it would have needed to test the reliability of the EBITDA figures that Puglisi used as inputs.
121 See, e.g., Merion Capital, 2013 WL 3793896, at *6 ("Il]t would be inappropriate to compare a company with an enterprise value of \(\$ 14.7\) million ... to a company ... with an enterprise value more than 25 times higher."); Reis v. Hazelett StripCasting Corp., 28 A.3d 442, 477 (Del. Ch.2011) (rejecting the comparable companies approach because the comparables were "much bigger than [the subject company] ... [and] enjoy[ed] better access to capital ..."); In re PNB HIdg. Co. S'holders Litig., 2006 WL 2403999, at *25 n. 125 (Del. Ch. Aug. 18, 2006) (finding a comparable companies analysis flawed where the "comparable publicly-traded companies all were significantly larger than [the subject company], with one having assets of \(\$ 587\) million as compared to [the subject company's] assets of \(\$ 126\) million ..."); Gray v. Cytokine Pharmasciences, Inc., 2002 WL 853549 , at *9 n. 19 (Del. Ch. Apr. 25, 2002) (finding a comparable companies analysis unreliable where the comparables "taken together had a market capitalization with a median 24 times higher than [the appraised company] ... [and t]he median revenue of the comparable companies was 12 times larger than [the appraised company]").
122 Puglisi Opening Report Ex. C.
123 Trial Tr. 155-56 (Puglisi).
124 See supra note 121. See also Robert W. Holthausen \& Mark E. Zmijewski, Corporate Valuation Theory, Evidence \& Practice 525 (Cambridge Business Publishers, LLC 2014). Puglisi did employ a size premium in his DCF analysis, thus recognizing the empirically observed size effect whereby the capital asset pricing model understates the returns to small firms. See Trial Tr. 198-99 (Puglisi).
125 Zmijewski Rebuttal Report ๆ 30.
126 Id. at \(\mathbb{T}\) 28. See also Merion Capital, 2013 WL 3793896, at *6.
127 Miller Dep. 148.
128 Miller Dep. 154-55.
129 Stephens's Special Committee Presentation 18.
130 Stephens's Strategic Initiatives Overview 5.
131 Petitioners note the Court's usual skepticism of "an expert [who] throws out his sample and simply chooses his own multiple in a directional variation from the median and mean that serves his client's cause...." In re Orchard Enters., Inc., 2012 WL 2923305, at *11 (Del. Ch. July 18, 2012). While Petitioners contend that Puglisi's use of a median multiple is thus preferable to accepting Stephens's lower numbers, AutoInfo has not suggested that the Court rely on any comparable companies analysis. Also, Stephens's choice of multiple was not a post hoc determination made during litigation, but a reasoned selection based on its industry experience. Regardless, the Court need not consider the soundness of Stephens's choice to view Puglisi's methodology as unreliable.
132 Puglisi Dep. 125.
133 L.E.K. Consulting Due Diligence Presentation 32.

134 Trial Tr. 304 (Miller). Miller testified regarding the many differences between Autolnfo and the supposedly comparable companies. See Trial Tr. 302-15 (Miller).
135 JX 357 (email exchange regarding Autolnfo's valuation).
136 JX 346 (email to uninterested solicited buyer).
137 Trial Tr. 238-39 (Puglisi).
138 Trial Tr. 302-14 (Miller). Some companies used a mixed model. Autolnfo used a 100\% agent-based model.
139 Trial Tr. 314-15 (Miller).
140 See RX-9; RX-10 (demonstrative exhibits charting market multiples implied by bids for Autolnfo).
141 Huff, 2013 WL 5878807, at *13.
142 ld.
143 ld.
144 See, e.g., Union III. 1995 Inv. Ltd. P'ship v. Union Fin. Gp., Ltd., 847 A.2d 340, 357 (Del. Ch.2004).
145 M.P.M. Enters., Inc. v. Gilbert, 731 A.2d 790, 797 (Del.1999).
146 Applebaum v. Avaya, Inc., 812 A.2d 880, 890 (Del.2002). In fact, as discussed, in an appraisal, the Court may never defer to market price without independently testing its reliability.
147 Apr. 1, 2013, Autolnfo Schedule 14A at 31.
148 ld.
149 Stephens's Special Committee Presentation 11.
150 Trial Tr. 280 (Miller).
151 In explaining Stephens's request that the Management Projections be optimistic, Miller stated "You certainly don't want to be conservative and leave potential shareholder value on the table." Trial Tr. 282 (Miller).
152 One investment advisor who had initially been skeptical of the merger concluded, after learning of the issues associated with an agent-based model, that "the deal was done at a fair, or very close to fair, price." JX 357 (email to the soliciting stockholder).
153 Kinderhook held an 18.4\% stake and Baker Street held 13\%.
154 Stephens's Strategic Initiatives Overview 5.
155 Trial Tr. 20 (Patterson).
156 Trial Tr. 23-24 (Patterson).
157 Trial Tr. 32 (Patterson).
158 JX 277 (email from Patterson to other Special Committee members).
159 Id. Petitioners argue that Baker Street had demanded a deal by June 2012 and had suggested that any sale at or above \(\$ 1.00\) per share would suffice. The Board did not approve the Merger until 2013 and the Special Committee was "not comfortable" with a \(\$ 1.00\) price. See id.
160 Trial Tr. 451-52 (Caple).
161 Trial Tr. 452-53 (Caple).
162 Trial Tr. 445-46 (Caple).
163 Trial Tr. 334 (Miller); see also Trial Tr. 105 (Patterson).
164 Trial Tr. 458 (Caple).
165 Those contacted by an Autolnfo stockholder soliciting topping bids for the company shared at least some of McGladrey's concern. See, e.g., JX 320 (email from accountant questioning "why ... a Shelton, CT based firm (not even a regional firm) [would] be auditing a Miami based company ..."); JX 325 (email from disinterested party stating: "Just as a personal aside I also wonder about the accounting. They convert notes to goodwill (\$10M) in exchange for cash flow but then they don't amortize the goodwill against that cash flow at all. I doubt that cash flow will continue infinitely.").
166 Huff, 2013 WL 5878807, at *13.
167 Trial Tr. 221-22 (Puglisi).
168 Trial Tr. 222 (Puglisi).
169 Delaware law does not require that a sales process conform to any theoretical standard. Huff, 2013 WL 5878807, at *14.
170 See JX 282 (email to Caple attaching Comvest's presentation to its investment committee).
171 Trial Tr. 449 (Caple).
172 Trial Tr. 450-51 (Caple).

173 JX 382 (Puglisi Rebuttal Report) at 10.
174 Despite the gulf between the parties' fair value estimates, there is little dispute over the appropriate DCF model. Rather, the parties disagree on whether there are reliable inputs to run a DCF and the appropriate equity size premium, which impacts Autolnfo's cost of equity and thus its weighted average cost of capital.
175 See RX-1 (demonstrative exhibit comparing the experts' WACC calculations).
176 Shannon P. Pratt \& Roger J. Grabowski, Cost of Capital: Applications and Examples 232-61 (John Wiley \& Sons, Inc. 4th ed. 2010).
177 JX 201.
178 Puglisi Dep. 156.
179 See Gearreald v. Just Care, Inc., 2012 WL 1569818, at *10-12 (Del. Ch. Apr. 30, 2012).
181 ld. at *12.
181 ld. at *10.
182 Id. at *11.
183 Id. at *12. While Ibbotson no longer publishes \(10 z\) size premium data, Duff \& Phelps, LLC has "pick[ed] up the mantle." Trial Tr. 590 (Zmijewski). Duff \& Phelps is a widely used and well-respected source of size premium data. See Pratt \& Grabowski, supra note 176, at 110.
184 Stephens's Strategic Initiatives Overview 12.
185 Cf. Union III. 1995 Inv. Ltd. P'ship, 847 A.2d at 359 n. 43 (citing to a highly-regarded corporate finance text for the proposition "that if the DCF analysis you perform of a stock does not match the market price, you have probably used poor forecasts").
186 The Base Case Projections were provided to the Court in native format at JX 390. The Court used Zmijewski's basic model, as set forth in his rebuttal report.
187 See Union III. 1995 Inv. Ltd. P'ship, 847 A.2d at 364.
188 Id.
189 Zmijewski's fair value estimate was thus below the Merger price.
1908 Del. C. 262(h).
191 See Huff Fund Inv. P'ship v. CKx, Inc., 2014 WL 2042797, at *2 (Del. Ch. May 19, 2014), aff'd, —— A.3d —_, 2015 WL 631586 (Del. Feb. 12, 2015) ("Huff Fund").
192 Zmijewski Opening Report ๆ 98.
193 ld. at \(\mathbb{1} 97\).
194 Huff Fund, 2014 WL 2042797, at *3.
195 Union III. 1995 Inv. Ltd. P'ship, 847 A.2d at 356.
196 Zmijewski Opening Report \(\mathbb{I} 100\).
197 Huff Fund, 2014 WL 2042797, at *3.
198 Id.
199 Id.
200 Zmijewski Opening Report ๆ 100. Autolnfo cites to one other one-page document that purports to show Comvest's plan to save on executive compensation. See JX 348. No context for that document was provided and Zmijewski did not rely on it in calculating cost savings.
201 Because AutoInfo has failed to provide adequate evidence to support its adjustments to the Merger price, the Court need not reach the issue of whether similar cost savings would be excluded from fair value in another context.
202 Further, Autolnfo has not established that the executive compensation cost savings, which represent the bulk of Zmijewski's adjustments, could only have been realized through accomplishment of a merger. The Special Committee expected that if the Comvest deal fell through, the Board would push through Management-related changes in the hope of increasing share price. See, e.g., JX 277 (Patterson email to other Special Committee members).
203 Union III. 1995 Inv. Ltd. P'ship, 847 A.2d at 359.

2015 WL 3819204
Only the Westlaw citation is currently available.

\section*{UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.}

Court of Chancery of Delaware.

> Nathan OWEN, Plaintiff,
v.

Lynn CANNON, Bryn Owen, Energy
Services Group, Inc., a Delaware corporation, and ESG Acquisition Corp. (n/k/a Energy Services Group, Inc.), a Delaware corporation, Defendants.

\author{
C.A. No. \(8860-\) CB \\ I \\ Submitted: March 17, 2015 \\ I \\ Decided: June 17, 2015
}

\section*{Attorneys and Law Firms}

Kenneth J. Nachbar, D. McKinley Measley and Shannon E. German of Morris, Nichols, Arsht \& Tunnell LLP, Wilmington, Delaware; Attorneys for Plaintiff.

Edward M. McNally, P. Clarkson Collins, Jr., Lewis H. Lazarus, Jason C. Jowers and Patricia A. Winston of Morris James LLP, Wilmington, Delaware; Attorneys for Defendants.

\section*{MEMORANDUM OPINION}

BOUCHARD, C.

\section*{I. INTRODUCTION}
*1 In this joint fiduciary duty and appraisal action, Nathan Owen ("Nate"), formerly the largest stockholder of Energy Services Group, Inc. ("ESG" or the "Company"), challenges a conflicted merger (the "Merger") in which he was cashed-out of ESG in May 2013, for the right to receive \(\$ 19.95\) per share, or \(\$ 26.334\) million in total. The Merger was orchestrated by the Company's two other largest stockholders: Lynn Cannon, who replaced Nate as President in August 2009, and Bryn Owen ("Bryn"), Nate's brother. The Merger price was derived
from a valuation that ESG's financial advisor performed based on five-year projections (the "2013 Projections") prepared under Cannon's direction, which projections the Company submitted to a nationally reputable lender in order to obtain a \(\$ 25\) million credit facility to buy out Nate.

Nate and his financial expert accept the 2013 Projections that formed the basis for the Merger price, but they argue that the \(\$ 19.95\) per share price is unfair because ESG's financial advisor applied certain incorrect assumptions in its valuation, the most significant of which is the tax rate applicable to ESG as a Subchapter S corporation. Applying what he submits are the correct assumptions to the 2013 Projections, Nate contends that the fair value of his stock was \(\$ 53.46\) million.

Although defendants were content to use the 2013 Projections at the time of the Merger, they now insist that those projections are not sufficiently reliable to value Nate's stock. Instead, they rely on a valuation based on a set of tenyear projections their financial expert created in the midst of this litigation. Based on their expert's valuation, which applies a corporate tax rate for ESG that disregards its status as a Subchapter \(S\) corporation at the time of the Merger, defendants contend that the fair value of Nate's stock was no more than \(\$ 21.502\) million.

The two primary areas of disagreement between the parties concern which projections to use for a discounted cash flow (DCF) analysis to value Nate's stock as of the Merger, and whether to tax affect the earnings in that analysis to account for ESG's status as a Subchapter S corporation. In this posttrial opinion, I conclude that it is appropriate to use the 2013 Projections because they reflected management's best estimate of what was known or knowable about ESG's future performance as of the Merger. I also conclude, consistent with this Court's precedents, that it is appropriate to tax affect the earnings in the DCF analysis given ESG's status as a Subchapter S corporation. Based on these two conclusions, and certain other determinations discussed below, I find that the fair value of Nate's shares was \(\$ 42,165,920\) as of the Merger.

\section*{II. BACKGROUND}

These are the facts as I find them based on the documentary evidence and testimony of record. \({ }^{1}\) I accord the evidence and testimony the weight and credibility that I find it deserves.

\section*{A. The Parties}
*2 Plaintiff and Petitioner Nathan Owen was the President of ESG until his removal in August 2009, and a director of the Company until the Merger. Before the Merger, Nate held \(1,320,000\) shares of ESG stock, which were cancelled in the Merger in exchange for the right to receive \(\$ 19.95\) per share in cash, or \(\$ 26.334\) million in total. Nate currently resides in Maine.

Defendant Lynn Cannon served as a director of the ESG and as President "pro tem" after Nate's removal as President. \({ }^{2}\) Before the Merger, Cannon held 1,218,750 shares of ESG stock. In connection with the Merger, Cannon became President of ESG.

Defendant Bryn Owen, Nate's brother, is a Vice President and director of ESG. Before the Merger, Bryn held 1,098,750 shares of ESG stock.

Non-party Felimon Gurule is the Vice President of Information Technology at ESG. Before the Merger, Gurule held 112,500 shares of ESG stock.

Respondent Energy Services Group, Inc., a Delaware corporation based in Norwell, Massachusetts, provided services to the retail energy industry. At all relevant times before the Merger, Nate, Cannon, and Bryn were the three members of the Company's board of directors, and Nate, Cannon, Bryn, and Gurule were stockholders of the Company. In connection with the Merger, Cannon, Bryn, and Gurule transferred their ESG stock to Defendant ESG Acquisition Corp. ("Acquisition Corp."), a Delaware corporation, in exchange for an equal amount of Acquisition Corp. stock. In the Merger, ESG merged with and into Acquisition Corp., which is now known as Energy Services Group, Inc. \({ }^{3}\) Unless noted otherwise, I refer to Energy Services Group, Inc. and Acquisition Corp. interchangeably as "ESG" or the "Company," and I refer to Cannon, Bryn, and Acquisition Corp. as "Defendants."

\section*{B. The Formation of ESG}

In the mid-1990s, Nate started a website- and intranetdevelopment company called IC Solutions, which was the
Stockholder Number of Shares
\begin{tabular}{lll} 
Nate & \(1,320,000\) & \(35.20 \%\) \\
\hline Cannon & \(1,218,750\) & \(32.50 \%\) \\
\hline
\end{tabular}


As required by Section 9 of the Stockholders' Agreement, ESG made the appropriate elections to be taxed as a Subchapter S corporation. \({ }^{16}\) Thus, ESG does not pay federal tax on its income. Rather, the stockholders of ESG pay federal income tax on their respective shares of the Company's profits.

\section*{C. ESG's Lines of Business and Growth}

Before the Merger, ESG offered three services: (i) Transaction Management Services (TMS), which is an EDI solution; (ii) Prospect-to-Cash (P2C), which is largely a billing management service; and (iii) Wholesale Energy Services (WES), which is a data management and reporting service. TMS has accounted for the majority of the Company's revenue, as demonstrated by ESG's revenues in 2012, the last full year before the Merger: approximately \(\$ 18.8\) million from TMS, approximately \(\$ 10.8\) million from P 2 C , and approximately \(\$ 1.8\) million from WES. \({ }^{17}\) Given its recurring revenue business model, an average contract length of around three years, and high customer retention rates, \({ }^{18}\)

ESG's revenues have generally been "predictable," as Cannon acknowledged at trial. \({ }^{19}\)

Much of the Company's success can be traced to several apparent advantages it holds over its competitors. As touted on the Company's website, ESG's three products offer an "end-to-end business process solution" for REPs, \({ }^{20}\) which can reduce their costs and the risk of data translation errors. \({ }^{21}\) Cannon and ESG's senior management testified uniformly that they believe ESG's products and services are higher quality than those of its competitors. \({ }^{22}\)
*4 Consistent with its strong position in the market, the Company experienced significant revenue and cash flow growth in the years leading up to the Merger despite facing competition since its founding. \({ }^{23}\) In the five-year period before the Merger, ESG's revenues and earnings before interest and taxes (EBIT) demonstrated strong growth, which ESG's financial expert, E. Allen Jacobs, calculated as follows (in millions): \({ }^{24}\)
\begin{tabular}{lllllc} 
& 2008 & 2009 & 2010 & 2011 & 2012 \\
\hline Revenue & \(\$ 14.9\) & \(\$ 15.2\) & \(\$ 20.7\) & \(\$ 27.4\) & \(\$ 32.2\) \\
\hline EBIT & \(\$ 5.6\) & \(\$ 5.7\) & \(\$ 9.7\) & \(\$ 14.3\) & \(\$ 17.3\)
\end{tabular}

According to Nate's expert, Yvette Austin Smith, over the seven years from 2005 to 2012, ESG's revenue grew at a compound annual rate of \(23.4 \%\). \({ }^{25}\)
ESG made pro-rata distributions of a majority, but not all, of its income to its stockholders. Historically, Nate, Bryn, Cannon, and Gurule received a combination of (i) belowmarket salaries (i.e., \(\$ 80,000\) per year for Nate, Bryn and Cannon and more for Gurule); (ii) monthly "draws" that were in effect interest-free loans against their distributions; and (iii) distributions, a portion of which covered the stockholders' tax liabilities for their pro rata shares of the Company's

\section*{Table 1}
profits. \({ }^{26}\) Because the amounts paid to Nate, Bryn, Cannon, and Gurule as salary were below-market, the distributions they received did not accurately reflect the return on their equity investments in the Company. To accurately reflect their equity returns, the distributions must be "normalized" to account for the difference between market-rate salaries and the salary payments they actually received. \({ }^{27}\) Table 1 below reflects the normalized distributions from ESG to Nate, Bryn, Cannon, and Gurule for the years 2009-2012 as calculated by Jacobs, Defendants' expert.

\section*{ESG Normalized Distributions \({ }^{28}\)}
\begin{tabular}{lllll}
\hline Nate & Bryn & Cannon & Gurule & Total \\
\hline
\end{tabular}

Owen v. Cannon, Not Reported in Atl. Rptr. (2015)
\begin{tabular}{llllll}
\hline 2007 & \(\$ 1,148,389\) & \(\$ 966,212\) & \(\$ 1,115,315\) & \(\$ 0\) & \(\$ 3,229,916\) \\
\hline 2008 & \(\$ 1,864,181\) & \(\$ 1,537,720\) & \(\$ 1,794,635\) & \(\$ 0\) & \(\$ 5,196,535\) \\
\hline 2009 & \(\$ 1,937,022\) & \(\$ 1,606,018\) & \(\$ 1,799,602\) & \(\$ 2,334\) & \(\$ 5,344,976\) \\
\hline 2010 & \(\$ 1,740,546\) & \(\$ 1,487,198\) & \(\$ 1,596,909\) & \(\$ 677\) & \(\$ 4,825,330\) \\
\hline 2011 & \(\$ 3,385,556\) & \(\$ 3,004,595\) & \(\$ 3,503,761\) & \(\$ 237,228\) & \(\$ 10,131,140\) \\
\hline 2012 & \(\$ 4,226,053\) & \(\$ 4,008,597\) & \(\$ 4,437,621\) & \(\$ 277,020\) & \(\$ 12,949,291\) \\
\hline Total & \(\$ 14,301,747\) & \(\$ 12,610,340\) & \(\$ 14,247,842\) & \(\$ 517,259\) & \(\$ 41,677,188\) \\
\hline
\end{tabular}

Using the normalized distributions in Table 1, Jacobs calculated the median percentage of pre-tax income that ESG distributed for the years 2007-2012 as 76.7\%. \({ }^{29}\) The Company retained most of its undistributed income as cash on its balance sheet. At the time of the Merger, ESG had \$17.4 million in cash and equivalents on its balance sheet. \({ }^{30}\)

\section*{D. Nate's Removal as President of ESG}

During the late 2000s, a significant disagreement arose among Nate, Cannon, and Bryn concerning what to do with the Company's growing pile of cash. Nate wanted to reinvest in the business. Cannon and Bryn were more interested in "being paid" through profit distributions. \({ }^{31}\) There also was day-to-day friction in managing the Company. In July 2009, for example, Cannon postponed a new WES project after repeated operational delays. \({ }^{32}\) Nate responded by directing ESG's controller to not "pay any bonuses without my explicit approval., \({ }^{33}\) A colorful email exchange ensued, with Nate and Cannon each stating that the other would have been fired if he was not a stockholder of ESG. \({ }^{34}\)
*5 Nate, Cannon, and Bryn sought to work out their differences. On August 11, 2009, they engaged in mediation conducted by Bryn's father-in-law. \({ }^{35}\) They left the one-day mediation with "assignments" to work on in anticipation of a second meeting. \({ }^{36}\)

Rather than continue with the mediation, Cannon decided that it was time to end Nate's employment relationship with ESG. On August 11, the same day of the mediation, Cannon drafted a notice for a special meeting of the ESG board of directors to remove Nate as President. Cannon understood that he could not eliminate Nate's ownership interest "without going through some type of negotiated purchase," but that,
with Bryn's cooperation, there would be sufficient votes on the three-person board to end Nate's day-to-day relationship with the Company. \({ }^{37}\)

On Thursday, August 13, 2009 at 1:49 p.m., Cannon and Bryn sent Nate a notice of a special board meeting to occur on Friday, August 14 at 11:00 a.m., in Boston. \({ }^{38}\) This was the first formal board meeting in the history of the Company. \({ }^{39}\) The notice identified the purpose of the meeting as "considering, and upon such a determination by the Board of Directors, approving the immediate termination [of] the employment of Nate Owen as President of the [Company], and the election of Lynn Cannon as President pro tem." Further, the board would "consider the employment of Nate Owen as Vice President, Special Projects, pursuant to terms and conditions attached" to the notice. \({ }^{40}\) Those terms and conditions contemplated a six-month leave of absence and a demotion for Nate, who would report to Cannon if he returned after six months. \({ }^{41}\) Cannon knew that Nate would find this condition unacceptable. \({ }^{42}\)

Nate, who was in Pennsylvania attending to a medical issue for his wife, was "shocked" by the proposal and felt "incredibly betrayed" by his brother. \({ }^{43} \mathrm{He}\) called the lawyer whose name appeared in the special meeting notice (Barry C. Klickstein, Esquire at Duane Morris LLP) \({ }^{44}\) and asked for a delay of the meeting to make it easier for him to travel to Boston and attend the meeting in person. Cannon and Bryn refused. \({ }^{45}\)

After making arrangements for his family, Nate traveled overnight to attend the meeting. Once there, he was not allowed to say anything. Cannon and Bryn promptly voted, over Nate's objection, to remove him as President. After the meeting, Nate's keycard access was deactivated, his email
access was terminated, and all of his work and personal emails were deleted from the system. That same day, \(\$ 35,000\) was removed from his personal bank account, likely because Cannon and/or Bryn cancelled a recent direct deposit from the Company. \({ }^{46}\)

After the six-month leave of absence, Nate did not return to ESG, nor did he contact Cannon or Bryn about returning to work. \({ }^{47}\) Under the terms imposed by Cannon, Nate continued to receive a base salary and benefits as well as stockholder distributions. \({ }^{48}\)
*6 According to Nate, the Company became "extremely obstinate" in providing Nate access to information about ESG once he was terminated. \({ }^{49}\) In October 2009, Nate made a formal demand under 8 Del. C. § 220 to obtain books and records from the Company. \({ }^{50}\) ESG thereafter provided certain financial information, including its 1999-2008 tax returns, its 2007-2008 audited financial statements, and a copy of its QuickBooks files. \({ }^{51}\)

\section*{E. Cannon Prepares Multi-Year Projections and Offers to Buy Out Nate}

Before 2010, ESG had not prepared multi-year projections for the Company or its individual lines of business. \({ }^{52}\) Instead, at the beginning of each calendar year, Cannon would prepare an annual budget. ESG management participated in Cannon's budgeting process "in terms of providing the inputs for what [the Company] can expect for the upcoming year.,"53 Bryn also typically reviewed the budget with Cannon. \({ }^{54}\)

Cannon's understanding of ESG's future prospects stems in large part from weekly, two-hour meetings held on Monday mornings, during which he and the department heads discuss sale opportunities and operations. \({ }^{55}\) Drew Fenton, Vice President of Business Development at ESG, described the two-hour meetings as "exhausting." \({ }^{56}\) Once a month, ESG management also compares realized revenue to the annual budget. \({ }^{57}\) Based on these meetings with management, Cannon admitted that he knows what the department heads know, meaning that he is "very familiar" with the Company's business and has a "good handle" on specific customer relationships. \({ }^{58}\)

In February 2010, Cannon extrapolated the Company's 2010 annual budget into a set of multi-year projections for years 2010-2015 to see what ESG's future performance might "look like from a P \& L perspective., \({ }^{, 59}\) I refer to these projections as the "2010 Projections." \({ }^{.60}\) To create the 2010 Projections, Cannon took the Company's 2010 annual budget and then applied an assumed growth rate to each line of the budget for each year. Some line items had higher growth rates in later years, and others had lower growth rates. Cannon projected revenue growing from approximately \(\$ 15.27\) million in 2009 to \(\$ 39.5\) million in \(2015 .{ }^{61}\)

Cannon claims he created the 2010 Projections, and every future set of multi-year projections for ESG, without seeking input from anyone else at the Company. Although ESG's employees confirmed that Cannon did not seek their input into the preparation of projections per se, \({ }^{62}\) the weight of the evidence reflects that, even if Cannon did not explicitly ask for their input, he obtained functionally equivalent knowledge based on the extensive discussions of ESG's future prospects he had with members of management on a regular basis. \({ }^{63}\) Indeed, Cannon's familiarity with the Company's business prospects grew over time after he had arranged to remove Nate from management and assumed firm control over the day-to-day operations of ESG.
*7 According to Nate, Cannon and Bryn (through ESG) offered to repurchase his stock for \(\$ 8\) million in 2010. Nate rejected this offer, which Cannon denied making, \({ }^{64}\) as "ridiculously low." \({ }^{65}\) Although no documentary evidence supports the existence of this offer, I find Nate's testimony to be credible on this point. \({ }^{66}\) The making of such an offer also is consistent with the fact that Cannon contemporaneously created a set of multi-year projections for the first time in the Company's history in 2010; and that the parties had retained, at ESG's expense, valuation experts during this period. \({ }^{67}\)

In 2011, Cannon engaged Duff \& Phelps to provide a valuation of the Company for the purpose of repurchasing Nate's shares. \({ }^{68}\) Duff \& Phelps performed a discounted cash flow analysis based on projections extrapolated from Cannon's 2011 annual budget, as well as an analysis of five, comparable publicly traded companies. \({ }^{69}\) On May 12, 2011, Duff \& Phelps provided a midpoint valuation of ESG (including cash and equivalents) of approximately \(\$ 64.8\) million, or approximately \(\$ 17\) per share. \({ }^{70}\) At that price,

Nate's 1,320,000 shares would have been worth \(\$ 22.44\) million. \({ }^{71}\)

According to Nate, ESG made a second offer to repurchase his shares in mid-2011, this time for \(\$ 12\) million. He rejected the offer as "entirely insufficient." 72 No documents in the record reflect such an offer and Cannon again disclaimed ever making such an offer, but I find Nate's testimony more credible. \({ }^{73}\)

In early 2012, Cannon prepared a revised version of the 2010 Projections, which I refer to as the "2012 Projections." 74 The 2012 Projections use the same growth assumptions as the 2010 Projections but project higher future revenues. This is because the 2012 Projections were derived from the Company's actual results for 2010, which were higher than the 2010 annual budget used to create the 2010 Projections. \({ }^{75}\) For example, projected revenue of \(\$ 39.5\) million for the year 2015 in the 2010 Projections increased to projected revenue of \(\$ 44.34\) million in the 2012 Projections. \({ }^{76}\)

In an April 2012 planning conference, Cannon presented the 2012 Projections to senior management as a "bogie" for ESG's potential future performance. \({ }^{77}\) The presentation described the projections for the years 2013-2015 as "Revenue Targets." \({ }^{78}\) The same presentation noted that while falling natural gas prices were good for ESG customers, there was a market expectation that natural gas prices would level off eventually. \({ }^{79}\)

\section*{*8 F. ESG Engages Grant Thornton to Perform a Series of Valuations}

In June 2012, Cannon engaged Grant Thornton to assist ESG in obtaining financing to buy back Nate's shares. \({ }^{80}\) Cannon directed the Company's controller, Lisa Swift, to send the 2012 Projections to Grant Thornton. \({ }^{81}\) When ESG shared the 2012 Projections with Grant Thornton in June 2012, it had exceeded the monthly projections in them. \({ }^{82}\)

ESG's main contact at Grant Thornton was Len Batsevitsky, although a colleague, Peter Resnick, would perform the indication of value of the Company in connection with the Merger. \({ }^{83}\) In June 2012, Grant Thornton used the 2012 Projections to analyze a proposed financing structure from Wells Fargo. \({ }^{84}\)

In early July 2012, Cannon spoke with Batsevitsky about making certain adjustments to the 2012 Projections, including decreasing revenue growth and increasing operating costs. \({ }^{85}\) In an email, Cannon stated that these revisions were necessary due to "future competitive forces in the market." Batsevitsky responded that the revisions would "make the projections more conservative which may be better as Wells [Fargo] will most[ ] likely use them to set covenant levels." \({ }^{86}\) All else being equal, the changes Cannon proposed would make ESG less valuable. \({ }^{87}\)

Cannon testified that, at this time, Batsevitsky "had taken over custody of the financial modeling," implying that the assumptions in the revised projections were those of Grant Thornton's creation. \({ }^{88}\) I do not accept Cannon's attempt to distance himself from the revisions to the 2012 Projections. Based on the documentary evidence and the testimony of Resnick, who was a credible third-party witness, I find that Cannon caused Grant Thornton to revise the 2012 Projections into a new set of multi-year projections for the years 2012-2017, \({ }^{89}\) which I refer to as the "Revised 2012 Projections." \({ }^{\prime 0}\) The changes Cannon requested with respect to the overlapping years in the 2012 Projections and the Revised 2012 Projections were relatively modest. For example, projected revenue for 2015 decreased from \(\$ 44.34\) million to \(\$ 43.93\) million. \({ }^{91}\)

The Revised 2012 Projections were created by taking the base year of 2012 (which was a combination of actual results plus projected results drawn from the 2012 annual budget) and then applying an assumed growth rate. The Revised 2012 Projections include quarterly line item projections for the years 2012-2015 and annual bottom line revenue growth assumptions for the years 2016-2017. \({ }^{92}\) Projected year-overyear revenue growth was \(20.2 \%\) in \(2012 ; 11.9 \%\) in 2013 ; \(10.0 \%\) in 2014 ; and \(8.5 \%\) in 20152017 , with projected revenue for 2017 of \(\$ 51.73\) million. The projected EBIT margin was \(57.4 \%\) in 2012; \(56.5 \%\) in 2013-2015; and \(56.6 \%\) in 2016-2017, with projected EBIT for 2017 of \(\$ 29.28\) million. \({ }^{93}\)
*9 In July 2012, at the same time Cannon was discussing these assumptions with Grant Thornton, ESG employees were voicing their concerns with Cannon "about possible attrition" in their customer base, including the threat of losing customers to a key competitor, EC Infosystems. \({ }^{94}\) Thus, the
record shows that Cannon was well aware of pricing pressures and "future competitive forces in the market" when he was discussing ESG's prospects with Batsevitsky. \({ }^{95}\)

Cannon authorized Grant Thornton to provide the Revised 2012 Projections to several financing sources for a prospective buyout of Nate's interest in the Company, including Citizens Bank, UBS, and Wells Fargo. \({ }^{96}\) Cannon admitted he would not have authorized Grant Thornton to share the Revised 2012 Projections with these potential lenders if he thought they were unrealistic. \({ }^{97}\)

In September 2012, ESG's counsel proposed to Nate's counsel that the parties engage in mediation to facilitate a purchase of Nate's shares in the Company. \({ }^{98}\) On September 12, 2012, ESG's counsel formally engaged Grant Thornton to perform a valuation of the Company. \({ }^{99}\) Given the sequencing of events, I find that Cannon and Bryn sought an updated valuation of the Company based on the Revised 2012 Projections for purposes of the mediation. \({ }^{100}\)

In October 2012, Grant Thornton performed a discounted cash flow analysis of ESG based on the Revised 2012 Projections. Assuming a discount rate of \(15.1 \%\), a tax rate of \(40 \%\), and a perpetuity growth rate of \(2.5 \%\), and excluding the cash on the Company's balance sheet, Grant Thornton came to an enterprise value for ESG of approximately \(\$ 118.5\) million. Further assuming that Nate owned \(33.3 \%\) of ESG on a fully diluted basis, Grant Thornton indicated that the enterprise value of Nate's interest was approximately \(\$ 39.5\) million on a going-concern basis, excluding his pro rata share of any cash on hand. \({ }^{101}\)

Before the mediation, Nate sought and obtained certain information from the Company. In October 2012, Nate received ESG's 2011 audited financial statements. \({ }^{102}\) In November 2012, Nate's financial advisor, Floyd Advisory, obtained access to the financial information contained in the Company's QuickBooks file. \({ }^{103}\) Nate also received certain personal tax information from Cannon and Bryn, and representatives of Floyd Advisory met with Cannon and ESG senior management. \({ }^{104}\)

In November 2012, the parties engaged in mediation. It was unsuccessful. Cannon and Bryn offered to buy out Nate for \(\$ 18\) million. \({ }^{105}\) This offer was based on the "May 2011
valuation report prepared by Duff \& Phelps." \({ }^{106}\) In other words, the offer was not based on the more recent Grant Thornton discounted cash flow analysis of the Revised 2012 Projections. Nate rejected the \(\$ 18\) million offer as too low. He thought that ESG was "exploding in growth." \({ }^{107}\) On January 16, 2013, Nate countered with a proposal that did not involve selling his shares but would have led to his resigning from the board of ESG. \({ }^{108}\) Cannon and Bryn rejected this proposal, which ESG's lawyer, Klickstein, characterized as "absurd."109

\section*{G. ESG's Business Shortly before the Merger}
*10 By December 2012, ESG learned that Viridian, the Company's largest customer, expected to end its relationship with ESG in early 2013. \({ }^{110}\) Viridian accounted for approximately \(\$ 2.5\) million, or \(7.9 \%\), of ESG's 2012 revenue. \({ }^{111}\) Bob Potter, ESG's Vice President of Sales and Marketing, tried to retain Viridian by offering lower prices and emphasizing ESG's greater functionality and value, but he was unsuccessful. \({ }^{112}\)

By April 2013, Viridian had left ESG to become a customer of EC Infosystems, one of ESG's main competitors. \({ }^{113} \mathrm{EC}\) Infosystems had been a consistent competitor of ESG's, likely for over a decade. \({ }^{114}\) Potter testified that the Company's competitors were "commoditizing" its products. \({ }^{115}\) In a July 2012 email chain and at other times, ESG employees were complaining to Cannon that EC Infosystems was stealing their business by offering lower prices, even though they believed that ESG offered "superior client support." \({ }^{116}\) Into early 2013, ESG employees were still "worried about the bleeding" of losing their customers. \({ }^{117}\)

In addition to facing competition from other service providers, ESG's business faced the risk of losing customers that might choose to in-source some or all of the services ESG provided. As competition in the retail energy market matures and consolidates, REPs can be forced to cut costs, particularly for the type of back-office functions that ESG offers. \({ }^{118}\) For example, in mid-2012, ESG lost two of its top five P2C customers, NAPG and AEP, to in-sourcing. \({ }^{119}\) AEP in-sourced the TMS services it received from ESG as well. \({ }^{120}\) ESG also lost several WES customers that year for a similar reason, \({ }^{121}\) although the WES losses represented only
a fraction of ESG's revenue. \({ }^{122}\) These and related competitive threats often forced ESG to renegotiate expiring contracts with customers at lower prices. In 2012 and 2013, ESG renegotiated certain contracts for prices that would yield \(30 \%\) or lower revenue. \({ }^{123}\)
*11 ESG employees were disappointed by the loss of Viridian, but Cannon viewed this as a "one-time event" and not as a "defect in the business model." \({ }^{124}\) Consistent with this testimony, in a January 2013 sales and marketing overview presentation, ESG touted a "[v]ery full sales pipeline" and an expectation that the Company "[w]ill close 6 to 10 deals in 2013." 125

\section*{H. Cannon Decides to Cash Out Nate}

In January 2013, Cannon decided that it was time to eliminate Nate's ownership interest in the Company. \({ }^{126}\) According to Cannon, "the relationship had to come to a head" after the latest failed mediation, and he and Bryn "chose to do a cashout merger because it was clear that [he, Bryn, and Nate] couldn't come to a resolution any other way." \({ }^{127}\)

In March 2013, Cannon updated the Company's valuation materials. He revised his 2013 annual budget to reflect the loss of Viridian, and made line-by-line changes to accurately reflect the developments he saw in the Company's business. \({ }^{128}\) Although Cannon testified that, in revising the 2013 annual budget, he did not undertake a "deep dive" of the Company's or the industry's future prospects beyond 2013, \({ }^{129}\) the record shows that he was well versed in the Company's future prospects from, among other things, the comprehensive weekly and other meetings he held with members of the Company's senior management.

On March 13, 2013, Cannon sought to schedule a meeting the following day with Grant Thornton's Batsevitsky to review the Company's projections. Cannon explained to Batsevitsky, who Cannon knew was on "personal time" that day, that " \([t]\) iming has become a significant issue." \({ }^{130}\) When I asked Cannon at trial to explain why he thought it was necessary to buy out Nate in the March-April 2013 time frame, he was unable to offer any credible business explanation for why timing had become such an "issue.," \({ }^{131}\) I credit Cannon's deposition testimony and find that he and Bryn wanted to effectuate a cash-out transaction quickly in order "to stop the hemorrhage" of paying profit distributions to Nate. \({ }^{132}\) As
noted in Table 1 above, Nate had received over \(\$ 14\) million in distributions during 2007-2012, with the majority of those distributions being made after Nate was removed as President in August 2009.

In March 2013, Cannon directed ESG's controller to provide the Company's 2013 annual budget to Grant Thornton. \({ }^{133}\) As occurred in 2012 with respect to the Revised 2012 Projections, Grant Thornton and Cannon discussed the appropriate growth rate assumptions to apply with respect to the 2013 annual budget. \({ }^{134}\) At Cannon's direction, Grant Thornton applied the assumptions they discussed to the 2013 annual budget to produce a set of projections for the years 2013-2017, dated as of March 15, 2013. \({ }^{135}\) Resnick testified that these projections came from ESG management, \({ }^{136}\) and internal Grant Thornton documents characterized them as "management's financial forecast." \({ }^{\text {, } 137}\)
*12 Grant Thornton did not come up with any of its own financial forecast assumptions. \({ }^{138}\) Rather, as Resnick testified, which I find to be a credible account, ESG provided the underlying assumptions, and Grant Thornton tested the reasonableness of those assumptions in the March 15 projections through conversations with Cannon, including discussions about the Company's position in the industry, pricing pressure from competitors, and industry trends. \({ }^{139}\) To note one example, I find that it is more likely than not that Cannon told Batsevitsky to decrease the \(8.5 \%\) revenue growth assumption for years 2016-2017 in the Revised 2012 Projections to the \(6.0 \%\) revenue growth assumptions for years 2016-2017 in the March 15 projections. \({ }^{140}\)

In delivering the March 15 projections, Batsevitsky noted that he and Cannon should discuss further the \(6.0 \%\) revenue growth assumptions for the years 2016-2017. \({ }^{141}\) Cannon testified that he thought those assumptions were "overly optimistic given the headwinds that [the Company was] seeing." \({ }^{142}\) Although Cannon did not specifically solicit input from ESG management for this purpose, he likely discussed the growth assumptions at some point in time with Bryn, who also testified that he thought the assumptions "were quite optimistic." \({ }^{143}\)

Based on Batsevitsky's conversations with Cannon, and, to a lesser extent, with ESG's controller, \({ }^{144}\) Grant Thornton produced another set of projections for the years 2013-

2017 dated March 28, 2013, which I refer to as the "2013 Projections." \({ }^{145}\) There are certain differences between the March 15 projections and the 2013 Projections. For example, projected revenue growth of \(7.4 \%\) for 2014 and \(6.1 \%\) for 2015 in the March 15 projections were revised to \(7.5 \%\) for 2014 and \(5.8 \%\) for 2015 in the 2013 Projections. However, the \(6.0 \%\) projected revenue growth for 2016-2017 -what Cannon claimed at trial was "overly optimistic"went unchanged. \({ }^{146}\) According to Resnick, there was no disagreement between Grant Thornton and ESG on any of the forecast assumptions. \({ }^{147}\)

The 2013 Projections include quarterly line item projections for the years 2013-2015 and annual bottom line revenue growth assumptions for the years 2016-2017. Overall, the most significant changes in the 2013 Projections from the Revised 2012 Projections were reducing revenue forecasts to reflect the loss of Viridian as a customer and reducing ESG's operating margin to reflect increased competition, which resulted in lower projected EBIT for 2013 and, in turn, lower projected EBIT for 2014-2017. \({ }^{148}\) Cannon testified that he "[a]bsolutely" used the best information he had available

\section*{Table 2}
in creating the 2013 Projections. \({ }^{149}\) Resnick understood the 2013 Projections to reflect ESG management's best estimates of the Company's expected future performance. \({ }^{150}\) I credit this testimony. \({ }^{151}\)
*13 Although the record is not entirely clear on this point, my understanding is that the parties do not dispute that the 2013 Projections reflect "normalized" salary expenses for Cannon, Bryn, and Gurule similar to those built into the model that Defendant's expert, Jacobs, created for his discounted cash flow analysis. \({ }^{152}\) As explained above, normalization of the salary expenses for these employees is necessary to perform a discounted cash flow analysis of ESG because they historically had been compensated with below-market salaries. The following tables compare certain key metrics across the 2012 Projections, the Revised 2012 Projections, and the 2013 Projections.

Table 2 below reflects ESG's projected revenue growth for the years 2012-2017.

\section*{ESG's Projected Revenue Growth}
\begin{tabular}{lllllll}
\hline & 2012 & 2013 & 2014 & 2015 & 2016 & 2017 \\
\hline 2012 Projections & \(29.8 \%\) & \(15.2 \%\) & \(12.6 \%\) & \(10.4 \%\) & & \\
\hline Revised 2012 Projections & \(20.2 \%\) & \(11.9 \%\) & \(10.0 \%\) & \(8.5 \%\) & \(8.5 \%\) & \(8.5 \%\) \\
\hline 2013 Projections & & \(-4.4 \%\) & \(7.5 \%\) & \(5.8 \%\) & \(6.0 \%\) & \(6.0 \%\)
\end{tabular}

Table 3 below reflects ESG's projected operating margin for the years 2012-2017.

\section*{Table 3}

ESG's Projected Operating Margin
\begin{tabular}{lllllll}
\hline & 2012 & 2013 & 2014 & 2015 & 2016 & 2017 \\
\hline \begin{tabular}{llllll} 
Projections
\end{tabular} & \(62.27 \%\) & \(63.6 \%\) & \(62.4 \%\) & \(60.6 \%\) & & \\
\hline \begin{tabular}{l} 
Revised 2012 \\
Projections
\end{tabular} & \(57.4 \%\) & \(56.5 \%\) & \(56.5 \%\) & \(56.5 \%\) & \(56.6 \%\) & \(56.6 \%\) \\
\hline 2013 & & & & & \\
\hline Projections & & \(47.9 \%\) & \(45.0 \%\) & \(43.7 \%\) & \(43.8 \%\) & \(43.9 \%\)
\end{tabular}

Table 4 below reflects ESG's projected EBIT for the years 2013-2017.

\section*{Table 4}

ESG's Projected EBIT (in thousands)
\begin{tabular}{llllll}
\hline & 2013 & 2014 & 2015 & 2016 & 2017 \\
\hline Revised 2012 Projections & 20,797 & 22,876 & 24,822 & 26,971 & 23,284 \\
\hline 2013 Projections & 14,702 & 14,838 & 15,248 & 16,196 & 17,195 \\
\hline Difference & \(-29.3 \%\) & \(-35.1 \%\) & \(-38.6 \%\) & \(-40.0 \%\) & \(-41.3 \%\)
\end{tabular}

Grant Thornton performed a discounted cash flow valuation of ESG based on the 2013 Projections (the Grant Thornton Valuation?). \({ }^{153}\) Assuming a discount rate of \(16.0 \%\), a tax rate of \(40 \%\), and a perpetuity growth rate of \(2.5 \%\), and excluding the \(\$ 13.6\) million in cash on ESG's balance sheet, the Grant Thornton Valuation reflected an enterprise value for ESG of approximately \(\$ 67\) million. Assuming that Nate owned \(33.3 \%\) of ESG on a fully diluted basis, Grant Thornton indicated that the enterprise value of Nate's interest (excluding cash) was approximately \(\$ 22.331\) million. \({ }^{154}\)

On March 28, 2013, ESG provided the 2013 Projections and the Grant Thornton Valuation to Nate. \({ }^{155}\) In the disclaimer to its valuation materials, Grant Thornton stated that the included information "does not constitute an independent valuation or fairness opinion" and that the information "includes certain statements, estimates and projections provided by the Company with respect to its anticipated future performance. \({ }^{156}\) Also in March 2013, ESG provided its thencurrent financial statements and QuickBooks file to Nate's counsel. \({ }^{157}\)

In a cover letter, ESG's counsel proposed that the Company repurchase Nate's interest in ESG for \(\$ 26.331\) million, which is the sum of \(\$ 22.331\) million (based on the Grant Thornton Valuation) plus \(\$ 4\) million as a proportionate distribution of ESG's cash on hand. The offer was to expire on April 5, 2013. \({ }^{158}\) Nate did not respond to the offer. \({ }^{159} \mathrm{He}\) "didn't think that anything would be gained from having the discussion" with Cannon and Bryn. \({ }^{160}\)
*14 On April 4, 2013, with Cannon's authorization, Batsevitsky sent the 2013 Projections to Citizens Bank for the purpose of obtaining financing to buy out Nate. \({ }^{161}\) According
to Resnick, Grant Thornton would not have sent the 2013 Projections to Citizens Bank without ESG's consent. \({ }^{162}\) ESG thereafter obtained a \(\$ 25\) million credit facility from Citizens Bank to cash out Nate's interest pending resolution of this action. \({ }^{163}\)

\section*{I. The Merger}

On Friday, May 3, 2013, a county sheriff served Nate at his Maine residence (when Nate was out of town) with a notice of a special meeting of the ESG board to be held on at 8:30 a.m. on Monday, May 6, 2013, to consider and vote upon a proposed merger between ESG and Acquisition Corp. \({ }^{164}\) This was only the second formal board meeting in the Company's history. \({ }^{165}\) The Merger Agreement, attached to the notice, contemplated that Nate would be cashed out of ESG at \(\$ 19.95\) per share, \({ }^{166}\) or \(\$ 26.334\) million in total- \(\$ 3,000\) more than the Cannon and Bryn's March 2013 offer.

Also attached to the notice was the Grant Thornton Valuation based on the 2013 Projections that had been provided to Nate previously. \({ }^{167}\) Earlier on May 3, 2013, Batsevitsky had informed ESG's counsel that Grant Thornton had "spoke[n] with ESG's Management and confirmed that as of today's date there have been no material changes to the business operations or forecast assumptions since completion of the analysis back in March." \({ }^{168}\) In other words, when given one last chance to propose further revisions to the 2013 Projections before the Merger, Cannon reaffirmed the accuracy of the 2013 Projections. ESG also told Grant Thornton on May 3, that "the actual financial performance of the Company (from January 1, 2013 through April 30, 2013) is tracking in a manner that is materially in-line with the Company's forecast used in the analysis." \({ }^{169}\) At trial, Cannon
confirmed that both of these statements were accurate. \({ }^{170}\) Pressed on the subject at trial, Cannon further admitted that he stands by the 2013 Projections, testifying, "I-I signed off on the Grant Thornton projections [i.e., the 2013 Projections], and I'll-I'll live with them." \({ }^{171}\)

Nate learned about the special board meeting scheduled for May 6 when he was in New York. He immediately asked for a one-day delay so that he could travel back to Maine and study the documents served at his residence. Cannon and Bryn refused. \({ }^{172}\) Tellingly, Cannon testified he "wasn't interested in extending [the board meeting] any further" because he believed that Nate only wanted a delay "to get to the Court to try and get an injunction." \({ }^{173}\) In Cannon's mind, Nate, who had received the 2013 Projections back in March, "absolutely" had enough time to review the Merger materials. \({ }^{174}\)
*15 On May 6, 2013, the board of ESG, consisting of Nate, Bryn, and Cannon, held a special meeting to vote on the Merger. Nate recalled that this meeting was "extremely tense," in part because ESG "had hired an armed guard" who stood "at the door with a gun at his hip." \({ }^{175}\) At the meeting, Cannon and Bryn voted in favor of the Merger; Nate voted against it. \({ }^{176}\)

In connection with the Merger, Cannon, Bryn, and Gurule transferred their ESG stock to Acquisition Corp. in exchange for Acquisition Corp. stock. After this transfer, Nate owned \(1,320,000\) shares, or \(35.2 \%\), of the outstanding shares of ESG and ESG Acquisition Corp. owned 2,430,000 of the outstanding shares, or \(64.8 \% .{ }^{177}\) The Merger Agreement contemplated that ESG would merge with and into Acquisition Corp., with (i) Nate receiving \(\$ 19.95\) per share in cash for his ESG stock; (ii) the ESG stock held by Acquisition Corp. being cancelled for no consideration; and (iii) the stock of Acquisition Corp. remaining outstanding. On May 6, 2013, Cannon executed a stockholder written consent as President of Acquisition Corp. in favor of the Merger.

At 9:07 a.m. on May 6, 2013, a Certificate of Merger was filed with the Delaware Secretary of State. \({ }^{178}\) Nate described the Merger as "boom, done, Blitzkrieg style."179

On May 13, 2013, a notice of the Merger was sent to Nate. \({ }^{180}\) On May 21, 2013, Nate delivered a written demand to ESG for appraisal of his shares pursuant to 8 Del. C. § \(262 .{ }^{181}\)

\section*{J. Procedural History}

On September 3, 2013, Nate initiated this action. On October 9, 2013, Nate filed the Verified Amended Complaint asserting four claims: breach of fiduciary duty against Cannon and Bryn as directors of ESG (Count I); breach of fiduciary duty against Cannon, Bryn, and Acquisition Corp. as controlling stockholders of ESG (Count II); aiding and abetting against Acquisition Corp. (Count III); and appraisal under 8 Del. C. § 262 against ESG (Count IV). In his prayer for relief, Nate sought, among other relief, rescissory damages. \({ }^{182}\) On November 20, 2013, Defendants filed an Answer to the Amended Complaint. Discovery ensued. On September 29, 2014, Nate withdrew his request for rescissory damages. In November 2014, a four-and-a-half day trial was held. On March 17, 2015, I heard post-trial oral argument.

\section*{III. LEGAL ANALYSIS}

Because this combined appraisal and fiduciary duty action ultimately turns on the fair value of Nate's shares in ESG as of the Merger, I analyze Nate's statutory appraisal claim first before addressing his fiduciary duty claims. For the reasons explained below, I conclude based on a discounted cash flow analysis that the fair value of Nate's stock as of the Merger was \(\$ 42,165,920\). It follows that the Merger was not entirely fair, primarily because it was not effectuated at a fair price. I further find that damages for Nate's breach of fiduciary duty claims are equivalent to the appraised value of his stock.

\section*{A. Count IV: Appraisal}
*16 In Count IV of the Amended Complaint, Nate petitions the Court under 8 Del. C. § 262 to determine the fair value of his stock as of the Merger. Nate demanded the appraisal of his shares on May 21, 2013, and filed a claim for appraisal in this Court on September 3, 2013, both of which occurred within the time periods required under the statute. \({ }^{183}\)
"An action seeking appraisal is intended to provide shareholders who dissent from a merger, on the basis of the inadequacy of the offering price, with a judicial determination of the fair value of their shares." \({ }^{184}\) Under 8 Del. C. § 262(h), I must "determine the fair value of the shares" by "tak[ing] into account all relevant factors." Both the petitioner seeking
appraisal and the surviving corporation bear the burden of proof, and I am obligated to use my independent judgment to determine fair value, \({ }^{185}\) meaning "the value to a stockholder of the firm as a going concern." \({ }^{" 186}\) As the Delaware Supreme Court explained over sixty years ago in Tri-Continental Corp. v. Battye, \({ }^{187}\) the concept of "fair value" includes "market value, asset value, dividends, earning prospects, the nature of the enterprise and any other facts which were known or which could be ascertained as of the date of merger and which throw any light on future prospects of the merged corporation." \({ }^{188}\) More recent decisions reiterate that "elements of future value, including the nature of the enterprise, which are known or susceptible of proof as of the date of the merger and not the product of speculation, may be considered." \({ }^{189}\)
"[I]t is within the Court of Chancery's discretion to select one of the parties' valuation models as its general framework, or fashion its own, to determine fair value in the appraisal proceeding., \({ }^{190}\) In doing so, I may consider any valuation methodology that is "generally considered acceptable in the financial community and otherwise admissible in court." \({ }^{191}\) The parties' post-trial briefing focused exclusively on the use of a discounted cash flow (DCF) analysis. Thus, this is methodology I use to determine fair value in this case.
"[T]he DCF valuation methodology has featured prominently in this Court because it ' is the approach that merits the greatest confidence' within the financial community." \({ }^{192}\)

Put in very simple terms, the basic DCF method involves several discrete steps. First, one estimates the values of future cash flows for a discrete period.... Then, the value of the entity attributable to cash flows expected after the end of the discrete period must be estimated to produce a so-called terminal value, preferably using a perpetual growth model. Finally, the value of the cash flows for the discrete period and the terminal value must be discounted back[.] \({ }^{193}\)
*17 The fact that ESG had no outstanding debt as of the Merger simplifies my analysis because ESG's enterprise value is equal to its equity value. Although the parties agree on the DCF methodology, they disagree on certain key inputs to the DCF model. I summarize below the experts' competing valuations and then analyze the five areas of disagreement between the parties.

Nate's expert, Yvette R. Austin Smith of The Brattle Group, performed a DCF analysis based on the 2013 Projections, which projected EBITDA and the other inputs necessary to calculate the Company's free cash flows for the years 20132017. \({ }^{194}\) She concluded that it was appropriate to tax affect ESG's tax rate in her DCF model to reflect the Company's Subchapter S status, and she used a tax rate of \(21.5 \%\). \({ }^{195}\) Although Austin Smith derived a weighted average cost of capital (WACC) of \(13.28 \%\), Nate has since accepted the \(14.13 \%\) discount rate proposed by ESG's expert. \({ }^{196}\) Austin Smith assumed a terminal growth rate of \(5.0 \%\). \({ }^{197}\) Austin Smith also calculated Nate's ownership percentage of ESG as \(33.3 \%\), but she acknowledged that Nate's share of ESG's \(\$ 17.4\) million cash on hand at the Merger may need to be adjusted to reflect discrete tax liabilities. \({ }^{198}\) Based on the foregoing assumptions, Austin Smith concluded in her report that Nate's stock in ESG was worth \(\$ 51.7\) million total, or \(\$ 39.15\) per share \({ }^{199}\) Based on a revised post-trial calculation of his percentage ownership and adjustments to the Company's cash on hand, Nate submits that the fair value of his stock was \(\$ 52.65\) million, or \(\$ 39.89\) per share. \({ }^{200}\)

ESG's expert, E. Allen Jacobs of Berkeley Research Group, LLC, also performed a DCF analysis of ESG. \({ }^{201}\) Jacobs did not base his DCF analysis on the 2013 Projections. Instead, Jacobs created his own set of ten-year projections for the years 2013-2023 based on per-unit calculations of revenues and costs. \({ }^{202}\) His projections for the years 2013-2017 are considerably lower than those in the 2013 Projections. Jacobs asserted that it was not appropriate to tax affect ESG's earnings and calculated the appropriate tax rate to be \(44.8 \%\). Alternatively, he proposed a \(34.1 \%\) tax rate if ESG's earnings are tax affected. \({ }^{203}\) Jacobs computed a WACC of \(14.13 \%\), which Nate has accepted, and he calculated a terminal growth rate of \(3.0 \% .{ }^{204}\) Based on these assumptions, Jacobs concluded that the DCF value of the Company's future cash flows was \(\$ 53.1\) million and that its net cash on hand was \(\$ 11.9\) million such that ESG was worth \(\$ 65.0\) million at the Merger. \({ }^{205}\) Based on its post-trial calculation of Nate's ownership percentage as \(33.08 \%\), ESG contends that the fair value of Nate's stock in ESG was worth \(\$ 21.502\) million.
*18 The parties disagree in five respects over the proper inputs for a DCF valuation of ESG: (i) the source of the projections of the Company's future performance; (ii) whether ESG's earnings should be tax affected due to its status as a

Subchapter S corporation; (iii) the terminal growth rate; (iv) the proper treatment of the cash on ESG's balance sheet as of the Merger; and (v) Nate's ownership percentage of the Company. Most of the delta between the parties' competing valuations ( \(\$ 52.65\) million versus \(\$ 21.502\) million) relates to the first two issues. I address each in turn.

\section*{1. The 2013 Projections}

Nate contends that the 2013 Projections "were prepared by ESG management as part of a careful and deliberate process and reflected management's best estimate at the time of the Merger of the Company's expected performance., \({ }^{206}\) For support, he cites to contemporaneous documents in the record reflecting how Cannon prepared and revised the assumptions in the 2013 Projections in anticipation of cashing Nate out of ESG, as well as testimony from Grant Thornton's Resnick about the creation and evolution of the 2013 Projections.

ESG argues that the 2013 Projections "lack appropriate indicia of reliability for [a] DCF valuation" because they "were not the product of a robust process that included a broad management team, were not developed within ESG's ordinary course of business, did not involve a thorough review of ESG's or industry drivers, and were accepted by Defendants in the hope that a high merger price would avoid litigation.,207 ESG asserts that I should appraise the fair value of Nate's stock as of the Merger by performing a DCF valuation using Jacobs's cash flow projections.

For the reasons explained below, based on the trial record, I agree with Nate that the 2013 Projections reflected management's best estimates of what was known or knowable about ESG's future performance as of the Merger.
"[M]ethods of valuation, including a discounted cash flow analysis, are only as good as the inputs to the model., \({ }^{208}\) When performing a DCF analysis to determine the fair value of stock, Delaware courts tend to place great weight on contemporaneous management projections because "management ordinarily has the best first-hand knowledge of a company's operations." \({ }^{209}\) Management also typically "has the strongest incentives to predict the company's financial future accurately and reliably., \({ }^{210}\) That said, it may be appropriate to reject a DCF analysis based on management-created projections "where the company's use of such projections was unprecedented, where the projections
were created in anticipation of litigation, or where the projections were created for the purpose of obtaining benefits outside the company's ordinary course of business., 211
*19 Here, the record reflects that Cannon, ESG's top executive since Nate's removal in August 2009, engaged in a deliberate, iterative process over a period of three years to create, update and revise multi-year projections for the Company. This process began with the 2010 Projections Cannon created in February 2010, continued with the 2012 Projections he created in early 2012, which were revised in mid-2012, and culminated with the 2013 Projections that Grant Thornton prepared at Cannon's direction and with his input. \({ }^{212}\) Resnick's unbiased testimony and Grant Thornton's internal documents both confirm that ESG (not Grant Thornton) supplied the growth assumptions in the 2013 Projections, as revised from the Revised 2012 Projections. \({ }^{213}\)

Although Cannon was likely the only ESG employee who had a direct role in the creation of the 2013 Projections, which were derived from his 2013 annual budget, that does not undermine the reliability of the 2013 Projections in my view because Cannon regularly met with ESG's management to review the Company's sales and operations, including through exhaustive two-hour meetings that were held weekly. \({ }^{214}\) ESG employees also routinely updated Cannon about customerspecific challenges and opportunities they observed. \({ }^{215}\) It is thus no surprise Cannon admitted that he is "very familiar" with the Company's lines of business and specific customers and agreed that "ESG's revenues have generally been predictable., \({ }^{216}\) Given the regular feedback Cannon received from other members of management, the relatively small size of the Company ( \(\$ 32.2\) million in revenue in 2012) and its limited operations (three closely related lines of business), I find that Cannon was extremely well informed about the Company's prospective growth and that he brought this knowledge to bear on the 2013 Projections.

This is not a case, as in In re John Q. Hammons Hotels Inc. Shareholder Litigation, \({ }^{217}\) where projections prepared by management failed to account for contemporaneous or anticipated business developments. \({ }^{218}\) Rather, as Cannon testified, he updated the 2013 Projections to reflect the Company's growth prospects as of the Merger. In particular, in March 2013, Cannon carefully revised his 2013 annual budget, the base year for the 2013 Projections, on a line-by-line basis to reflect the recent loss of Viridian as a
customer and competitive changes in the market. \({ }^{219}\) Cannon also directed Grant Thornton to make certain changes to the 2013 Projections to reflect increased costs from the time of the Revised 2012 Projections. \({ }^{220}\) Those changes were significant. They resulted in decreasing ESG's projected EBIT between \(29.3 \%\) and \(41.3 \%\) for each of the years from 2013 to 2017, and in reducing ESG's operating margin in 2017 (the final year of the discrete period) from \(56.6 \%\) to \(43.9 \% .{ }^{221}\) The reasonableness of the 2013 Projections was tested, albeit perhaps not as robustly as one might see in a third-party transaction, through discussions with Grant Thornton. \({ }^{222}\) And ESG management confirmed the 2013 Projections to be accurate just days before the Merger. \({ }^{223}\)
*20 I also find that Cannon worked with Grant Thornton to revise the 2013 Projections downward significantly at a time when he knew he would force Nate out of the Company, if necessary, based on a valuation derived from those projections. Cannon testified that he decided to cash out Nate in January 2013. \({ }^{224}\) After making up his mind to do so, Cannon undertook to adjust the assumptions underlying the 2013 Projections, resulting in material decreases to the Company's projected future performance justified by the loss of Viridian and other perceived competitive pressures. Then, when Nate did not respond to ESG's March 2013 buyout proposal, which was based on the Grant Thornton Valuation using the 2013 Projections, the Merger followed as a matter of course a few weeks later at essentially the same price.

Cannon's motive for deciding to force Nate out of the Company at this point was obvious and admitted: he and Bryn wanted "to stop the hemorrhage", 225 of paying millions of dollars in equity distributions to Nate who had not worked at the Company since August 2009. I reject as an after-thefact rationalization ESG's assertion that I should find the 2013 Projections to be overly optimistic because they supposedly offered Nate a "premium" to "avoid continued litigation." 226 To the contrary, Cannon was motivated in my view to make the assumptions in the 2013 Projections as conservative (i.e., reliable) as possible because he knew full well when they were created that they could set the price to force Nate out of the Company involuntarily, which was an invitation to litigation.

Notably, Cannon authorized Grant Thornton to submit the 2013 Projections to Citizens Bank in connection with obtaining a \(\$ 25\) million credit facility to finance the purchase
of Nate's shares. \({ }^{227}\) As then-Vice Chancellor Strine observed in Delaware Open MRI Radiology Associates, P.A. v. Kessler, \({ }^{228}\) because it is a federal felony "to knowingly obtain any funds from a financial institution by false or fraudulent pretenses or representations," projections that are provided to a financing source are typically given "great weight" by this Court. \({ }^{229}\) The undisputed fact that Grant Thornton submitted the 2013 Projections to a financial institution at Cannon's direction further supports my conclusion that the 2013 Projections reflected management's best estimate of ESG's future performance. If the 2013 Projections were a reliable basis to obtain debt financing, then there is no reason to conclude that they were an unreliable basis to value the Company. 230

In support of its position that the 2013 Projections are not reliable, ESG draws heavily on principles discussed in Huff Fund Investment Partnership v. CKx, Inc., \({ }^{231}\) Gearreald v. Just Care, Inc., \({ }^{232}\) and In re Nine Systems Corp. Shareholders Litigation. \({ }^{233}\) Each of those cases is distinguishable from the record here.

In \(C K x\), after reviewing how management created the company's projections, the Court concluded that the basis for a projected increase in licensing fees under a material, to-be-negotiated contract was speculative because "[i]nitial estimates of those revenues were markedly lower than projections provided to potential buyers and lenders," which rendered the entirety of the company's revenue projections inherently unreliable. \({ }^{234}\) Unlike in \(C K x\), ESG has not identified any particular line item or line of business in the 2013 Projections that is so uncertain as to undermine the integrity of the overall projections.
*21 In Just Care, the Court declined to defer to management's projections, which were the first set of multiyear projections the company had ever prepared and thus were "made outside of the ordinary course of business." 235 Unlike in Just Care, the 2013 Projections were not Cannon's first crack at creating and/or revising multi-year projections. Cannon had done so three times before: the 2010 Projections, the 2012 Projections, and the Revised 2012 Projections. He also had felt confident enough in his earlier work product to share the 2012 Projections with ESG management at a planning conference to set revenue targets, and to submit the Revised 2012 Projections to several banks to finance a potential buyout of Nate and to one bank (Wells Fargo) to
conduct a debt covenant analysis. \({ }^{236}\) The concerns in Just Care about projections being created by novices are further assuaged here because the 2013 Projections were created with the assistance of a financial advisor, Grant Thornton, with whom Cannon reviewed the revenue growth assumptions. \({ }^{237}\)

Finally, in Nine Systems, the Court rejected as unreliable a set of one-year financial projections management had prepared and presented to the board because the projections were "inconsistent with the corporation's recent performance., 238 Specifically, the projections were found unreliable because management had "overestimated the [c]ompany's revenues even two to three months away ... by more than a factor of three. \({ }^{, 239}\) Here, by contrast, ESG's performance in March and April 2013, shortly before the Merger, was in line with the 2013 Projections. \({ }^{240}\)

Separately, I find that the ten-year projections Jacobs prepared in connection with this litigation are not reflective of management's best estimate of future performance as of the Merger. In valuing the Company, Jacobs analyzed the "fundamentals" of ESG: its lines of business, its sales opportunities, its sales won and lost, its individual customers, its market, its competition, and its growth. His process involved discussions with ESG management in 2014 and input from ESG's industry expert, Peter Weigand. \({ }^{241}\) Based on his analysis, Jacobs projected, on a per unit basis, the Company's future revenue for the years 2013-2023. \({ }^{242}\)

Compared to the 2013 Projections, Jacobs's projections are pessimistic, i.e., they project lower revenue, primarily in the Company's TMS line of business. Over the period from 2009 to 2012, TMS revenue had grown from \(\$ 12.34\) million to \(\$ 18.76\) million. In the 2013 Projections, Cannon projected consistent growth for the years 20132017, albeit at a slower pace than in the years 2009-2012. \({ }^{243}\) In sharp contrast, Jacobs projected that, going forward, TMS revenue would decline to \(\$ 12.74\) million in 2020 and then slowly increase to \(\$ 13.67\) million in 2023. \({ }^{244}\)

Delaware courts are generally skeptical of projections created by an expert during litigation. "Expert valuations that disregard contemporaneous management projections are sometimes completely discounted." \({ }^{245}\) In Taylor v. American Specialty Retailing Group, Inc., \({ }^{246}\) for example, an expert hired by the company (Dunham) "ignored a contemporaneous set of projections prepared by Dunham's management," and
instead performed a DCF analysis in that appraisal proceeding based "on far more pessimistic assumptions of Dunham's future prospects that he prepared on his own." The Company's Chief Financial Officer also refused to endorse the expert's valuation. For these reasons, the Court concluded that the expert's calculation "lacks credibility.," 247
*22 Then-Vice Chancellor Strine reached a similar conclusion in Agranoff v. Miller. \({ }^{248}\) There, the company's expert concluded that management's projections were an unreliable basis for a DCF analysis, but the expert nonetheless performed a DCF calculation based on "a substantial negative revision to those projections that he came up with after discussions with ... managers after the valuation date., \({ }^{249}\) In rejecting the expert's analysis, then-Vice Chancellor Strine concluded that " \([t]\) he possibility of hindsight bias and other cognitive distortions seems untenably high," particularly since the expert had consulted with an individual interested in the outcome of the case about the negative revisions. \({ }^{250}\)

In my opinion, consistent with Taylor and Agranoff, the after-the fact projections Jacobs created for purposes of this litigation are tainted by hindsight bias \({ }^{251}\) and are not a reliable source to determine the fair value of Nate's shares as of the Merger. Jacobs first spoke with ESG management about valuation issues in the spring of 2014, approximately one year after the Merger, \({ }^{252}\) when this litigation was well underway. The key individual with whom Jacobs discussed the Company's future prospects-Cannon \({ }^{253}\) —had a strong financial interest for Jacobs to believe that management did not think that the 2013 Projections were reliable. As Cannon acknowledged at trial, every dollar paid to Nate in the Merger is approximately \(\$ 0.50\) out of his own pocket. \({ }^{254}\) The rest of the payment would come out of the pockets of only a few other senior managers: Bryn, Gurule and Fenton. The financial incentive for them to steer Jacobs toward a lower valuation of the Company, even if only subconsciously, is just too great to overcome in this case.

Indeed, Jacobs testified that, based on conversations he had with ESG management in 2014, he understood the 2013 Projections to be inconsistent with the contemporaneous beliefs of management. \({ }^{255}\) But this understanding is belied by the trial record in my view, which demonstrates that the 2013 Projections were reflective of management's best estimate of the Company's future performance as of the Merger. Jacobs's projections also assume that the Merger occurred at the very
peak? of ESG's performance, at an "inflection point" when ESG went from a growing company to a declining company, which Cannon conceded would have been "pretty stupid" to do. \({ }^{256}\)

In sum, I see no basis to depart from the reasoned principle recited in Taylor, Agranoff, and elsewhere to be chary of relying on an expert's post hoc, litigationdriven forecasts where, as here, contemporaneous, reliable projections prepared by management are available. \({ }^{257}\) I am persuaded that the 2013 Projections were ESG management's best estimates of the Company's future performance as of the Merger, and provide a reliable basis for performing a DCF valuation. Thus, I use the 2013 Projections in my DCF analysis and give no weight to Jacobs's projections.

\section*{2. The Tax Rate}
*23 The DCF model requires a corporate-level tax rate to calculate the Company's projected free cash flows. \({ }^{258}\) But, as a Subchapter \(S\) corporation, ESG does not pay any corporatelevel income taxes. Instead, ESG's income is taxed only once at the investor level at the stockholder's ordinary income rate (rather than at the lower dividend rate). \({ }^{259}\) This different tax treatment means that stockholders in a Subchapter S corporation such as ESG are able to receive distributions on a tax-advantaged basis when compared to stockholders in a Subchapter C corporation, where income is taxed twice: once at the corporate level, and again at the investor level (at the lower dividend rate).

As the Supreme Court stated in Tri-Continental Corp., Nate is "entitled to be paid for that which has been taken from him." \({ }^{260}\) A critical component of what was "taken" from Nate in the Merger was the tax advantage of being a stockholder in a Subchapter S corporation. As then-Vice Chancellor Strine reasoned in Kessler, "[a]n S corporation structure can produce a material increase in economic value for a stockholder and should be given weight in a proper valuation of the stockholder's interest., \({ }^{, 261}\) The Court thus concluded that "when minority stockholders have been forcibly denied the future benefits of \(S\) corporation status, they should receive compensation for those expected benefits and not an artificially discounted value that disregards the favorable tax treatment available to them., \({ }^{262}\)

Based on the testimony of Austin Smith, who I found more persuasive on this issue than Jacobs, I conclude that the Company's earnings should be tax affected in order to perform a DCF valuation that adequately compensates Nate for being deprived of his Subchapter S stockholder status. \({ }^{263}\) This conclusion follows Kessler, in which then-Vice Chancellor Strine thoughtfully surveyed the case law and literature on this subject, \({ }^{264}\) and is consistent with another recent decision of this Court that also followed Kessler. \({ }^{265}\)

Before explaining my calculations, I address ESG's contention that any Kessler-based valuation must take into account the Company's policy with respect to distributed earnings, which Jacobs calculated to be \(76.7 \%\)-the median of ESG's distributions for the years 2007-2012. \({ }^{266}\) According to ESG, Nate should not receive any special Subchapter S value for earnings that are retained and reinvested in the Company. Thus, ESG proposes a tax rate in a Kesslerbased valuation that would permit Nate to receive value from being a Subchapter \(S\) corporation stockholder for some of ESG's earnings (the 76.7\% calculated by Jacobs) but not from any retained earnings (the \(23.3 \%\) remainder). \({ }^{267}\) Jacobs calculated this rate to be \(34.1 \% .{ }^{268}\) In my opinion, the Company's position is based on a false premise.
*24 ESG did not reinvest any appreciable amount of its undistributed earnings in its business but instead kept those earnings as cash on its balance sheet. This is the reason the amount of cash and cash equivalents on ESG's balance sheet increased from \(\$ 3.2\) million in 2009 to \(\$ 17.4\) million in May 2013. \({ }^{269}\) The record also does not contain any evidence suggesting that, as of the Merger, Cannon or anyone else at ESG intended to reinvest the cash it had accumulated in the business. \({ }^{270}\) Nor was it necessary for ESG to reinvest earnings to grow. Both Austin Smith and Jacobs testified that the 2013 Projections included all of the capital expenditures necessary for ESG to generate the projected future cash flows. \({ }^{271}\)

In my opinion, the operative metric under the Kessler-based valuation method is not the actual distributions made by a Subchapter \(S\) corporation, but the amount of funds that are available for distribution to stockholders. To conclude otherwise would run afoul of the rationale of Tri-Continental Corp. because Nate would be deprived of "his proportionate interest" in ESG as a "going concern," 272 which includes the

Subchapter S corporation benefits that inure to earnings that are distributed and retained.

Table 5 below reflects my calculation, under Kessler, of the hypothetical corporate tax rate for ESG that "treat[s] the S corporation shareholder [i.e., Nate] as receiving the full benefit of untaxed dividends, by equating [his] aftertax return to the after-dividend return to a C corporation shareholder., \({ }^{273}\) For this purpose, I use Jacobs's calculation of ESG's effective state and federal tax rate to be \(43 \%\), which Nate has accepted. \({ }^{274}\) Because Nate was the only stockholder cashed out in the Merger, I also accept Austin Smith's calculation of Nate's actual tax rates as a Maine
resident rather than Jacobs's calculation of "hypothetical" tax rates for a Massachusetts stockholder. Thus, I calculate the tax rate Nate would pay on distributions from a Subchapter C corporation to be \(31.75 \%\), which is the sum of the \(20 \%\) federal tax on dividends, the 3.8\% Net Income Investment Tax (NIIT) imposed by the Affordable Care Act, \({ }^{275}\) and the 7.95\% Maine state tax on dividends. \({ }^{276}\) I also calculate the tax rate that Nate would pay on distributions from a Subchapter S corporation to be \(47.25 \%\), which is the sum of Nate's actual \(35.5 \%\) federal income tax rate (based on his 2012 tax returns), \({ }^{277}\) the \(3.8 \%\) NIIT, and the \(7.95 \%\) Maine state tax.

\section*{Table 5}

\section*{Hypothetical Corporate Tax for ESG under Kessler}
\begin{tabular}{llll}
\hline & C Corp & S Corp & S Corp Valuation \\
\hline Income Before Tax & \(\$ 100\) & \(\$ 100\) & \(\$ 100\) \\
\hline Entity-Level Tax & \(43 \%\) & \(0 \%\) & \(22.71 \%\) \\
\hline Entity Net Earnings & \(* 25 \$ 57\) & \(\$ 100\) & \(\$ 77.29\) \\
\hline Dividend/Personal Tax & \(31.75 \%\) & \(47.25 \%\) & \(31.75 \%\) \\
\hline Net to Investor & \(\$ 38.90\) & \(\$ 52.75\) & \(\$ 52.75\)
\end{tabular}

Thus, I conclude that the appropriate tax rate to apply in my DCF valuation of Nate's interest in ESG at the time of the Merger is \(22.71 \%\).

\section*{3. The Terminal Growth Rate}

In a typical DCF valuation, the terminal growth rate "attempt[s] to capture the future growth prospects of the firm while recognizing that over time firms cannot continue to grow at a rate that is materially in excess of the real growth of the economy., \({ }^{278}\) Austin Smith offered a 5\% terminal growth rate, calculated as a modest premium ( \(0.5 \%\) ) to the midpoint of three estimates of nominal U.S. GDP growth prepared in March 2013 for 2017 and onward (4.5\%). \({ }^{279}\) Jacobs proposed a terminal growth rate of \(3 \%\), calculated as a premium ( \(1 \%\) ) to the Federal Reserve's projection of inflation as of the Merger \((2 \%) .{ }^{280}\)

Although calculating the appropriate terminal growth rate is one of several challenging estimations for a law-trained judge tasked with determining a corporation's fair value, \({ }^{281}\)
two well-reasoned principles guide my analysis. In Merion Capital, L.P. v. \(3 M\) Cogent, Inc., \({ }^{282}\) the Court observed that, in most cases, "a terminal growth rate should not be greater than the nominal growth rate for the United States economy, because '[i]f a company is assumed to grow at a higher rate indefinitely, its cash flow would eventually exceed America's [gross national product]., " \({ }^{283}\) Under the logic of \(3 M\) Cogent, I find Austin Smith's 5\% terminal growth rate too high for a company like ESG, which, as of the Merger, had matured into a company that was facing increasing competitive pressures and flatter growth after several years of relatively rapid growth in an environment of declining natural gas prices.

Conversely, as the Court noted in Global GT LP v. Golden Telecom, Inc., 284 "the rate of inflation is the floor for a terminal value estimate for a solidly profitable company that does not have an identifiable risk of insolvency.,"285 Because the 2013 Projections contemplate that ESG would remain profitable even after taking into account increasing competitive pressures as of the Merger, I find that it is
appropriate under Golden Telecom to calculate the terminal growth rate as a premium to inflation. In my judgment, Jacobs's 3\% rate strikes the appropriate balance. Indeed, a \(3 \%\) rate is very close to the \(2.5 \%\) rate utilized in the Grant Thornton Valuation contemporaneous with the Merger. \({ }^{286}\)
*26 Courts have acknowledged that a non-trivial spread in the growth rate for the discrete forecast period and the terminal growth rate is common. \({ }^{287}\) Thus, the \(3 \%\) difference between the revenue growth rate in the final year of the 2013 Projections ( \(6.0 \%\) for 2017) and the terminal growth rate I adopt ( \(3 \%\) ) should not be controversial. There also is considerable precedent in Delaware for adopting a terminal growth rate that is a premium, such as 100 basis points, over inflation. \({ }^{288}\) Additionally, the fact that ESG's own expert proposed a \(3 \%\) terminal growth rate in connection with his projections for the Company, which were unduly pessimistic in comparison to the 2013 Projections, compels the conclusion that the terminal growth rate must be at least \(3 \%\). I therefore adopt a \(3 \%\) terminal growth rate.

\section*{4. The Cash on ESG's Balance Sheet}

ESG had approximately \(\$ 17.4\) million in cash and cash equivalents on its balance sheet as of the Merger. \({ }^{289}\) It is undisputed that Nate is entitled to receive a pro rata share of the "excess" cash that could have been distributed to stockholders at that time. At post-trial argument, Nate conceded that \(\$ 2.3\) million should be deducted to reflect certain income tax liabilities. \({ }^{290}\) ESG argues that it is necessary to further deduct (i) \(\$ 916,000\) as working capital; and (ii) \(\$ 2.3\) million for a Texas sales and use tax liability.

\section*{a. Working Capital}

Jacobs opined that \$916,000 in cash, roughly 3\% of ESG's 2012 revenue, should be set aside as the Company's working capital. He considered this amount to be an "extremely conservative estimate., \({ }^{291}\) Austin Smith assumed that ESG did not need a working capital reserve because ESG generated millions of dollars in cash every month. \({ }^{292}\) The trial record supports Jacobs's estimation. Cannon testified that Nate agreed upon the Company's "long-standing practice" to retain a percentage of earnings to use for "[c]apital expenditures, as well as other corporate matters." According to Cannon,
who described himself as "a very conservative kind of guy," having no cash on hand would not be a "prudent thing to do. \({ }^{, 293}\) In my opinion, although there is no direct evidentiary support for a working capital reserve of \(3 \%\) of revenue, I credit Cannon's testimony on this point and thus accept Jacobs's estimate that ESG's cash on hand at the Merger should be decreased by \(\$ 916,000\).

\section*{b. Texas Use and Sales Tax}
*27 In 2012, ESG discovered that it was subject to a use and sales tax imposed by Texas on "data processing services" in the state, which the Company had not paid for over a decade. \({ }^{294}\) Assuming that none of the Company's customers paid this tax on their own, ESG's controller, Swift, estimated in April 2012 that the Company's potential liability was \(\$ 2.6\) million. In an updated analysis in July 2013, she estimated that the tax could be as high as \(\$ 3.136\) million. \({ }^{295}\) In the third or fourth quarter of 2013, the Company hired a tax consultant, who subsequently estimated that the tax liability was around \(\$ 1.2\) million. \({ }^{296}\) In March 2014, ESG eventually contacted its clients over the course of a week, learned that several had been paying the tax, and determined that its liability for the Texas sales and use tax was \(\$ 448,389\), with the amount attributable to the period before the Merger being \(\$ 373,168\). 297

Based on his conversations with ESG management, Jacobs calculated that a low estimate of the Texas tax as of the Merger date was \(\$ 1.6\) million. Jacobs then determined that the midpoint of Swift's \(\$ 3.1\) million calculation and his own \(\$ 1.6\) million estimate, calculated as \(\$ 2.3\) million, was a reasonable expectation of ESG's obligation as of the Merger. \({ }^{298}\) Nate disagrees. He argues that, under Tri-Continental Corp., Jacobs's calculation does not accurately reflect what was "knowable" about the Texas use tax because determining the Company's tax liability was an "empirical exercise" that "could easily have been conducted as of the date of the Merger., \({ }^{, 299}\) He submits that the correct amount to deduct for the Texas tax liability was \(\$ 375,000\).

Because ESG's management did not know for over a decade about the Texas sales and use tax, I do not accept Swift's \$3.1 million estimation, or Jacobs's derivative estimation, as fairly representative as what was "knowable" about this liability at the Merger. In my view, ESG's tax consultant's estimate of \(\$ 1.2\) million, despite being calculated several months after the

Merger, is the best available proxy for what was knowable about this liability as of the Merger.

With the foregoing deductions, I conclude that ESG's "excess" cash on hand as of the Merger totaled \$12.984 million ( \(\$ 17.4\) million minus \(\$ 2.3\) million, minus \(\$ 916,000\), minus \(\$ 1.2\) million).

\section*{5. Nate's Ownership Percentage}

The final area of disagreement between the parties concerns Nate's ownership percentage of the Company. The shareholdings of Nate ( \(1,320,000\) shares) and Acquisition Corp. (2,430,000 shares) in ESG at the time of the Merger are not in dispute. In percentage terms, Nate contends that he owned \(35.2 \%\) of the Company, but ESG contends that he owned only \(33.08 \%\). The dispute stems from whether 240,000 "performance units" granted to other ESG employees, which the board of ESG ratified when approving the Merger, \({ }^{300}\) should be included in a fully diluted valuation of the Company.

Drew Fenton has what amounts to a phantom stock agreement for 150,000 shares of ESG. He regularly receives pro rata distributions for those phantom shares. \({ }^{301}\) Bob Potter has 50,000 vested stock options that, according to Cannon, are exercisable in the event of a change of control, which does not include the Merger. \({ }^{302}\) Neither Nate nor ESG presented any evidence probative of the terms of the other 40,000 performance units referenced in the board resolution approving the Merger, so I will not include those units in my calculation of Nate's percentage interest.

When Jacobs performed a normalization of the compensation Cannon, Bryn, and Gurule received as ESG stockholders in the manner discussed above, he did not change Fenton's compensation because Fenton's "total compensation approximat[ed] a market salary.,303 In other words, Jacobs determined that Fenton's salary and bonus as an ESG employee and his distributions as the holder of 150,000 phantom shares historically approximated a market-rate salary for someone in his position.
*28 Nate contends that, because Fenton's compensation was not normalized, it would be double-counting to also include Fenton's 150,000 phantom shares for purposes of determining the fair value of Nate's interest on a fully diluted basis. I disagree. The fact that Fenton's total compensation as an employee and as a holder of phantom shares historically approximated market-rate compensation does not change the reality that, in the future, Fenton would still be entitled to distributions for those 150,000 phantom shares in the same manner that Cannon or Bryn are entitled to distributions. In other words, from my perspective, Jacobs "normalized" Fenton's compensation by not changing it in his projections. \({ }^{304}\) Because the parties have assumed that Grant Thornton normalized the 2013 Projections for purposes of the Grant Thornton Valuation in a manner equivalent to Jacobs's own normalization process, \({ }^{305}\) I find it is more likely than not that Fenton's phantom stock rights were functionally normalized in the 2013 Projections. I am thus persuaded that I should include Fenton's 150,000 phantom stock rights when calculating the number of outstanding shares of ESG as of the Merger.

As to Potter's 50,000 units, I exclude them from my calculation because they are exercisable only in the event of a change of control. My conclusion follows from thenChancellor Strine's decision in In re Appraisal of Orchard Enterprises, Inc. \({ }^{306}\) ESG argues that, under Orchard, I must value the Company on a fully diluted basis, i.e., by including Potter's 50,000 units. \({ }^{307}\) In my view, ESG's reading of Orchard misses the mark. Orchard was an appraisal action involving a company with a series of preferred stock that was entitled to participate in any dividends declared on common stock on an as-converted basis and that had a liquidation preference of \(\$ 25\) million, which was triggered in certain situations. In his post-trial decision, then-Chancellor Strine concluded that the possibility of an event triggering the liquidation preference was "entirely a matter of speculation., \({ }^{308}\) Thus, when he determined the company's going concern value, he valued the preferred stock on an as-converted basis without deducting the liquidation preference because, "if [the company] remains a going concern, the preferred stockholders' claim on the cash flows of the company (if paid out in the form of dividends) is solely to receive dividends on an as-converted basis., 309 Under the logic of Orchard, Potter's 50,000 units, which are only exercisable in a change of control, should not be included in valuing ESG because there is no evidence in the record suggesting that a change of control as of the Merger
was anything but entirely speculative, and valuing ESG by reference to speculative events is inconsistent with Delaware appraisal law. \({ }^{310}\)
***
*29 Therefore, I find that Nate owned 1,320,000 of ESG's 3,900,000 outstanding shares at the time of the Merger, \({ }^{311}\) which equates to \(33.85 \%\) of the Company.

\section*{6. The Fair Value of Nate's Interest in ESG}

Appendix A reflects my DCF valuation of ESG as of the Merger based on the relevant items in the 2013 Projections, i.e., the projections for EBITDA, depreciation and amortization, capital expenditures, and additional working capital for the years 2013-2017. For the terminal period, I calculated EBITDA based on a 3\% growth rate, and I adopt Austin Smith calculation's for the other items. \({ }^{312}\) I also apply a partial period adjustment to the year 2013 to represent the distributable cash flows between the Merger and the end of the year. Finally, I use the agreed-upon WACC of \(14.13 \%\), and I adopt Austin Smith's use of the mid-year convention to calculate present value, "which assumes cash flows will be received evenly throughout the period rather than at the end of the period., \({ }^{313}\) Based on the foregoing assumptions, I find that the fair value of Nate's \(1,320,000\) shares in ESG as of the Merger date was \(\$ 42,165,920\).

\section*{B. Counts I and II: Breach of Fiduciary Duty Against Cannon, Bryn, and Acquisition Corp.}

In Count I of the Amended Complaint, Nate contends that Cannon and Bryn breached their fiduciary duties as directors of ESG by approving the Merger as a self-interested and unfair transaction. In Count II of the Amended Complaint, Nate contends that Cannon, Bryn, and ESG Acquisition Corp. breached their fiduciary duties as controlling stockholders of ESG by approving the unfair Merger. Defendants conceded in the Pre-Trial Stipulation that they carry the burden to prove the entire fairness of the Merger under Counts I and II. \({ }^{314}\) That was a sensible concession. Cannon and Bryn, as the ESG directors who voted in favor of the Merger, were conflicted in that they had a material interest in paying Nate as little as possible by virtue of their substantial holdings in Acquisition Corp., the surviving corporation in the Merger. \({ }^{315}\) Acquisition

Corp., as ESG's majority stockholder, also stood on both sides of the Merger. \({ }^{316}\) Absent procedural mechanisms not present here, \({ }^{317}\) Cannon and Bryn as conflicted directors (under Count I) and Acquisition Corp. as a controlling stockholder (under Count II) bear the burden to prove the entire fairness of the Merger by establishing "to the court's satisfaction that the transaction was the product of both fair dealing and fair price., \({ }^{318}\) Because Cannon, Bryn, and Acquisition Corp. presented a single defense of the Merger, the following entire fairness analysis applies to both claims.

\section*{1. The Merger Was Not the Product of Fair Dealing}
*30 Fair dealing "embraces questions of when the transaction was timed, how it was initiated, structured, negotiated, disclosed to the directors, and how the approvals of the directors and the stockholders were obtained., \({ }^{319}\) Nate contends that Cannon and Bryn timed the Merger strategically in two ways: first, to exploit the loss of Viridian as a major customer of ESG and thereby cash him out at a low valuation; and second, to deprive Nate of the opportunity to enjoin the transaction in court before it closed. \({ }^{320}\)

Defendants counter that the timing of the Merger was dictated by Nate's refusal to negotiate over a cash-out price, and that the one-day notice of the ESG board meeting to approve the Merger, which was permitted under ESG's bylaws, was equitable under the circumstances because Nate already had the 2013 Projections and the Grant Thornton Valuation for over a month. Further, Cannon and Bryn submit that their reliance on a financial expert, Grant Thornton, to determine the Merger price is evidence of fair dealing under 8 Del. \(C\). § 141(e). \({ }^{321}\)

In my opinion, Defendants failed to demonstrate that the Merger was the product of fair dealing. Instead, I find that Cannon timed the Merger to take advantage of the downward revision from the Revised 2012 Projections to the 2013 Projections, which were primarily brought about by the loss of Viridian, to cash out Nate and "thereby stop the hemorrhage," \({ }^{322}\) of paying millions in profit distributions to Nate, who had not worked at the Company since August 2009. \({ }^{323}\) I also find it was inequitable for Cannon and Bryn to reject Nate's reasonable request for a one-day delay of the May 6, 2013, ESG board meeting at which the Merger would be put to a vote.
*31 Under Section 6-4(b) of the Company's bylaws, ESG's board had the authority to convene a special meeting on one day's notice. \({ }^{324}\) But, "inequitable action does not become permissible simply because it is legally possible." 325 Nate may have had the 2013 Projections in hand since the end of March 2013, \({ }^{326}\) but there is no evidence in the record suggesting that Cannon or Bryn had informed Nate before May 3, 2013, that the 2013 Projections would be the basis for a cash-out transaction. \({ }^{327}\) In any event, Nate asked only for a one-day delay to travel (from New York to Maine) and to review the deal documents before the board meeting in Boston. Tellingly, Cannon conceded that he and Bryn refused this request because they wanted to prevent Nate from having the opportunity to go to court to enjoin the transaction. \({ }^{328}\) Because the record does not reveal a legitimate need for such acute timing pressure, Cannon and Bryn's refusal of Nate's reasonable request was inequitable. \({ }^{329}\)

In sum, under the totality of the circumstances, Defendants have not proven that the Merger was the product of fair dealing.

\section*{2. The Merger Was Not at a Fair Price}

Fair price "relates to the economic and financial considerations of the proposed merger, including all relevant factors: assets, market value, earnings, future prospects, and any other elements that affect the intrinsic or inherent value of a company's stock." \({ }^{330}\) "When conducting a fair price inquiry as part of the entire fairness standard of review, the court asks whether the transaction was one 'that a reasonable seller, under all of the circumstances, would regard as within a range of fair value; one that such a seller could reasonably accept.' "331 The fair price inquiry in a fiduciary duty claim is largely equivalent to the fair value determination in an appraisal proceeding, although the remedies may be different. \({ }^{332}\) Under the DCF valuation set forth above, where I concluded that the fair value of Nate's interest in ESG was \(\$ 42,165,920\), I find that Defendants have failed to show that the \(\$ 19.95\) per share consideration ( \(\$ 26.334\) million in total) offered to Nate in the Merger was within a range of fair value of ESG. \({ }^{333}\)

\section*{3. The Merger was not Entirely Fair}
*32 Under the entire fairness standard, I must make a unitary conclusion as to whether the Merger was entirely fair. "[I]n a non-fraudulent transaction ... price may be the preponderant consideration outweighing other features of the merger., \({ }^{334}\) After weighing the respective fair dealing and fair price inquiries, I conclude that the Merger was not entirely fair. Cannon, Bryn, and Acquisition Corp. thus breached their fiduciary duties.
"[W]here a merger is found to have been effected at an unfairly low price, the shareholders are normally entitled to out-of-pocket (i.e., compensatory) money damages equal to the 'fair' or 'intrinsic' value of their stock at the time of the merger, less the price per share that they actually received." \({ }^{335}\) This principle plainly applies here. Defendants have not shown that Nate's damages are less than the fair value of his interest in ESG, nor has Nate shown that his damages are greater than the fair value of his interest. \({ }^{336}\) Thus, judgment will be entered in Nate's favor under Counts I and II, with Cannon, Bryn, and Acquisition Corp. jointly and severally liable to Nate for damages in the amount of \(\$ 42,165,920\), representing the fair value of Nate's shares.

\section*{C. Count III: Aiding and Abetting Against Acquisition Corp.}

In Count III of the Amended Complaint, Nate asserts that Acquisition Corp. is liable for aiding and abetting Cannon and Bryn's breaches of fiduciary duty. Nate waived this claim because he offered no probative evidence at trial and presented no argument in support of this claim in his post-trial briefing. \({ }^{337}\)

\section*{D. Interest, Fees, and Costs}

Under 8 Del. C. § 262(h), unless I determine otherwise for good cause shown, Nate is entitled to interest at the statutory rate (the Federal Reserve discount rate plus 5\%, compounded quarterly) from the effective date of the Merger until the appraised value of his stock is paid. Neither Nate nor ESG has offered any good cause to depart from the statute here. Thus, I award Nate interest at the statutory rate on his appraisal claim, compounded quarterly.

In his post-trial briefing, Nate seeks to recover his expert fees and attorneys' fees incurred in this action, contending that Defendants litigated in bad faith. I disagree that Defendants' conduct rose to the level of bad faith, and I reject this request.

Under the American Rule, litigants in this Court generally pay their own attorneys' fees. \({ }^{338}\) "The bad faith exception to the American Rule applies in cases where the court finds litigation to have been brought in bad faith or finds that a party conducted the litigation process itself in bad faith, thereby unjustifiably increasing the costs of litigation., 339 " \([\mathrm{T}]\) o constitute bad faith, the [litigant's] action must rise to a high level of egregiousness., \({ }^{340}\) The thrust of Nate's request is that the Merger price, unilaterally set by Cannon and Bryn, was unfair on its face and not based on any legitimate valuation of the Company because Grant Thornton failed to tax affect its DCF analysis of the 2013 Projections for ESG as a Subchapter S corporation under Kessler. \({ }^{341}\)
*33 In my opinion, this conduct does not rise to the level of bad faith to warrant fee shifting because the parties "could and did reasonably differ on the legal import" of several critical issues, \({ }^{342}\) such as whether it was appropriate to tax affect ESG's earnings under Kessler. For example, the import and application Kessler is not free from criticism, \({ }^{343}\) nor is it a binding decision of the Delaware Supreme Court. I also rejected several aspects of Austin Smith's valuation, including her discount rate and terminal growth rate, in favor of Jacobs's calculations. None of the authorities Nate has advanced compels me to award expert fees or attorneys' fees. I thus deny Nate's request for fees. Under 8 Del. C. § 262(j) and Court of Chancery Rule 54(d), I award Nate his costs.

\section*{IV. CONCLUSION}

For the foregoing reasons, judgment will be entered in Nate's favor under Counts I, II, and IV of the Amended Complaint. Nate is entitled to: (1) the fair value of his \(1,320,000\) shares of ESG as of the Merger on May 6, 2013, which I find to be \(\$ 42,165,920\); (2) pre-judgment and post-judgment on this amount at the Delaware legal rate, compounded quarterly; and (3) costs. Judgment will be entered in Acquisition Corp.'s favor under Count III.

Counsel shall confer and submit an implementing order of final judgment within five business days, providing for the foregoing payments to be made within thirty calendar days of entry of judgment.


\section*{All Citations}

Not Reported in Atl. Rptr., 2015 WL 3819204
\begin{tabular}{|c|c|}
\hline \multicolumn{2}{|l|}{Footnotes} \\
\hline 1 & The deposition testimony of witnesses is part of the trial record to the extent that testimony was used at trial. In addition, the deposition of ESG's controller, Lisa Swift, who did not testify at trial, is part of the record. Tr. of Oral Arg. 202-03. Objections to any testimony or joint exhibits are overruled to the extent that testimony or exhibits are used in this opinion. \\
\hline 2 & Trial Tr. ("Tr.") 152 (Cannon). \\
\hline 3 & Pre-Trial Stip. and Order ("Pre-Trial Stip.") ๆ II.A.2. \\
\hline 4 & Tr. 668-69 (Nate). \\
\hline 5 & ld. 622, 625-26 (Bryn), 669 (Nate). \\
\hline 6 & Id. 668-69 (Nate), 601 (Bryn). \\
\hline 7 & JX 336 (Weigand Report) at 8-9. \\
\hline 8 & Tr. 1035-39 (Weigand). \\
\hline 9 & Id. 1082 (Weigand). \\
\hline 10 & JX 332 (Jacobs Report) at ¢ 100. \\
\hline 11 & Tr. 669 (Nate). \\
\hline 12 & Id. 17-18 (Cannon), 601 (Bryn), 669 (Nate). \\
\hline 13 & Id. 670 (Nate), 39, 132 (Cannon). \\
\hline 14 & Id. 23 (Cannon), 325-26 (Gurule), 670-71 (Nate). \\
\hline
\end{tabular}

15 JX 2 (Stockholders' Agreement) at NO00000291.
16 ld . at § 9.
17 JX 288 (Energy Services Group, Inc., Profit \& Loss: January through December 2012).
18 JX 225 (Energy Services Group, Inc., Sales and Marketing Overview, Jan. 2013) at ESG00036442.
19 Tr. 159-60 (Cannon). Most TMS customers are billed monthly on a per-meter basis. P2C customers are billed monthly on a per-account basis. WES customers are billed monthly on a megawatt-hour or per-account basis. Pre-Trial Stip. III II.C.9-11. ESG's contracts generally have tiered pricing, meaning that larger customers are charged less on a per-meter, per-account, or megawatt-hour basis. Tr. 1258 (Jacobs).
20 JX 330 (Technology, Energy Services Group, http://www.energyservicesgroup.net/ technology (last visited July 25, 2014)) at JACOBS0005434.

21 Tr. 571 (Fenton), 314-15 (Purdum).
22 Id. 136-38 (Cannon), 306, 314-15 (Purdum), 419-23 (Potter), 570-74 (Fenton).
23 Id. 678 (Nate).
24 JX 332 (Jacobs Report) at \(\mathbb{1}\) 35; see also JX 331 (Austin-Smith Report) at \(\mathbb{I} 13\) (reflecting similar calculations for ESG's historical revenues).
JX 331 (Austin Smith Report) at I 13.
JX 332 (Jacobs Report) at \(\mathbb{1}\) I 18-21.
As discussed below, a DCF analysis is the sole valuation method the parties advanced here and that I use to value Nate's interest in ESG. To determine ESG's value through a DCF, the distributions to be paid to the Company's stockholders in the future must be estimated taking into account market-rate salaries for employees.
\(l d\).
29 JX 339 (Jacobs Rebuttal Report) at \(\mathbb{1} 70\).
30 Tr. 1330 (Jacobs); JX 332 (Jacobs Report) ๆ 195. As of trial in this action in November 2014, ESG had approximately \(\$ 19\) million in cash and equivalents on its balance sheet. Tr. 140 (Cannon).
31 Tr. 688 (Nate).
32 Id. 45-46 (Cannon); JX 42 (Email from Keith Ruhl to Bob Potter (July 10, 2009)) at ESG00032962.
33 JX 42 (Email from Nate Owen to Lisa Swift (July 13, 2009)) at ESG00032961.
34 Id. (Email from Nate Owen to Lynn Cannon (July 13, 2009)) at ESG00032960; Id. (Email from Lynn Cannon to Nate Owen (July 13, 2009)) at ESG00032960.
35 Tr. 150 (Cannon).
36 Id. 690-91 (Nate).
37 Id. 150, 155 (Cannon).
38 JX 53 (Email from Lynn Cannon to Nate Owen (Aug. 13, 2009)) at ESG00020434.
39 Tr. 153 (Cannon).
40 JX 53 (Notice of Special Meeting of the Board of Directors) at ESG00020436.
41 Id. at ESG00020435.
42 Tr. 153 (Cannon), 695-96, 700 (Nate).
43 Id. 693-94 (Nate).
44 Cannon and Bryn retained Klickstein to represent ESG. Id. 53 (Cannon). Nate had never heard of him before receiving the special meeting notice. Id. 694 (Nate).
45 ld. 151 (Cannon), 694-95 (Nate).
46 Id. 696-700 (Nate).
47 Id. 723-24 (Nate).
48 Id. 49-50, 154 (Cannon), 719-20 (Nate); JX 53 at ESG0020435.
49 Tr. 701-03 (Nate).
50 JX 378 (Letter from Joseph Demeo to Barry Klickstein (Oct. 21, 2009)).
51 Pre-Trial Stip. ITIII.D.15-16.
52 Tr. 300 (Purdum), 350 (Gurule), 405 (Potter).
53 Id. 34-35 (Cannon).
54 Id. 629-31 (Bryn).

55 Id. 33-34, 160-61 (Cannon).
56 Id. 583 (Fenton).
57 Id. 305 (Purdum), 357 (Gurule).
58 Id. 179, 160-61 (Cannon).
59 Id. 56 (Cannon).
60 JX 89 (2010 Projections).
61 Id. at 1.
62 Tr. 300-01 (Purdum), 350 (Gurule), 405 (Potter).
63 Id. 160-61 (Cannon), 305 (Purdum), 356-57 (Gurule), 583 (Fenton).
64 Id. 192 (Cannon).
65 Id. 704-05 (Nate).
66 See Cruz v. State, 12 A.3d 1132, 1136 (Del.2011) ("The fact finder 'is free to accept or reject in whole or in part testimony offered before it, and to fix its verdict upon the testimony it accepts.' ").
67 JX 91 (Email from Barry Klickstein to Chris Waterman (Feb. 3, 2010)) at NO00000879-80.
68 Tr. 161-62 (Cannon).
69 JX 122 (Energy Services Group, Inc., Equity Valuation as of Apr. 30, 2011) at D \& P_ESG001110-13.
70 JX 122 (Email from Jeff Davis to Lynn Cannon (Mar. 12, 2011)) at D \& P_ESG001088; Duff \& Phelps's valuation produced a range of \(\$ 61.7\) million to \(\$ 67.9\) million, with a midpoint of \(\$ 64.8\) million. Id. (Energy Services Group, Inc., Equity Valuation as of Apr. 30, 2011) at D \& P_ESG001097.
71 Pre-Trial Stip. IIII.D.19.
72 Tr. 706 (Nate).
73 Id. 192 (Cannon).
74 JX 167 (2012 Projections); JX 149 (Email from Lynn Cannon to Mark Drew (Mar. 13, 2012)) at ESG00056706.
75 Tr. 73-74 (Cannon).
76 Compare JX 167 (2012 Projections), with JX 89 (2010 Projections).
77 Cannon Dep. 48-49; Tr. 173 (Cannon).
78 JX 157 (Executive Conference, Agenda and Presentation Materials (Apr. 26-27, 2012)) at ESG00059235.
79 Id. at ESG00059254.
80 Pre-Trial Stip. III.D.21; Tr. 173-74 (Cannon).
81 JX 166 (Email from Lisa Swift to Len Batsevitsky (June 20, 2012)).
82 Tr. 174 (Cannon).
83 Resnick was deposed as a Court of Chancery Rule 30(b)(6) witness of Grant Thornton, but he was tendered at trial in his personal capacity. Tr. 501. Batsevitsky, who was no longer with Grant Thornton at the time of trial, was not deposed and did not testify at trial. Id. 112-13.
84 JX 167 (Email from Len Batsevitsky to Lisa Swift (June 27, 2012)) at ESG00093694.
85 Tr. 176-77 (Cannon).
86 JX 171 (Email from Len Batsevitsky to Lynn Cannon (July 17, 2012)).
87 Tr. 498-99 (Resnick).
88 Id. 91 (Cannon).
89 JX 171 (Email from Len Batsevitsky to Lynn Cannon (July 17, 2012)); Tr. 495-96 (Resnick).
90 JX 192 (Revised 2012 Projections).
91 Compare id., with JX 167 (2012 Projections).
92 Typically, the assumed growth rates were constant for each year. For example, ESG's largest income line item, Transaction Processing Fees, was assumed to grow \(1.19 \%\) on a quarterly basis ( \(4.8 \%\) annually) during 2013-2015, and ESG's second largest income line item, Billing Services, was assumed to grow \(5.0 \%\) on a quarterly basis ( \(20 \%\) annually) during 2013, \(3.75 \%\) on a quarterly basis ( \(15 \%\) annually) in 2014, and \(2.5 \%\) on a quarterly basis ( \(10 \%\) annually) in 2015. JX 192 (Revised 2012 Projections).
93 ld.
94 JX 170 (Email from Carol Purdum to Lynn Cannon (July 5, 2012)) at ESG00100820; Id. (Email from Lynn Cannon to Carol Purdum (July 3, 2012)) at ESG00100823.

98 Pre-Trial Stip. II II.D.24; Tr. 707 (Nate).
99 JX 180 (Engagement Letter from Grant Thornton to Barry Klickstein (Sept. 12, 2012)).
100 Tr. 190 (Cannon).
101 JX 192 (Revised 2012 Projections); Tr. 519-21 (Resnick). Grant Thornton further assumed a 20\% discount for lack of marketability and a \(20 \%\) discount for a non-controlling interest, which reduced the enterprise value of Nate's interest to approximately \(\$ 25.3\) million, excluding his pro rata share of the Company's cash. JX 192 (Revised 2012 Projections).
JX 191 (Email from Barry Klickstein to Wayne Dennison (Oct. 3, 2012)) at NO00000165.
103 JX 199 (Email from Michael Abasciano to Len Batsevitsky (Nov. 7, 2012)).
104 Tr. 96-98 (Cannon).
105 Id. 190 (Cannon).
106 JX 226 (Letter from Wayne Dennison to Barry Klickstein (Jan. 16, 2013)) at ESG00101316.
107 Tr. 708 (Nate).
108 JX 226 (Letter from Wayne Dennison to Barry Klickstein (Jan. 16, 2013)) at ESG00101318.
109 Tr. 100-01 (Cannon); JX 230 (Letter from Barry Klickstein to Wayne Dennison (Jan. 31, 2013)) at ESG00089398.
110 JX 215 (Email from Florie Ritchie to Bob Potter (Dec. 28, 2012)) at ESG00041703.
111 Tr. 110 (Cannon); JX 332 (Jacobs Report) at 968.
112 JX 209 (Email form Bob Potter to Michael Fallquist (Dec. 5, 2012)) at ESG00071791-93; Tr. 383-85 (Potter).
113 Tr. 258-59 (Purdum), 383-85 (Potter).
114 ld. 566 (Fenton).
115 Id. 378-79 (Potter).
116 JX 170 (Email from Carol Purdum to Lynn Cannon (July 5, 2012)) at ESG00100820.
117 See, e.g., JX 236 (Email from Carol Purdum to Bob Potter (Feb. 26, 2013)) at ESG00085988.
118 Tr. 1040-41 (Weigand).
119 JX 170 (Email from Carol Purdum to Lynn Cannon (July 5, 2012)) at ESG00100820-21.
120 Tr. 267 (Purdum).
121 Id. 334-35 (Gurule).
122 For example, in their brief, Defendants cite the loss of TruPro as a WES customer. Defs.' Ans. Br. 18. But TruPro generated no revenue in 2011 and only \(\$ 12,285\) in revenue in 2012, which was less than \(0.0005 \%\) of the Company's revenue that year. JX 319 (Excel File—ESG Monthly Sales by Client—Fiscal Years 2000-2014).
123 JX 354 (Excel File-Reduced Fee Impact Summary). On the other side of the equation, there is the possibility of new retail energy markets for REPs. A news report published shortly after the Merger discussed recent developments in Michigan and Indiana to consider expanding consumer utility choice. JX 315 (Bill Malcolm, Michigan, Indiana Warm to the Idea of Expanding Consumer Utility Choice, Midwest Energy News (May 14, 2013), http:// www.midwestenergynews.com/2013/05/14/michigan-indiana-warm-to-the-idea-of-expanding-consumer-utility-choice/).
124 Tr. 211 (Cannon).
125 JX 225 (Energy Services Group, Inc., Sales and Marketing Overview, Jan. 2013) at ESG00036453.
126 Tr. 101, 193 (Cannon).
127 Id. 206-07 (Cannon).
128 Id. 193-94 (Cannon).
129 Id. 116-17, 213, 230 (Cannon).
130 JX 242 (Email from Lynn Cannon to Len Batsevitsky (Mar. 13, 2013)).
131 Tr. 232-33 (Cannon).
132 Id. 208-09 (Cannon); Cannon Dep. 190.
133 JX 249 (Email from Lynn Cannon to Len Batsevitsky (Mar. 15, 2013)).
134 Tr. 194 (Cannon).
135 JX 250 (Email from Len Batsevitsky to Lynn Cannon (Mar. 15, 2013)); Tr. 229 (Cannon).
136 Tr. 513 (Resnick).

137 JX 255 (Email from Len Batsevitsky to Oksana Westerbeke (Mar. 19, 2013)) at GT017922.
138 Tr. 493 (Resnick).
139 Id. 484, 486-87, 490-91 (Resnick). Although Resnick did not have personal knowledge of some of these events, he was Grant Thornton's partner on the ESG account and his explanation of events was logical and consistent with the documentary record.
140 ld. 508-10 (Resnick), 116 (Cannon).
141 JX 250 (Email from Len Batsevitsky to Lynn Cannon (Mar. 15, 2013)) at ESG00095769.
142 Tr. 111-12 (Cannon).
143 Id. 608 (Bryn), 113 (Cannon), 301 (Purdum), 405 (Potter).
144 Id. 485, 535, 538 (Resnick).
145 JX 264 (2013 Projections) at NO00000046-50.
146 Compare JX 255 at GT017931, with JX 264 (2013 Projections) at NO00000052.
147 Tr. 493, 510 (Resnick).
148 Id. 194-98 (Cannon), 502, 506 (Resnick). Around the same time, Cannon was in the process of negotiating a new commercial lease that would increase ESG's space from 16,000 to 26,000 square feet and would permit future growth. Id. 214 (Cannon), 303 (Purdum). Cannon and other ESG employees testified that their then-current facilities were "inadequate." Id. 215 (Cannon), 295-96 (Purdum), 346-48 (Gurule).
149 Id. 186 (Cannon).
150 Id. 492 (Resnick).
151 ESG's performance for the rest of 2013 generally tracked the 2013 Projections. Id. 221-22 (Cannon).
152 PI.'s Op. Br. 23 (citing JX 264 (2013 Projections) at NO00000052); Tr. of Oral Arg. 116-17.
153 JX 264 (Grant Thornton Valuation) at NO00000052-58.
154 Id. at NO00000052-53.
155 JX 264 (Letter from Barry Klickstein to Wayne Dennison (Mar. 28, 2013)) at NO0000000042.
156 JX 264 (Grant Thornton Valuation) at NO00000045.
157 JX 349 (Stipulation (Oct. 2, 2014)) at ๆ 14.
158 JX 264 (Letter from Barry Klickstein to Wayne Dennison (Mar. 28, 2013)) at NO00000042; Tr. 709 (Nate).
159 JX 270 (Email from Barry Klickstein to Wayne Dennison (May 3, 2013)) at NO00000018.
160 Tr. 710 (Nate).
161 JX 265 (Email from Len Batsevitsky to Denise McGeough (Apr. 4, 2013)).
162 Tr. 512 (Resnick).
163 Id. 130-31 (Cannon), 651 (Bryn); Cannon Dep. 241-42.
164 JX 269 (Letter from Barry Klickstein to Megan Kelley (May 3, 2013)) at ESG00089409; Pre-Trial Stip. II II.D.27. Depositions were scheduled to begin the following week in a lawsuit Nate had filed in Massachusetts Superior Court against Cannon, Bryn, and Gurule related to his removal as President of ESG. Id. IIII.D.20; Tr. 711 (Nate). Cannon testified that the timing of the Merger had nothing to do with the scheduled depositions. Id. 206 (Cannon). On September 11, 2013, the parties to the Massachusetts litigation filed a joint motion to stay the proceedings in that lawsuit pending the outcome of this action. JX 286 (Joint Mot. for Stay and to Continue Prelim. Inj. (Sept. 11, 2013)).
165 Tr. 153 (Cannon).
166 JX 269 (Merger Agreement) at § 7(b).
167 JX 269 (Email from Len Batsevitsky to Barry Klickstein (May 3, 2013)) at ESG00089429; Pre-Trial Stip. Ф II.D. 28.
168 JX 272 (Email from Len Batsevitsky to Barry Klickstein (May 3, 2013)).
169 ld.
170 Tr. 122 (Cannon).
171 Id. 213, 172 (Cannon).
172 Id. 711-12 (Nate).
173 Id. 121 (Cannon). When Nate later sought injunctive relief in a Massachusetts state court, the court denied his request because the Merger already had closed. Id. 712 (Nate).
174 Id. 121 (Cannon).
175 Id. 713 (Nate).

176 JX 278 (Resolutions of the Board of Directors of Energy Services Group, Inc. (May 6, 2013)) at NO00000250, 252; Tr. 713-14 (Nate).
177 Pre-Trial Stip. III.D.29. The ownership of ESG Acquisition Corp. on an undiluted basis was as follows: Cannons owned \(1,218,750\) shares (approximately \(50.2 \%\) ); Bryn owned \(1,098,750\) shares (approximately \(45.2 \%\) ); and Gurule owned 112,500 shares (approximately \(4.6 \%\) ).
178 JX 280 (Certificate of Merger (May 6, 2013)).
179 Tr. 712 (Nate).
180 JX 280 (Letter from Energy Services Group, Inc. to Stockholders of Energy Services Group, Inc. (May 13, 2013)).
181 JX 289 (Am.Compl.) at Ex. D. (Letter from Wayne Dennison to Energy Services Group, Inc. (May 21, 2013)); Pre-Trial Stip. ๆ II.D. 36.
182 JX 289 (Am.Compl.) at Prayer for Relief \(\mathbb{1}\) B .
183 See 8 Del. C. § 262(d)(2) (requiring, where a merger is approved by stockholder written consent, a stockholder to demand appraisal within twenty days of the date of mailing of notice); 8 Del. C. § 262(e) (requiring a stockholder to commence an appraisal proceeding within 120 days after the effective date of a merger).
184 Cavalier Oil Corp. v. Harnett, 564 A.2d 1137, 1142 (Del.1989).
185 See Montgomery Cellular HIdg. Co., Inc. v. Dobler, 880 A.2d 206, 221 (Del.2005).
186 Golden Telecom, Inc. v. Global GT LP, 11 A.3d 214, 217 (Del.2010).
18774 A.2d 71 (Del.1950).
188 ld. at 72.
189 Weinberger v. UOP, Inc., 457 A.2d 701, 713 (Del.1983).
190 Cede \& Co. v. Technicolor, Inc., 684 A.2d 289, 299 (Del.1996).
191 Weinberger, 457 A. 2 d at 713.
192 Cede \& Co. v. JRC Acq. Corp., 2004 WL 286963, at *2 (Del. Ch. Feb. 10, 2004) (quoting Ryan v. Tad's Enters., Inc., 709 A.2d 682, 702 (Del. Ch.1996), aff'd, 693 A.2d 1082 (Del.1997) (Table)).

193 Andaloro v. PFPC Worldwide, Inc., 2005 WL 2045640, at *9 (Del. Ch. Aug. 19, 2005).
194 Austin Smith also performed a comparable companies analysis in her report. JX 331 (Austin Smith Report) at 9ी 55-63, Ex. 6 . She gave \(25 \%\) weight to her comparable companies valuation ( \(\$ 45.6\) million) and \(75 \%\) weight to her DCF valuation ( \(\$ 53.7\) million). Id. at \(\mathbb{T} 64\). Because Nate did not discuss the comparable companies analysis in his post-trial briefing, I treat that valuation as waived. See Emerald P'rs v. Berlin, 726 A.2d 1215, 1224 (Del.1999).
195 JX 331 (Austin Smith Report) at \(\operatorname{ITl} 45-46\).
196 Pl.'s Op. Br. 29 n. 10.
197 JX 331 (Austin Smith Report) at \(9 \mathbb{I}\) 52-53, 65.
198 JX 340 (Austin Smith Rebuttal Report) at \(\mathbb{1} 5\).
199 JX 331 (Austin Smith Report) at \(9 \mathbb{1}\) 64-65.
200 Tr. of Oral Arg. 80-81.
201 Jacobs concluded that any comparable companies or comparable transaction analysis was not informative of ESG's value due to insufficient data on comparables companies and transactions. JX 332 (Jacobs Report) at \(\mathbb{1} \mathbb{I}\) 129-36.
202 Id. at \(\mathbb{1}\) IT 138-54.
203 JX 339 (Jacobs Rebuttal Report) at 9 IT 63-78.
204 JX 332 (Jacobs Report) at \(\mathbb{1} \mathbb{I}\) 166-81.
205 Id. at \(\mathbb{I} 201\).
206 PI.'s Reply Br. 30.
207 Defs.' Ans. Br. 63.
208 Neal v. Ala. By-Products Corp., 1990 WL 109243, at *9 (Del. Ch. Aug. 1, 1990), aff'd, 588 A. 2 d 255 (Del.1991).
209 Doft \& Co. v. Travelocity.com Inc., 2004 WL 1152338, at *5 (Del. Ch. May 20, 2004, revised May 21, 2004); see also In re Emerging Commc'ns, Inc. S'holders Litig., 2004 WL 1305745, at *14 (Del. Ch. May 3, 2004, revised June 4, 2004) ("This Court has consistently expressed a preference for the most recently prepared management projections available as of the merger date.").
210 In re Nine Sys. Corp. S'holders Litig., 2014 WL 4383127, at *40 (Del. Ch. Sept. 4, 2014).
211 Huff Fund Inv. P'rship v. CKx, Inc., 2013 WL 5878807, at *9 (Del. Ch. Nov. 1, 2013), aff'd,—— A.3d ——, 2015 WL 631586 (Del. Feb. 12, 2015) (TABLE).

212 Tr. 484, 486-87, 490-91, 508-10 (Resnick).
213 Id. 493, 513 (Resnick); JX 255 (Email from Len Batsevitsky to Oksana Westerbeke (Mar. 19, 2013)).
214 Tr. 33-34, 160-61 (Cannon), 305 (Purdum), 357 (Gurule), 583 (Fenton).
215 See, e.g., JX 170 (Email from Carol Purdum to Lynn Cannon (July 5, 2012)) at ESG00100820; JX 236 (Email from Carol Purdum to Bob Potter (Feb. 26, 2013)) at ESG00085988.
216 Tr. 159-60, 178-79 (Cannon).
2172011 WL 227634 (Del. Ch. Jan. 14, 2011).
218 See id. at *4-6 (rejecting an expert's reliance on management projections based on "overly optimistic assumptions" in part because they "failed to account for the sale of three properties ... after the projections were prepared").
219 Tr. 193 (Cannon).
220 Id. 111-12, 116, 193-94 (Cannon), 508-10 (Resnick).
221 See supra Tables 3-4.
222 Tr. 484, 486-87 (Resnick).
223 JX 272 (Email from Len Batsevitsky to Barry Klickstein (May 3, 2013)).
224 Tr. 101, 193 (Cannon).
225 Id. 208-09 (Cannon).
226 Defs.' Ans. Br. 72.
227 Tr. 512 (Resnick); JX 265 (Email from Len Batsevitsky to Denise McGeough (Apr. 4, 2013)).
228898 A.2d 290 (Del. Ch.2006).
229 See id. at 332, 332 n. 109 (citing 18 U.S.C. § 1344 (2006)).
230 See Emerging Commc'n, 2004 WL 1305745, at *13 ("If contemporaneous reliance upon the June projections by [the corporation's controlling stockholder], his lender and his financial and legal advisors was appropriate, then logic and common sense dictate that reliance on those same projections by [the plaintiff's expert] in performing his valuation was no less appropriate.").
2312013 WL 5878807 (Del. Ch. Nov. 1, 2013), aff'd, —— A.3d ——, 2015 WL 631586 (Del. Feb. 12, 2015) (Table).
2322012 WL 1569818 (Del. Ch. Apr. 30, 2012).
2332014 WL 4383127 (Del. Ch. Sept. 4, 2014), appeal docketed No. 281,2015 (Del. June 5, 2015).
234
See CKx, 2013 WL 5878807, at *9, *11 ("Because I have little confidence in the reliability of using or excluding the estimated \(\$ 20\) million increase in revenues under the to-be-negotiated American Idol contract, I conclude that a DCF analysis is not the appropriate method of valuation in this case."). Just Care, 2012 WL 1569818, at *4 (Del. Ch. Apr. 30, 2012).
236 Tr. 172, 189 (Cannon); JX 187 (Email from Lynn Cannon to Francois Karl-Henry (Sept. 28, 2012)).
237 Tr. 484, 486-87, 490-91, 493, 510 (Resnick).
238 Nine Sys., 2014 WL 4383127, at *41.
ld. at *42.
Tr. 221-22 (Cannon).
241 See, e.g., JX 332 (Jacobs Report) at ๆ 108; Tr. 1231-32 (Jacobs).
242 JX 332 (Jacobs Report) at Ex. C1.
243 JX 264 (2013 Projections) at NO00000046, 52.
244 JX 332 (Jacobs Report) at \(\mathbb{1} 145\), Ex. C1.
245 JCR Acq. Corp., 2004 WL 286963, at *2.
2462003 WL 21753752 (Del. Ch. July 25, 2003).
247 ld. at *2, *2 n.7.
248791 A.2d 880 (Del. Ch.2001).
249 ld. at 891.
250 See id. at 892, 892 n. 25 .
251 See In re Citigroup Inc. S'holder Deriv. Litig., 964 A.2d 106, 124 n. 50 (Del. Ch.2009) (defining "hindsight bias" as "the tendency for people with knowledge of an outcome to exaggerate the extent to which they believe that outcome could have been predicted." (citation omitted)).

253 JX 339 (Jacobs Rebuttal Report) at \(\mathbb{I} 84\).
254 Tr. 204-05 (Cannon).
255 Id. 1237-38 (Jacobs); see also JX 339 (Jacobs Rebuttal Report) at \(\mathbb{I T \|}\) 84-85.
256 Tr. 212-13 (Cannon).
257 See Gray v. Cytokine Pharmascienes, Inc., 2002 WL 853549, at *8 (Del. Ch. Apr. 25, 2002) (rejecting an expert's calculation that disregarded management's revenue projections and that adjusted other projections where there were no "valid reasons to warrant all of the[ ] adjustments"); see also Merion Capital, L.P. v. 3M Cogent, Inc., 2013 WL 3793896, at *11-12 (Del. Ch. July 8, 2013) (accepting management's projections, not the expert-created projections, "as a reliable starting point for the DCF analysis").
258 JX 331 (Austin Smith Report) at \(\mathbb{I} 45\).
259 Tr. 1298 (Jacobs).
260 Tri-Cont'l Corp., 74 A.2d at 72.
261 Kessler, 898 A.2d at 327.
262 Id. at 328.
263 See id. at 330 (calculating a hypothetical S corporation tax rate of \(29.4 \%\) by assuming a \(15 \%\) dividend tax rate and a \(40 \%\) personal income tax rate).
264 See id. at 326 ("This dispute raises an interesting question of valuation, which has elicited a fair amount of attention from judges, appraisers, and academics.").
265 See Zutrau v. Jansing, 2014 WL 3772859, at *36 (Del. Ch. July 31, 2014) (accepting a financial advisor's DCF calculation of a Subchapter S corporation that was based on an estimated "hypothetical 'pre-dividend S corporation tax rate' " of 28.8\% (quoting Kessler, 898 A.2d at 330)).

Other jurisdictions also have cited Kessler with approval. See Bernier v. Bernier, 873 N.E.2d 216, 221 (Mass.2007) ("Our review of the scant case law and the pertinent literature on the issues leads us to adopt generally the metric employed by the Kessler court[.]"); see also Hamelink v. Hamelink, 2013 WL 6839700, at *5 (Minn.Ct.App. Dec. 30, 2013) ("In light of Kessler and Bernier, we agree with husband that there is support for [his expert's] decision to tax affect.").
266 JX 339 (Jacobs Rebuttal Report) at \(\mathbb{1} 70\). Kessler itself acknowledges that " \([\mathrm{t}]\) he relative value of an S corporation, vis-à-vis a C corporation, to its shareholders is dependent upon the level of distributions paid." Kessler, 898 A.2d at 329.
267 Tr. 1301-05 (Jacobs).
268 JX 339 (Jacobs Rebuttal Report) at \(\boldsymbol{\uparrow} \mathbb{I}\) 70-71.
269 Tr. 1306-08 (Jacobs).
270 It would inappropriate to consider post-Merger changes to the Company's reinvestment practices. See, e.g., Gonsalves v. Straight Arrow Publishers, Inc., 701 A.2d 357, 363 (Del.1997) (concluding in an appraisal proceeding that a petitioner was not entitled to the pro rata value of "possible changes which may be made by new management" after the effective date of the transaction).
271 Tr. 888 (Austin Smith), 1309 (Jacobs).
272 Tri-Cont'l Corp., 74 A.2d at 72.
273 Kessler, 898 A.2d at 330.
274 JX 339 (Jacobs Rebuttal Report) at \(\mathbb{1}\) IT 69-71; PI.'s Op. Br. 61.
275 See 26 U.S.C. § 1411.
276 I also accept Austin Smith's assumption that Nate's state taxes are effectively not deductible for federal tax purposes. JX 331 (Austin Smith Report) at 946.
277 Tr. 873-74, 883-84 (Austin Smith). I credit Austin Smith's testimony that it is appropriate to apply Nate's most recent, actual tax rate because there is no evidence in the record suggesting a different tax rate during the discrete discount period. Id. 885 (Austin Smith).
278 Andaloro, 2005 WL 2045640, at *12.
279 JX 331 (Austin Smith Report) at \(\mathbb{1} \mathbb{I}\) 52-53.
280 JX 339 (Jacobs Rebuttal Report) at ITI 102-08.
281 See, e.g., In re Appraisal of Orchard Enters., Inc., 2012 WL 2923305, at *18 (Del. Ch. July 18, 2012) ("As a law-trained judge who has to come up with a valuation deploying the learning of the field of corporate finance, I choose to deploy one accepted method as well as I am able, given the record before me and my own abilities."), aff'd, 2013 WL 1282001 (Del. Mar. 28, 2013) (Table).
2822013 WL 3793896 (Del. Ch. July 8, 2013).

284993 A. \(2 d 497\) (Del. Ch.2010), aff'd, 11 A.3d 214 (Del.2010). ld. at 511.
286 JX 264 (Grant Thornton Valuation) at NO00000052.
287 See, e.g., S. Muoio \& Co. LLC v. Hallmark Entm't Invs. Co., 2011 WL 863007, at *21 (Del. Ch. Mar. 9, 2011), aff'd, 35 A.3d 419 (Del.2011) (Table).

288 See, e.g., Kessler, 898 A.2d at 334, 337 (adopting a 4\% terminal growth rate where inflation was estimated to be 3\%); JRC Acq. Corp., 2004 WL 286963, at *6 (adopting a 3.5\% terminal growth rate where inflation was estimated to be 2.5\%).

303 JX 332 (Jacobs Report) at Ex. G.
304 Consider the following example. Assume ESG's historical financials reflect that Cannon, Bryn and Fenton each received \(\$ 5\) in compensation per year but that their market rates were \(\$ 10\) each. Further assume that Cannon, Bryn, and Fenton historically received distributions of \(\$ 100, \$ 90\) and \(\$ 5\), respectively. It would be logical to normalize the compensation expense for each of them by reallocating \(\$ 5\) from their distributions to compensation expense, which would mean that the amount of distributions attributable to their equity interests would be reduced to \(\$ 95, \$ 85\) and \(\$ 0\), respectively. After normalizing ESG's historical financials in this manner and projecting future cash flows based on the same assumptions, which is what Jacobs did as I understand it, Cannon, Bryn, and Fenton would be entitled to share in equity distributions in the future on a pro rata basis.
305 See, e.g., Tr. 1226-27 (Jacobs).
3062012 WL 2923305 (Del. Ch. July 18, 2012), aff'd, 2013 WL 1282001 (Del. Mar. 28, 2013 (Table)).
307 Defs.' Reply Br. 39-40.
308 Orchard, 2012 WL 2923305, at *6.
309 Id. at *7.
310 See, e.g., Weinberger, 457 A.2d at 713; Orchard, 2012 WL 2923305, at *8 ("[T]he duty of this court in an appraisal is ... to make a determination of [the company's] value as a going concern, without reference to ... speculative events.").
311 This amount is the sum of Nate's shares \((1,320,000)\) plus Acquisition Corp.'s shares \((2,430,000)\) plus Fenton's phantom shares \((150,000)\).
312 JX 331 (Austin Smith Report) at \(\mathbb{T} 47\).
313 Id. at Ex. 3.
314 Pre-Trial Stip. II VI.C.3.
315 See In re Digex Inc. S'holders Litig., 789 A.2d 1176, 1207 (Del. Ch.2000) (concluding that a decision by four directors must be reviewed for entire fairness because those directors "possessed substantial direct, personal financial interests in the proposed transaction").
316 See Kahn v. Lynch Commc'ns Sys., Inc., 638 A.2d 1110, 1115 (Del.1994) ("A controlling or dominating shareholder standing on both sides of a transaction, as in a parent-subsidiary context, bears the burden of proving its entire fairness.").
317 See Kahn v. M \& F Worldwide Corp., 88 A.3d 635, 645 (Del.2014).
318 Cinerama, Inc. v. Technicolor, Inc., 663 A.2d 1156, 1163 (Del.1995) (citation omitted).

319 Weinberger, 457 A.2d at 711.
320 Pl.'s Op. Br. 25-27.
Nate also argues that the Merger violated the Stockholders' Agreement. PI.'s Op. Br. 28. Section 10 of the Stockholders' Agreement requires that Nate, Cannon and Bryn unanimously approve any "agreements or transactions valued in excess of Ten Thousand Dollars (\$10,000)" and any "material changes in the business of the Company." JX 2 (Stockholders' Agreement) at \(\S \S 10(2)(3), 10(2)(6)\). Defendants deny that the Stockholders' Agreement barred the Merger and argue, alternatively, that the contracting parties waived those provisions of Section 10 by not enforcing them in the past. Defs.' Ans. Br. 79-82; Tr. 27 (Cannon), 652 (Bryn). Nate counters that the Stockholders' Agreement includes a no-waiver provision. See JX 2 (Stockholders' Agreement) at § 17(3). I decline to resolve these issues because the parties did not fully or fairly brief the legal effect of Cannon and Bryn transferring their ESG stock to Acquisition Corp. on the contractual rights and obligations under the Stockholders' Agreement. In any event, the impact of the Stockholders' Agreement would have no practical effect on the outcome of my fairness analysis given my conclusions above.
321 Defs.' Reply Br. 4-10; Defs.' Ans. Br. 75-79.
322 Tr. 208-09 (Cannon); Cannon Dep. 190.
323 According to Defendants, the fact that Nate withdrew his claim for rescissory damages before trial meant that Nate himself no longer thought that the Company was worth more after the Merger than on May 6, 2013. Tr. of Oral Arg. 102-03. Defendants offered no authority for taking an adverse inference from Nate's litigation strategy, and I decline to do so here. As with the appraisal analysis, fairness logically should focus on what was known and knowable to the parties at the time of the challenged transaction.
324 JX 3 (Bylaws of Energy Services Group, Inc.) at § 6.
325 Schnell v. Chris-Craft Indus., Inc., 285 A.2d 437, 439 (Del.1971).
326 JX 264 (Letter from Barry Klickstein to Wayne Dennison (Mar. 28, 2013)) at NO00000042.
327 See Pepsi-Cola Bottling Co. v. Woodlawn Canners, Inc., 1983 WL 18017, at *13 (Del. Ch. Mar. 14, 1983) (concluding after trial that it was not inequitable for a director to call an impromptu special board meeting where the matters discussed were likely "potential topics for discussion" at a noticed board meeting and the annual shareholders meeting scheduled for the same day).
328 Tr. 121 (Cannon).
329 Cannon and Bryn's reliance on 8 Del. C. § 141(e) is misplaced in my view. A director's reliance on qualified experts under 8 Del. C. § 141(e) is "a pertinent factor in evaluating whether corporate directors have met a standard of fairness in their dealings," but this factor alone is not dispositive of fair dealing. See Cinerama. Inc. v. Technicolor, Inc., 663 A.2d 1134, 1142 (Del. Ch.1994), aff'd, 663 A.2d 1156 (Del.1995). "To hold otherwise would replace this court's role in determining entire fairness ... with that of various experts hired to give advice to the directors in connection with the challenged transaction[.]" Valeant Pharm. Int'I v. Jerney, 921 A.2d 732, 751 (Del. Ch.2007). Under the circumstances of this case, where Cannon and Bryn advance the Grant Thornton Valuation based on the 2013 Projections as evidence of fair dealing but simultaneously insist that the 2013 Projections were not reflective of the Company's fair value, I find Cannon and Bryn's reliance on Grant Thornton's bottom line to be unpersuasive.
330 Weinberger, 457 A.2d at 711.
331 See In re Orchard Enters., Inc. S'holder Litig., 88 A.3d 1, 30 (Del. Ch.2014) (quoting Cinerama, 663 A.2d at 1143).
332 Weinberger, 457 A.2d at 713-14 (determining fair price under the entire fairness standard by reference to determining fair value in an appraisal proceeding).
333 See Emerging Commc'ns, 2004 WL 1305745, at *24 (concluding that the merger consideration of \(\$ 10.25\) per share was not a fair price under Weinberger where the appraised fair value of the company was \(\$ 38.05\) per share).
334 Weinberger, 457 A.2d at 711.
335 Strassburger v. Earley, 752 A.2d 557, 579 (Del. Ch.2000); see also Orchard Enters., 88 A.3d at 48 ("[T]his court has conducted consolidated breach of fiduciary duty and appraisal proceedings and awarded the same damages measure in both cases.").
336 See, e.g., ONTI, Inc. v. Integra Bank, 751 A.2d 904, 932 (Del. Ch.1999) ("I find the Counterclaim Defendants dealt unfairly with the Counterclaimants, and the amount of damages equals the fair value I have determined above less the \(\$ 6,040,000\) offered.").
337 See In re El Paso Pipeline P'rs, L.P. Deriv. Litig., 2015 WL 1815846, at *14 (Del. Ch. Apr. 20, 2015).
338 See Goodrich v. E.F. Hutton Gp., Inc., 681 A.2d 1039, 1044 (Del.1996).
339 Beck v. Atl. Coast PLC, 868 A.2d 840, 850-51 (Del. Ch.2005).

340 Judge v. City of Rehoboth Beach, 1994 WL 198700, at *2 (Del. Ch. Apr. 29, 1994).
341 Pl.'s Op. Br. 73-74.
342 See In re Sunbelt Beverage Corp. S'holder Litig., 2010 WL 26539, at *15 (Del. Ch. Jan. 5, 2010, revised Feb. 15, 2010) (declining to award attorneys' fees under the bad faith exception because the defendants' litigation strategy "was sufficiently reasoned to preclude a finding that there was no legal issue in the case upon which reasonable parties could differ").
343 See, e.g., Stephen D. McMorrow, Consider "Tax-Affecting" When Setting the Value of an S Corporation, 10 Bus. Entities 36, 42-43 (Nov.-Dec.2008) ("Vice Chancellor Strine gave an admiring nod to research in this area by noting that useful models for valuing \(S\) corporations were provided by Chris Treharne and others ... as well as by Z. Christopher Mercer.... The problem with the court's model is that it works only when the S corporation is distributing \(100 \%\) of earnings."); Bret A. Tack, At Last, a Valid Way to Value S Corps, WealthManagement.com (Nov. 1, 2006), http://wealthmanagement.com/ valuation/last-valid-way-value-s-corps-0 ("The Delaware Chancery Court's method for capturing the value of the S corp status using a presumed corporate tax rate does not address how the value of the S corp benefits is reduced when earnings are retained in the corporation and not distributed.").

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\section*{UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.}

> Superior Court of Connecticut, Judicial District of Litchfield.

\section*{TORRINGTON RESEARCH CO.}
V.

Michael D. MARVIN et al.


West KeySummary

1 Corporations and Business
Organizations Payment of value of stock
Fair value for stock in appraisal action was determined by sale price of business assets less its liabilities. Corporation notified its shareholders of a meeting that was held for the purpose of considering and authorizing corporation to sell substantially all of its assets pursuant to a written asset purchase agreement with another company. Shareholders gave notice of their intention to seek appraisal rights, and after corporation sold its assets, shareholders were paid a sum equal to estimated fair value of each share of the common stock. Shareholders correctly contended that fair value of stock was incorrectly calculated. General Statutes § 33871; General Statutes §§ 33-855.

\section*{Attorneys and Law Firms}

Thomas F. McDermott, Jr., Feeley, Nichols, Chase, McDermott \& Pellett, P.C., Litchfield, for Torrington Research Co.

Gersten Clifford \& Rome LLP, Hartford, for Michael D. Marvin/Lee Newberg/Heidi Newberg/Nancy Lawson.

\section*{Opinion}

ROCHE, J.
*1 In this appraisal action, the court is asked to determine the "fair value" of certain shares of common stock pursuant General Statutes §§ 33-855(4) and 33-871.

\section*{PROCEDURAL HISTORY}

On October 4, 2006, the plaintiff, Torrington Research Company (hereinafter the company), a closely held corporation, commenced this appraisal action against the defendants, Michael D. Marvin, Lee Newberg, Heidi Newberg and Nancy Lawson, by filing a petition with this court. In its petition, the company alleges the following. On April 8, 2006, and at all pertinent times, Heidi Newberg, Lee Newberg, Michael Marvin and Nancy Lawson owned 51,200, \(51,200,204,167\) and 5000 shares of the company's common stock, respectively. The company notified its shareholders on April 8, 2006, of a meeting that was to be held on April 19, 2006, "for the purpose of considering and authorizing the company to sell substantially all" of its assets pursuant to a written asset purchase agreement with the Bergquist Torrington Company (hereinafter Bergquist), a wholly owned subsidiary of the Bergquist Company. In that notice, the company provided its opinion that the proposed action would give rise to appraisal rights. As a result, the defendants and at least two other parties gave notice of their intention to seek appraisal rights. \({ }^{1}\) At the special meeting, the shareholders approved the sale of "substantially all" of the company's assets to Bergquist, and on April 21, 2006, the sale occurred. On approximately May 1, 2006, the company served each defendant with an appraisal notice, and on July 12, 2006, it paid the defendants a sum equal to its estimate of the fair value of each share of the common stock. The company estimated the fair value at one cent, and thus, Heidi Newberg, Lee Newberg, Michael Marvin and Nancy Lawson were paid \(\$ 524.80, \$ 524.80, \$ 2092.72\) and \(\$ 51.25\), respectively. The company also provided the defendants with financial information when it paid out its estimation of the fair value of the common stock.

On July 24, 2006, the defendants gave notice of their "dissatisfaction with the amount of the payment, rejected
the offer and demanded payment of their stated estimate of the fair value of the shares," which they allege is \(\$ 1.75\) per share. As of the date of the filing of this petition, the parties were unable to agree upon the fair value of the company's common stock. \({ }^{2}\) Thus, pursuant to General Statutes § 33-871, the company instituted this action and petitioned the court to determine the fair value of the shares pursuant to General Statutes §§ 33-855 through 33-872 and to enter a judgment for the "amount, if any by which the court finds the fair value of the defendant shareholders' shares, plus interest, exceed[s] the amount" already paid to the defendants.

Pursuant to §33-871(d), this case was tried to the court without a jury on September 16, September 17, September 18 and October 29, 2009. \({ }^{3}\) At trial, the parties submitted numerous exhibits, and the court heard testimony from Peter Turner, James Plewacki, Roger Dickinson and Heidi Newberg. \({ }^{4}\) Neither the company nor the defendants called expert witnesses to testify as to appropriate valuation methods. On November 20, 2009, and November 23, 2009, respectively, the company and the defendants filed proposed findings of fact and post-trial memoranda. On December 11, 2009, the defendants filed a reply to the company's proposed findings of fact and supporting memorandum, and on December 16, 2009, the court heard post-trial arguments.

\section*{DISCUSSION}

I

\section*{APPLICABLE LEGAL STANDARDS}
*2 In Welsh v. Independent Bank \& Trust Co., 1 Conn.App. 14, 467 A.2d 941 (1983), cert. denied, 192 Conn. 801, 470 A.2d 1218 (1984), the only appellate level case in Connecticut that discusses the fair value of stock in an appraisal action, the court noted: "The basic concept of value under the appraisal statute ... is that the stockholder is entitled to be paid for that which has been taken from him ... his proportionate interest in a going concern. This is the true or intrinsic value of this stock which has been taken by the merger ... In determining fair value, a court may rely on a legally recognized measure of value which is supported by the subordinate facts. No single method of valuation will control in all cases ... It is within the discretion of the trier of fact to select the most appropriate method of valuation under the
facts properly found by him ... Valuation is a matter of fact to be determined by the trier's independent judgment of what is just compensation. Thus, valuation rests largely within the discretion of the lower court." \({ }^{\text {. }}\) (Citations omitted; emphasis added; internal quotation marks omitted.) Id., at 16-17, 467 A.2d 941 .

Although the Appellate Court decided Welsh before the legislature adopted the definition of fair value, in § 33-855(4), the current statutes provide discretion to the trier of fact as it determines fair value. Section 33-871 provides in relevant part: "(a) If a shareholder makes demand for payment under section 33-868 which remains unsettled, the corporation shall commence a proceeding within sixty days after receiving the payment demand and petition the court to determine the fair value of the shares and accrued interest ... (d) The jurisdiction of the court in which the proceeding is commenced ... is plenary and exclusive. The court may appoint one or more persons as appraisers to receive evidence and recommend a decision on the question of fair value. The appraisers shall have the powers described in the order appointing them, or in any amendment to it ... There shall be no right to a jury trial. (e) Each shareholder made a party to the proceeding is entitled to judgment (1) for the amount, if any, by which the court finds the fair value of the shareholder's shares, plus interest, exceeds the amount paid by the corporation to the shareholder for such shares, or (2) for the fair value, plus interest, of the shareholder's shares for which the corporation elected to withhold payment under section 33-867."

The applicable definition of fair value is found in § 33855(4) and provides: "Fair value means the value of the corporation's shares determined: (A) Immediately before the effectuation of the corporate action to which the shareholder objects, (B) using customary and current valuation concepts and techniques generally employed for similar businesses in the context of the transaction requiring appraisal, and (C) without discounting for lack of marketability or minority status except, if appropriate, for amendments to the certificate of incorporation pursuant to subdivision (5) of subsection (a) of section 33-856." (Internal quotation marks omitted.)
*3 The Supreme Court has identified at least two valuation methods of closely held businesses in other contexts. "While there are several different methods by which to determine the value of a closely-held corporation, these methods, and their variants, are of two general types: (1) capitalization of earnings, or the net present value of a future income stream; and (2) net asset value, or the present sale price of the business
assets less its liabilities ... While these alternate methods of valuation frequently yield different results ... they purport at least in theory to obtain the same object, i.e., the market value of the business. That different methods of valuation may yield different results, depending upon what exactly is being valued, does not mean that the results of the alternate methods can simply be summed to determine total value. One or the other, or the combined weighted average of each, will produce the best approximation of market value." (Citations omitted.) West Haven Sound Development Corporation v. West Haven, 201 Conn. 305, 329-30, 514 A.2d 734 (1986).

Connecticut's definition of fair value is derived from the Model Business Corporation Act's definition of fair value, which was adopted in Public Acts 2001, No. 01-199, § 15. The act's official comments indicate that its drafters endorse similar, if not identical, valuation approaches to those recognized by the Supreme Court. The comments provide in relevant part: "[F]air value is to be determined immediately before the effectuation of the corporate action, rather than, as is the case under most state statutes that address this issue, the date of the shareholders' vote. This comports with the purpose of this chapter to preserve the shareholder's prior rights as a shareholder until the effective date of the corporate action, rather than leaving the shareholder in an ambiguous state with neither rights as a shareholder nor [perfected] appraisal rights. The corporation and, as relevant, its shares are valued as they exist immediately before the effectuation of the corporate action requiring appraisal. Accordingly, [the definition of fair value] permits consideration of changes in the market price of the corporation's shares in anticipation of the transaction, to the extent such changes are relevant. Similarly, in a twostep transaction culminating in a merger, the corporation is valued immediately before the second step merger, taking into account any interim changes in value ... The new formulation in paragraph ii [which corresponds with § 33-855(4)(B) ], which is patterned on section 7.22 of the Principles of Corporate Governance promulgated by the American Law Institute, directs courts to keep the methodology chosen in appraisal proceedings consistent with evolving economic concepts ...
"Modern valuation methods will normally result in a range of values [rather than a] particular single value. When a transaction falls within that range, 'fair-value' has been established. Absent unusual circumstances, it is expected that the consideration in an arm's length transaction will fall within the range of 'fair value' ... Section 7.22 of the ALI Principles of Corporate Governance also provides that
in situations that do not involve certain types of specified conflicts of interest, the aggregate price accepted by the board of directors of the subject corporation should be presumed to represent the fair value of the corporation, or of the assets sold in the case of an asset sale unless the plaintiff can prove otherwise by clear and convincing evidence. That presumption has not been included in the definition of fair value ... because the framework of defined types of conflict transactions which is a predicate for the ALI's presumption is not contained in the Model Act. Nonetheless ... a court determining fair value should give great deference to the aggregate consideration accepted or approved by a disinterested board of directors for an appraisal-triggering transaction." (Internal quotation marks omitted; emphasis added.) Model Business Corporation Act (American Bar Association) § 13.01(4), official comment (2008).

\section*{II}

\section*{THE PARTIES' ARGUMENTS}
*4 The company argues, inter alia, that the definition of fair value in § 33-855(4) precludes the court from considering the value of any appreciation or depreciation arising out of the transaction to which the dissenting shareholders object. The company argues that the statute precludes any adjustment for appreciation or depreciation because the definition of fair value is based on the time period "immediately before" the transaction to which the dissenting or minority shareholders object, which, in this case, is Bergquist's purchase of substantially all of the plaintiff's assets. Moreover, the company argues, "value must be taken to mean what the shares would be worth if the proposed change in the corporation had not occurred." Thus, the dissenting shareholders are entitled to the fair value of their interest in the specific "going concern" that existed before the transaction to which they object and no more. Although the company recognizes that the court has broad discretion in choosing a valuation method, it notes that the following factors are generally considered appropriate when determining the fair value of shares: earnings record, earnings prospect, capitalization of its earnings, dividend record, rate of dividends, probability/likelihood of future earnings and dividends, accumulated surplus earnings, the "basic condition" of the corporation, the market value of its stock, reserves for contingencies and requirements for and availability of working capital, value of assets, book value, liabilities, net asset value and liquidation value.

Additionally, the company argues, a threshold issue for the court is whether it was a "going concern." Since Connecticut has adopted the "going concern" standard, the company argues that "those methods of valuation geared to valuing a going business rather than those geared to valuing assets and liabilities in a theoretical liquidation circumstance would seem most appropriate." Moreover, the company argues, it was not a "going concern" as of April 21, 2006, since evidence and testimony reveal that it was insolvent and without significant earnings, but for the asset sale with Bergquist. In fact, the company argues, it would have filed for bankruptcy if the asset sale had not occurred. Even if there is evidence to support the fact that the company was a "going concern," the company argues that the "generally accepted factors" used in going concern valuations "negate any claim that [the company] had a positive value." \({ }^{6}\) Thus, if the court finds that the company was a "going concern," the company suggests that a "reliable factor" upon which the court may use to determine the fair value of the stock is "the price paid by [Bergquist] for substantially all of the assets of [the company] plus the value of the assets retained by [the company] less the total amount of liabilities that [the company] had on April 21, 2006."

In the defendants' post-trial memorandum, they also note that the trial court has the discretion to accept certain testimony and valuation methods. Regarding the company's case, the defendants note that the company failed to provide any expert opinion on valuation and instead relied on "self-serving testimony of 'insiders' who benefitted from the dilution of value in the asset sale to justify the penny a share valuation." In contrast, the defendants rely on "historical prices" to estimate the fair value of the stock. The defendants also rely on General Statutes § 33-900 to argue that the court may take wrongful conduct into account when determining "fair value." The defendants claim that the company cannot refute the historical trend of the stock prices and suggest that Peter Turner's testimony that the company would have filed for bankruptcy in lieu of the asset sale is nothing more than "rank speculation." The defendants also claim that the company chose to ignore over six million dollars in assets allegedly reported to the Internal Revenue Service in 2006, which it had before the asset sale. Moreover, the defendants claim that the one cent valuation is "simply unrealistic" because it suggests that the company "could be purchased in its entirety for less money at that value than the price paid for the assets actually sold." Additionally, the defendants claim, the company failed to produce evidence at trial to justify "why Bergquist would
overpay so much for its assets," and there is "no objective evidence ... that the company faced bankruptcy in 2006 any more than it did in 2004, when it sold its shares for [sixty-five cents per share]."
*5 The defendants also characterize the company's bankruptcy claim as an "obvious and disingenuous attempt to distract the court from the fact that [the company] chose to structure a sales transaction that assured it lacked liquidity to pay the defendants 'fair value' for their shares after the asset sale, which explains the penny valuation." The defendants claim that the company had "no intention of raising sufficient funds to avoid the asset sale" as of January 2006, the company did not seek out buyers other than Bergquist, and the fair value of the stock was "diluted" as a result of "dealing with an insider like Bergquist beginning in 2005, as opposed to a neutral buyer in the open market place." The defendants argue that the company's officers let Bergquist control the terms of the asset sale because those officers would receive substantial benefits as a result of the sale, unlike the defendants. Although the defendants' assertion that the one cent valuation is inconsistent with the historical trend of the share prices, they argue that even if the company's internal balance sheet is accurate, there is no reasonable basis for the one cent valuation, which they claim is thirteen cents a share under the net asset valuation methodology. \({ }^{7}\) The defendants also allege that the company's transaction with Bergquist "has all the indicia of a fraudulent transfer" under General Statutes § 52-552e.

In a post-trial rebuttal memorandum dated December 11, 2009, the company argues, inter alia, that there is no evidence to support claims that any alleged, "self-serving" transactions impacted the fair value of the stock. On December 15, 2009, the defendants filed a reply memorandum in which they argue, inter alia, that the company ignores central concepts of "fairness" and "equity" that are essential to Connecticut's appraisal right statutes. The defendants urge the court to reject the company's various accounting principles because those methods were not explained through expert witness testimony, which the defendants claim is required. The defendants note: "In essence, [the company] is asking this court to do what no court has done in the past twenty years; find that minority shareholders' stock had no value immediately before the asset sale where the majority shareholders reaped valuable hidden benefits in the transaction." The defendants urge the court to find that the fair value of the stock is not less than eight cents per share, before accounting for the company's alleged wrongful conduct.

\section*{CONCLUSIONS OF LAW \& FINDINGS OF FACT}

\section*{A}

\section*{Going Concern}

Based on the applicable legal standards, the court agrees with the company's conclusion that a threshold determination is whether the company was of a "going concern" immediately before the effectuation of the corporate action to which the defendants object. Given that the Supreme Court has recognized that a "going concern value ... has been sometimes used to broadly encompass all those factors which contribute to the value of the enterprise apart from its physical assets"; Gray Line Bus Co. v. Greater Bridgeport Transit District, 188 Conn. 417, 422, 449 A.2d 1036 (1982); the court concludes that the company was of a "going concern." This conclusion is based on various testimony adduced at trial. Peter Turner, who was involved in the asset sale, testified that the company was a "synergistic" counterpart to Bergquist and that Bergquist saw potential value in the company's developing technology, which is one of the reasons Bergquist was interested in acquiring the company's assets. Specifically, Turner testified that "Bergquist had a strong interest in our technology ... because of the synergies of the two products. They had, prior to these discussions, made an investment in the company, because they liked the technology substantially." Additionally, Turner testified that "Bergquist, just like [the company's] officers and directors and employees, realized that there was a technology that had a lot of potential, but we had not been able to capitalize or commercialize that potential. Bergquist didn't know if they could capitalize on commercializing that potential, but they were willing to take that risk." James Plewacki testified that Bergquist was "purchasing the business ... with the assumption that we were going to run it forward as a going concern." Plewacki also testified that there may have been some "nominal value" in the company's patents, and that the licensing agreement that Bergquist had with the company, which dated back to August, 2005, "tapped the expertise of the [company's] employees." Finally, Plewacki responded affirmatively when asked whether the primary reason or asset that Bergquist was interested in was the company's key employees. All of this testimony collectively establishes that
the company had value apart from its physical assets. As a result, the company was of a "going concern" immediately before the asset sale.

Fair Value
*6 Since the court has concluded that the company was of a "going concern," the next question is the appropriate valuation method and the fair value of the stock at issue. Both parties concede that the court has the discretion to choose the most appropriate valuation based on the facts found at trial. Although the parties spend a great deal of time arguing as to whether either side was required to put on expert testimony at trial, nothing in the applicable statutes requires either party to put on expert testimony. Moreover, although the company argues that the defendants have the burden of proving that the fair value of the stock is contrary to the company's determination, it does not advance binding legal authority to support such a conclusion. Furthermore, the applicable statutes do not support this theory. Accordingly, the court is left to determine the fair value of the stock based on the evidence and testimony submitted at trial and the facts found. \({ }^{8}\)

At the outset, it is noted that regardless of the valuation method chosen, the court will not take §§ 33-900 and 52552 e into account in determining the fair value of stock in this appraisal action, despite the defendants' arguments otherwise. The defendants rely on these statutes to argue that the court should take the company's "wrongful conduct" into account when determining fair value. Appraisal actions are governed by §§ 33-855 through 33-872. Section 33-900 governs fair value in the context of a dissolution action, not an appraisal action. Moreover, that section does not include a definition of fair value, unlike the appraisal section of the General Statutes. Additionally, § 52-552e, which pertains to the Uniform Fraudulent Transfer Act, is also irrelevant in the present matter. The defendants presented minimal, if any, evidence from which the court can conclude that fraudulent activity was behind or implicated in the valuation or the asset sale. Aside from Heidi Newberg's testimony, during which she suggested that the company's valuation was suspect and questioned the motivations behind the asset sale, the defendants never presented documentation or any other evidence from which the court may find that self-dealing or
fraudulent activity was involved in the company's valuation of its stock or the asset sale. Instead, the defendants discussed these concepts in their post-trial memoranda. The court will not infer fraud or self-dealing in the absence of credible evidence.

Even if the court refuses to find wrongful conduct in the company's assessment of fair value, this does not mean that the court must accept the company's conclusion as to the stock's fair value. As already noted by the parties, the court has the discretion to chose the most appropriate valuation based on the facts found in this case. \({ }^{9}\) Thus, based on the following exhibits, as well as supporting Connecticut case law, the official comments to the Model Business Corporation Act and the parties' recognition of this valuation method, the court concludes that the "net asset value" method, or the sale price of the business assets less its liabilities, is the most appropriate valuation method in the present matter. In determining the company's "net asset value," the court relies on the following exhibits, which are probative: plaintiff's exhibit 1 (the February 8, 2006 letter from Bergquist to the company outlining the terms of the asset sale), plaintiff's exhibit 4 (the asset purchase agreement between the company and Bergquist), plaintiff's exhibit 9 (the July 12, 2006 letters from the company to the defendants), plaintiff's exhibit 20 (the company's income statement for periods ending December 31, 2004, December 31, 2005 and April 21, 2006; the company's balance sheets for the same period; and a statement of changes in the shareholders' equity from January 1, 2005 through April 21, 2006), and the defendant's exhibit Y (the 2006 corporate tax return). Additionally, the court relies on I.R.S. form 8594 , which is included in defendant's exhibit Y , in which the plaintiff asserts that the total value of the assets transferred from the company to Bergquist was \(\$ 6,881,851\). The court concludes that this sale price includes the value of the earnout provision in the asset purchase agreement. Moreover, the court relies on the balance sheet contained within the plaintiff's exhibit 9 (the July 12, 2006 letters from the company to the defendants) in which the company's total
\begin{tabular}{lllllll} 
Name & \# Shares & \(@ \$ .084\) & \(\mathbf{8 \%}\) Interest \(^{*}\) & Total & Already Paid & Owed \\
\hline H. Newberg & 51,200 & \(\$ 4,300.80\) & \(\$ 1376.29\) & \(\$ 5,677.09\) & \(\$ 524.80\) & \(\$ 5,152.29\) \\
L. Newberg & 51,200 & \(\$ 4,300.80\) & \(\$ 1376.29\) & \(\$ 5,677.09\) & \(\$ 524.80\) & \(\$ 5,152.29\) \\
M. Marvin & 204,167 & \(\$ 17,150.028\) & \(\$ 5488.01\) & \(\$ 22,638.04\) & \(\$ 2092.72\) & \(\$ 20,545.32\) \\
N. Lawson & 5000 & \(\$ 420\) & \(\$ 134.40\) & \(\$ 554.40\) & \(\$ 51.25\) & \(\$ 503.15\)
\end{tabular}

\section*{All Citations}

Not Reported in A.2d, 2010 WL 1667580

\section*{Footnotes}

1 The other parties were: 1) John Haller; and 2) the estate of Stephen Marks and Abbie Marks. The estate of Stephen Marks and Abbie Marks filed a timely withdrawal of its intention to exercise its appraisal rights. The company paid John Haller \(\$ 358.60\) for the fair value of his stock. Haller is not named as a defendant because he "has given no notice of dissatisfaction with the amount of payment received, not rejected the offer of July 12, 2006, nor demanded payment of any sum other than that tendered."
2 Specifically, the company alleges, the parties were unable to agree on the fair value of the stock immediately before "and independently of the sale of substantially all of its assets to [Bergquist]," thereby suggesting that the court should not take the Bergquist sale into account, in any way, in determining fair value.
3 Section 33-871(d) provides in relevant part: "There shall be no right to a jury trial."
4 Turner was called as a witness by both the company and the defendants. Turner testified that, at the time of trial, his only relationship with the company was as a shareholder. During the asset sale, however, Turner was the company's president, chief operating officer and chief financial officer. Turner left the company in 2008 and sold his shares for seventy-five cents per share. The company called Plewacki as a witness, and he testified that he is a senior vice president and the chief financial officer of Bergquist. The defendants called Dickinson as a witness, and he testified that he was the chief executive officer, chairman and one of the founding members of the company. The defendants also called Heidi Newberg, one of the defendants. Newberg testified that she never worked for the company or Bergquist and that she is employed as a professor of physics and astronomy. Newberg testified that she and the other defendants invested in the company because her brother, Russell Marvin, was the company's chief technology officer at one point in time.
5 "[G]oing concern value, [is] a term which has sometimes been used broadly to encompass all those factors which contribute to the value of the enterprise apart from its physical assets." (Internal quotation marks omitted.) Gray Line Bus Co. v. Greater Bridgeport Transit District, 188 Conn. 417, 422, 449 A.2d 1036 (1982).
6 Specifically, the company argues: 1) it had no earnings for the years preceding April 21, 2006; 2) there is no evidence that it ever paid a dividend to its shareholders; 3 ) since no dividend was paid, there is no evidence of a rate that can be utilized to establish any value; 4) actual earnings were less than the expenses incurred throughout the five-year period preceding April 21, 2006; 5) in the first quarter of 2006, the company was without the financial resources to raise capital, make payroll, pay rent or to fund the performance of its then outstanding contracts; 6) in the absence of actual positive earnings, there is no capitalization factor that, applied to positive earnings, can produce a positive value; 7) the likelihood of accumulated surplus earnings as of April 21, 2006, was negative if that likelihood was to be based on actual past earnings and dividends paid; 8) the accumulated surplus earnings for the company were negative between 2002, and December 31, 2005; 9) the company's ability to sustain its operation for the five-year period prior to April 21, 2005, was dependent upon its ability to obtain loans and equity investments, and the company was unable to raise any equity from its January 6, 2006 stock offering, which also precluded the company from borrowing; 10) the company's current liabilities exceeded its assets, and the company had no reserves for contingencies; and 11) the "basic condition" of the company from December 31, 2003 through April 21, 2006, was that it was on the verge of "going under," which the defendants allegedly concede.
7 The defendants define the "net asset value" from Black's Law Dictionary, as "the market value of a share in a mutual fund, computed by deducting any liabilities of the fund from its total assets and dividing the difference by the number of outstanding fund shares." Black's Law Dictionary (9th Ed.2009).
8 Although Connecticut courts have not addressed the burden of proof in appraisal actions, one Delaware court has noted that: "In a statutory appraisal proceeding, both sides have the burden of proving their respective valuation positions by a preponderance of the evidence ... If neither party satisfies its burden, however, the court must then use its own independent judgment to determine fair value." Dobler v. Montgomery Cellular Holding Co., Inc., 2004 WL 2271592 (Del.Ch. Sept.30, 2004), aff'd, 880 A.2d 206 (Del.2005).
9 It is interesting to note, however, that in their briefs, both the company and the defendants identify a valuation method that is akin to the Supreme Court's "net asset value." The company recognizes that "the market value of its stock ... [the] value of assets, [the] book value, liabilities, [and the] net asset value" are all factors that the court may consider in valuing the stock of a closely held business in an appraisal action. Additionally, the company suggests that a "reliable factor"

Torrington Research Co. v. Marvin, Not Reported in A.2d (2010)
2010 WL 1667580
upon which the court may use to determine the fair value of the stock is "the price paid by [Bergquist] for substantially all of the assets of [the company] plus the value of the assets retained by [the company] less the total amount of liabilities that [the company] had on April 21, 2006." Likewise, the defendants identify the "net asset value" method, as defined in Black's Law Dictionary, in their post-trial memorandum.
* The interest owed was calculated by multiplying the total amount of the shares at \(\$ .084\) by \(8 \%\) over four years (April 2006-April 2010).

2013 WL 3316186
Only the Westlaw citation is currently available.

\section*{UNPUBLISHED OPINION. CHECK COURT RULES BEFORE CITING.}

\section*{Court of Chancery of Delaware.}

\author{
TOWERVIEW LLC; Hartz Capital \\ Investments, L.L.C.; Metropolitan Capital \\ Advisors, L.P.; Metropolitan Capital \\ Advisors International, Ltd.; Jeffrey \\ E. Schwarz; and Metropolitan Capital \\ Advisors Select Fund, L.P., Petitioners, v. \\ COX RADIO, INC., Respondent.
}
C.A. No. \(4809-\) VCP
Submitted: March 6, 2013
Decided: June 28,2013

\section*{Attorneys and Law Firms}

Stephen E. Jenkins, Esq., Steven T. Margolin, Esq., Catherine A. Gaul, Esq., Marie M. Degnan, Esq., ASHBY \& GEDDES, Wilmington, Delaware; Attorneys for Petitioners.

Kevin G. Abrams, Esq., J. Peter Shindel, Jr., Esq., Daniel A. Gordon, Esq., ABRAMS \& BAYLISS LLP, Wilmington, Delaware; Michael D. Hays, Esq., Judith A. Mather, Esq., DOW LOHNES PLLC, Washington, D.C.; Attorneys for Respondent Cox Radio, Inc.

\section*{MEMORANDUM OPINION}

PARSONS, Vice Chancellor.
*1 This appraisal proceeding arises from the merger of a Delaware corporation with and into a subsidiary of its parent company, which owned \(78 \%\) of the corporation's outstanding stock at the time of the merger. Following the announcement of the proposed merger, certain holders of the corporation's stock filed a breach of fiduciary duty action against the corporation, its directors, and its parent in March 2009.

Those parties entered into an agreement of compromise and settlement to which the petitioners in this action objected. The merger was consummated on May 29, 2009. This Court ultimately approved the class action settlement over the petitioners' objections, and the Supreme Court affirmed. The petitioners now seek appraisal of their shares pursuant to 8 Del. C. § 262.

The petitioners maintain that the merger consideration of \(\$ 4.80\) per share substantially underestimated the value of their shares. They presented evidence from an industry expert and a valuation expert in support of their position. The petitioners' valuation expert assessed the fair value of the petitioners' shares to be between \(\$ 11.05\) and \(\$ 12.12\) per share. The respondent defended the merger price. It also retained an industry expert and a valuation expert. The latter expert opined that the fair value of petitioners' shares was in a range of \(\$ 3.40\) to \(\$ 5.29\), and suggested that the Court select the midpoint of that range, \(\$ 4.28\) per share, as the fair value of the petitioners' shares on the merger date. Having carefully considered the evidence presented at a four-day trial and the parties' extensive briefing and post-trial argument, I conclude that the fair value of petitioners' shares on the merger date is \(\$ 5.75\) per share.

\section*{I. BACKGROUND}

\section*{A. The Parties}

Each petitioner was a holder of Cox Radio, Inc.'s ("CXR" or the "Company") Class A common stock when, on May 29, 2009, Cox Enterprises, Inc. ("CEI"), through its wholly owned subsidiary Cox Media Group ("CMG"), acquired the publicly held stock in CXR. The petitioners are Towerview LLC \(\left(900,000\right.\) shares), \({ }^{1}\) Hartz Capital Investments, L.L.C. ( 125,000 shares), Metropolitan Capital Advisors, L.P. ( 100,000 shares), Metropolitan Capital Advisors International, Ltd. (55,400 share), Jeffrey E. Schwarz (25,000 shares), and Metropolitan Capital Advisors Select Fund, L.P. (19,800 shares) (collectively, "Petitioners").

Respondent is CXR, a Delaware corporation headquartered in Atlanta, Georgia. CXR engaged in the radio broadcasting business. It owned, operated, or provided sales and other services for eighty-six stations clustered in nineteen markets.

\section*{B. Evidentiary Objections}

Before reciting the facts of this case, I briefly address several evidentiary objections raised by Petitioners. Specifically, Petitioners complain that Respondent impermissibly relied on post-merger data and hearsay and that Respondent did not follow the agreed-upon practice for exchanging demonstratives. For the most part, I overrule Petitioners' objections. The Court will consider the evidence adduced by the parties and will attribute to it the weight the Court deems appropriate based on the credibility of the source and the relevance and probative value of the evidence. \({ }^{2}\)
*2 I will address, however, a few of Petitioners' specific complaints. First, Petitioners object to a PowerPoint presentation apparently created by Petitioners' industry expert, John Chachas, and two others that is marked joint exhibit ("JX") 307. Under Rule 703 of the Delaware Rules of Evidence ("D.R.E."):

The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to him at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence in order for the opinion or inference to be admitted. \({ }^{3}\)
The fact that an expert may rely on a specific document, however, "does not mean that it would be admissible; to the contrary, a reliability analysis under Rule 703 is not a substitute for a hearsay ruling." \({ }^{4}\) Thus, the admissibility of all documents objected to on hearsay grounds, even those relied upon by experts, "turns on whether it is admissible as nonhearsay or, if it is hearsay, if it qualifies for one of the hearsay exceptions." \({ }^{.5}\) A document may be considered nonhearsay if it is admitted as "basis evidence" to "help the factfinder understand the expert's thought process and determine what weight to give to the expert's opinion." \({ }^{6}\)

Petitioners argue that because JX 307 "was not part of the discovery record or presented in any way at trial," it should be excluded as unsponsored hearsay. \({ }^{7}\) Although JX 307 appears on the pre-trial exhibit list, Chachas did not refer to the document in his expert report or testify about it at trial or in his deposition. Hence, there is no basis for treating the document as admissible as nonhearsay to support Chachas's
expert opinion under Rule 703. The document, therefore, is hearsay and Respondent has not argued that it qualifies for admission under any hearsay exception. Therefore, I sustain the objection to JX 307 and hold that it is inadmissible to the extent that Respondent relies on it for its truth.

Petitioners also object to the admissibility of certain analyst reports. They do not dispute that such reports are the type of evidence on which the experts in this case may rely. \({ }^{8}\) Rather, Petitioners contend that Respondent is attempting to introduce the analyst reports as expert testimony in their own right. Petitioners also maintain that the reports are unreliable because the analysts are not independent. Respondent disagrees, arguing that this Court has admitted similar reports in past appraisal proceedings and that such reports are admissible to demonstrate, at least, the state of mind of analysts at the time of the merger. \({ }^{9}\) In addition, Respondent notes that Petitioners relied on similar reports, including reports from credit rating agencies such as Moody's and Fitch. \({ }^{10}\) Petitioners counter that reports from credit rating agencies are more reliable than analyst reports because those agencies are the industry's independent arbiters who reach their conclusions with inside information from CX R's management. Petitioners also emphasize that the reports they cite properly were introduced through their experts' reports and testimony. More importantly, perhaps, Respondent did not object to Petitioners' use of analyst or credit rating agency reports.
*3 The Delaware Supreme Court has observed that "[t]he danger exists ... that Rule 703 can be used as a 'back door' hearsay exception-a crafty litigant could give hearsay to its expert for the purpose of having the expert refer to it as a basis for the expert's opinion." \({ }^{11}\) This danger does not appear to exist here. Petitioner tacitly has accepted the fact that analyst reports are proper evidence for the experts to consider; thus, the experts on both sides have discussed analysts' observations and quoted from analyst reports at length in their expert reports. \({ }^{12}\) Instead, Petitioners appear to object only to the use of analyst reports not brought into evidence through an expert report or expert testimony.

As to analyst reports not used in the context of an expert report or expert testimony, the report would be admissible if it is "non-hearsay or, if it is hearsay, if it qualifies for one of the hearsay exceptions." \({ }^{13}\) The analyst reports arguably are nonhearsay to the extent the parties offer them to help the Court "understand the expert's thought process and determine
what weight to give to the expert's opinion." \({ }^{14}\) To the extent a party relies on these reports as substantive evidence, they are hearsay. Thus, the Court's consideration of analyst reports will be limited (1) to considering the analyst reports identified in the exhibit list prepared in connection with trial and discussed by an expert in their expert report or at trial, a use which is unchallenged here, and (2) to assist the Court in evaluating the experts' opinions.

Lastly, Petitioners seek to limit use of Respondent's industry expert Bishop Cheen's testimony and rebuttal report to rebuttal only and to preclude its use in CX R's case-inchief. Petitioners' argument in this regard is unpersuasive. Petitioners rely on two federal cases for the proposition that "rebuttal evidence may be used to challenge the evidence or theory of an opponent [but] not to establish a case-in-chief." 15 But, both those cases are distinguishable. \({ }^{16}\) Petitioners also rely on the April 20, 2012 Stipulated Scheduling Order which states: "The scope of a party's rebuttal expert report shall be limited to rebutting positions taken in an opposing party's opening expert report., \({ }^{17}\) The Scheduling Order also sets forth when the parties were to exchange their list of fact witnesses and states that " \([t]\) hose listings are being provided to help avoid the need for depositions of fact witnesses after the close of discovery, and are made without prejudice to later modification; the definitive list of trial witnesses shall be as setforth in the Joint Pretrial Order." \({ }^{18}\) The November 5, 2012 Joint Pre-Trial Order states that CXR plans to call "valuation expert Rajiv B. Gokhale and industry expert Bishop Cheen as live witnesses." The Order does not distinguish between witnesses being called in the parties' case-in-chief and being called as rebuttal witnesses.
*4 Pursuant to the Scheduling Order, Respondent identified its valuation expert on August 10, 2012 and reserved "the right to call any additional rebuttal experts necessary to address any non-valuation subject matters on which Petitioners intend to call an expert at trial., \({ }^{, 19}\) On September 14 , the date on which rebuttal expert reports were due to be exchanged, Respondent submitted Cheen's rebuttal report and the materials upon which he relied. Petitioners deposed Cheen on October 11, 2012.

In the context of this appraisal proceeding, Respondent reasonably could have expected to call a valuation expert and to reserve judgment on whether to call an additional expert until the necessity of rebutting a position advanced by Petitioners arose. The opening expert reports identified
what would become a main issue: what kind of an economic rebound would have been expected at the time of the Merger. Petitioners submitted a report not only of their valuation expert, but also of an industry expert, John Chachas. The latter report provided Chachas's opinion on the radio industry environment and the prospects for a recovery of the industry in general and for CX R in particular. Although Cheen's rebuttal report served to rebut Chachas's opinions, it also was consistent with opinions already presented by Respondent's valuation expert in his expert report. Thus, Respondent was not hiding the ball and was not dilatory in presenting its case. Both parties have the same burden of proof in an appraisal proceeding. After Petitioners came forward with both a valuation expert and an industry expert, it was not surprising that Respondent elected to present an industry expert as well.

In addition, Petitioners had adequate time to respond to Cheen's opinions. Petitioners deposed Cheen and crossexamined him at trial. Thus, I perceive no material prejudice to Petitioners if, in rebutting Chachas's opinions, Cheen's opinions also served to support Respondent's case-in-chief. In these circumstances, Petitioners have presented no good reason to limit Cheen's testimony as they suggest. \({ }^{20}\) Thus, I reject Petitioners' argument that Cheen's trial testimony and report should be admissible only for the purpose of rebutting Petitioners' case.

Having resolved the various evidentiary matters presented, I turn to my findings of fact and conclusions of law in this case.

\section*{C. The Facts}

\section*{1. The Merger}

On March 23, 2009, CEI announced a tender offer to acquire the publicly held stock of CXR for \(\$ 3.80\) per share. At that time, CEI indirectly owned \(78.4 \%\) of CXR's outstanding shares and indirectly controlled \(97 \%\) of CXR's voting power. On April 29, 2009, the tender offer price was increased to \(\$ 4.80\). After satisfaction of a majority of the minority condition of the tender offer, a short-form merger under 8 Del . C. § 253 was consummated on May 29, 2009 ("the Merger"). After the Merger, CX R became fully consolidated with CEI subsidiary CMG.

At the time of the tender offer and Merger, CXR's board consisted of eight directors: six who were affiliated with CEI or its subsidiaries and two who were not. The nonaffiliated directors served as a two-member special committee (the "Special Committee") that evaluated the Merger and ultimately concluded that the offer price was fair to the stockholders and recommended that the stockholders accept the offer and tender their shares. \({ }^{21}\) The Special Committee's financial advisor was Gleacher Partners LLC ("Gleacher"). CEI's financial advisor was Citigroup Global Markets, Inc. ("Citi").

\section*{2. Management team}
*5 Robert Neil was CXR's chief executive officer ("CEO") at all times relevant to this action. Neil Johnston was CXR's chief financial officer ("CFO") until the end of 2008 when he became the CFO of CMG. In January 2009, Charles Odom replaced Johnston as CXR's CFO. Lauren Tilson, a CXR accountant and manager of financial reporting, worked with Odom. \({ }^{22}\) Eventually, Johnston changed roles at CMG to become the executive vice president of strategy and digital innovations and Odom became CMG's CFO.

\section*{3. Management's projections: long-range plans and current year forecasts}

Every year, CXR management created bottom up fiveyear financial projections with input from regional managers. Management called these five-year projections the Company's long range plan, or "LRP." The LRPs were carefully prepared and thorough. They were submitted to and approved by the board of directors at the end of each year. Of the five years projected in the LRP, management considered the first year's forecast a "budget." That forecast includes monthly numbers. The four years that follow are the "out-years" and are considered at a higher level. \({ }^{23}\) When examined retroactively, the LRPs consistently were overoptimistic, especially as to the out-years. \({ }^{24}\) In addition to creating the LRPs annually, management routinely created monthly forecasts for the current year. \({ }^{25}\) These monthly forecasts typically would provide new estimates for the next several months of the current year.

In December 2008, CXR's board of directors approved management's long range plan for the years 2009-2013
("2009 LRP"). In somewhat of a departure from the Company's general practice, management also created a current year forecast in January 2009. This forecast received particular emphasis because, in the wake of the 2008 financial crisis, the Company had experienced a dramatic decrease in revenues since the 2009 LRP was approved in December 2008. Therefore, rather than forecast only the next few months, as was management's normal practice, management forecasted the entire year. \({ }^{26}\) Management updated the current year forecasts again in February, March, April, and May. The most recent forecast before the Merger was the forecast created on May 20, 2009 ("the May Forecast"). \({ }^{27}\) The monthly forecasts were not vetted and approved by the board. These forecasts, however, were prepared in the normal course of business and there is no evidence that they were not as thoughtfully prepared or as reliable as the board-approved LRPs.

\section*{4. Economic environment at the time of the Merger}
*6 At the time of the Merger, the United States was experiencing the worst recession since World War II ("the 2008/2009 Recession"). \({ }^{28}\) By May 2009, it had become the longest recession since World War II. The radio industry, like all U.S. industries, was experiencing a deep contraction. \({ }^{29}\) " \([T]\) he downturn that gripped all ad-driven media beginning in 2008 was among the worst in 50 years. \({ }^{, 30}\) On average, U.S. advertising revenues in the radio industry had declined by \(29 \%\) between 2005 and \(2009 .{ }^{31}\) The 10 -year compound annual growth rate ("CAGR") for the industry was \(-2.0 \% .{ }^{32}\)

\section*{a. Prospects for economic recovery}

In March 2009, Ben Bernanke and the Federal Reserve announced that they would begin quantitative easing. \({ }^{33}\) The Federal Reserve's injection of \(\$ 1.75\) trillion into the financial system helped to spur the beginning of an economic recovery. \({ }^{34}\) By March 2009, the economy and the radio industry were experiencing some recovery. \({ }^{35}\)

\section*{b. Expected robustness of the radio industry's recovery}

The parties advanced widely divergent views on the prospects for recovery in the radio industry, generally, and at CXR, in particular, as of May 2009. The differences between those two views present the main issues in this appraisal case. In the years leading up to the 2008/2009 Recession, the radio industry had been experiencing fragmentation with increased competition from new media such as MP3 players, satellite radio, general digital media such as iPods, and internet radio. \({ }^{36}\) The industry had lost pricing power. To maintain their sell-through rates for advertising, radio stations reportedly had lowered prices. \({ }^{37}\) Analysts worried that these rates "would not recover due to the intense pressure on public radio companies to discount rates in order to get business." 38

Even in early 2009, however, CXR's management touted the Company's future prospects to shareholders and industry analysts. \({ }^{39}\) Management observed that radio audiences were growing \({ }^{40}\) and that CXR had the best management in the radio industry. \({ }^{41}\) At a March 4, 2009 earnings call, CXR CEO Neil stated that although "the near-term outlook on the economy remains very difficult, we continue to be optimistic about both the prospects of [CXR] and the radio industry in general. \({ }^{, 42}\) Regarding media fragmentation, Neil remarked: "Actually, I'm pretty optimistic on the listener's side. For all of the baloney that we heard about satellite radio five, six, seven years ago, it certainly is dubious at best as to whether that really is a business." \({ }^{43}\)
*7 In addition to CXR's management's views, rating agencies such as Moody's and Fitch considered the downturn in the radio industry to be cyclical and expected CXR to "improve to levels consistent with an investment-grade rating." \({ }^{44}\) Analysts covering the radio industry and other radio station companies, however, expressed concerns about the increased pressure on advertising. \({ }^{45}\) They recognized that the industry was in a cyclical downturn but also mentioned that secular trends presented challenges to the industry's recovery. \({ }^{46}\)

CXR had cut its expenses slightly in response to the 2008/2009 Recession; its expenses were down by \(1 \%\) in \(2008 .{ }^{47}\) But, the Company refused to make any drastic across-the-board cuts. CXR was unique in its peer group in publicly rejecting major cost reductions such as reducing its workforce. \({ }^{48}\) After CXR management made this pronouncement in the March 2009 earnings call, the

Company's stock price dropped sharply from the \$5-\$6 range to a low around \(\$ 3\) per share. \({ }^{49}\) Other causes of the drop in CXR's stock price in March 2009 included a Goldman report that put a sell on the stock at a \(\$ 3\) target and the fact that CXR stock was being shorted. \({ }^{50}\) Notably, however, radio insiders and owners, in addition to CEI, were making investments in radio industry businesses in early 2009. \({ }^{51}\)

\section*{5. Management projections: May Forecast}
*8 As noted, by early 2009, CXR's management's expectations for 2009 had plummeted compared to the 2009 LRP. The January reforecast showed projected revenues and operating cash flow ("OCF") down by \(14.7 \%\) and \(37.6 \%\), respectively, compared to the 2009 LRP. \({ }^{52}\) By May, management's projections for 2009 departed negatively from the 2009 LRP by \(16.8 \%\) in revenue and \(40.1 \%\) for OCF. \({ }^{53}\) Although the 2009 numbers diverged dramatically from the 2009 LRP forecasts, management continued to look to the 2009 LRP to some extent. For example, Bond \& Pecaro \({ }^{54}\) made use of the 2009 LRP in its Statement of Financial Accounting Standards No. 142 ("FAS 142") valuation report as of December 31, 2008 \({ }^{55}\) and in its ongoing appraisal process for 2008. \({ }^{56}\) Bond \& Pecaro did not simply incorporate management's projections into its valuation models, but apparently considered the 2009 LRP as one of many documents it referred to in creating its own projections. \({ }^{57}\)

CXR management also continued to circulate the 2009 LRP in early 2009 , sending it to at least three people. First, Odom sent the 2009 LRP as background information to Grace Huang, the new senior director of corporate strategy at CMG, on January 8, 2009. \({ }^{58}\) Odom's email responded to a request from Huang, which stated that she was "trying to get up to speed on the businesses and [was] looking for overall financials; budget/ board presentations that can help provide a quick snapshot of the Radio business." \({ }^{59}\) Odom attached "a couple of files that should be helpful," including a PowerPoint presentation created in 2008 regarding CXR's "2009 Budget Meeting" and two additional documents entitled "November Financial Package" and "November One Sheet." \({ }^{\prime 60}\) The 2009 Budget Meeting PowerPoint contained sixty slides, several of which summarized or discussed the 2009 LRP. \({ }^{61}\) Odom informed Huang that "the 2009 budget presentation ... gives a good
strategic overview of the company and lays out our strategy for 2009." \({ }^{62}\) One slide entitled "Radio Strategic Review" set forth CXR's strengths. They included that radio usage was growing, that radio was attractive to advertisers because the medium is personal and targeted, and that radio was resilient. \({ }^{63}\) After briefly describing the other two documents he attached, Odom told Huang that "the combination of these items should give you a good overview of the company.,"64

Second, on March 26, 2009, Odom sent nine documents, including the 2009 LRP, to Harry Bond at Gleacher. According to Odom's transmittal email, he simply was attaching information Gleacher had requested. \({ }^{65}\)

Third, in an email dated April 28, 2009, CXR accountant Tilson sent the 100 -page version of the 2009 LRP to Kimberly Smith, a junior auditor at Deloitte and one of the people that Odom and Tilson regularly dealt with regarding FAS 142 issues. \({ }^{66}\) Tilson's email, however, did not contain any subject reference or any text.

\section*{6. The Tilson Memo}
*9 Tilson sent another email that has become a central point of dispute in this action. On May 15, 2009, Tilson sent an email, with a copy to Odom, regarding "FAS 142" to Deloitte auditors Barry McLaurin and Charles Crawford. The email included an attached memo, the "Tilson Memo," dated May 11, 2009. Earlier, on May 1, Odom had sent Tilson a request:

Please draft a short memo that discusses why we didn't do a FAS 142 analysis at the end of Q1 ... in short the reasons are: [1] When the 12/31/2008 valuation was performed, current business conditions existed and the weakness that we're currently experiencing was anticipated and incorporated into that valuation ... [2] Tender offer ... although offer prices reflect a lower value than our 12/31/[ 08 ] valuation ... due to current depressed market outlook ... this is an ongoing process ... no assurance that the current price is actually what the ultimate price will be ... Etc.etc ... \({ }^{67}\)
Thereafter, Tilson and Odom exchanged several drafts of such a memo. By May 15, the Tilson Memo had been finalized. The final memo states, in part:
[CXR] believes that deteriorated first quarter 2009 results are for the most part already included in the year-end model due to the timing of the test and management's knowledge of this continuing deterioration. As such, the deteriorating environment currently impacting [CXR]'s stock price and market cap are taken into account in management's projections at December 31, 2008. Furthermore, any revenue declines greater than those projected are largely offset by expense recoveries such that net cash flows are comparable. Lastly, [CXR] also believes that future years' growth is attainable due to recovery in the industry. In regards to Bond \& Pecaro's analysis of historical private radio market values, although public market values have declined, private market values have not ever declined (even during prior recessions) to the level currently reflected by the public markets. \({ }^{68}\)

This language ignited several rounds of fireworks in this litigation. Based on it, Petitioners moved to reopen this Court's judgment approving the class action settlement in May 2010, \({ }^{69}\) and requested leave to file a breach of fiduciary duty complaint. Petitioners accused CXR of withholding from the Special Committee, from this Court, and from the Delaware Supreme Court management's beliefs that the 2009 LRP remained relevant and that the radio industry was recovering. I considered and denied that motion. \({ }^{70}\) In arguing the motion, the parties discussed FAS 142 testing extensively. For purposes of this appraisal action, a brief summary should suffice.

FAS 142 analysis involves the valuation of a company's intangible assets. FAS 142 goodwill impairment testing assumes that the company will sell the groups of assets being valued to a buyer "for their highest and best use., 71 Odom likened FAS 142 valuations to a private-market value: "They have attributes of a private-market value, which is very different and has different assumptions than publicly valuing a company as a going concern." \({ }^{, 72}\) According to FAS 142, intangible assets should be tested for impairment once per year or more frequently if changes in circumstances indicate that the assets may be impaired. \({ }^{73}\) The company that owns the intangible asset in question has the discretion to decide whether to conduct an interim impairment test. One indicator of impairment that might lead to an interim test is a decline in a company's stock price and market capitalization. CXR experienced such a decline in early 2009.
*10 Consistent with Odom's initial email to Tilson, the Tilson Memo purports to explain why CXR elected not to perform an interim impairment valuation of CXR's FCC licenses and goodwill as of March 31, 2009, notwithstanding the decline in the Company's stock price and market capitalization. Odom explained at trial that, although Bond \& Pecaro's FAS 142 valuation was for the year 2008, it was not finalized until the middle of February 2009. \({ }^{74}\) According to Odom, between February and March 31, 2009, "[ \([\mathrm{t}\) he privatemarket valuation ha[d] been stable and ... ha[d] been within this band for years and years and years.... And so that would indicate that the FAS 142 valuation would be substantially the same., \({ }^{75}\) Thus, CXR determined that an interim test was unnecessary and denominated the Tilson Memo as a memo "To: File" to document that conclusion and the fact that management had considered the issue. \({ }^{76}\)

Although the parties strenuously contest this issue, the Tilson Memo's reference to "management's projections at December 31,2008 " apparently was an ambiguous reference to Bond \& Pecaro's projections, and not to the 2009 LRP. Odom credibly testified that the disputed reference pertained to the Bond \& Pecaro projections as of December 31, 2008. \({ }^{77} \mathrm{He}\) described the projections Bond \& Pecaro prepared regarding its FA S 142 valuation. Moreover, his explanation is corroborated by the Bond \& Pecaro report itself, entitled "Fair Market Valuation of Cox Radio, Inc. as of December 31, 2008" (the "FAS 142 Analysis"). \({ }^{78}\) Using sources like Miller Kaplan or SNL Kagan, Bond \& Pecaro assessed how it thought industry revenues, in the markets CXR operates in, would perform in the future. In addition, using sources such as Arbitron, Bond \& Pecaro considered what percentage of audience shares the Company's stations could garner in those markets. Based on the percent of audience shares a company could secure, the company would get that percentage of projected revenues. \({ }^{79}\)

The FAS 142 Analysis provides the following explanation of how Bond \& Pecaro arrived at its cash flow projections:

The assumptions used in the cash flow models reflect historical performance and trends in the [CXR ] market clusters, as well as industry norms for similar stations. These assumptions, especially those pertaining to station revenue shares and operating profit margins, are, in part, reflective of the actual and forecast performance of [CXR] as station owner. However, based on radio industry data, the revenue shares and operating margins used in the cash
flow models all fall within a reasonable range of what could be expected from a typical market participant. \({ }^{80}\)

In addition to the explanation Bond \& Pecaro provided in its report, Petitioners' expert, D r. Samuel Kursh, opined in his report that the reference in the Tilson Memo to "management's projections at December 31, 2008" referred to "Bond \& Pecaro's DCF., \({ }^{81}\) At his deposition, Kursh testified that he was not aware of anything in Bond \& Pecaro's FAS 142 Analysis that was predicated on the 2009 LRP, but he backtracked at trial. On the witness stand, Kursh asserted that Bond \& Pecaro did use the 2009 LRP in its FAS 142 Analysis. \({ }^{82}\)

As noted above, Bond \& Pecaro had access to the 2009 LRP when it created its projections. In fact, CMG's Amended and Restated Offer to Purchase for Cash All Outstanding Shares of Class A Common Stock, disclosed that Bond \& Pecaro's valuation was "based, in part, with consideration of the Long Range Plan. \({ }^{83}\) In addition, Bond \& Pecaro's FAS 142 Analysis explicitly states that its assumptions "especially those pertaining to station revenue shares and operating profit margins, are, in part, reflective of the actual and forecast performance of [CXR] as station owner., \({ }^{84}\) Thus, I find that Bond \& Pecaro did use the 2009 LRP to some extent in the FAS 142 Analysis.

\section*{7. Expert valuation reports}

\section*{a. Petitioners' expert Kursh}
*11 Both parties retained proficient experts. Petitioners' valuation expert, Kursh, provided an expert report and rebuttal report. \({ }^{85}\) In his expert report, Kursh relied solely on a discounted cash flow ("DCF") analysis. Kursh used the May Forecast to project cash flows for 2009 and the 2009 LRP to project cash flows for years 2010-2013. Because the May Forecast reflected the current economic crisis and recession, Kursh anticipated an eventual recovery to the levels projected in the 2009 LRP for the out-years. Specifically, he projected that CXR's OCF would return to the levels projected in the 2009 LRP after eighteen months. Based on an equation that took into account inflation, population growth, and increased productivity, Kursh chose a terminal growth rate of \(2.5 \%\). Petitioners characterize this choice as conservative in light of

CXR's strong position in the radio industry and its operating leverage. \({ }^{86}\)

With these inputs, Kursh determined a fair value for CXR of at least \(\$ 11.05\) per share. Kursh also identified certain adjustments to the 2009 LRP that he believed represented appropriate additions to the cash flow projections. On that basis, Kursh opined that the \(\$ 11.05\) value he obtained in his DCF should be increased to reflect those adjustments. The items of potential additional value include CXR's retained cushion and omitted deferred taxes. \({ }^{87}\) Based on these suggested adjustments, Kursh increased his per-share value by \(\$ 1.07\) to a total of \(\$ 12.12\) per share.

\section*{b. Respondent's expert Gokhale}

Respondent's expert is Rajiv B. Gokhale. Gokhale also relied primarily on DCF analyses. He performed two. In his first analysis, Gokhale used the May Forecast to project 2009 cash flows and he estimated 2010-2013 cash flows using the actual EBITDA CAGR CXR experienced in the four years following the 2000/2001 recession ("May Forecast DCF"). \({ }^{88}\) In his second analysis, he constructed projections for 2009-2010 based on a combination of consensus analyst EBITDA estimates for CXR and, to project cash flow in years 2011-2013, Gokhale used the actual EBITDA CAGR CXR experienced in the three years following the 2000/2001 recession ("Third-Party DCF"). \({ }^{89}\) Gokhale determined not to use projections from the 2009 LRP because, by May 2009, he believed that both CXR management and analysts had lowered their projections significantly for 2009 and later years. He did use some inputs from the 2009 LRP in his DCF, however, such as depreciation and the projected expenditures for the long-term incentive plan ("LTIP"). \({ }^{90}\)
*12 Gokhale calculated a weighted average cost of capital ("WACC") using the capital asset pricing model ("CAPM") to determine the cost of equity. Gokhale's model yielded a range from \(5.81 \%\) to \(7.65 \%\), if he excluded a small stock premium, and \(7.03 \%\) to \(9.27 \%\), if he included such a premium. He ultimately used a WACC of \(8.0 \%\) to discount CXR's unlevered free cash flows. Gokhale also selected a perpetuity growth rate of \(1.25 \%\) based on analyst projections that ranged from negative \(1 \%\) to positive \(2 \%\).

Gokhale performed a comparable companies analysis, but found that it was of limited value because market values of
debt were unavailable for all but one comparable company. Furthermore, due to the economic and financial slowdown in 2008, the book values of debt did not provide a good proxy for market values. Consequently, Gokhale concluded that the multiples obtained by a comparable companies methodology were unreasonably high and that using those multiples would overstate the value of CXR shares. He did not attempt a comparable transactions analysis because there were no North American radio broadcasting merger and acquisition transactions between July 2008 and the end of 2009.

\section*{D. Procedural History}

After the initial tender offer, holders of CXR stock filed a class action complaint in this Court alleging direct and indirect breaches of fiduciary duty against CXR, its board, CEI, and CMG in connection with the proposed Merger. Those holders agreed to settle that case and filed a stipulation for compromise and settlement on September 4, 2009. Petitioners filed their petition for appraisal on August 14, 2009 (the "Petition"). They also objected to the class action settlement. Notwithstanding Petitioners' objection, the Court approved the settlement on May 6, 2010. The Supreme Court affirmed the Court's ruling on November 22, 2010. As noted earlier, Petitioners later filed a motion for leave to file their own breach of fiduciary duty complaint that this Court denied on October 26, 2012.

A four-day trial was held on the appraisal Petition on November 13-16, 2012. After full post-trial briefing, I heard the parties' final arguments on March 6, 2013. This Memorandum Opinion constitutes my post-trial findings of fact and conclusions of law on the Petition. For the reasons that follow, I conclude that the fair value of CX R stock on the date of the Merger was \(\$ 5.75\) per share.

\section*{E. Parties' Contentions}

Petitioners contend that, at the time of the Merger in May 2009, participants in the radio industry, including CXR management, expected the industry to snap back from the low the industry was experiencing in early 2009. According to Petitioners, CXR was the star of the industry. Petitioners contend that CXR, therefore, was poised to achieve the best recovery in the industry once that recovery inevitably occurred. Thus, Petitioners assert that the Court reasonably can assume that CXR would have rebounded relatively
quickly to the 2009 LRP. According to Petitioners, the evidence demonstrates that management continued to rely on and disseminate the 2009 LRP throughout early 2009. This, they argue, indicates that management believed that "recovery" meant an eventual return to the 2009 LRP projections. In Petitioners' view, the sole question to be answered here is when one would have expected that cyclical recovery to occur. Petitioners contend that Kursh's valuation used proper standards to provide an answer to this question. Hence, Petitioners aver that Kursh's valuation is appropriate and urge this Court to adopt his conclusion as to the fair value of CXR stock on May 29, 2009.
*13 The Company paints an entirely different picture of the expectations of CX R management and others, such as industry analysts, in early 2009. Respondent contends that, when the Merger was completed on May 29, 2009, the 2009 LRP no longer provided a realistic set of financial projections. According to Respondent, CX R management had rejected the 2009 LRP and did not expect the radio industry to recover to pre-recession levels. Although management expected to achieve some cyclical recovery, Respondent denies that management foresaw a return to the 2009 LRP projections within a relevant time horizon. Secular changes in the industry that pre-dated the 2008/2009 Recession and that Recession itself, according to Respondent, set a new baseline for the radio industry. \({ }^{91}\) Based on its premise that the 2009 LRP was obsolete, Respondent argues that Gokhale appropriately relied on CX R's historical recovery from the 2000/2001 recession to estimate CXR's 2010-2013 performance and that the Court should adopt his value conclusion.

\section*{II. ANALYSIS}

Under Section 262 of the Delaware General Corporation Law, stockholders who meet certain requirements are entitled to an appraisal by the Court of Chancery of the fair value of their shares of stock. \({ }^{92}\) During such an appraisal proceeding, the Court of Chancery
shall determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation, together with interest, if any, to be paid upon the amount determined to be the fair value. In determining such fair value, the Court shall take into account all relevant factors. \({ }^{93}\)

The Court's task is to perform an independent evaluation of "fair value." 94 "It is within the Court of Chancery's discretion to select one of the parties' valuation models as its general framework, or fashion its own, to determine fair value in the appraisal proceeding." \({ }^{95}\) Fair value in the context of an appraisal proceeding is the "value to a stockholder of the firm as a going concern, as opposed to the firm's value in the context of an acquisition or other transaction.," \({ }^{36}\) "Only the speculative elements of value that may arise from the 'accomplishment or expectation' of the merger," that is, any synergistic value, should be excluded from a fair value calculation on the date of the merger. \({ }^{97}\) "One of the most important factors to consider is the very 'nature of the enterprise' subject to the appraisal proceeding." 98

In an appraisal proceeding, both sides have the burden of proving their respective valuations by a preponderance of the evidence. \({ }^{99}\) If neither party satisfies its burden, however, the Court must use its own independent judgment to determine the fair value of the shares. \({ }^{100}\) The Court may consider "proof of value by any techniques or methods which are generally considered acceptable in the financial community and otherwise admissible in court." \({ }^{101}\) Among the techniques that Delaware courts have relied on to determine the fair value of shares are the DCF approach, the comparable transactions approach, and comparable companies analyses. \({ }^{102}\)

\section*{A. The Parties Rely on DCF Analyses}
*14 Both experts relied primarily on a DCF analysis. \({ }^{103}\) The experts agreed that both a comparable transactions and a comparable companies analysis would be unreliable for various reasons. \({ }^{104}\) Kursh also noted that CXR and CEI "routinely commissioned other valuation experts to perform valuations for [CXR] for various purposes, and these consultants, like Bond \& Pecaro, relied on DCFs." \({ }^{105}\) In addition, this Court routinely has relied on DCF analyses as a reliable valuation method in appraisal proceedings. \({ }^{106}\) Thus, I find that a DCF analysis is the best valuation method by which to value Petitioners' CXR stock.

The three main inputs into a DCF analysis are: (1) the OCF projections; (2) a discount rate; and (3) a terminal value.

\section*{1. OCF projections}

The disparity in the experts' value conclusions mainly results from the differing cash flow projections chosen by each expert. Pre-merger management projections are an appropriate starting point from which to derive data in the appraisal context because they are not tainted by post-merger hindsight and usually are created by an impartial body. \({ }^{107}\) Management also is in the best position to forecast the company's future before the merger. \({ }^{108}\) Nevertheless, "[i]f Management forecasts are prepared a significant period of time before the merger, it may be necessary to make minor changes to them reflecting actual results as of the merger date." \({ }^{109}\) Here, the 2009 LRP reflects management's thorough pre-merger five-year projections. The reliability of the 2009 LRP, however, is severely undermined by the changes that took place in the economy and the radio industry between the creation of the LRP projections in October 2008 and the Merger date of May 29, 2009. Significantly, CXR's management itself recognized these changes and considerably reduced projections for 2009 in the months leading up to the Merger.
*15 Both Kursh and Gokhale agree that the May Forecast, which is management's last forecast before the Merger, is an appropriate starting point for a valuation of the Company. The May Forecast projects 2009 only. From there, the experts' views diverge widely: Kursh assumes that CXR will return to the 2009 LRP projections sometime between the end of 2010 and 2013. Once CXR's revenues return to the level specified in the 2009 LRP, Kursh assumes that thereafter revenues will conform to the projected values in the 2009 LRP from that time until the end of 2013. In contrast, Gokhale does not expect CXR's OCF to return to the 2009 LRP levels at any time before 2013. Nor does he project any dramatic upswing after the significant decline CXR experienced in the recession, as reflected in the May Forecast for 2009. Instead, Gokhale projects that cash flow in 2010-2013 will grow at a steady rate derived from averaging the EBITDA CAGRs that CXR experienced in the three or four years after the 2000/2001 recession.

The differences between the approaches of the two experts are illustrated graphically in the figure below. The solid line that depicts OCF starting at approximately \(\$ 160\) million in December 2007 and ending at \(\$ 138\) million in 2013 represents the 2009 LRP. The dotted line depicts the adjusted forecast
for 2009, i.e., the May Forecast, that both experts adopted. The line that begins at the low point of the May Forecast, representing December 2009, and extends to December 2013 with a very modest positive slope, reflects the projections Gokhale used in his DCF model. \({ }^{110}\) The steeper dashed lines leading to the 2009 LRP line show each of four recovery scenarios Kursh considered. Ultimately, Kursh based his valuation on the second of those lines, which roughly depicts a return to the 2009 LRP OCF levels by December 2011.

The primary issue I must decide in this appraisal case, therefore, is how quickly, if at all, the radio industry in general, and CXR in particular, would have been expected to recover to pre-recession expectations, i.e., to the 2009 LRP in the case of CXR. Kursh, on the one hand, assumes a recovery to the 2009 LRP within eighteen months. \({ }^{111}\) Gokhale, on the other hand, assumes no "recovery" from the contraction the radio industry experienced in 2008 and 2009. In Gokhale's view, the combination of the secular decline that had been plaguing the industry for several years and the 2008/2009 Recession had created a new baseline for the industry from which CXR would have been expected to grow at a steady rate.

The models Kursh and Gokhale use vary slightly in several other ways as well. The two experts disagree on inputs such as LTIP payments, debt, retained cushion, deferred taxes, capital expenditures and depreciation, and the number of CXR shares outstanding. I consider first how to project free cash flow and I then consider the other inputs.

\section*{a. Economic recovery; a return to the LRP?}

In the months leading up to the Merger, CXR management believed that the Company would experience some recovery from the recession. \({ }^{112}\) CXR believed that the Company was "well positioned to benefit as the economy begins to recover." \({ }^{" 113}\) Audiences were growing. \({ }^{114}\) CXR management's belief in a "recovery" and a "bright future," however, does not necessarily justify an inference that the Company reasonably would have been expected to be able to achieve the projections in the 2009 LRP.
*16 The radio industry had undergone, and continued in early 2009 to experience, a secular decline. \({ }^{15}\) It had been
experiencing a steady decline in revenue and stock price since around 2004 based, in part, on new competition. Notably, however, the secular concerns began as early as 2006. \({ }^{116}\) The 2009 LRP was prepared in October 2008 and approved by the board in December 2008. Therefore, the 2009 LRP already would have accounted for this secular decline in the industry to some degree. But, the rapid decline in revenue and OCF the industry experienced in the early months of 2009 was unanticipated: "the depth of the erosion in the 2008/2009 recession was unusually swift and severe." \({ }^{117}\) The severity of the decline had changed the landscape for CXR. \({ }^{118} \mathrm{By}\) May 2009, management had reduced its projected EBITDA for 2009 by \(41 \%\) compared to the 2009 LRP, and its OCF by \(40 \%{ }^{119}\)

In addition, Respondent provided some evidence that CXR's long range plan was consistently over-optimistic as to the out-years. \({ }^{120}\) Comparing, for example, management's LRP projections in 2002 and 2003 regarding the out-years 2007 and 2008, respectively, the actual EBITDA for 2007 and 2008 was \(35 \%\) and \(43 \%\) lower than management had projected it would be in the 2002 and 2003 LRPs. \({ }^{121}\) Reducing the 2013 EBITDA figure in Kursh's model of \(\$ 124\) million, which equals the 2009 LRP projection, by \(35 \%\) or \(43 \%\) lowers that figure to \(\$ 80.6\) and \(\$ 70.68\) million, respectively. \({ }^{122}\) These numbers are generally in the same range as the 2013 EBITDA numbers Gokhale used in his May Forecast DCF model ( \(\$ 76.12\) million) and in his Third-Party DCF model ( \(\$ 84.17\) million).

Considering the severe 2008/2009 Recession and economic uncertainty in early 2009, I am wary of accepting Petitioners' position that a valuation on May 29, 2009 would anticipate a near-term return to even the 2009 LRP's 2011-2013 cash flow projections. In an appraisal case, this Court is charged with the difficult task of putting itself back in time to consider without the benefit of hindsight what the company's fair value was in light of its "operative reality" at the time of the merger. \({ }^{123}\) A valuation in early 2009 inevitably would account for a certain degree of uncertainty about the future. Indeed, CXR's management's expectations for the immediate future had plummeted. \({ }^{124}\) I give some weight to these sobered expectations and, to a lesser extent, to the hindsight observation that management's out-year projections perennially tended to be optimistic. At the same time, however, I am cognizant of the fact that the percipient witnesses, e.g., Johnston and Odom, worked for Respondent
both at the time of the Merger and at the time of their testimony and that their current memories of the relevant period may be less probative than what CXR's management actually stated in early 2009. At a minimum, I take with a grain of salt the clarity with which Respondent's fact witnesses now claim to have appreciated CXR's prospects in early 2009. In any event, and notwithstanding the 2008/2009 Recession, Petitioners advanced three main reasons why, based on all factors known or knowable at the time of the Merger, a valuation as of May 29, 2009 should be premised on an eventual return to the 2009 LRP projections. I consider each argument in turn.

\section*{i. Plucking theory}
*17 First, Kursh relied on Milton Friedman's "plucking theory" for the proposition that a "large contraction in output tends to be followed on the average by a large business expansion; a mild contraction, by a mild expansion." \({ }^{125}\) Based on this theory, Kursh assumes that the steep recession the radio industry experienced in 2008 and 2009 would be followed by a steep recovery. Kursh argues that, in the previous ten business cycles, dating back to 1948, the economy returned to pre-recessionary real gross domestic product ("GDP") levels during the first three quarters of their recovery, with the two longest recessions of sixteen months obtaining pre-recessionary real GDP levels in less than three and two quarters, respectively. \({ }^{126}\)

Kursh conceded, however, that a recession coupled with a financial crisis, like the 2008/2009 Recession, would show a sluggish recovery. \({ }^{127}\) Moreover, the plucking theory relates to recessions and recoveries in terms of a nation's GDP. Kursh relies on a correlation between real GDP and advertising revenue in the radio industry to support his assumption that the radio industry and CXR, like the economy in general, would experience a steep recovery, and, thus, would return to the 2009 LRP. Kursh, however, failed to prove that a correlation between GDP and radio advertising revenue exists. He did not address this correlation in his expert or rebuttal reports. Moreover, Gokhale testified to the contrary. Gokhale asserted that in the 1990s and early 2000s there was some correlation between GDP growth and advertising growth, but that the correlation had broken down by about 2001. \({ }^{128}\)

In response to Gokhale's criticism, Kursh presented two articles at trial to support the alleged correlation: an article from the Journal of Marketing Research which studied advertising expenditures in business cycles \({ }^{129}\) and a document from the White House website, apparently drafted by the Obama administration's Council of Economic Advisers. \({ }^{130}\) Kursh asserts that the Journal of Marketing Research article indicates that for every \(1 \%\) of GDP growth, radio advertising revenues will grow by \(1.69 \% .{ }^{131} \mathrm{H} \mathrm{e}\) then used an equation from the White House document to conclude, based on a \(4.69 \%\) decline in real GDP from 2007 to 2009, \({ }^{132}\) that it would have been reasonable in May 2009 to expect \(17 \%\) growth in nominal GDP in the two years following the recession. \({ }^{133}\) From this projected growth in nominal GDP, Kursh calculated that radio advertising revenues would have been expected to grow \(28.7 \%\) by 2011. Applying this growth rate to the May Forecast's 2009 revenue projections, Kursh asserts that he would have expected CXR to have 2011 revenue of \(\$ 434\) million. The 2009 LRP projected CXR's 2011 revenue of \(\$ 425.9\) million. Thus, according to Kursh, these articles support his conclusion that one calculating the fair value of CXR shares in May 2009 should have expected CXR's financial situation to recover to the 2009 LRP projections by the end of 2011.
*18 There are several problems with Kursh's presentation. First, the cited White House document does not provide clear support for a growth rate of \(17 \%\) in nominal GDP and there is no additional support for such a growth rate in the record. The White House document itself projects GDP growth rates around \(2 \%\), significantly less than the rate Kursh purports to derive from a regression formula presented in that document. \({ }^{134}\) Second, Petitioners failed to prove a correlation existed between GDP growth and advertising revenue growth as of May 2009. Indeed, one document that Kursh relied on in his rebuttal report states that " \([i] n\) recent years, the relationship between advertising growth and GDP has broken down." \({ }^{135}\)

Furthermore, Kursh did not reference the Journal of Marketing Research or White House articles, the underlying data, or the analysis he proffered at trial in his expert or rebuttal report. These belatedly introduced documents do not constitute credible evidence for the propositions for which Kursh uses them. Although Kursh identified these sources after completing his expert and rebuttal reports, he attempted to use them to demonstrate an important assumption underlying the valuation reflected in his reports.

As previously noted, the documents themselves do not clearly support the steep growth rates that Kursh advocates. Thus, even if I accepted the plucking theory, i.e., that real GDP would be expected to return to pre-recessionary levels in three quarters, Petitioners have not shown that radio advertising revenues would grow apace with GDP, let alone at a rate of \(1.69 \%\) for every \(1 \%\) of GDP growth. \({ }^{136}\) Therefore, I am not persuaded by Petitioners' plucking theory argument. That is, I consider it unlikely that in May 2009, a \(17 \%\) nominal GDP growth rate would have been expected for 2009 and that this projected GDP growth rate would have supported a reasonable belief that CXR's advertising revenues would have grown nearly \(29 \%\) between 2009 and the end of 2011 to put CXR back on track thereafter to achieve the revenue and cash flow projections for the remaining out-years in the 2009 LRP.

\section*{ii. Management's emails}

Petitioners' second argument in support of a return to the 2009 LRP projections is that CXR's management continued in early 2009 to believe in the validity of the 2009 LRP as evidenced by their dissemination of that LRP to auditors, lenders, appraisers, and controlling stockholders in the normal course of business. According to Petitioners, this demonstrates management's belief that these projections remained accurate. For this assertion, Petitioners rely on three emails sent by CXR management. The first is from Odom to new CMG employee Grace Huang; \({ }^{137}\) the second is from Odom to Harry Bond, a representative of the Special Committee's financial advisor Gleacher; \({ }^{138}\) and the third is from Tilson to Kimberly Smith, an auditor at Deloitte. \({ }^{139}\)
*19 In the first email, Odom sent the 2009 LRP and two other documents to CMG's new employee Huang on January 8, 2009 to give her a strategic overview of the Company. Notably, the 2009 Budget Meeting PowerPoint, which discussed the 2009 LRP, was created in October 2008 as an update to the 2009 budget. The other two documents appear to have been prepared in November 2008. Odom sent the January 8, 2009 email to Huang before management had performed its first reforecast for 2009 on January 27, 2009. According to Petitioners, at least, Huang was CMG's new senior director of corporate strategy. \({ }^{140}\) Nevertheless, both the timing of this email and its purpose, i.e., providing a new employee a high-level overview of the Company's strategy, undermine its probative value as evidence of management's beliefs about CXR's expected financial performance around

May 29, 2009. At most, Odom's email demonstrates that management believed in early January 2009 that its opinions regarding the budget and strategic plan at the end of 2008 still provided a viable basis for communicating "a good strategic overview of the company" to a new CXR insider. It provides scant support for an inference that in May 2009, after management had adjusted the 2009 LRP's projected OCF downward by \(40 \%\), CXR's management expected to recover to the 2009 LRP levels in the near future.

Odom's March 26, 2009 email to Gleacher representative Bond likewise gives no indication that, by attaching the 2009 LRP, Odom was advocating its continued applicability. The 2009 LRP was one of nine documents attached to the email. Odom stated that he would send several more emails to Bond, presumably with additional attachments. In the Special Committee's review of CXR's intrinsic value, it is hardly surprising that the Committee and its investment banker would request the 2009 LRP. Ultimately, however, the Special Committee concluded that the 2009 LRP was "no longer reflective of [CXR]'s current intrinsic value., \({ }^{141}\)

According to CXR's April 3, 2009 Schedule 14D-9, shortly after Odom's email to Bond, on March 31, 2009, the Special Committee, its outside counsel, and Gleacher met with Odom and Neil and received "an update on the company's current results of operations as well as an overview of management's assumptions and qualifications underlying the projections that management provided to Gleacher." \({ }^{142}\) Thereafter, the Committee concluded that "the decline in the Company's value is not temporary and, as a consequence, the historical valuations of the Company are no longer reflective of its current intrinsic value., \({ }^{143}\) In reaching this conclusion, the Special Committee noted that management prepared a forecast in February 2009 that reflected estimated 2009 EBITDA of \(48 \%\) and \(55 \%\) less than actual EBITDA in 2008 and 2007, respectively. \({ }^{144}\)

Odom credibly testified that he thought the Special Committee's conclusions were appropriate. \({ }^{145}\) Management's communications with the Special Committee and Gleacher in April and May 2009, therefore, comport with the position they now take, i.e., that by early 2009 the 2009 LRP no longer represented CXR's future prospects. Based on the contemporaneous evidence that management had communicated its decision not to rely on the 2009 LRP to the Special Committee and the Committee's financial advisor, I do not consider Odom's failure expressly to disclaim the 2009

LRP in his email to Bond to suggest that Cox management expected that CXR would return to the 2009 LRP.

The last email, an April 28, 2009 email from Tilson to Smith, contained no subject line and had no content. Consequently, Petitioners and this Court can only speculate as to why Tilson emailed the 2009 LRP to this Deloitte auditor in April 2009. Without more, the email does not indicate that management was advocating the accuracy of the 2009 LRP in April 2009. The emails to Huang, Bond, and Smith, therefore, do not demonstrate that management believed that the Company would recover to the 2009 LRP projections.

\section*{iii. The Tilson Memo}
*20 Lastly, Kursh relies on the Tilson Memo in his expert report to conclude that "Radio management believed that the 2009 LRP remained a reliable basis by which to value the Company as of March 31, 2009."146 I am not convinced, however, that the opinion expressed in the Tilson Memo means that management believed the 2009 LRP provided a reliable basis for valuing the Company as of May 2009. Indeed, around this time, management was reforecasting 2009 with revenues dropping by \(17 \%\) and EBITDA projections dropping by \(41 \%\) compared to the 2009 LRP. \({ }^{147}\) Management's significantly lower projections in the May Forecast severely undermine the continued viability of the 2009 LRP, a point Kursh ignores in his expert and rebuttal reports. \({ }^{148}\)

Furthermore, the Tilson Memo addressed FAS 142 valuation. Odom credibly explained the context of the statements made in the Tilson Memo. In addition, Odom testified that the reference to "management's projections at December 31, 2008 " referred to Bond \& Pecaro's projections. \({ }^{149}\) Although Bond \& Pecaro had access to the 2009 LRP, it produced its own projections for purposes of the FAS 142 valuation. Bond \& Pecaro's projections were, in fact, notably lower than the 2009 LRP projections in every market cluster except one. \({ }^{150}\) In addition, Odom explained that although the FAS 142 valuation was done "as of December 31, 2008," the valuation was not finalized until February 2009, long after the 2009 LRP was created and after CXR had begun to experience dramatic decreases in revenues in early 2009. Thus, although the Tilson Memo states that the "deteriorating environment currently impacting [CXR]'s stock price and market cap are taken into account in management's projections at December

31, 2008," it is likely that the Bond \& Pecaro projections also accounted for the deteriorating environment in January 2009. \({ }^{151}\)

In sum, Petitioners have proven that a recovery was expected for the industry and that management believed that CXR had a bright future. \({ }^{152}\) Even considering management's expressed optimism, however, I do not consider it reasonable to base a determination of the fair value of C R as of May 29, 2009 on the assumption that the Company would recover in the near term to levels reflected in the out-years of the 2009 LRP, which Respondent persuasively has demonstrated no longer was reliable. \({ }^{153}\) Rather, the record indicates that projections based on the depressed environment that management recognized in the May Forecast for 2009 and a modest recovery after that, rather than what was reflected in the five-year 2009 LRP projections, would represent best CXR's operative reality and perceived prospects.
*21 Thus, the May Forecast provides an appropriate starting point for projecting CXR's operating free cash flows after December 2009. I find that, in the circumstances of this case, a valuation of CXR should include some recognition of a limited cyclical recovery from the deep low CXR experienced in early 2009 and that was reflected in the May Forecast. In this regard, Gokhale's approach provides a more appropriate starting point. Kursh's approach, which predicts a return to the 2009 LRP by the end of 2011, is too optimistic and is not supported by the record. Therefore, I begin with Gokhale's model as a general framework. \({ }^{154}\) I consider next Gokhale's projected recovery scenarios.

\section*{b. Gokhale's cash flow projections}

As noted previously, Gokhale used two sets of projections. The first set of projections incorporated the May Forecast for 2009 EBITDA and then estimated 2010-2013 using the actual EBITDA CAGR that CXR experienced in the four years following the 2000/2001 recession. \({ }^{155}\) Gokhale's second set of projections uses consensus analyst EBITDA estimates for 2009 and 2010 and estimates for 2011-2013 based on the annual EBITDA CAGR that CXR experienced in the three years following the 2000/2001 recession.

The number of analysts following the radio industry in early 2009 was approximately three to six. \({ }^{156}\) With such a low number of analysts, the accuracy of the analysts' forecasts
is questionable. \({ }^{157}\) Furthermore, I already have determined that the May Forecast for 2009 reflects management's best projections at the time of the Merger and should be used as a starting point for the DCF analysis. \({ }^{158}\) Therefore, I adopt Gokhale's May Forecast DCF as a starting framework. \({ }^{159}\)
*22 Before turning to Gokhale's May Forecast DCF, I note that Kursh and Petitioners criticized Gokhale's model in several respects. I carefully considered Petitioners' criticisms and will address two of them here. First, in his growth rate calculations, Gokhale evaluates 2001 on an annual basis rather than a quarterly basis. Kursh asserts that by doing so, Gokhale understated the recessionary impact because the 2000/2001 recession occurred during only the middle eight months of 2001. In the other four months, CXR experienced two months of a "normal" expansionary economy and two months of a "high-growth" economy in recovery. \({ }^{160}\) Kursh did not identify, however, what adjustments, if any, he would make to Gokhale's growth rates to address his criticism. Additionally, Gokhale responded to Kursh's criticism at trial: "It wasn't clear what Dr. Kursh was suggesting [ ] to do with that information, we tested what happens if you tried some of the data he had in his table, and it didn't seem to affect my conclusions." \({ }^{161}\) Thus, I reject Kursh's objection to the way in which Gokhale evaluated the 2001 results.

Second, Petitioners criticize Gokhale for not including a revenue line in his DCF analyses. Gokhale focused instead on operating free cash flow. Gokhale asserts that he used the same "bottom up" approach that CXR's management used. \({ }^{162}\) In challenging that approach, Petitioners cited a reputable valuation treatise by Bradford Cornell. \({ }^{163}\) Specifically, Petitioners note that, in item " 1 " of his "Cash Flow Forecasting Checklist," Cornell states: "1. The sales forecast is generally the most critical element of a cash flow forecast. \({ }^{" 164}\) Cornell goes on to explain that:

Wherever possible, historical data, either for the firm or its industry, should be examined to assess the reasonableness of the sales forecasts-which leads to the second point on the checklist.

\section*{2. The sales forecast should be consistent with the firm's historical performance and the historical performance of the industry. While it is always possible that a company will develop in unexpected ways, so that the future does not resemble the past, this is not the best way to bet. Appraisals}
based on forecasts that depart markedly from historical patterns are suspicious \({ }^{165}\)

Although a sales forecast "generally" may be the most important element in a cash flow forecast, Gokhale's approach appears reasonable in this case. His model is based on management's full projections, which included their sales forecasts. Consistent with management's own bottom up approach, Gokhale's model begins with OCF from management's projections and grows them at a rate that is based on CXR's historical performance. Thus, although Gokhale's approach may not be warranted in every case, I find it to be supported adequately by his credible explanations and by the valuation literature.

Turning now to Gokhale's DCF, the May Forecast DCF begins with the 2009 OCF projections from the May Forecast and grows them at a rate of \(4.6 \%\) each year until 2013. This growth rate finds support in the record. For example, in the 2009 LRP, management had projected OCF values for 2010-2013 with annual growth rates ranging from \(3.4 \%\) to \(4.1 \%\), and it projected EBITDA for 2010-2013 with annual growth rates ranging from \(1.4 \%\) to \(2.7 \%{ }^{166}\) In addition, the J.P. Morgan report that both parties relied on projected a 2010 EBITDA growth rate for CXR of \(5.1 \% .{ }^{167}\) Gokhale's steady growth rate, however, does not factor in any significant recovery from the depths of the recession which caused management to adjust its 2009 EBITDA down by \(41 \%\).
*23 After the 2000/2001 recession, CXR's OCF grew by \(9.28 \%\) in \(2002,0.44 \%\) in \(2003,5.18 \%\) in 2004 , and \(4.06 \%\) in 2005. \({ }^{168}\) That recession was mild compared to the recession that affected CXR in 2009. \({ }^{169}\) Implicit in Gokhale's use of a steady growth rate of \(4.6 \%\) for the years 2010-2013 is his apparent assumption that there would be virtually no cyclical aspect of the recovery commensurate with the depth or severity of the 2008/2009 Recession compared to the 2000/2001 recession. He justified this approach largely based on alleged secular challenges facing CXR and the radio industry. The evidence supports Respondent's position that secular concerns existed in the radio industry in May 2009 and that those concerns, among other things, would have tempered any projected recovery. The record also suggests, however, that the 2008/2009 Recession was attributable to cyclical factors or to matters affecting the economy generally, such as the financial crisis. Relying on the plucking theory, Petitioners' expert opined that the rebound in CXR's EBITDA in 2010 would have reflected an increase of \(37.6 \%\). I believe
that is too high, but find that some increase in the degree of projected initial recovery is appropriate. Thus, I conclude that an appropriate recovery in this case would include a growth rate comparable to the rate of growth CXR experienced in the first year after the 2000/2001 recession with growth thereafter returning to the steady rate of \(4.6 \%\) that Gokhale projected.

Gokhale identified the recovery CX R experienced after the 2000/2001 recession as an appropriate point of comparison to evaluate what CXR's expected recovery would be after the 2008/2009 Recession. Even in the milder 2000/2001 recession, CXR's OCF grew in 2002, the first year coming out of the recession, by approximately double the rate at which it grew in the following years when it returned to a lower somewhat steady rate of growth. Consistent with what occurred in 2002, I find that some bump in growth would have been expected in 2010, the first year coming out of the 2008/2009 Recession. The growth rate in 2002 was \(9.28 \%\). This rate is significantly higher than the growth rates in 2003 ( \(0.44 \%\) ), 2004 ( \(5.18 \%\) ), and 2005 ( \(4.06 \%\) ). I recognize that the \(9.28 \%\) rate already is factored into Gokhale's CAGR of \(4.6 \%\) and that that rate would be lower without the first year's \(9.28 \%\) growth rate. Nevertheless, I find that it is reasonable to expect that the \(4.6 \%\) steady growth rate that Gokhale used would follow some uptick in 2010 to account for the cyclical aspect of the 2008/2009 Recession. \({ }^{170}\) Thus, although it may be an imperfect model, \({ }^{171}\) I conclude that adopting a 2010 OCF growth rate of \(9.28 \%\) followed by \(4.6 \%\) growth in years 2011-2013 appropriately accounts for CXR management's optimism and the expectations of population growth in its key markets without resorting to the 2010 growth rate of \(37.6 \%\) and the 2011 growth rate of \(27.3 \%\) that Kursh advanced and that I find to be unsupportable. \({ }^{172}\)

Gokhale's \(4.6 \%\) growth rate is higher than the annual growth rates projected in the 2009 LRP. Thus, a \(9.28 \%\) rebound in 2010 followed by steady growth at that rate comports with some degree of optimism about CXR's future, while remaining generally conservative. In addition, I make no adjustments to projected expenses in 2010 related to the higher growth rate because CXR's projected expenses were fairly stable due to its relatively high fixed cost base. \({ }^{173}\) Thus, any decrease to OCF from a proportional increase in expenses would be minimal. Based on the complete record, I find these assumptions to be appropriate and, thus, I adopt the growth rates indicated.

\section*{c. Other DCF analysis inputs}

\section*{i. LTIP}
*24 Kursh assumes no LTIP payments in 2009-2013 and a \(\$ 4\) million payment in the terminal period. \({ }^{174}\) The 2009 LRP that Kursh relies on, however, includes LTIP expenses of approximately \(\$ 50\) million between 2009 and 2013. Management's May Forecast also includes a 2009 LTIP expense of \(\$ 3.604\) million. \({ }^{175}\) Kursh explained that he did not expect CXR to incur any cash expenditure under the LTIP plan because "[a]ctual LTIP payments over the 2009 LRP period, however, are zero; all grants though 2007 are projected to be 'under water.' " \({ }^{176}\) Gokhale, on the other hand, started with the LTIP payments projected in the LRP and proportionally scaled them down based on the lower EBITDA that he projected. \({ }^{177}\)

The record supports Gokhale's approach. Kursh did not explain sufficiently why he would not expect management to be compensated with LTIP payments when his models projected strong performance, e.g., a 2009-2013 EBITDA CAGR of \(16.5 \%\). In contrast, Gokhale began with management projections and accounted for his projected decrease in revenue and EBITDA by decreasing LTIP payments proportionally. In addition, Gokhale's assumptions better align with management's projections for 2009. For these reasons, I adopt Gokhale's projected LTIP payments.

\section*{ii. Debt}

Kursh uses a net debt figure of \(\$ 380.1\) million, which Petitioners assert was CXR's net debt on the date of the Merger. \({ }^{178}\) Gokhale used a slightly higher debt figure of \(\$ 385.6\) million, but the source of Gokhale's figure is not clear. He relied either on the Merrill Lynch Corporate Bond Index or on an internal CXR financial document as of April 30, 2009. \({ }^{179}\) I also note that Gokhale did not criticize Kursh's use of \(\$ 380.1\) million. Therefore, I have used \(\$ 380.1\) million as the amount of CXR's net debt on the date of the Merger.

\section*{iii. Retained cushion and deferred taxes}

In Kursh's report, he suggests two items of potential additional value: retained cushion and deferred taxes. But, Kursh did not adjust his DCF model to demonstrate any changes he advocates based on these two items. \({ }^{180}\) Instead, he provides a number that he opines should be added to the per-share value derived from his DCF calculation. As for the retained cushion, Kursh relies on a statement by Odom that management decreased revenues by \(\$ 2\) million and increased expenses by \(\$ 2\) million each year to manage CEI's expectations. Kursh argues that this \(\$ 4\) million dollar figure should be added to a final fair value calculation. At Kursh's suggested discount rate of \(8.1 \%\), the retained cushion represents additional value of \(\$ 0.62\) per share.

The evidence Petitioners present, however, does not provide clear support for adding back their suggested \(\$ 0.62\) per share of retained cushion. Kursh relies on Odom's deposition testimony in which Odom states that "on occasion we would either soften the revenues or add additional expenses in our consolidation to lower the expectation that we would communicate to [CEI].." \({ }^{181}\) Odom explained that the purpose of this adjustment was because the numbers they received "from the field ... tended to be overly optimistic." 182 Based on this testimony, I am not persuaded that the May Forecast OCF is low by \(\$ 4\) million dollars and that, consequently, it would be appropriate to add \(\$ 0.62\) per share to a fair value calculation of CXR stock. That is, Petitioners have not met their burden of proof on this point. I therefore have not added any value to the final fair value calculation based on the socalled retained cushion.
*25 As to the second item, deferred taxes, the add-back suggested by Kursh for 2009-2024 is \(\$ 0.45\) per share assuming an \(8.1 \%\) discount rate. Kursh relies on documents drafted by Gleacher in late March and early April 2009 to explain this adjustment. \({ }^{183}\) One of the documents shows declining deferred taxes from 2014 to 2018 with a net deferred tax amount of \(\$ 13.5\) million in 2014, \(\$ 6.9\) in 2015, \(\$ 0.1\) in 2016, \(\$ 0.0\) in 2017, and ( \(\$ 0.2\) ) in 2018. \({ }^{184}\) Kursh admits that Odom could not explain the offsets that were not CXR's work product. \({ }^{185}\) Kursh also stated that the worksheets he relied on were created later than the 2009 LRP but had "nothing to do with the LRP other than the deferred tax issue." \({ }^{186}\) In addition, Kursh did not discuss the context of the Gleacher documents or explain why it would be appropriate to use them instead of management's projections in his DCF analysis. Indeed, Kursh admitted that he was "less firm" on the item of omitted deferred taxes because his valuation was based on
the 2009 LRP and this change would be a modification to the LRP. \({ }^{187}\)

Having considered the relevant evidence and arguments of the parties, I am not convinced by Kursh's report and testimony that the deferred tax figures Gleacher projected in its documents support making any change to the deferred taxes projected by CXR management in the 2009 LRP. Hence, Petitioners have not proven that \(\$ 0.45\) per share should be added to the fair value of CXR based on omitted deferred taxes.

\section*{iv. Capital expenditures and depreciation}

Gokhale used depreciation figures from the 2009 LRP and set capital expenditures equal to depreciation. \({ }^{188}\) Kursh made the assumption that depreciation would be higher than capital expenditures into perpetuity. Kursh acknowledged that this approach was problematic. \({ }^{189} \mathrm{He}\) stated, however, that the problem did not affect his valuation because the effect this assumption had on his projected share price was offset by the value of a tax benefit that he did not include in his DCF. \({ }^{190}\) Both parties, therefore, reasonably accounted for capital expenditure and depreciation projections. Because I have adopted Gokhale's model as a general framework, I adopt his treatment of capital expenditures and depreciation, as well.

\section*{v. Number of shares outstanding}

Petitioners assert that CXR had 79.1 million shares outstanding on the date of the Merger, and Kursh used this number in reaching his conclusion on fair value. The basis for the Petitioners' number, however, is not clear. According to Gokhale, CXR had 79.5 million shares outstanding on the date of the Merger. \({ }^{191}\) In addition, CXR's 14D-9, dated April 3, 2009, states that CXR had 79.5 million shares outstanding as of that date. Based on this evidence, I find that the actual number of shares of CXR stock outstanding as of the Merger date was 79.5 million.

Gokhale added \(4.5 \%\) to this number to account for the dilution that would occur because of shares awarded under the LTIP. \({ }^{192}\) Thus, he used 83.07 million as the number of shares outstanding. Kursh objected to this dilution, arguing that it
was inconsistent with Gokhale's valuation and that it was inappropriate to divide CXR's value as of May 29, 2009 by the number of shares that might be outstanding at some undefined date in the future. \({ }^{193}\) Indeed, neither Gokhale nor Respondent explained why it would be appropriate to adjust the value of CXR shares as of May 29, 2009 based on a potential future share dilution. Petitioners also highlight that Gokhale's approach is too speculative "given the LTIP's opacity and the extremely vague deposition testimony about how it worked in practice." \({ }^{194}\) I find, therefore, that Respondent has not demonstrated that a deviation from the actual number of shares outstanding on the Merger date is appropriate here. Therefore, I will use the figure of 79.5 million shares to value CXR's stock. \({ }^{195}\)

\section*{2. Terminal value}
*26 In calculating terminal value, the parties dispute the appropriate terminal, or perpetuity, growth rate. Kursh opined that a terminal growth rate of between \(2 \%\) and \(3 \%\) would be appropriate. He used a \(2.5 \%\) rate in his DCF analysis. Gokhale chose a perpetuity growth rate of \(1.25 \%\). Both experts expected inflation of around \(2-2.5 \% .1{ }^{196}\) "[T] he rate of inflation is the floor for a terminal value estimate for a solidly profitable company that does not have an identifiable risk of insolvency." \({ }^{197}\)

Respondent argues that the perpetuity growth rate for CX R should be less than inflation because CXR "was not a mature, stable company." \({ }^{198}\) This argument is without merit. \({ }^{199}\) The evidence shows that CXR faced certain secular challenges around 2009, but there is no evidence that it faced an identifiable risk of insolvency. Even Respondent's expert projected a stable future for the Company. Additionally, to support his proposed growth rate of \(1.25 \%\), Gokhale cites industry analysts and financial advisors who projected perpetuity growth rates between negative \(1 \%\) and positive \(2 \%\), either for the radio industry in general or, in two of Gokhale's three sources, in valuing CXR's equity specifically. Notably, however, two of the three sources Gokhale cites applied perpetuity growth rates around the expected rate of inflation of 2\%. \({ }^{200}\)

Kursh asserts that his rate of \(2.5 \%\) is conservative based on an inflation rate of \(2 \%\), an assumed long-term growth rate of \(1.7 \%\), and productivity of about \(1 \% .{ }^{201}\) According to Kursh,
these inputs support a "generally regarded" historical growth rate of \(4 \%-6 \%{ }^{202}\) Kursh also observed that Bond \& Pecaro's 2008 enterprise valuation applied a \(2.5 \%\) OCF growth rate from 2014 through 2018. \({ }^{203}\) Gokhale counters, however, that Bond \& Pecaro used long-term growth rates that ranged from \(1.0 \%\) to \(2.5 \%\), and did not simply apply a \(2.5 \%\) growth rate as Kursh suggested. \({ }^{204}\) In addition, Gokhale asserts that Kursh's rate is unsupportable and is based on a finding that for every one percent of revenue growth, CXR's free cash flow will grow by two percent into perpetuity, an assumption that Gokhale argues is unreasonable. \({ }^{205}\) Kursh responds that his assumption stems, in part, from CXR's operating leverage, stating that "if revenues simply kept up with inflation, the fall to the bottom line would be a little bit higher because of operating leverage, the fall of the free cash flow., \({ }^{206}\) A more reasonable assumption, according to Gokhale, is that free cash flow would grow at the same rate as revenue indicating that CXR is stable and maintaining its margins into perpetuity. \({ }^{207}\) In this regard, Gokhale notes that Kursh's implied expected revenue growth rate of \(1 \%\) to \(1.5 \%\) is in line with the perpetuity growth rate of \(1.25 \%\) that Gokhale applies. \({ }^{208}\)
*27 As noted, the rate of inflation generally is the "floor for a terminal value.," 209 "Generally, once an industry has matured, a company will grow at a steady rate that is roughly equal to the rate of nominal GDP growth." \({ }^{210}\) Some experts maintain that "the terminal growth rate should never be higher than the expected long-term nominal growth rate of the general economy, which includes both inflation and real growth., 211 Moreover, both experts in this case acknowledged that the expected long-term inflation rate in 2009 was \(2 \%-2.5 \%\). There also was some evidence that the expected rate of real GDP growth was between \(2.5 \%\) and \(2.7 \%\), but this evidence was not particularly reliable. \({ }^{212}\) I find that the radio industry is a mature industry and that CXR was a solidly profitable company. Thus, a long-term growth rate at least equal to expected inflation is appropriate here.

The question remains whether the growth rate should exceed the rate of inflation to some extent. In that regard, like Respondent, I question the reasonableness of Kursh's apparent assumption that free cash flow will grow at double the rate of CXR's revenues forever. Indeed, the radio industry was experiencing increased competition and fragmentation in 2009. Thus, I am not willing to use Kursh's \(2.5 \%\) rate. Petitioners have demonstrated, however, that, because of CXR's operating leverage, an increase in revenue would lead
to a slightly higher increase in OCF. In addition, I note that the increase in the 2010 growth rate from \(4.6 \%\) to \(9.28 \%\) leads to about a \(1 \%\) increase in OCF margins using the assumptions in the demonstrative Petitioners' presented during Gokhale's cross examination. \({ }^{213}\)

Having carefully considered the parties' competing positions, I find that it is reasonable to apply a terminal growth rate of \(2.25 \%\), which may be slightly higher than the inflation rate. \({ }^{214}\) This number comports with the experts' inflation expectations and the weight of the other relevant evidence in the record. I therefore adopt a \(2.25 \%\) perpetuity growth rate.

\section*{3. Discount rate}

Petitioners and Respondent virtually agree on the appropriate discount rate, using rates of \(8.1 \%\) and \(8.0 \%\), respectively. This variance of \(0.1 \%\) is relatively minor. Because I have used Gokhale's analyses as a general frame of reference and because the lower discount rate used by Gokhale favors Petitioners, I find Respondent's discount rate of \(8.0 \%\) to be reliable and I adopt it here.

\section*{B. Statutory Interest}

Kursh calculated prejudgment interest at the legal rate compounded quarterly, assuming a placeholder award date of December 31, 2012. Respondent does not oppose Kursh's method of calculating the interest due. Therefore, interest is awarded at the legal rate compounded quarterly. \({ }^{215}\) Kursh's calculation should be updated to the date of the final judgment entered pursuant to this Memorandum Opinion.

\section*{III. CONCLUSION}

For the reasons stated in this Memorandum Opinion, I adopt Gokhale's May Forecast DCF analysis as a general framework for determining the fair value of CXR. I further find that the following changes should be made to his calculations: (1) the number of outstanding shares should equal the number of shares of CXR stock outstanding on the Merger date, i.e., 79.5 million; (2) CXR's debt should be equal to \(\$ 380.05\) million; (3) the perpetuity growth rate should be \(2.25 \%\); and (4) the growth rate for OCF should be \(9.28 \%\) in 2010 and \(4.6 \%\) in 2011-2013. With these adjustments, the Court determines that

Petitioners are entitled to receive \(\$ 5.75\) per share of CXR stock, plus interest as stated above from May 29, 2009 to the date of judgment. Counsel shall work cooperatively to prepare and file promptly a proposed form of final judgment.

\section*{All Citations}

Not Reported in Atl. Rptr., 2013 WL 3316186

\section*{Footnotes}

1 Towerview LLC tendered 200,000 shares in connection with the merger.
2 See S. Muoio \& Co. v. Hallmark Entm't Invs. Co., WL 863007, at * 2 n .2 (Del. Ch. Mar. 9, 2011) ("I have considered the parties' briefing regarding numerous outstanding objections to the admissibility of testimony, reports, exhibits, documents, demonstrative exhibits, rebuttal exhibits and testimony, and handwritten notes. I overrule all of the objections and admit all of the items which are the subject of these continuing objections. I will accord each item the weight and credibility that it appropriately deserves."); see also S. Muoio \& Co. v. Hallm ark Entm't Invs. Co., 2010 WL 3611404, at *2-3 (Del. Ch. Sept. 16, 2010) (declining to exclude expert and rebuttal testimony and reports in favor of admitting them and according them whatever weight they deserve).
3 D.R.E. 703.
4 O'Dell v. Fiorucci, WL 2083926, at * 1 (Del.Super. May 12, 2011) (quotation marks and alterations omitted) (citing Gannett Co. v. Kanaga, 750 A.2d 1174, 1187 (Del.2000)).
\(5 \quad\) Id. at *2.
Williams
v.

Illinois,
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S.Ct.

2221,
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(2012)
(applying
Federal
Rule of
Evidence
703).

The
Supreme
Court
stated:
"For
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7 Pet'rs' Responsive Post-Trial Br. ("Pet'rs' Answering Br.") 20.
8 Pet'rs' Opening Post-Trial Br. 46.
9 See Resp'ts' Post-Trial Reply Br. ("CXR Reply Br.") 3-4 (citing cases and noting that the Court previously has taken judicial notice of equity analysts' predictions under D.R.E. 201). Although it is not entirely clear, Respondent appears to rely on analyst reports to demonstrate the truth of their assertions, e.g., that the radio industry was experiencing a secular decline in the years leading up to 2009, and not merely to demonstrate the analysts' state of mind.
10 Indeed, Petitioners' valuation expert relied on at least one of the reports that Petitioners now challenge as unreliable. See JX 482 at 10 n. 21 .
11 Gannett Co. v. Kanaga, A.2d 1174, 1187 (Del.2000).
12 See, e.g., JX 481, Chachas Rep., at 10 (Petitioners' industry expert relying on reports from analysts at J.P. Morgan, BMO Capital Markets, and Wachovia Capital Markets); JX 482 at 9-10 (Petitioners' valuation expert citing analyst reports from Wachovia, J.P. Morgan, and BMO Capital Markets); JX 392 (Respondent's valuation expert citing reports from Wachovia Capital Markets, Dow Jones News Services, Wall Street Strategies, Barrington Research, and Gabelli \& Company).
13 O'Dell v. Fiorucci, WL 2083926, at *2 (Del.Super. May 12, 2011) (quotation marks and alterations omitted) (citing Gannett Co. v. Kanaga, 750 A.2d 1174, 1187 (Del.2000)).
14 Williams, S.Ct. at 2240; see also 1 K . Broun, McCormick on Evid. § 15 \& n. 7 (7th ed.2013) (noting that there is some dispute as to whether the admission of reports relied on by experts are put to a "nonhearsay use" when they are used for the limited purpose of showing the basis of the expert's opinion).
15 Pet'rs' Answering Br. 5 (citing Marmo v. Tyson Fresh Meats, Inc., 457 F.3d 748, 759 (8th Cir.2006) and Crowley v. Chait, 322 F.Supp.2d 530, 551 (D.N.J.2004)).
16 In Crowley, the court declined to allow the plaintiff's expert to submit a rebuttal report as a "do over" because his primary expert report was based on unreliable information. Crowley, 322 F.Supp.2d at 551. In Marmo, the Eighth Circuit considered an appeal from a jury verdict on a nuisance claim. There, the plaintiff identified its rebuttal expert two years after disclosing its other expert witnesses. After the defendant moved to exclude the plaintiff's expert from offering an opinion on medical causation, the plaintiff withdrew its expert as a witness in its case-in-chief and attempted to redesignate its rebuttal expert as a primary witness. The trial court denied the motion to re-designate, finding that the motion
was not supported by good cause and that the defendant would be substantially prejudiced. The Eighth Circuit affirmed that ruling in part based on the distinction between rebuttal evidence and case-in-chief evidence and on the district court's wide discretion to determine the order in which parties adduce proof. Marmo, 457 F.3d at 758-59. The Marmo case bears little resemblance to this appraisal case, however. Here, the rebuttal expert at issue was neither offered to replace an inadequate expert witness nor identified late in the proceedings. Furthermore, Petitioners suffered no demonstrable prejudice from this Court's allowing Respondent's industry expert to testify during its case-in-chief in this bench trial.
17 Stip. Scheduling Order 5 (emphasis added).
18 ld . at 1-2 (emphasis added).
19 Pet'rs' Reply Br. Ex. B.
20 Cf. Air Products \& Chems., Inc. v. Airgas, Inc., WL 383933, at * 4 \& n. 27 (Del. Ch. Jan. 24, 2011) (holding that a rebuttal expert's report was admissible and the rebuttal expert could testify as to an issue that was not addressed in the expert's report, in part, because the actions of the party advancing the rebuttal expert's report and testimony were justified and there was no potential prejudice to the party opposing the rebuttal expert).
$21 J X 153$ at 6.
F22 Tr. 531 (Odom). Citations in this form are to the trial transcript. When the identity of the testifying witness is not evident from the text, it is indicated parenthetically as in this case.
23 Tr. 301, 304-05, 309 (Johnston) ("That is the one [the 2009 budget] where we actually have monthly numbers behind it which focus on the year ahead. And then 2010 through ' 13 are the out years which are done at a very high level.").
24 JX 122 at 75481 ; JX 610 at 4.
25 Tr. 309 (Johnston).
26 Tr. 501 (Odom) ("One thing [I did upon recognizing that revenues were evaporating] is that I advocated that the company do a full and complete reforecast in January. That would have been something a bit unusual for us because we ... would not typically do a reforecast all the way though the end of the year. They typically were focused just a couple of months out."); Tr. 318-19 (Johnston) (stating that normally managers re-submitted the projections they had put into the LRP for the January forecast because the two forecasts were so close in time, but that in January 2009 managers were asked to do a full bottom up reforecast of the year).
27 JX 212, May Forecast.
28 JX 482, Kursh Rebuttal Rep., at 3. Petitioners and Respondent each presented evidence from two experts. The opening reports of those experts are cited to in the following format, which is for one of Respondent's experts: "Gokhale Rep." Any rebuttal reports are cited to in the form used for Petitioners' expert Kursh in this footnote.
29 See Tr. 314-15 (Johnston) (stating that he had a negative perspective in early 2009 on the state of the U.S. economy and that the radio industry's top three categories were experiencing extreme weakness due to banks going out of business and not advertising, the auto industry going into serious recession with a default on bonds, and very weak retail sales in December); JX 394, Cheen Rep., at 2 \& 9 .
30 JX 418 at 6.
31 JX 590; Tr. 155 (Cheen).
32 JX 590.
33 Tr. 89-90 (Cheen).
34 See Tr. 23-24 (Schechter); Tr. 99 (Cheen).
35 See JX 392, Gokhale Rep., 5 \& Ex. A; JX 393, Gokhale Rebuttal Rep., Ex. 6 (chart demonstrating CXR stock price between October 28, 2008 and May 29, 2009); JX 481 at 7 \& 22 (stating that the degree of the decline started flattening in the first and second quarters of 2009 suggesting, according to Chachas, that a new "bottom" would be sometime in late 2009); see also JX 153 at 10 ("The Company's management informed the Special Committee that, while the operating environment was stabilizing, the March 2009 results were below what had been projected in the February Forecast." (emphasis added)).
36 JX 394 § III.C; Tr. 31 (Cheen).
37 Tr. 38 (Cheen).
38 JX 394 at 6.
39 See JX 171.
40 JX 481 at 6, 11, 13, 20 (noting that Neil emphasized this point in an earnings call); Tr. 108 (Cheen admitting he did not know if CXR's audiences or ratings were increasing from 2004-2009).

41 Tr. 400 (Johnston stating CXR was the best company in the industry); Tr. 438-39 (Chachas stating the same and that Cox's management was really routinely viewed as among the best managers in the business?); Tr. 105 (Cheen describing Neil as an outstanding manager).
42 JX 171 at 34; JX 174; Tr. 105 (Cheen). This was the last earnings call Neil held before the Merger. Tr. 106-07 (Cheen).
43 JX 171 at 38
44 Tr. 487 (Chachas discussing JX 190A and B); Tr. 93 (Cheen opining that part of the radio industry's downturn in 2008 and 2009 was cyclical and part was secular).
45 See JX 392 at 4 (citing analyst reports expressing concerns about advertising budgets being trimmed, and radio station companies' public documents attributing a decline in revenue to an industry-wide decline in radio advertising and advertisers' shifting away from traditional media to new media outlets).
46 See Tr. 649-50 (Gokhale) (discussing analysts' opinion that the radio industry was going through a secular decline and that the value of an investment in the radio industry since 2003 demonstrates the secular shift). Petitioners deny that the radio industry had experienced a secular decline in the years leading up to 2009 or that it continued to experience a secular decline in 2009. According to Petitioners' industry expert, Chachas, a "secular decline is when businesses actually lose fundamental pieces of their P \& L and do not recover and they continue to either erode or stay at levels that are markedly reduced." Tr. 447-48. Chachas provided examples such as the paging industry and the pay phone business. Id. at 448. Respondent's industry expert, Cheen, on the other hand, asserted that a secular decline occurs when there has been a fundamental change in the industry, which could be the result of an economic or operating factor. Tr. 34. Cheen provided examples of the Yellow Pages and the newspaper industry. Id. at 49. I find that Cheen's view is more consistent with the evidence presented and, therefore, adopt his somewhat broader definition of a "secular" change. pretty good stewards of expenses"); Tr. 75 (Cheen stating that management discussed cutting expenses in earnings calls both in November 2008 (regarding the third quarter 2008) and in March 2009 (regarding the fourth quarter 2008)).
48 JX 481 at 8 (citing CXR's March 4, 2009 fourth quarter 2008 earnings call).
49 See JX 481 at 7-8, 15, 23-24; JX 393 Ex. 6.
50 See JX 146 (email from Citi representative to Johnston discussing valuation trends).
51 Tr. 463 (Chachas stating that, in 2009, owners in Entercom, Cumulus Radio, and Radio One bought more stock in their companies).
52 See JX 449 at 15653.
53 JX 212.
54 The valuation firm Bond \& Pecaro performed a fair market valuation of CXR stations within different market clusters and an analysis of CXR's FCC licenses in connection with the Company's FAS 142 compliance.
55 JX 214, Bond \& Pecaro: Fair Market Valuation of Cox Radio, Inc. as of December 31, 2008, at 5822 (stating that the assumptions used in its cash flow models, "especially those pertaining to station revenue shares and operating profit margins, are, in part, reflective of the actual and forecast performance of [CXR] as station owner"); see also JX 431A, Bond \& Pecaro: Analysis of FCC Licenses Cox Radio, Inc. as of December 31, 2008.
JX 469, letter to the SEC from CXR (Apr. 20, 2009), at 12; JX 430; JX 434.
57 JX 214; see also Tr. 419-20 (Johnston) ("[Bond \& Pecaro] ha[d] lots of information at their disposal. But if one reads the methodology that they are using in the document that they provide the company, they do not use our [2009] LRP to determine their FAS 142 valuation.").
See JX 596; Tr. 590 (Odom).
JX 596 at 45409.
ld.
61 Tr. 592 (Odom).
62 JX 596 at 45409.
63 ld. at 45426
64 Id. at 45409.
65
66
67
68
JX 152.
See JX 417; Tr. 638-39, 602 (Odom). There were several iterations of the 2009 LRP.
JX 90 (ellipses in original).
JX 95 (emphasis added).

69 In re Cox Radio S'holder Litig., WL 1806616 (Del. Ch. May 6, 2010), aff'd, 9 A.3d 475, 2010 WL 4721568 (Del.2010) (ORDER). The Tilson Memo was not produced in the limited discovery that took place related to the settlement but was produced in discovery during this appraisal action.
70 See Towerview LLC v. Cox Radio, Inc., C.A. No. 4809-VCP (Nov. 7, 2012) (TRANSCRIPT), Docket Item Number 88.
71 Tr. 536 (Odom).
72 Id.
73 See JX 95; Tr. 530 (Odom); JX 393 ๆ 6.
74 Tr. 539 (Odom explained "that the business conditions we were seeing in the first quarter, or in January, even, were discussed with Bond \& Pecaro" and that those conditions "were considered in [Bond \& Pecaro's] 12/31/08 valuation").
ld.
Tr. 535 (Odom). The Tilson Memo contained the heading: "To: File[;] From: Lauren Tilson[;] RE: Impairment Testing Under FAS 142." JX 95.
77 Tr. 541
78 See JX 214 at 3-4.
79 Tr. 540 (Odom).
80 JX 214 at 3 (emphasis added).
81 JX 480, Kursh Rep., at 11.
82 Tr. 258.
83 JX 385 at 30.
84 JX 214 at 3.
85 See JX 480; JX 482.
86 See JX 481 at 7 ("[T]he radio business typically run[s] at $35 \%$ to $45 \%$ operating margins."). Petitioners assert that the 2009 LRP projected CXR OCF margins around $30 \%$ and EBITDA margins around $27 \%-28 \%$. Tr. 729 (Gokhale) (discussing Petitioners' calculations on cross examination).
87 JX 480 Ex. G.
88 The only difference between operating cash flow and EBITDA in CXR's financial projections is that the OCF projections are slightly higher because they include the cost of the Company's noncash long-term incentive plan ("LTIP"). Tr. 497 (Odom); see also Tr. 325-26 (Johnston). At trial, Gokhale used the terms EBITDA and operating cash flow interchangeably. His DCF analysis applies historical EBITDA growth rates to project future operating cash flows. Gokhale explained that his EBITDA numbers grew at a lower rate than his OCF numbers because he assumed LTIP payments would grow from 2009-2014. Tr. 730. Petitioners do not challenge specifically the reasonableness of Gokhale's application of historical EBITDA growth rates, rather than OCF growth rates, to project future operating cash flows. Furthermore, the difference in the two sets of numbers is relatively minor. Therefore, Gokhale's use of EBITDA growth rates appears to be appropriate. See Tr. 403 (Johnston) ("E]ssentially, the terms operating cash flow and EBITDA are synonymous.").
89 In his Third-Party DCF, Gokhale averaged only the first three years coming out of the 2000/2001 recession to calculate the CAGR he used. As a result, Gokhale used a higher CAGR of $5.3 \%$ in the Third-Party DCF compared to the $4.6 \%$ he used in the May Forecast DCF. See Tr. 668-69.
90 Tr. 659.
91 Tr. 37-38 (Cheen); Tr. 650-51 (Gokhale).
92 Del. C. § 262. There is no dispute that Petitioners are entitled to an appraisal under Section 262.
93 Id. § 262(h); see also Tri-Cont'l Corp. v. Battye, 74 A.2d 71, 72 (Del.1950) ("[M]arket value, asset value, dividends, earning prospects, the nature of the enterprise and any other facts which were known or which could be ascertained as of the date of merger and which throw any light on future prospects of the merged corporation are not only pertinent to an inquiry as to the value of the dissenting stockholders' interest, but must be considered by the agency fixing the value.").
94 Golden Telecom, Inc. v. Global GT LP, A.3d 214, 217 (Del.2010).
95 Cede \& Co. v. Technicolor, Inc., A.2d 289, 299 (Del.1996).
96 Golden Telecom, Inc., A.3d at 217.
97 Weinberger v. UOP, Inc., A.2d 701, 713 (Del.1983); see also Technicolor, 684 A.2d at 299.
98 Rapid-American Corp. v. Harris, A.2d 796, 805 (Del.1992).
99 M.G. Bancorp., Inc. v. LeBeau, A.2d 513, 520 (Del.1999).

100 Gonsalves v. Straight Arrow Publ'rs, Inc., A.2d 357, 362 (Del.1997); Taylor v. Am. Specialty Retailing Gp., 2003 WL 21753752, at *2 (Del. Ch. July 25, 2003).
101 Weinberger, A.2d at 713.
102 See Dobler v. Montgomery Cellular HIdg. Co., WL 2271592, at *8 (Oct. 4, 2004); see also Cede \& Co. v. JRC Acq. Corp., 2004 WL 286963, at *2 (Del. Ch. Feb. 10, 2004) (utilizing the DCF approach); Gentile v. Singlepoint Fin., Inc., 2003 WL 1240504, at *6 (Del. Ch. Mar. 5, 2003) (utilizing the comparable transactions approach); Borruso v. Commc'ns Telesystems Int'l, 753 A.2d 451, 455 (Del. Ch.1999) (utilizing the comparable company approach).
103 Gokhale used a comparable companies analysis as a reasonableness check on the value he obtained through his DCF analysis. He concluded, however, that "the comparable companies valuation is of limited use in determining the value of CXR's Class A shares." JX 392 at 12. Kursh concluded that neither a comparable companies nor a comparable transactions approach would be reliable and, therefore, did not attempt either approach. JX 480 at 5.
104 See JX 392 at 10-12 (Gokhale: "[T]he EV/EBITDA multiples used in the [comparable companies] calculation above are overstated because they are based on the book value of debt, and using these multiples would overstate the value of CXR's shares."); JX 480 at 5-8 (Kursh: "[Comparable publicly traded companies and transactions methods] observe and apply market multiples, and their reliability hinges upon the ability to accurately estimate both the numerators (equity and market values) and denominators (recurring earnings) of the multiples. [T]he industry focus and timing of this valuation present challenges to such accuracy."); see also Tr. 670-75 (Gokhale).
105 JX 480 at 8.
106 See M.G. Bancorp., Inc. v. Le Beau, A.2d 513, 523 (Del.1999) ("The discounted cash flow methodology has been relied upon frequently by parties and the Court of Chancery in other statutory appraisal proceedings."); Ryan v. Tad's Enters., Inc., 709 A.2d 682, 702 (Del. Ch.1996) ("The discounted cash flow valuation model is well-established and accepted in the financial community."), aff'd, 693 A.2d 1082 (Del.1997) (ORDER).
107 Cede \& Co. v. Technicolor, Inc., WL 23700218, at *7 (Del. Ch. July 9, 2004).
108 Id. (citing Gilbert v. MPM Enters., Inc., 709 A.2d 663, 669 (Del. Ch.1997)).
109 ld.
110 Although the slopes from the 2009 LRP and Gokhale's projections after 2009 appear to be the same in this somewhat simplified graph, they are, in fact, slightly different. Gokhale's projections reflect a CAGR of $4.6 \%$, while the OCF growth rates for 2010-2013 in the 2009 LRP ranged from 3.4\% to 4.1 \%.
111 Kursh reasons that expecting a recovery within eighteen months is reasonable because the recession lasted approximately eighteen months. Tr. 220 (Kursh). He thus selected a return to the LRP in 2011 because 2011 would be the first full year of recovery after the recession ended in mid-2009 plus eighteen months. Id.
112 JX 95 ("[CXR] also believes that future years' growth is attainable due to recovery in the industry.").
113 See JX 171 at 34.
114 JX 481 at 6 ("One of the positive indicators sustaining the belief that radio ad revenue would recover was the measurement of audience, which continued to grow."); JX 398, Entercom Communications Corp. Reports Fourth Quarter and 2008 Annual Results, at 1 (CXR competitor Entercom Communications Corp.'s CEO stating "[a]t a time of unprecedented change in media usage that is severely impairing a number of other media, radio posted an all-time record number of listeners in 2008 and remains the most cost-effective major advertising medium in the nation").
115 See JX 394 at 2; JX 392 at 3 (Gokhale observing in his expert report that "[i]n the two years prior to [CEl's] tender offer for CXR's Class A shares, the economic fortunes and public market valuations of radio stations (and companies that owned such stations) had been in steady decline"); Tr. 649 (Gokhale).
116 See JX 394 at 2; Tr. 37 (Cheen) (stating that the secular decline may have started as early as 2006).
117 JX 481 at 7.
118 JX 480 at 10 ("Standard [CXR] business practice provided for monthly forecasting of current year results, but this process appeared to receive special attention in January 2009."(emphasis added)); Tr. 501 (Odom) ("One thing [I did upon recognizing that revenues were evaporating] is that I advocated that the company do a full and complete reforecast in January. That would have been something a bit unusual for us because....").
119 JX 212 at 6692.
120 Tr. 689 (Gokhale); Tr. 626 (Odom) (stating that he never communicated to CMG, outside auditors, or the Special Committee that the LRP's projections for the out-years were consistently overly optimistic but that those circumstances were "just factual").

121 LRP projections for the years 2004, 2005, 2006, and 2007 showed similar trends. See Tr. 304 (Johnston) (stating that "each year, as we got closer, our estimates got better," but that in each succeeding year between 2002 and 2008, CX R management lowered its out-year estimates but still missed its projected results).
122 Tr. 689 (Gokhale).
123 See Gearreald v. Just Care, Inc., WL 1569818, at *5 (Del. Ch. Apr. 30, 2012).
124 See JX 212; Tr. 315-16 (Johnston) ("Given the numbers that we were seeing in January [2009], given my expectation for the year, I realized that the out years would have no bearing on reality."); Tr. 503-04 (Odom) ("There was no way that the [2009] LRP, either the 2009 results or the out-year results, could be anywhere near reality. There is no way to recover from this dramatic a drop and just bounce right back. It just is not reality. So I didn't believe that the [2009] LRP had any validity."); see also JX 180, CMG's March 23, 2009 offer to purchase CXR stock at $\$ 3.80$ per share, at 11 ("[l]n light of the continued decline in advertising revenue experienced by [CXR] in the first two months of 2009, as reflected in the February Forecast, [CEI] and [CMG] senior management believed that the long range plan approved by the Radio board of directors in December 2008 no longer accurately reflects the prospects of [CXR]. Senior management believed that [CXR]'s prospects were better modeled using the growth expectations used for the long range plan and applying those rates to the February Forecast as a baseline....").
125 JX 482 at 4 (citing Milton Friedman, "Monetary Studies of the National Bureau," The National Bureau Enters Its 45th Year, 44th Annual Report 7-25 (1964)).
126 JX 482 at 5.
127 Tr. 281 ("Q. So prior to [Bordo and Haubrich's] test in June 2012, the conventional wisdom was that a recession coupled with a financial crisis would show a sluggish recovery; right? A. And I effectively assumed the sluggish recovery. If the longest recovery on record is four quarters and I go six, that's sluggish to me, because there are many recoveries that occurred much quicker than that.").
128 Tr. 684 (Gokhale). Petitioners' industry expert, Chachas, asserted in his report that "[t]he radio industry is cyclically highly correlated to general GDP." JX 481 at 8 . He presented a chart depicting the growth in media and radio advertising versus growth in nominal GDP between 1990 and 2009 to demonstrate this correlation. Id. at 9, Ex. 5. The chart depicts a correlation of $80 \%$ between nominal GDP and radio revenue in this nineteen-year time span. Chachas's chart, however, is consistent with Gokhale's testimony that a correlation existed between 1990 and 2001, but that by 2001 the relationship changed, if not broke down completely.
129 See JX 507.
130 See JX 583.
131 Tr. 181-82 (Kursh).
132 See JX 584. This number is taken from a Bureau of Economic Analysis report.
133 Tr. 190-91.
134 See JX 583 at 1, 4 (stating that the Congressional Budget Office's forecasted GDP growth for 2010 is $2.6 \%$ and that the Federal Reserve's " 'central tendency' is $2.5 \%-2.7 \%$ for long-run growth" compared to the $13 \%$ real or $17 \%$ nominal GDP growth suggested by Kursh); Tr. 686-88 (Gokhale).
135 JX 341, J.P. Morgan, Broadcasting/TV and Radio: Is it 2010 Yet? (Dec. 18, 2008), at 13896 ("In recent years, the relationship between advertising growth and GDP has broken down-with annual ad spending lagging GDP in six of the past ten years. While there are many potential causes for this (media fragmentation causing a shift to media outlets with lower CPMs, weakness in the domestic auto business, etc.), the effect is what really matters-media companies have become more competitive in the chase for ad dollars. For TV and radio in particular, industry revenue growth has lagged GDP growth in recent years following a significant period of outperformance."). But see Tr. 244-45 (Kursh) (observing that the J.P. Morgan report reflects only one analyst's opinion).
136 Tr. 191-92 (Kursh).
137 JX 596.
138 JX 152.
139 JX 417.
140 Pet'rs' Opening Post-Trial Br. 20.
141 JX 153 at 10.
142 ld.
143 ld.

144 Id. at 9. The Special Committee asked for, and management provided, operating performance and financial conditions through March 2009. These results indicated that, although the operating environment was stabilizing, the actual March 2009 results were below what had been projected in the February forecast. Id. at 10.
145 Tr. 515-17 (Odom) (stating that he thought the Special Committee's conclusion was reasonable and that he did not recall the Special Committee having a more bearish view of the future of CXR than management).
146 JX 480 at 10.
147 JX 212 at 6692; Tr. 233 (Kursh).
148 In describing management's budgeting process, Kursh stated: "[A]s the year turned, [management] would continue to reforecast that particular year. And in our case, while that reforecasting of 2009 was going on, the long-range plan was unchanged. So they continued to believe it or they didn't bother to change it." Tr. 171-72. Petitioners provided no evidence, however, that, historically, management had updated the out-years of its long range plan when it adjusted a forecast for the current year. To the contrary, all evidence indicates that, in the ordinary course of business, management regularly would update the current year's monthly budgets and, once a year, would create and present to the board of directors between October and December a budget for the next year and high-level projections for the four following years. See Tr. 501 (Odom). Thus, management's failure to update the 2009 LRP in the first or second quarter of 2009 is not inconsistent with Respondent's position that management would not have relied on that forecast in valuing CXR in May 2009.
149 Tr. 539-41 (Odom).
150 See JX 214; JX 606 at 17-32. In Bond \& Pecaro's FAS 142 valuation, it calculated an enterprise value using its DCF model for each market cluster and then aggregated those values. Tr. 525-25 (Odom).
151 Tr. 528-29 (Odom).
152 See JX 341 ("There are several reasons to expect a nice rebound in 2010"); JX 592 (2008 CX R Letter to Shareholders in which CXR President Neil states that he sees "a bright future for our industry in general and for [CXR] in particular").
153 See Doft \& Co. v. Travelocity.com Inc., 2004 WL 1152338, at *5 (Del. Ch. May 20, 2004) (finding from a review of all the evidence that the company's five-year plan "does not provide a reliable basis for forecasting future cash flows," including "that management held the strong view that [its] projections should not be relied upon because the industry was so new and volatile that reliable projections were impossible").
154 I also find Gokhale's valuation approach to be more reliable generally. Gokhale's expert report not only explains the calculations in his DCF analyses, but also includes the underlying formulas he used. Kursh's report, on the other hand, did not explain clearly his calculations or how he arrived at his results. Indeed, Gokhale could not replicate Kursh's DCF analysis exactly. See JX 393 at 10 n. 35 ("Dr. Kursh does not fully explain his DCF calculations, and we did not exactly replicate his DCF analysis. Our replicated numbers are slightly higher than those reported in Dr. Kursh's Exhibit H.").
155 Gokhale testified that he used the CAGR for CXR from 2001-2005 to project OCF growth for 2009-2013 because it was the most recent data of what growth rates looked like coming out of a downturn that would be reflective, in some sense, of the secular shift that CXR and the radio industry were beginning to experience. Tr. 658; see also JX 481 at 3 (Chachas likening the radio industry's share price contraction "during the recession following the bursting of the 'tech bubble' in mid-2000" to the contraction the radio industry experienced in the 2008/2009 Recession"); Tr. 64 (Cheen) (discussing the radio industry's recovery after the 2000/2001 recession).
156 Tr. 62 (Cheen) (number of analysts down to a half dozen or less); Tr. 432 (Chachas) (number of analysts covering the radio broadcasting space was three or four in 2008 and 2009).
157 Tr. 176 (Kursh) (stating that in one of his valuation books, Damodaran asserts that the number of analysts is absolutely critical and that if you have a small sample, you're probably not getting a very good result, and that analysts look short term while valuation looks long term); JX 593, Bloomberg, Analysts' Accuracy on U.S. Profits Worst in 16 years (Aug. 22, 2008); Tr. 431-32 (Chachas) (stating that analysts' recommendations are not good proxies for value because they are inherently chasing data and moving as a group).
158 See Doft \& Co. v. Travelocity.com Inc., WL 1152338, at *5 ("Delaware law clearly prefers valuations based on contemporaneously prepared management projections because management ordinarily has the best first-hand knowledge of a company's operations.").
159 See JX 392 Ex. J.
JX 482
at 6 .
Tr.
719.

162 Tr. 662-63 ("I believe various gentlemen here from the company have described it as really a bottom's-up plan that led to revenues and subtraction of profits. And then what I'm doing is taking the EBITDA, or operating cash flow, that comes out of this pretty full plan, and growing that EBITDA at a rate that EBITDA grew in similar periods.").
163 See Bradford Cornell, Corporate Valuation: Tools for Effective Appraisal and Decision Making (1993).
164 Id. at 126 (emphasis in original).
165 Id.
166 JX 392 at 8 n. 30 .
167 JX 341 at 13950.
168 JX 602. CXR's revenues over the same period grew by $6.4 \%$ in 2002, $1.3 \%$ in 2003, 2.9\% in 2004, and $-0.1 \%$ in 2005. JX 603.
169 See JX 482 at 3-5.
170 See JX 482 Exs. L, M.
171 See Prescott Gp. Small Cap, L.P. v. Coleman Co., Inc., W L 2059515, at * 31 (Del. Ch. Sept. 8, 2004) ("[T]he task of enterprise valuation, even for a finance expert, is fraught with uncertainty."); Id. ("Experience in the adversarial[ ] battle of the experts' appraisal process under Delaware law teaches one lesson very clearly: valuation decisions are impossible to make with anything approaching complete confidence.") (quoting Cede \& Co. v. Technicolor, Inc., 2003 W L 23700218, at * 2 (Del. Ch. Dec. 31, 2003)).
172 See Cede \& Co. v. Technicolor, Inc., WL 23700218, at *2 (Del. Ch. Dec. 31, 2003) (The value of a corporation is not a point on a line, but a range of reasonable values, and the judge's task is to assign one particular value within this range as the most reasonable in light of all of the relevant evidence and based on considerations of fairness); Tr. 484 (Chachas) (stating that he would classify a four or five percent revenue growth rate in 2010 as a snapback because "[w]hen you've fallen 19 percent in the preceding year if you're up by 5 in the following, I think the performance is actually very substantial").
173 Tr. 324-25 (Johnston).
174 Tr. 222; JX 480 Ex. H.
175 JX 212.
176 JX 480 at 14.
177 Tr. 660.
178 See JX 480 at 19 (citing JX 411 at 17148).
179 Compare Resp't's Opening Post-Trial Br. 22 n. 8 ("CXR's debt was not publicly traded, requiring Gokhale to use a proxy for the cost of CXR's debt. As of May 29, 2009, CXR's credit rating was BBB-; therefore, Gokhale selected the Merrill Lynch BBB Corporate Bond Index as the proxy.") and JX 392 at 9 ("[T]he cost of debt we used is based on the yield on the Merrill Lynch BBB Corporate Bond Index as of May 29, 2009) with Gokhale Dep. 141 (responding in the affirmative to the question "You get that number [net debt of 385.6 million] from an internal financial document as of April 30, 2009, correct?").
180 Kursh and Gokhale both used the deferred tax numbers from the 2009 LRP in their DCF models: approximately $\$ 12.80$ million for the remainder of 2009, $\$ 21.26$ million in 2010 , $\$ 20.79$ million in 2011, $\$ 19.47$ million in 2012 , and $\$ 16.96$ million in 2013.
181 Odom Dep. 302.
182 Id.
183 See JX 80; JX 428 at 17741
184 JX 80.
185 Tr. 219.
186 ld.
187 Id. at 219-20.
188 Tr. 669.
189 Tr. 208, 276.
190 Tr. 215-16.
191 Gokhale Dep. 144-45; see also JX 153 (stating that as of March 31, 2009, CXR had 20.8 Class A and 58.7 Class B shares outstanding).

192 Gokhale explained in a footnote that the $4.5 \%$ dilution "is based on the median historical percentage of shares available for stock-based compensation to shares outstanding." JX 392 at 10 n. 38.
193 JX 482 at 11.
194 Pet'rs' Opening Post-Trial Br. 46.
195 Cf. Prescott Gp. Small Cap, L.P. v. Coleman Co., WL 2059515, at * 12 (Del. Ch. Sept. 8, 2004) (declining to address the petitioners' argument that three million shares of stock had been issued at an unfairly low price and should be disregarded and using the actual number of shares outstanding as of the merger date in the appraisal proceeding).
196 See Tr. 663 (Gokhale); Tr. 197 (Kursh).
197 Global GT LP v. Golden Telecom, Inc., A.2d 497, 512 (Del. Ch.), aff'd, 11 A.3d 214 (Del.2010).
198 Resp't's Opening Post-Trial Br. 42.
199 See JX 394 at 13 (Respondent's expert referring to the industry as a mature industry); JX 481 at 35 ("[CXR] was a premium asset in the industry."); id. at 7 ("Unlike newspaper publishers, which were perceived to be rapidly losing their base of customers, radio had not only retained its audience but it had continued to grow listeners.").
200 JX 392 at 9 (stating that, in DCF analyses of CX R equity, Citi applied a perpetuity growth rate of $1 \%$ to $2 \%$ and Gleacher used a rate of $2 \%$ ).
201 Tr. 198-99 (Kursh); JX 568 (presenting historical projected population growth for CXR's five largest markets).
202 Tr. 198.
203 JX 480 at 15.
204 JX 393 at 10-11.
205 Id. at 11.
206 Tr. 198-99.
207 JX 393 at 11.
208 Tr. 694.
209 Global GT LP v. Golden Telecom, Inc., A.2d 497, 512 (Del. Ch.), aff'd, 11 A.3d 214 (Del.2010).
210 Id. at 511; see also Bradford Cornell, Corporate Valuation: Tools for Effective Appraisal and Decision Making 146-47 (1993).

211 Shannon P. Pratt \& Alina V. Niculita, Valuing a Business: The Analysis and Appraisal of Closely Held Companies 248 (5th ed.2008).
212 See supra note 134 and accompanying text.
213 See Tr. 727-31; JX 602; JX 603.
214 See Tr. 297-98 (Johnston).
215 See Del. C. § 262(h) ("Unless the Court in its discretion determines otherwise for good cause shown, interest from the effective date of the merger through the date of payment of the judgment shall be compounded quarterly and shall accrue at $5 \%$ over the Federal Reserve discount rate (including any surcharge) as established from time to time during the period between the effective date of the merger and the date of payment of the judgment.").

