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## Teaching Bankruptcy Valuations to Law Students and Other Unnatural Acts

Jack F. Williams

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## TEACHING BANKRUPTCY VALUATIONS TO LAW STUDENTS AND OTHER UNNATURAL ACTS\*

Jack F. Williams\*\*

### ABSTRACT

*We often measure that which we can as opposed to that in which we are most interested, and fail to appreciate the difference between the two. Experts may aid a trier of fact in measuring fair market value, fair value, investment value, or some other measure of value; however, courts make determinations with regard to a legal standard, not a financial standard. For example, “fair valuation” may be used for determinations of insolvency or the “fair and equitable” rule may be used for determinations of chapter 11 cramdown plan confirmation disputes. Other measures of value may be used in determining the amount of a claim or to satisfy other financial tests in bankruptcy. There is a difference between employing common valuation standards using traditional and well-accepted techniques and fashioning equitable relief demanded by bankruptcy law. Through the lenses of the “insolvency” and “fair and equitable” tests in the bankruptcy process, I suggest that principles of equity offer a competing vision in approaching valuation issues where an expert*

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\* With apologies to Professor Sam Wineburg, whose title to his excellent work was borrowed in form, without hesitation. See SAM WINEBURG, HISTORICAL THINKING AND OTHER UNNATURAL ACTS: CHARTING THE FUTURE OF TEACHING THE PAST (2001).

\*\* Professor, Georgia State University College of Law/Middle East Studies Center; Resident Scholar, Association of Insolvency and Restructuring Advisors. I could not have written this Article without the generous guidance and support of so many people over the years, from all disciplines in the practice of bankruptcy. I thank those that have put their shoulder to the plow and have advanced our understanding of bankruptcy and business valuations considerably over the almost forty-five years since the enactment of the Bankruptcy Reform Act of 1978. I especially would like to thank Ann Hughes, Leanne Gould, Ian Day, Dave King, Susan Seabury, David Bart, Shante George, Adam Ortega, Michael Fussman, Michael Deeba, Kenneth Brockman, Anne Vandercamp, and Kevin McColgan for their careful, thoughtful, and compassionate review of various iterations of this Article. One could not have better friends or colleagues. Further thanks go to my academic colleagues, including those whom I reference in this Article and those who participated in our monthly Corporate Restructuring & Insolvency seminars (hosted by two exceptional scholars and friends, Vincent Buccola and Jared Ellias) where I presented a prior draft of this Article. However, the magic that inspires me may be found among my over 7,200 students, who have fulfilled my teaching career. It is my greatest professional honor to learn with them. Finally, a heartfelt thanks to the editors of the *Emory Bankruptcy Developments Journal*, also my former bankruptcy students, whose keen editorial eye and biting wit—much deserved, I might add—made this process and this Article both enjoyable and better. Of course, these are my own thoughts, largely developed from teaching my bankruptcy and valuation classes. Any errors are mine. As we go to print, the bankruptcy community mourns the loss of a national treasure, Judge Michael G. Williamson, and I mourn the loss of my frequent co-author and co-panelist, as well as a wonderful friend. May his memory be a blessing to us all.

*provides significant input in an overall assessment of the totality of circumstances, the bedrock principle of exercises of equitable remedies. In building the case, I challenge the body of criticisms directed at experts and courts in their construction of valuation models, susceptibility to hindsight bias, and manipulations of assumptions and inputs. I also modestly reject the notion that a market approach is less speculative than an income approach. Both approaches require considerable judgment—one more transparent and the other more opaque. Both approaches must be considered in the robust context of unique disputes, and their use may be driven by the application of specific statutory language. Throughout this Article, I identify various assumptions and inputs to classic valuation approaches and methods that have been rightly contested or unnecessarily confused. The process often requires an expert and a court to make tradeoffs between degrees of (i) relevance and reliability and (ii) opaqueness and transparency. In the end, valuations in bankruptcy disputes look less like lessons in finance, and more like classic fashionings of equitable relief in a court of equity, a needed reminder that finance is the handmaiden of the court and not its jailer.*

#### TABLE OF CONTENTS

I. CONTEXT MATTERS .....	54
A. <i>Different Approaches for Different Questions</i> .....	54
B. <i>Building on a Strong Foundation</i> .....	60
C. <i>A Good Roadmap Helps</i> .....	63
II. BANKRUPTCY VALUATION IN DISPUTE .....	65
A. <i>Bankruptcy Law's Frame</i> .....	65
B. <i>Choices Made</i> .....	74
III. METHODOLOGY .....	80
A. <i>Premise of Value and Standard of Value</i> .....	83
B. <i>Approaches and Methods</i> .....	85
IV. INCOME APPROACH .....	86
A. <i>Projections</i> .....	88
B. <i>Terminal Value</i> .....	92
C. <i>Discount Rate</i> .....	96
1. <i>Required Rate of Return on Equity or Cost of Equity</i> .....	97
a. <i>Capital Asset Pricing Model</i> .....	98
b. <i>Risk-Free Rate of Return</i> .....	98
c. <i>Equity Risk Premium</i> .....	99
d. <i>Beta (<math>\beta</math>)</i> .....	101
e. <i>Size Premium</i> .....	107
f. <i>Company Specific Risk Adjustment</i> .....	108

2.	<i>Required Rate of Return on Debt or Cost of Debt</i>	111
3.	<i>Capital Structure</i>	113
V.	MARKET APPROACH	114
A.	<i>Guideline Public Company Method</i>	115
B.	<i>Guideline Merged and Acquired Method</i>	116
C.	<i>Selection of Comparable Company Sets Under the Guideline Methods</i>	117
D.	<i>Selection of Valuation Multiples Under the Guideline Methods</i>	119
E.	<i>Observable Market Value Method and Associated Challenges</i>	121
F.	<i>Additional Challenges to the Market and Income Approaches</i>	123
VI.	ASSET APPROACH	125
VII.	RECONCILING MULTIPLE APPROACHES AND METHODS	128
VIII.	OBSERVATIONS	130
A.	<i>Cluster C<sub>1</sub>: Choosing Between Relevance and Reliability</i>	131
1.	<i>Risk-Free Rate (Income Approach)</i>	131
2.	<i>Historical Beta Lookback and Interval (Income Approach)</i>	131
3.	<i>Cost of Debt (Income Approach)</i>	132
4.	<i>Debt to Total Capital Structure (Income Approach)</i>	133
5.	<i>Earnings Base Metric Selection (Market Approach)</i>	133
B.	<i>Cluster C<sub>2</sub>: Addition of the Opaque v. Transparent Choice</i>	134
1.	<i>Future Economic Benefits or Projections (Income Approach and Market Approach)</i>	134
2.	<i>Beta (Income Approach)</i>	135
3.	<i>Equity Risk Premium (Income Approach)</i>	137
C.	<i>Cluster C<sub>3</sub>: Hotly Contested Risk Determinations</i>	138
1.	<i>Terminal Value (Income Approach)</i>	139
2.	<i>Small Size and Company Specific Risk Premiums (Income Approach)</i>	139
3.	<i>Comparable Company or Comparable Transaction Set (Market Approach)</i>	142
4.	<i>Reconciliation of Value Indications (All Approaches)</i>	143
D.	<i>Conclusion</i>	145

## I. CONTEXT MATTERS

A. *Different Approaches for Different Questions*

The role of valuation in bankruptcy law is fascinating and presents layers of complexity and nuance, as one seeks to understand and master it and the process that bears its relevance. So much in the practice of law is predicated on the concept and determination of questions of value across many substantive and remedial areas of the law in general, and of remedies and applications under bankruptcy law specifically.<sup>1</sup> Valuation practice as performed in disputes, as a discipline, continues to evolve, and it has changed over time. No discipline exists outside human nature, and human nature brings with it all varieties of insights, creativity, experience, wisdom, bias, prejudice, competence, vagueness, ambiguity, hindsight, and the like.<sup>2</sup> Valuation practice is a cumulative endeavor; each new theory and practice incorporates successful earlier theories and practices, some practices fall away or are discarded, and some rise and fall in their frequency of use over time (driven in part by their theoretical or popular acceptance over time). Some practices may also rise and fall based on their ease of use, such as those that may now be quickly performed as mechanical exercises or those that depend on easy access to widespread data that is more readily available in today's computer-driven world. Valuation, performed in the bankruptcy context, requires an interlacing of one's cumulative understanding of valuation theory, finance, and bankruptcy law. Valuation is essential and ubiquitous in chapter 11 cases,<sup>3</sup> with valuation disputes being, at times, a long and hotly contested process.<sup>4</sup> Valuation experts play an important role in this

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<sup>1</sup> See, e.g., *U.S. Bank Nat'l Ass'n v. Wilmington Tr. Co. (In re Spansion, Inc.)*, 426 B.R. 114 (Bankr. D. Del. 2010) (illustrating how valuation is paramount in many chapter 11 cases). I draw and build upon my prior work, with Stan Bernstein and Susan Seabury, in further developing the ideas in this Article. See generally STAN BERNSTEIN, SUSAN H. SEABURY & JACK F. WILLIAMS, *ADMITTING EXPERT VALUATION EVIDENCE BEFORE THE BANKRUPTCY COURT* (2017) [hereinafter BERNSTEIN, SEABURY & WILLIAMS, *ADMITTING EXPERT VALUATION*].

<sup>2</sup> Cf. *In re Oracle Corp. Derivative Litig.*, 824 A.2d 917, 938 (Del. Ch. 2003) ("*Homo sapiens* is not merely *homo economicus*.").

<sup>3</sup> "Valuation can be a remarkably difficult exercise, especially in large corporate chapter 11 cases." Michael J. Sage, *Value Allocation*, in *CONTESTED VALUATION IN CORPORATE BANKRUPTCY: A COLLIER MONOGRAPH* ¶ 5.01 (Robert J. Stark et al. eds., 2011). Sage's excellent intervention is but one chapter in an illuminating treatise, which I recommend without reservation to any serious student of the field. See *CONTESTED VALUATION IN CORPORATE BANKRUPTCY: A COLLIER MONOGRAPH* (Robert J. Stark et al. eds., 2011) [hereinafter *CONTESTED VALUATION*].

<sup>4</sup> See, e.g., *In re Mirant Corp.*, 334 B.R. 800, 809–10 (Bankr. N.D. Tex. 2005) (trial on valuation lasted twenty-seven days over eleven weeks and involved sixteen witnesses and 454 exhibits); *Tronox Inc. v. Kerr McGee Corp. (In re Tronox Inc.)*, 503 B.R. 239 (Bankr. S.D.N.Y. 2013). *Tronox* in particular was a massive litigation effort with over two years of fact discovery, 26,000,000 pages produced, sixty-four fact depositions, and eighteen experts who generated over 14,000 pages of expert reports.

process,<sup>5</sup> and they are not alone. “[L]itigation over enterprise value can be quite technical; as a result, the relative sophistication and experience of counsel, as well as the bankruptcy court itself, can have a tremendous impact on the quality of the ruling.”<sup>6</sup> Common valuation-related questions confronted in bankruptcy, such as collateral valuations, adequate protection, insolvency, reasonably equivalent value, and reorganizational value of the assets of a debtor, carry with them a specific legal context with specific legal requirements.

Where finance ends and the law begins is unclear. An example helps illustrate the point. The appropriate premise and standard of value depend on the facts and circumstances of each valuation, the need or purpose for the valuation, and any applicable legal standards or directives.<sup>7</sup> If an expert is asked to render an opinion on the insolvency of a debtor, one of the initial questions the expert must explore is the appropriate standard of value. Insolvency, to paraphrase Justice Cardozo, is not simply a thing in the air;<sup>8</sup> it needs a mooring, a context. An expert who simply states, “I have valued the assets of the debtor, determined the liabilities of the debtor, and subtracted one from the other” is not aiding the trier of fact. The question of insolvency may be interpreted differently, and the context may call for an expert to address quantitative and qualitative factors differently, if the question arises in an avoidable preference action under section 547(b)<sup>9</sup> or a fraudulent transfer action under section 548.<sup>10</sup> One should ask: What is meant by “assets,” “liabilities,” and “value”? Are Generally Accepted Accounting Principles (“GAAP”) definitions being applied to the terms “asset” and “liability”? Are most asset values used in the model based on reported book value (often stated according to GAAP)?<sup>11</sup> When are fair market value standards

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<sup>5</sup> See, e.g., *In re Armstrong World Indus., Inc.*, 348 B.R. 111, 125 (D. Del. 2006) (Bankruptcy valuations often proceed to a “battle of the experts.”).

<sup>6</sup> Robert J. Stark & Jeremy B. Coffey, *The Enterprise Value of Corporate Debtors*, in *CONTESTED VALUATION*, *supra* note 3, at ¶ 3.02[1].

<sup>7</sup> See generally JAY E. FISHMAN, SHANNON P. PRATT & WILLIAM J. MORRISON, *STANDARDS OF VALUE: THEORY AND APPLICATIONS* 1–34 (2007) (discussing the role and meaning of premises of value and standards of value).

<sup>8</sup> *Palsgraf v. Long Island R.R. Co.*, 162 N.E. 99, 99 (1928). Yes, *Palsgraf*; I am a law professor, after all.

<sup>9</sup> 11 U.S.C. § 547(b). Unless otherwise specified, all references to code sections herein are to Title 11 of the United States Code (the “Bankruptcy Code”).

<sup>10</sup> 11 U.S.C. § 548.

<sup>11</sup> Courts dismiss GAAP as nondispositive in bankruptcy valuation disputes. In *In re Flashcom*, the court observed that “GAAP is not controlling in determining the fair market value of assets or insolvency of the debtor.” *In re Flashcom, Inc.*, 503 B.R. 99, 122 (C.D. Cal. 2013). The court further concluded that relying on GAAP for insolvency determinations where the business is a going concern “would make accountants and the board which promulgate GAAP the arbiters of insolvency questions.” *Id.* (quoting *In re Sierra Steel, Inc.*, 96 B.R. 275, 278 (B.A.P. 9th Cir. 1989)); see also *Bakst v. United States (In re Kane & Kane)*, 479 B.R. 617, 627 (Bankr. S.D. Fla. 2012) (GAAP “misses the mark;” although it serves as an industry standard for preparing

being applied and are they appropriate? Is an expert opinion being offered without an explanation of why the underlying methods, data, and logic may be appropriate?

Two recurring scenarios in bankruptcy demonstrate the point: avoidance actions and cramdown plan confirmations.<sup>12</sup> The Bankruptcy Code provides definitions and guidance on the preparation of valuations specifically in the context of bankruptcy. First, section 101(32) defines the word “insolvent,” which is particularly important, if not often dispositive, in the areas of avoidance powers.<sup>13</sup> Whether a debtor was insolvent at the time of a transfer or obligation

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financial statements, it is not the law or relevant for insolvency issues.) In *In re Kane & Kane*, the court ultimately granted the trustee’s *Daubert* motion and excluded expert testimony that relied on the GAAP approach to estimating value of contingent liabilities. *Id.* For a discussion of the use of *Daubert* motions in bankruptcy as it relates to financial, forensic, and valuation testimony, see generally BERNSTEIN, SEABURY & WILLIAMS, ADMITTING EXPERT VALUATION, *supra* note 1.

<sup>12</sup> Avoidance actions are adversary proceedings governed by Part VII of the Federal Rules of Bankruptcy Procedure. See FED. R. BANKR. P. 7001–7087. Plan confirmation hearings are contested matters governed, in part, by Bankruptcy Rule 9014. See generally Jack F. Williams & Michael G. Williamson, *Litigating Business Valuation in Bankruptcy: Value Is in the Eye of the Beholder*, SE. BANKR. L. INST. (2016), [https://www.sbli-inc.org/archive/2016/documents/Litigating\\_Business\\_Valuation\\_in\\_Bankruptcy.pdf](https://www.sbli-inc.org/archive/2016/documents/Litigating_Business_Valuation_in_Bankruptcy.pdf). The difference is not merely academic. Part VII of the Bankruptcy Rules incorporates, through Bankruptcy Rule 7026, Federal Rule of Civil Procedure 26. Rule 26(a)(2) regulates disclosures of expert testimony. The rule requires the disclosure of the identity of an expert and an exchange of expert reports. “Prior to 2010, it was arguable that other forms of expert discovery were available, such as demanding production of all prior drafts of the final expert report, correspondence with counsel, hard drives, e-mails, and memoranda that were generated before the submission of the expert’s report.” BERNSTEIN, SEABURY & WILLIAMS, ADMITTING EXPERT VALUATION, *supra* note 1, at 19. In 2010, however, the Federal Rules were amended to add Rule 26(b)(4), which largely prohibits discovery of or into any of these items. One must be cautious here. A contested matter under Bankruptcy Rule 9014, absent court order or an agreement by the parties, may not trigger the draft disclosure protections that are otherwise available in adversary proceedings. *Id.* at 19–20 & n.62; see also Jeffrey W. Linstrom, *Expert Witness Reports: Get the Draft?*, AM. BANKR. INST. J., Mar. 2011, at 52–53, 69. Although avoidance actions are adversary proceedings, a contested confirmation or collateral valuation hearing is not.

<sup>13</sup> The term “insolvent” means—

(A) with reference to an entity other than a partnership and a municipality, financial condition such that the sum of such entity’s debts is greater than all of such entity’s property, at a fair valuation, exclusive of—

- (i) property transferred, concealed, or removed with intent to hinder, delay, or defraud such entity’s creditors; and
- (ii) property that may be exempted from property of the estate under section 522 of this title;

(B) with reference to a partnership, financial condition such that the sum of such partnership’s debts is greater than the aggregate of, at a fair valuation—

- (i) all of such partnership’s property, exclusive of property of the kind specified in subparagraph (A)(i) of this paragraph; and

is an essential element of both a constructive fraudulent transfer and an avoidable preference.<sup>14</sup> Section 101(32) provides the test, suggesting a balance sheet approach adjusted by a fair valuation standard. Experts often seek to determine these values, employing an array of generally accepted valuation approaches and methods to estimate the enterprise value or market value of invested capital (“MVIC”)<sup>15</sup> to assess the overall asset value of the operating enterprise. If appropriate, they may also include other non-operating assets. In actions involving avoidance powers, the application of a going concern premise of value (as opposed to a liquidation or other premise of value) is often hotly contested.<sup>16</sup> The legal standard, however, is deceptively clear—it requires a court to employ a fair valuation standard. Experts and courts then compare the debtor’s business value<sup>17</sup> plus its non-operating assets to the face value of its

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(ii) the sum of the excess of the value of each general partner’s nonpartnership property, exclusive of property of the kind specified in subparagraph (A) of this paragraph, over such partner’s nonpartnership debts; and

(C) with reference to a municipality, financial condition such that the municipality is—

(i) generally not paying its debts as they become due unless such debts are the subject of a bona fide dispute; or

(ii) unable to pay its debts as they become due.

11 U.S.C. § 101(32).

<sup>14</sup> There is an important twist to the insolvency requirement for constructive fraudulent transfers that does not exist for preferential transfers. The insolvency element of a constructive fraudulent transfer is met if a debtor was insolvent immediately before the transfer was made or the obligation incurred, or was rendered insolvent thereby. See 11 U.S.C. § 548(a)(1)(B)(ii)(I). That is not the case with the insolvency element of a preference under 11 U.S.C. § 547(b)(3). See generally 1 FRANK R. KENNEDY, VERN COUNTRYMAN & JACK F. WILLIAMS, PARTNERSHIPS, LIMITED LIABILITY ENTITIES, AND S CORPORATIONS IN BANKRUPTCY §§ 6.04, 6.05 (2000). For a classic treatment of fraudulent transfer law, see generally GARRARD GLENN, FRAUDULENT CONVEYANCES AND PREFERENCES (rev. ed. 1940).

<sup>15</sup> MVIC is the “market value of equity plus the market value of all interest-bearing debt that is part of the capital structure (however that is determined).” See JAMES R. HITCHNER, FINANCIAL VALUATION: APPLICATIONS AND MODELS 324 (4th ed. 2017) [hereinafter HITCHNER, 4th ed.]. As explained later, there are many terms and definitions for enterprise value, some of which are used interchangeably, including MVIC as one method of computation.

<sup>16</sup> Unless a debtor was on its deathbed at the time of the subject transfer, a fair valuation under section 101(32) requires the use of a going concern, not liquidation, premise of value. See *In re Taxman Clothing Co.*, 905 F.2d 166, 170 (7th Cir. 1990); see also *Fisher v. Enter. Truck Line, Inc. (In re CXM, Inc.)*, 336 B.R. 757, 760–61 (Bankr. N.D. Ill. 2006); *WRT Creditors Liquidation Tr. v. WRT Bankr. Litig. Master File Defendants (In re WRT Energy Corp.)*, 282 B.R. 343, 369 (Bankr. W.D. La. 2001) (stating that going concern valuation is appropriate unless liquidation in bankruptcy was “clearly imminent on the date of the challenged transfer”).

<sup>17</sup> There are many terms and definitions of enterprise value, some of which are used interchangeably. These include company value, transaction value, total enterprise value, total consideration, aggregate value, market value of invested capital (MVIC), total invested capital (TIC), and firm value. See SHANNON P. PRATT & ALINA V. NICULITA, VALUING A BUSINESS: THE ANALYSIS AND APPRAISAL OF CLOSELY HELD COMPANIES 37 (5th ed. 2008) [hereinafter PRATT & NICULITA, VALUING A BUSINESS] (“Unfortunately, the term *enterprise value* is used,



debts,<sup>18</sup> ensuring that all “debts” are included in the process (a bit more about this later). I call this series of inquiries that tests solvency and performs a valuation within that context the “Clawback Scenario.”<sup>19</sup>

Second, section 1129 lists the standards for confirmation of a chapter 11 plan. In a chapter 11 case, the law presumes the emerging post-confirmation entity is a going concern unless liquidation is specified in the proposed plan. The application of the going concern premise of value informs the selection of the approaches used in the valuation and leads to a legal conclusion that a going concern premise of value and a “fair and equitable” standard of value are being embraced as appropriate. Confirmation often hinges on the reorganizational value of the debtor’s property.<sup>20</sup> “In certain respects, valuation is the true heart of section 1129. Four points in particular bear this out: (1) governing principles of collateral valuations; (2) the ‘best interests’ test; (3) the ‘cramdown’ rules; and (4) the ‘new value’ plan construct.”<sup>21</sup>

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at best, very ambiguously and, at worst, very carelessly. It means different things to different people, each of whom may believe that his or her definition is the right definition.”); *see also* IAN RATNER ET AL., BUSINESS VALUATION AND BANKRUPTCY 30 (2009). It is important to know precisely what someone means when they use a specific term. Enterprise value is different than the reorganizational value of the debtor, although the former is a component of the latter. *See* Boris J. Steffen, *Reorganization Value: What It Is . . . and Isn't*, 30 ASS'N INSOLVENCY & RESTRUCTURING ADVISORS J., no. 3, 2016, at 16.

<sup>18</sup> The face value of debt is the nominal value of the debt instrument, i.e., the stated value. It is the amount paid at maturity from a cash flow perspective. The book value of debt is an accounting mechanism that takes into account unamortized discounts and premiums—that is, the difference between the face amount of the bond and the proceeds received by the issuer. Further, the market value, or trading value, is likely different from either of the above.

<sup>19</sup> For examples of the valuation disputes in these types of scenarios, see *Tronox Inc. v. Kerr McGee Corp.* (*In re Tronox Inc.*), 503 B.R. 239, 258 (Bankr. S.D.N.Y. 2013) (discussing fraudulent transfer action involving leveraged initial public offering and spin); *Adelphia Recovery Tr. v. FPL Grp., Inc.* (*In re Adelphia Commc'ns Corp.*), 512 B.R. 447, 471 (Bankr. S.D.N.Y. 2014), *aff'd*, No. 02-41729, 2015 WL 1208588 (S.D.N.Y. Mar. 17, 2015) (discussing a fraudulent transfer action involving stock redemption). The term “clawback” has an interesting history. Its original use, in law, dates to old tax matter disputes, and then migrated to other areas of the law. *Cf.* BRYAN A. GARNER, A DICTIONARY OF MODERN LEGAL USAGE 160 (2d ed. 1995). Its more recent home is in bankruptcy, where the term is used to describe the situation where a prepetition transfer of certain property is avoided and returned to the bankruptcy estate, particularly in Ponzi scheme cases. *See* 11 U.S.C. § 541(a)(3); *see also, e.g.*, *Wiand v. Lee*, 753 F.3d 1194, 1197 (11th Cir. 2014) (term “clawback” used to refer to action by receiver under state fraudulent transfer law in a Ponzi scheme matter).

<sup>20</sup> “A plan is not ‘fair and equitable’ if it keeps a judge in the dark, even if the substantive terms of the plan itself seem unobjectionable.” DOUGLAS G. BAIRD, *THE UNWRITTEN LAW OF CORPORATE REORGANIZATIONS* 179 (2022).

<sup>21</sup> Debra I. Grassgreen & Pamela M. Egan, *Valuation in the Chapter 11 Process*, in *CONTESTED VALUATION*, *supra* note 3, at ¶ 1.06. To cram down, the proponent must show that the plan is fair and equitable as to any dissenting class of creditors. Fair and equitable treatment has a different meaning for secured creditors and unsecured creditors. *See id.* at ¶ 1.06[3]. Many chapter 11 valuation disputes fall under the new value exception to the absolute priority rule. *See, e.g.*, *Case v. Los Angeles Lumber Prods. Co.*, 308 U.S. 106, 120 (1939) (Supreme Court explicitly recognizes present version of the absolute priority rule holding “that to the

Experts often employ a generally accepted array of valuation approaches and methods to determine an entity's enterprise value or MVIC as a component of the reorganizational value of the assets.<sup>22</sup> This value determination establishes the value of the post-confirmation estate, allowing a holder of an impaired claim to compare its projected distribution to that to which it would otherwise be entitled under a hypothetical chapter 7 (liquidation) case and to assess whether cramdown requirements have been met.<sup>23</sup> Confirmation by cramdown is heavily regulated under section 1129(b).<sup>24</sup> Essentially, these rules require a comparison of the value of the debtor's assets to the outstanding claims (a typical measure of financial harm).<sup>25</sup> When there is a cramdown fight at confirmation, a valuation is often required. "A valuation of the debtor's business is, by virtue of the statutory language, almost a prerequisite to a determination that the plan satisfies the fair and equitable test of section 1129(b)."<sup>26</sup> I call this series of inquiries that assesses the reorganization value and performs a valuation within that context the "Plan Scenario."<sup>27</sup>

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extent of their debts creditors are entitled to priority over stockholders against all the property of an insolvent debtor."); see also Randolph J. Haines, *The Unwarranted Attack on New Value*, 72 AM. BANKR. L.J. 387 (1998); Grassgreen & Egan, *supra* note 21, at ¶ 1.06[4]; 11 U.S.C. § 1129(b)(2)(A). For unsecured creditors, the rule is generally understood to ensure that no junior holder of claims or interests will receive estate distributions until those senior to it are paid in full and that no senior holder can receive more than the full satisfaction of their claim. Grassgreen & Egan, *supra* note 21, at ¶ 1.06[3][b]; 11 U.S.C. § 1129 (b)(2)(B).

<sup>22</sup> "Remarkably, valuation is determined in chapter 11 in a variety of different manners, using a variety of different methodologies, depending on timing and the circumstances involved." Grassgreen & Egan, *supra* note 21, at ¶ 1.01. "Value is a word of many meanings . . . . It gathers its meaning in a particular situation from the purpose for which a valuation is being made" Grp. of Institutional Invs. v. Chi., Milwaukee, St. Paul & Pac. Ry. Co., 318 U.S. 523, 540 (1943), quoted in ASS'N OF INSOLVENCY & RESTRUCTURING ADVISORS, STANDARDS FOR DISTRESSED BUSINESS VALUATION 6 (2014) [hereinafter AIRA STANDARDS], [https://www.aira.org/pdf/standards/AIRA\\_Standards\\_2014.pdf](https://www.aira.org/pdf/standards/AIRA_Standards_2014.pdf). See also Steffen, *supra* note 17, at 15–17. Opinions of value in the context of workouts, restructurings, and bankruptcy can be used in determining reorganization value, equity value available for new and old creditors, asset sale value for whole company sales or sales of business segments, solvency/insolvency determinations, feasibility testing in the confirmation of a plan, chapter 7 conversion tests for determination of adequate protection, tax attribute determinations, and other uses. See AIRA STANDARDS, *supra* note 22, at 6.

<sup>23</sup> 11 U.S.C. § 1129(a)(7); see also BAIRD, *supra* note 20, at 179, 182.

<sup>24</sup> See generally Kenneth N. Klee, *All You Ever Wanted to Know About Cram Down Under the New Bankruptcy Code*, 53 AM. BANKR. L.J. 133 (1979).

<sup>25</sup> See, e.g., *In re Coram Healthcare Corp.*, 315 B.R. 321, 345 (Bankr. D. Del. 2004).

<sup>26</sup> *In re Johns-Manville Corp.*, 68 B.R. 618, 636 (Bankr. S.D.N.Y. 1986).

<sup>27</sup> For examples of valuation disputes in these types of scenarios, see *Coram Healthcare*, 315 B.R. 321; *In re Exide Techs.*, 303 B.R. 48 (Bankr. D. Del. 2003); *In re Chemtura Corp.*, 439 B.R. 561 (Bankr. S.D.N.Y. 2010).

Business valuation in bankruptcy is both a fine art and a science,<sup>28</sup> and a discipline born of thoughtful consideration of the appropriate drivers of value, their interconnectedness, the application of a rigorous methodology, and deliberate exercise in judgment.<sup>29</sup> This Article explores practices of bankruptcy professionals and the sensibilities of courts regarding the use of valuation approaches and methods to help understand valuations performed in bankruptcy disputes and to engage the next generation of bankruptcy law students and practitioners.

### B. *Building on a Strong Foundation*

Sprinkled across the discussions of valuation practices, approaches, and methods are observations from various empirical studies and other deep thoughts about the practices to perform valuations in general,<sup>30</sup> and the implications for bankruptcy valuations in particular.<sup>31</sup> I commend these

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<sup>28</sup> See, e.g., Anders J. Maxwell, *Markets, Uncertainty, and the Role of Judgment in Bankruptcy Valuation*, in CONTESTED VALUATION, *supra* note 3, at ¶ 12.05. This characterization recognizes the dichotomy of the “science of objective measure” and established methodology, as against the fine art of applied “proficiency and judgment.” See Joseph Herman, *Medicine: The Science and the Art*, 27 J. MED. ETHICS: MED. HUMANS. 42, 42 (2001) (citations omitted); John Saunders, *The Practice of Clinical Medicine as an Art and as a Science*, 26 J. MED. ETHICS: MED. HUMANS. 18, 18, 20 (2000). Both what is amenable to objective measure and what is not contribute to the composite portrait of the value of a debtor which we are required to draw. See, e.g., *In re El Paso Pipeline Partners, L.P. Derivative Litig.*, No. 7141, 2015 WL 1815846, at \*22 (Del. Ch. Apr. 20, 2015); *In re PTL Holdings LLC*, No. 11-12676, 2011 WL 5509031, at \*5 (Bankr. D. Del. Nov. 10, 2011) (“[P]reparing financial projections for a large operating business is equal parts science and art.”); *Chatz v. BearingPoint Inc.* (*In re Nanovation Techs., Inc.*), 364 B.R. 308, 346 (Bankr. N.D. Ill. 2007) (“Valuation is as much an art as [a] science and there is room for a difference of opinion . . .”).

<sup>29</sup> Maxwell, *supra* note 28, at ¶ 12.05. The focus of this Article is on how courts and experts address business valuation in bankruptcy disputes. It is not intended as a review of the many exciting developments of valuation theory and modeling stemming from the world of finance or appraisal practice. For example, the Article does not discuss the use of artificial intelligence and machine learning to explore and estimate value. Those methods, often used within some form of the income approach, although fascinating, are still relatively new, and they have not yet achieved the widespread judicial currency of the standard three approaches and methods commonly employed in the bankruptcy context when valuing a going concern—the income, market, and asset approaches. See Stark & Coffey, *supra* note 6, at ¶ 3.03[1].

<sup>30</sup> See, e.g., EDWARD I. ALTMAN ET AL., CORPORATE FINANCIAL DISTRESS, RESTRUCTURING, AND BANKRUPTCY 117–34 (4th ed. 2019); Kenneth Ayotte & Edward R. Morrison, *Valuation Disputes in Corporate Bankruptcies*, 166 U. PA. L. REV. 1819 (2018); Stuart C. Gilson et al., *Valuation of Bankrupt Firms*, 13 REV. FIN. STUD. 43 (2000).

<sup>31</sup> We have been blessed with excellent work in the field, carried out with unmatched levels of collegiality, and we are richer for it. See, e.g., Barry E. Adler, *Financial and Political Theories of American Corporate Bankruptcy*, 45 STAN. L. REV. 311, 315–19 (1993); Barry E. Adler & Ian Ayres, *A Dilution Mechanism for Valuing Corporations in Bankruptcy*, 111 YALE L.J. 83, 86 (2001); Douglas G. Baird & Donald S. Bernstein, *Absolute Priority, Valuation Uncertainty, and the Reorganization Bargain*, 115 YALE L.J. 1930, 1943 (2006); Douglas G. Baird, *The Uneasy Case for Corporate Reorganizations*, 15 J. LEGAL STUD. 127, 145 (1986); Lucian Ayre Bebchuk, *A New Approach to Corporate Reorganizations*, 101 HARV. L. REV. 775, 777 (1988); Anthony

thoughtful and important studies and proposals, and I acknowledge that much of my work here is predicated on the empirical and theoretical scaffolding constructed by others.<sup>32</sup> This Article offers a modest attempt at explaining and developing an understanding of how valuation experts approach their assignments, the pressures they endure, the assumptions and inputs they select and defend, the role of a court and the law, and the role that counsel plays in valuation disputes.<sup>33</sup>

The thoughtful work of Professors Kenneth Ayotte and Edward R. Morrison, among others,<sup>34</sup> greatly influenced my approach and understanding of the field. A meta-analysis of several of the empirical studies done on valuation in bankruptcy, and my own experience, suggests a few observations regarding commonly used approaches and methodologies. First, courts generally preferred to apply both the income and market approaches in estimating the value of a going concern.<sup>35</sup> When a discounted cash flow method was used, it was overwhelmingly a multi-stage model, including annual projections for about five years plus a terminal value assumption.<sup>36</sup> The mid-year or mid-point convention

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J. Casey & Julia Simon-Kerr, *A Simple Theory of Complex Valuation*, 113 MICH. L. REV. 1175, 1210 (2015); Edward J. Janger & Stephan Madaus, *Value Tracing and Priority in Cross-Border Group Bankruptcies: Solving the Nortel Problem from the Bottom Up*, 27 U. MIAMI INT'L & COMP. L. REV. 33 (2020); Keith Sharfman, *Judicial Valuation Behavior: Some Evidence from Bankruptcy*, 32 FLA. ST. U. L. REV. 387, 387–88 (2005); Keith Sharfman, *Valuation Averaging: A New Procedure for Resolving Valuation Disputes*, 88 MINN. L. REV. 357, 358 (2003); Christopher S. Sontchi, *Valuation Methodologies: A Judge's View*, 20 AM. BANKR. INST. L. REV. 1 (2012).

<sup>32</sup> I have also expanded and relied heavily on several works I co-authored about valuation in preparation of this Article, and I have been greatly influenced by those colleagues in valuation thought and deed. *See, e.g.*, Stan Bernstein, Susan H. Seabury & Jack F. Williams, *Squaring Bankruptcy Valuation Practice with Daubert Demands*, 16 AM. BANKR. INST. L. REV. 161, 190 (2008); Stan Bernstein, Susan H. Seabury & Jack F. Williams, *The Empowerment of Bankruptcy Courts in Addressing Financial Expert Testimony*, 80 AM. BANKR. L.J. 377 (2006) [hereinafter Bernstein, Seabury & Williams, *Empowerment of Bankruptcy Courts*]; BERNSTEIN, SEABURY & WILLIAMS, *ADMITTING EXPERT VALUATION*, *supra* note 1.

<sup>33</sup> By neglect here, I mean that some commentators underappreciate the role that counsel play in the bankruptcy valuation process. If, as I argue, bankruptcy valuations are always contextual, it is the attorney, and not the expert, that sets the factual, and frames the legal, context before the court.

<sup>34</sup> *See generally* Ayotte & Morrison, *supra* note 30. *See also* ALTMAN ET AL., *supra* note 30 at 91–115 (providing a summary of relevant empirical work and study of valuation techniques used in bankruptcy cases); Gilson et al., *supra* note 30, at 54.

<sup>35</sup> *Adelphia Recovery Tr. v. FPL Grp., Inc (In re Adelphia Comm'ns Corp.)*, 512 B.R. 447, 471 (Bankr. S.D.N.Y. 2014), *aff'd*, No. 02-41729, 2015 WL 1208588 (S.D.N.Y. Mar. 17, 2015); *In re Chemtura Corp.*, 439 B.R. 561, 2010 WL 4272727 (Bankr. S.D.N.Y. 2010).

<sup>36</sup> *See* SHANNON P. PRATT & ALINA V. NICULITA, *THE LAWYER'S BUSINESS VALUATION HANDBOOK: UNDERSTANDING FINANCIAL STATEMENTS, APPRAISAL REPORTS, AND EXPERT TESTIMONY* 54 (2d ed. 2010) [hereinafter PRATT & NICULITA, *BUSINESS VALUATION HANDBOOK*] (typical forecast period “runs from three to ten years, with five years being most common”); P. Eric Siegert & Andrew Turnbull, *Discounted Cash Flow Analysis*, in *CONTESTED VALUATION*, *supra* note 3, at ¶ 8.04 (five-year discrete projection period is “common”).

was the more common method in present valuing cash flows under the discounted cash flow method.<sup>37</sup> However, when a terminal value estimate in the discounted cash flow method employed an exit market multiple estimator,<sup>38</sup> then the convention for terminal value often converted to year-end.<sup>39</sup> The percentage of enterprise value attributable to terminal value remained relatively constant across studies at about 70%-75%.<sup>40</sup>

The use of a Weighted Average Cost of Capital (“WACC”) as the discount rate was one of the more commonly applied measures of risk for the discounted cash flow method in bankruptcy valuations,<sup>41</sup> and the Capital Asset Pricing Model (“CAPM”) was one of the more widely-used models used in estimating the required return on equity in constructing a discount rate.<sup>42</sup> Modifications to the CAPM involved adding a small size premium and/or a company specific risk

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*See generally* Gilson et al., *supra* note 30, at 50 (“The terminal value is calculated assuming that capital cash flows grow at a constant rate in perpetuity, starting with the last year of the projection.”). The shorter the projection period, the more value is likely concentrated in the terminal value of a going concern. *See* PRATT & NICULITA, *BUSINESS VALUATION HANDBOOK*, *supra* note 36, at 55 (2d ed. 2010).

<sup>37</sup> *Alberts v. HCA Inc. (In re Greater Se. Cmty. Hosp. Corp. I) (Greater Southeast Hospital II)*, No. 02-02250, 2008 Bankr. LEXIS 1607, at \*232 (Bankr. D.D.C. May 19, 2008) (“This method ‘assumes that annual cash flows or earnings are received, on average, at the middle of each period.’” (quoting JAY E. FISHMAN ET AL., *PPC’S GUIDE TO BUSINESS VALUATION* ¶ 505.58 (15th ed. 2005))); *see also, e.g.*, RATNER ET AL., *supra* note 17, at 57; PRATT & NICULITA, *BUSINESS VALUATION HANDBOOK*, *supra* note 36, at 74–78. (example of the use of mid-year convention in DCF).

<sup>38</sup> *In re Kamayan Holdings, LLC*, No. 10-54702, 2012 Bankr. LEXIS 2309, at \*5–6 (Bankr. W.D. Tex. May 22, 2012) (“[T]he ‘exit multiple model’ . . . assumes that a business will be sold at the end of the projection period . . . . The exit multiple approach applies an accepted multiple to cash flow as of the end of the projected period.”).

<sup>39</sup> Michael Vitti, *The Discount Period for the Terminal Value*, NAT’L ASS’N CERTIFIED VALUATORS & ANALYSTS: QUICKREAD (July 18, 2018), <https://quickreadbuzz.com/2018/07/18/the-discount-period-for-the-terminal-value/>. NACVA publishes excellent and thoughtful articles, well worth study and consideration, on valuation issues.

<sup>40</sup> Gilson et al., *supra* note 30, at 59 (finding a median enterprise value attributable to terminal value of 70.5%); *see also* Siegert & Turnbull, *supra* note 36, at ¶ 8.04 (noting that terminal value often constitutes a significant portion of the value of the firm).

<sup>41</sup> AIRA STANDARDS, *supra* note 22, at 75.

<sup>42</sup> *See* ASS’N OF INSOLVENCY & RESTRUCTURING ADVISORS, *Part II: Advanced Business Valuation*, in *CERTIFICATION IN DISTRESSED BUSINESS VALUATION: STUDY COURSE 2:2–2:3* (Grant W. Newton ed., rev. 2005) (on file with author) [hereinafter *CDBV STUDY COURSE, PART II*]; *see also* PRATT & NICULITA, *BUSINESS VALUATION HANDBOOK*, *supra* note 36, at 67 (noting that many consider the CAPM to be “the most theoretically correct model,” and “the most widely used” by finance practitioners). *See generally* William F. Sharpe, *Capital Asset Prices: A Theory of Equilibrium Under Conditions of Risk*, 19 J. FIN. 425 (1964). One commentator, who rejects the use of CAPM, nevertheless recognizes that CAPM is used by over 90% of public companies, has served as the workhorse for cost of equity estimates under the DCF method, and is ubiquitous in business schools. *See* Ivo Welch, *The Cost of Capital: If Not the CAPM, Then What?*, *MGMT. & BUS. REV.*, Winter 2021, <https://mbrjournal.com/2021/01/26/the-cost-of-capital-if-not-the-capm-then-what/>.

premium,<sup>43</sup> thus converting the CAPM to the modified or “MCAPM” or multi-factor model.<sup>44</sup> Finally, one of the more common multiples employed under the market approach has been the earnings before interest, taxes, depreciation and amortization (“EBITDA”) market multiple.<sup>45</sup>

### C. A Good Roadmap Helps

In this Article, I discuss many issues pertaining to valuations in disputes within bankruptcy cases, as well as general valuation concepts and methods that have been accepted by bankruptcy and other courts. I am also interested in how law frames choices and tradeoffs made by bankruptcy practitioners and courts in the valuation context with a vigilant eye on how traditional valuation standards square with the resolution of the applicable legal standards under bankruptcy law. I am further interested in both disputes resolved by courts and those settled by parties and never reaching a court. My goal is to synthesize these observations to create a framework through which law students and lawyers may better understand the role of business valuation in bankruptcy, with an appropriate appreciation for the balance of law and finance.

In Section II, I discuss how law, and not finance, frames the valuation issues in a bankruptcy case. I reference the two scenarios recurring in valuation disputes introduced in Section I.A: insolvency in the avoidance context (the Clawback Scenario); and fair and equitable treatment in the plan confirmation process (the Plan Scenario). Discussion of these scenarios is designed to foreshadow the challenges that arise to various methods, inputs, and assumptions behind business valuations and bankruptcy valuation disputes.

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<sup>43</sup> See, e.g., *Drs. Hosp. of Hyde Park, Inc. v. Desnick (In re Drs. Hosp. of Hyde Park, Inc.)*, 360 B.R. 787, 827 (Bankr. N.D. Ill. 2007); see also RATNER ET AL., *supra* note 17, at 54–55; Siegert & Turnbull, *supra* note 36, at ¶ 8.05[6]–[7]; SHANNON P. PRATT & ROGER J. GRABOWSKI, *COST OF CAPITAL IN LITIGATION: APPLICATIONS AND EXAMPLES* 153 (2011) [hereinafter PRATT & GRABOWSKI, *LITIGATION COST OF CAPITAL*].

<sup>44</sup> See CDBV STUDY COURSE, PART II, *supra* note 42, at 2:3–2:4; ASS’N OF INSOLVENCY & RESTRUCTURING ADVISORS, *Part III: Application of Business Valuation Concepts to Bankruptcy and Other Distressed Situations*, in *CERTIFICATION IN DISTRESSED BUSINESS VALUATION: STUDY COURSE 2:2–2:3* (Grant W. Newton ed., rev. 2017) (on file with author) [hereinafter CDBV STUDY COURSE, PART III]; see also, e.g., RATNER ET AL., *supra* note 17, at 52. Some experts and courts have employed an alternative to CAPM or MCAPM where a business debtor is very small and privately owned. That alternative is known as the “build-up method” (“BUM”). See, e.g., *id.*; CDBV STUDY COURSE, PART II, *supra* note 42, at 2:4–2:7.

<sup>45</sup> See, e.g., *U.S. Bank, Nat’l Ass’n v. Wilmington Tr. Co. (In re Spansion, Inc.)*, 426 B.R. 114, 132–33, 136–37 (Bankr. D. Del. 2010) (adopting EBITDA multiple and rejecting revenue multiple in these circumstances as an outlier). “EBITDA” is earnings before interest, taxes, depreciation and amortization. EBITDA is not the same as free cash flows to the firm. It is, however, a market metric that allows one to compare earnings across firms that may have different tax and depreciation policies, financing decisions, and capital expenditure policies. RATNER ET AL., *supra* note 17, at 65. Other multiples include earnings before interest and taxes (“EBIT”) and revenue. See CDBV STUDY COURSE, PART II, *supra* note 42, at 4:22–4:23.

Here, I also introduce how many of the inputs and assumptions that must be made in the construction of a business valuation model require the expert and trier of fact to make choices between the quality and persuasiveness of the data and other information relied on. These choices often require further consideration regarding degrees of relevance and reliability, as well as degrees of transparency and opaqueness. These choices, however, are usually not self-evident.

In Section III, I discuss the nature and importance of standards and premises of value in a valuation model and how much law, as opposed to finance, often controls this selection. I address the questions of whether the business being valued is a going concern or on its “deathbed,”<sup>46</sup> and the “what” and “why” behind the application of such standards as “fair market value,” “fair valuation,” “reasonably equivalent value,” or a “fair and equitable value.” Section III is also where I introduce the three primary approaches and methods employed in business valuations in bankruptcy: the income approach, market approach, and asset approach.<sup>47</sup> Since the 1980s and 1990s, these approaches have become well established and well accepted by experts and courts. Their persuasiveness usually depends on the question being addressed and the quality, reliability, and availability of the information and data that make the models work.

In Sections IV through VI, I address specific inputs and assumptions, used in each approach, that are commonly challenged. I suggest that experts perform greater diligence and offer more theoretical and factual support for their valuation opinions in some circumstances. Where further explanation by example is appropriate, I reference both the Clawback Scenario and the Plan Scenario to illustrate the impact of an expert’s selection of inputs on the valuation opinion.

In Section VII, I discuss how and why an expert often seeks to reconcile multiple approaches. Like a ship fixing its position by the shooting of celestial bodies with a sextant, the application of multiple approaches and methods to valuation analysis may bring greater comfort, confidence, and reliability. There may be strength in numbers by using multiple approaches and methods that offer

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<sup>46</sup> See, e.g., *Travellers Int’l AG v. Trans World Airlines, Inc. (In re Trans World Airlines, Inc.)*, 134 F.3d 188, 193 (3d Cir. 1998) (presuming going concern value unless company is on its financial deathbed, where “liquidation in bankruptcy [is] clearly imminent”); *Liquidation Tr. of Hechinger Inv. Co. v. Fleet Retail Fin. Grp. (In re Hechinger Inv. Co.)*, 327 B.R. 537, 548 (D. Del. 2005).

<sup>47</sup> See PRATT & NICULITA, *BUSINESS VALUATION HANDBOOK*, *supra* note 36, at 25. The asset approach is driven by assigned values to asset and liability accounts, including property and debt not carried on the balance sheet. See *id.* at 26–27.

consistent results; however, failing to address other approaches that may yield contradictory results may leave an expert's analysis lacking.

In Section VIII, I share my observations about valuation approaches and methods in the bankruptcy context. Specifically, I impose an architecture and taxonomy to the use and understanding of valuations in the bankruptcy ecosystem. Courts must make choices—experts and counsel do well when mindful of that judicial role—and choices cause conflicts. In bankruptcy, these choices often center on choosing between varying degrees of relevance and reliability, between opaqueness and transparency, and more. Valuations in bankruptcy are really about those choices and the connectedness among counsel, expert, and court. The approaches and methods—the income, market, and asset approaches—connect these multiple players in an elegant and humbling dance as they value a business in bankruptcy. Bankruptcy judges are left to make these decisions, as they should. “Bankruptcy courts sometimes do, in fact, approach the valuation exercise as courts of equity and will, under appropriate circumstances, labor mightily to render as wise and as firm a ruling as available, notwithstanding the frailty of evidence offered, for the collective[] benefit of parties in interest.”<sup>48</sup> We are blessed, as a profession, to have a thoughtful and dedicated bench. In the end, it is the magic found in the ecosystem of bankruptcy (and all who contribute to it), coupled with all that I have learned from those who have come before me, including my students, that has led me to offer this modest study of business valuations in bankruptcy.

## II. BANKRUPTCY VALUATION IN DISPUTE

### A. *Bankruptcy Law's Frame*

Bankruptcy valuations in dispute are not just “valuations + disputes”; they involve a separate sub-discipline of valuation practice altogether in an ecosystem steeped in its own levels of complexity, law, custom, and tradition. It is a unique arena and specialty. These valuations occur in a decidedly nonbusiness forum—the bankruptcy courtroom. Experts, once they are called to the stand to testify, are on their own. They are forbidden to speak to anyone, including their valuation team, for the duration of their testimony. Almost anything that they may consult is subject to discovery, including any notes, papers, schedules, and models. No one on the opposing side wants to see an opposing expert have a good day. They dedicate themselves to seeing that does not happen, and by

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<sup>48</sup> Sharon L. Levine & S. Jason Teele, *Valuation Procedure, the Influence of Equity and the Inclination Toward Settlement*, in CONTESTED VALUATION, *supra* note 3, at ¶ 6.03[2].



“they,” I mean an entire opposing team of co-counsel and experts that support the opposing attorney’s cross-examination of the singular, lonely expert. While not everything is fair game, opposing attorneys have wide-ranging discretion in the areas of their inquiry, including substantive questions and points of credibility and qualification. Furthermore, it is no small matter that an expert can only explain his methodology, analysis, support, and conclusions in response to questions asked. If an attorney asks the wrong question, they may get an incomplete answer at best. To be sure, experts retained in disputes are often subject to numerous pressures, and they must form an opinion recognizing the hazards of litigation. This is a process and atmosphere far removed from investment banking valuations, market analyst valuations, management valuations, accounting impairment testing valuations, classroom valuations, and transactional fairness and solvency opinions. An out-of-court valuation expert formulates their opinion assuming, many times rightly, that the opinion will not be subject to courtroom evidentiary thresholds, the rigor of cross-examination in front of a judge, or risks of a published legal finding about the expert’s work and opinion.

The subset of valuation disputes in bankruptcy that go to trial are fascinating. There are usually multiple layers of dispute between opposing experts.<sup>49</sup> As mentioned, point of view is critical in any valuation in dispute in bankruptcy. *In re EM Lodgings, LLC*,<sup>50</sup> brings home this point in an elegant and thoughtful manner. There, the bankruptcy judge taught us that courts struggle to find a “rational rule of decision” when faced with competing expert reports.<sup>51</sup> The court recognized that the differences between the experts were driven by the experts’ dramatically different views about the future performance of a hotel. One expert saw an optimistic future, the other a pessimistic one. The court found

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<sup>49</sup> See, e.g., *Tronox Inc. v. Kerr McGee Corp.* (*In re Tronox Inc.*), 503 B.R. 239 (Bankr. S.D.N.Y. 2013); *Adelphia Recovery Tr. v. FPL Grp., Inc.* (*In re Adelphia Commc’ns Corp.*), 512 B.R. 447, 471 (Bankr. S.D.N.Y. 2014), *aff’d*, No. 02-41729, 2015 WL 1208588 (S.D.N.Y. Mar. 17, 2015); *Bachrach Clothing, Inc. v. Bachrach* (*In re Bachrach Clothing, Inc.*), 480 B.R. 820 (Bankr. N.D. Ill. 2012); *In re Chemtura Corp.*, 439 B.R. 561 (Bankr. S.D.N.Y. 2010); *U.S. Bank Nat’l Assn. v. Wilmington Tr. Co.* (*In re Spansion, Inc.*), 426 B.R. 114; *ASARCO LLC v. Americas Mining Corp.*, 396 B.R. 278 (S.D. Tex. 2008). Of course, no list should fail to include the *Greater Southeast Community Hospital* trilogy by Judge Teel. See *Alberts v. HCA Inc.* (*In re Greater Se. Cmty. Hosp. Corp.*) (*Greater Southeast Hospital I*), No. 02-02250, 2007 Bankr. LEXIS 6 (Bankr. D.D.C. Jan. 2, 2007); *Alberts v. HCA Inc.* (*In re Greater Se. Cmty. Hosp. Corp. I*) (*Greater Southeast Hospital II*), No. 02-02250, 2008 Bankr. LEXIS 1607 (Bankr. D.D.C. May 19, 2008); *Alberts v. HCA Inc.* (*In re Greater Se. Cmty. Hosp. Corp.*) (*Greater Southeast Hospital III*), No. 02-2250, 2012 Bankr. LEXIS 618 (Bankr. D.D.C. Feb. 22, 2012).

<sup>50</sup> *In re EM Lodgings, LLC*, 580 B.R. 803 (Bankr. C.D. Ill. 2018).

<sup>51</sup> *Id.*

that both experts were credible. Sometimes the differences, often vast, are simply driven by different points of view.<sup>52</sup>

Although the approaches and methods of business valuations in bankruptcy are generally settled, the inputs and assumptions are often not. *Hanckel v. Campbell (In re Hanckel)*<sup>53</sup> instructs us that differences in expert opinions do not lead to the conclusion that one is reliable and the other not, or even that one is right and the other is wrong. Experts aid the trier of fact when they help make a court's decision more thoughtful and thorough, regardless of whether a court rules for or against the party retaining the expert. In *Hanckel*, the court observed that both experts were well qualified in business valuations, both offered testimony that was helpful to the court, both supported their analyses with documents and data, both used widely-accepted approaches and methods, both explained why they used their methods, and both explained what was incorrect or unpersuasive with the other expert's testimony.<sup>54</sup> While the court leaned toward one expert, it did make adjustments based on the critique presented by the other expert.<sup>55</sup>

As illustrated by *Hanckel*, experts in bankruptcy valuation disputes generally embrace substantially similar approaches but use different inputs and assumptions. Those inputs and assumptions are often driven by conceptual understandings and disagreements between the experts. It is this inquiry that often leads us to an interesting and important question: Why are we trying these disputes? An example helps flesh out this important question.

A common dispute between experts in a bankruptcy valuation matter turns on the cost of equity used in determining the discount rate,<sup>56</sup> a measure of risk, that is applied to future cash flows under the discounted cash flow method, one of several methods under the income approach. As discussed in greater detail herein, one commonly applied method of estimating the cost of equity is the MCAPM. MCAPM is the CAPM plus adjustments for additional factors, such

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<sup>52</sup> *Id.* at 812 (“There is no evidentiary basis to enable the Court to determine which set of projections would have more credence with market participants.”).

<sup>53</sup> *Hanckel v. Campbell (In re Hanckel)*, No. 12-04936, 2015 Bankr. LEXIS 4202 (Bankr. D.S.C. Dec. 11, 2015).

<sup>54</sup> *Id.* at \*43–44.

<sup>55</sup> *Id.* at \*48–49.

<sup>56</sup> *See, e.g., ASARCO LLC v. Americas Mining Corp.*, 396 B.R. 278, 360 n.88 (S.D. Tex. 2008) (“One of the most hard-fought aspects of this trial was which discount rate should be applied and how it should be calculated.”).

as a small size premium or other company-specific risk factors.<sup>57</sup> The inputs to CAPM are a risk-free rate, an equity risk premium, and a relative risk adjustment, known as beta. A foundational premise adopted in the CAPM is that a firm is anticipated to pay a well-diversified investor only for nondiversifiable risk.<sup>58</sup> The addition of a small size premium speaks to that question: that is, does a relatively small firm have more nondiversifiable risk?<sup>59</sup> If so, how does the firm compensate for that additional risk and at what amount? There are experts who reject the small size premium or any modification to the CAPM.<sup>60</sup> There are also experts who accept the small size premium in the appropriate context and regularly employ this specific input in the MCAPM.<sup>61</sup> This is an important debate, because a higher cost of equity as calculated by the CAPM or MCAPM results in a lower overall value as a result of the math, and vice versa where a lower cost of equity results in a higher overall value. Experts engage each other through theoretical sparring over several rounds. To a casual observer, you may see large swings in value that suggest that something is just not right about the process. You may be right; but more often you may be missing something deeper. We often think of the large swings in values as a symptom of made-to-order business valuations in bankruptcy that create unnecessary confusion and clutter. I am not so naïve as to think this never happens. But through more than thirty years of teaching, researching, trying cases, and testifying on valuations in bankruptcy, I have come to believe that most of these types of disputes are a result of healthy disagreements over theoretical concepts by experts, and of the inherent power and limitations of the inputs and assumptions used in the valuation process.<sup>62</sup> I thus return to the question I began with: Does a small firm have more nondiversifiable risk than a big firm? If an expert firmly believes the

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<sup>57</sup> Various methods of determining the cost of equity have been accepted. See JAMES R. HITCHNER, FINANCIAL VALUATION: APPLICATIONS AND MODELS 183 (3d ed. 2011) [hereinafter HITCHNER, 3d ed.] for discussion of various methods of determining the cost of equity, including CAPM, MCAPM, as well as arbitrage pricing theory (“APT”) and the build-up method (“BUM”).

<sup>58</sup> See CLEVELAND S. PATTERSON, THE COST OF CAPITAL: THEORY AND ESTIMATION 35–37 (1995).

<sup>59</sup> PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 61 (“[S]maller companies tend to have higher risk than do larger companies,” leading many experts to suggest, and courts to accept, an adjustment to the cost of equity resulting in a higher cost of capital).

<sup>60</sup> See, e.g., Clifford S. Ang, *Absence of a Size Effect Relevant to the Cost of Equity*, 37 BUS. VALUATION REV. 87, 87, 88 (2018) [hereinafter Ang, *Absence of a Size Effect*]; HITCHNER, 3d ed., *supra* note 57, at 202 (“Some analysts have even argued against including a size premia adjustment for smaller companies altogether.”). See generally Tom Smith & Kathleen Walsh, *Why the CAPM is Half-Right and Everything Else is Wrong*, 49 ABACUS 73 (2013).

<sup>61</sup> See, e.g., HITCHNER 3d ed., *supra* note 57, at 202–205 (“[M]ost analysts agree that some adjustment should be made to account for the fact that, over time, smaller entities in the public markets have demanded higher rates of returns, generally speaking, than their larger counterparts.”); CDBV STUDY COURSE, PART III, *supra* note 44, at 2:2–2:3.

<sup>62</sup> See, e.g., *In re EM Lodgings, LLC*, 580 B.R. 803 (Bankr. C.D. Ill. 2018).

answer is yes, that expert often includes a small size premium to adjust the cost of equity and, ultimately, the discount rate upward, thus reaching a lower value, all things being equal<sup>63</sup>— not because it results in a lower value estimate in the first instance, but because of how that expert understands the nuances of cost of equity estimates and the power and limits of the CAPM as applied to the valuation dispute at hand.<sup>64</sup>

Fundamentally, business valuation is predicated on the outlook for future cash flows, growth, and risk.<sup>65</sup> These fundamentals hold true when valuing declining and distressed businesses; however, particular facts and circumstances may require certain adjustments and additional considerations. For example, factors that may need careful attention with distressed business valuations include: the impact of cancellation of indebtedness on net operating losses and carryforwards (and carrybacks),<sup>66</sup> additional working capital requirements,<sup>67</sup> needs for capital expenditures,<sup>68</sup> volatility and vulnerability of future economic earnings, a history of loan defaults and forbearance agreements, and loss of key customers or suppliers. These details, among others, might be considered so as to minimize the likelihood of an erroneous valuation. Furthermore, a business in serious distress with declining financial performance presents a risk that its projected cash flows may not be achieved, which may not be captured completely in typical cash flow adjustments—that is, truncation risk.<sup>69</sup>

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<sup>63</sup> See, e.g., RATNER ET AL., *supra* note 17, at 54.

<sup>64</sup> The same can be said for disputes involving estimates of terminal value in the DCF method. Take a firm operating in a high-growth market with high-growth intentions. One estimate of terminal value would capitalize the terminal year future cash flows by the capitalization rate. The capitalization rate is generally understood as the difference between the discount rate and the growth rate. What is the appropriate growth rate for a high-growth firm in a high-growth industry in perpetuity? How that question is addressed differs among experts not because experts are driven by results, but because experts have different views on growth under the DCF method. Some experts reject high-growth estimates, asserting that all firm growth rates converge on market growth, such as Gross Domestic Product (“GDP”). Other experts reject that understanding and explicitly adjust a growth rate in excess of GDP to reflect the high-growth nature of the firm and the industry. These differences reflect a theoretical sparring among experts on the meaning of growth in the DCF method and the most reliable way by which to capture it.

<sup>65</sup> See CDBV STUDY COURSE, PART II, *supra* note 42, at 1:1.

<sup>66</sup> See 26 U.S.C. § 108(b)(2)–(4).

<sup>67</sup> Working capital considerations present unique challenges when a company has a history of distress. See Siegert & Turnbull, *supra* note 36, at ¶ 8.02[3][d]; CDBV STUDY COURSE, PART II, *supra* note 42, at 3:20–3:21.

<sup>68</sup> It is not unusual for companies in distress, or on the verge of financial challenges, to defer capital expenditures. See CDBV STUDY COURSE, PART II, *supra* note 42, at 3:20. That common practice leads to unique challenges and influences choices made regarding capital expenditures in both the discrete and terminal value estimates. See Siegert & Turnbull, *supra* note 36, at ¶ 8.02[3][c]–[d].

<sup>69</sup> ASWATH DAMODARAN, THE DARK SIDE OF VALUATION: VALUING YOUNG, DISTRESSED, AND COMPLEX BUSINESSES 738 (3d ed. 2018) [hereinafter DAMODARAN, DARK SIDE OF VALUATION] (“Proposition 6: Watch out for Truncation Risk”); Aswath Damodaran, *Valuing Distressed and Declining Firms*, N.Y.U. STERN SCH.

Computing and debating a discount rate is pointless when cash flows do not exist.

A valuation reflects an opinion on the worth of an economic benefit at a particular point in time, and it depends upon the premise and standard of value employed. For example, a quick liquidation approach provides a different concept and amount of value than a going concern value derived from ongoing cash flows. Determining which is the appropriate measurement of value for the facts and circumstances is the question. The fair market value standard is an important one; it drives a determination to harvest market data, gather market evidence, and consider market-driven inputs and assumptions and values. However, fair market value is a convention, one of several in the valuation world. Occasionally, a thoughtful intervention captures an important slice of truth underlying the “real world” understanding of fair market value:

Recognize that we only *know* fair market value (“FMV”) for one instant in time—when an informed buyer and seller, neither under any “compulsion” to effect a transaction, agree to a deal at some price. This is the generally accepted rubric in the financial world defining FMV. This momentary valuation epiphany lasts for only one point in time, as evidenced by deals where buyers walk or want to walk away a short time after an agreement at FMV had been reached. The counterintuitive irony is that at the one point in time when we see FMV, there is an agreement on price, but a *disagreement* on value. That is, the buyer thinks it’s worth more, the seller thinks it’s worth less, and that is why they agree to the deal.<sup>70</sup>

Valuations are used in court to aid the trier of fact in answering a question of fact at a specific point in time. Fact questions are framed by the theories in the dispute and the rules of evidence. For example, among other elements that must be met, a preference or constructive fraudulent transfer is avoidable if it is made while a debtor was insolvent.<sup>71</sup> “Insolvent” is a defined term under the Bankruptcy Code in section 101(32); a financial, accounting, or historical definition of the term may, in contrast, be informative but rather beside the legal point. Simply, insolvency is not a financial test, an accounting test, or a historical test; *it is a legal test*. Thus, an expert is answering, from an economic or financial

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OF BUS. 19 (June 2009) [hereinafter Damodaran, *Valuing Distressed and Declining Firms*] (truncation risk reflects a complete end of cash flows), <http://people.stern.nyu.edu/adamodar/pdfiles/papers/NewDistress.pdf>.

<sup>70</sup> Bert Conly et al., *Valuation Methods in Bankruptcy: Idearc and Other Valuation Cases of Interest*, VINSON & ELKINS LLP slide 3 (Apr. 2013), <https://media.velaw.com/wp-content/uploads/2020/01/28175825/DBBValuationPresentationApril2013.pdf>.

<sup>71</sup> Or a debtor was rendered insolvent, if a fraudulent transfer challenge is present. See 11 U.S.C. § 548(a)(1)(B)(ii)(I).

perspective, a financial/valuation factual question framed by a series of legal questions related to alleged insolvency in a specific context.

Let's put a finer point on the legal question that informs valuation estimates.<sup>72</sup> A trustee or debtor-in-possession may avoid transfers deemed constructive fraudulent transfers, which section 548 of the Bankruptcy Code defines as those transfers in which the debtor:

- (i) received less than a reasonably equivalent value in exchange for such transfer or obligation; and
- (ii)
  - (I) was insolvent on the date that such transfer was made or such obligation was incurred, or became insolvent as a result of such transfer or obligation;
  - (II) was engaged in business or a transaction, or was about to engage in business or a transaction, for which any property remaining with the debtor was an unreasonably small capital;
  - (III) intended to incur, or believed that the debtor would incur, debts that would be beyond the debtor's ability to pay as such debts matured; or
  - (IV) made such transfer to or for the benefit of an insider, or incurred such obligation to or for the benefit of an insider, under an employment contract and not in the ordinary course of business.<sup>73</sup>

Questions about constructive fraudulent transfers often lead a valuation expert to analyze two aspects of a transfer: (1) the financial condition of the debtor immediately before and after a transfer was made;<sup>74</sup> and (2) whether the value, if any, a debtor received in exchange for an interest in property was reasonably equivalent to the value, if any, a debtor transferred.

Specifically, section 548 specifies three separate tests to assess the financial condition of the debtor for financial distress. The first requires the court, often with the assistance of financial experts, to determine if the debtor was

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<sup>72</sup> I draw this example from BERNSTEIN, SEABURY & WILLIAMS, ADMITTING EXPERT VALUATION 126–28, *supra* note 1.

<sup>73</sup> 11 U.S.C. § 548(a)(1)(B).

<sup>74</sup> Unlike the Balance Sheet Test for insolvency, the other types of financial distress evaluate the debtor's ability to pay its debts into the projectable future (the "Ability to Pay Test") or whether the transfer left the debtor with unreasonably small capital/assets (the "Unreasonably Small Capital Test"). *See* 11 U.S.C. § 548(a)(1)(B)(ii)(II), (III). While these tests often require a financial expert to evaluate the debtor's financial condition, they are less reliant on the performance of traditional valuation models, approaches, and methods.

“insolvent” when the transfer was made. Section 101(32) of the Bankruptcy Code defines “insolvent” as “[a] financial condition such that the sum of such entity’s debts is greater than all of such entity’s property, at a fair valuation.”<sup>75</sup> This is based on the premise that “[t]he economic value of an entity is the sum of the value of its debts and its equity.”<sup>76</sup>

Noticeably absent from the definition of insolvency is any reference to “assets,” “liabilities,” “GAAP,” or “fair market value.” The valuation expert performs a valuation using the requisite standards and premises of value so that “property” and “debts” can be compared in what is generally referred to as the “Balance Sheet Test.” It is common to use the MVIC as a proxy for the entity’s operating property at a fair valuation.<sup>77</sup> Although “property” is not defined in the Bankruptcy Code, the Supreme Court of the United States, in *Chicago Board of Trade*,<sup>78</sup> interpreted the term broadly and as a federal question, even though state law is most often consulted in the initial evaluation and assessment. “Debt” is a defined term as well; it means “liability on a claim.”<sup>79</sup> A “claim” is further defined to include “any right to payment, whether or not such right is reduced to judgment, liquidated, unliquidated, fixed, contingent, matured, unmatured, disputed, undisputed . . .” and is intended to be all-encompassing.<sup>80</sup> Often, an expert offers an opinion about the values underlying insolvency tests based on a fair market value standard when valuing a going concern business. Courts and attorneys, however, are testing insolvency under a “fair valuation” standard, because that standard is what the law requires. Fair market value is frequently deemed equivalent or akin to a fair valuation, but it is still a fair valuation that

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<sup>75</sup> 11 U.S.C. § 101(32)(A) (for an entity other than a partnership or a municipality). The use of the term “insolvent” in this situation is a test dictated by the Bankruptcy Code and many other fraudulent transfer provisions. This does not necessarily render a given entity “insolvent” for all purposes and other statutory provisions.

<sup>76</sup> 1 GRANT W. NEWTON, *BANKRUPTCY AND INSOLVENCY ACCOUNTING: PRACTICE AND PROCEDURE* 589 (7th ed. 2009). Professor Newton was the long-time executive director of the Association for Insolvency and Restructuring Advisors. He is a prolific scholar who has had a great deal of influence on many in the field of valuations in bankruptcy. One should not confuse the reorganization value of assets of the debtor with MVIC or total invested capital or enterprise value. See Steffen, *supra* note 17, at 15–17.

<sup>77</sup> MVIC, the market value of debt and equity, is the financial equivalent to the market value of assets less non-interest-bearing liabilities. To determine insolvency under the Balance Sheet Test, one would typically compare whether the MVIC exceeds the interest-bearing and other contingent liabilities. If MVIC is less than the stated value of the interest-bearing and other contingent liabilities, then the entity is insolvent under the Balance Sheet Test. MVIC, however, is not the same as the Reorganizational Value of the Assets of the debtor. See Steffen, *supra* note 17, at 15–17. Equating the two is one of the more common financial mistakes in chapter 11 disclosure statement discussions of value.

<sup>78</sup> Bd. of Trade v. Johnson (*Chicago Board of Trade*), 264 U.S. 1 (1924).

<sup>79</sup> 11 U.S.C. § 101(12).

<sup>80</sup> 11 U.S.C. § 101(5)(A).

is the standard for the test.<sup>81</sup> Critically, the expert is only offering a financial opinion on values, not an assessment of the legal conclusion, even though the language used in the discussion may overlap (i.e., a financial concept and quantified measurement of insolvency is not a legal finding or legal opinion about insolvency). As one can see, the space between the expert's standard and the law's frame is populated with the totality of the circumstances unique to each dispute and is well within the domain of a court as trier of fact.

Valuation is both an objective and subjective process with many aspects calling for the exercise of an expert's discretion, exercised through the imposition of well-accepted techniques that impose an overall discipline on thought and deed. The discipline is based on a fair-minded and reasonably objective discussion of a standardized process and the assumptions embedded in it. The Delaware Court of Chancery has observed, "[i]t is often said that valuation is more art than science, but this aphorism reflects the need for professionals to make case-specific judgments."<sup>82</sup> "Valuation, however, is not an exact science, nor is it a product of mere calculation. It is an imprecise tool, perhaps the best we currently have, designed to reach a calculated decision on the basis of the hypotheses and assumptions in light of a set of facts."<sup>83</sup> Valuation is not an exercise similar to identifying the atomic weight of an element.<sup>84</sup> Other courts have made similar determinations, noting that:

[V]aluation is a malleable concept, tough to measure and tougher to pin down without a host of explanations, sensitivities and qualifiers. Because point of view is an important part of the process, outcomes are also highly dependent on the perspectives and biases of those doing the measuring. When it comes to valuation, there is no revealed, objectively verifiable truth. Values can and do vary, and consistency among valuation experts is rare, especially in the context of high stakes litigation.<sup>85</sup>

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<sup>81</sup> See generally 2 COLLIER ON BANKRUPTCY ¶ 101.32[4] (16th ed. 2022).

<sup>82</sup> *In re El Paso Pipeline Partners, L.P. Derivative Litig.*, No. 7141, 2015 WL 1815846, at \*22 (Del. Ch. Apr. 20, 2015)

<sup>83</sup> *In re Crowthers McCall Pattern, Inc.*, 120 B.R. 279, 297 (Bankr. S.D.N.Y. 1990); see also *JPMorgan Chase Bank v. Charter Commcn's Operating, LLC (In re Charter Commc'ns)*, 419 B.R. 221, 236 (Bankr. S.D.N.Y. 2009); *Okerlund v. United States*, 365 F.3d 1044, 1052 (Fed. Cir. 2004) ("The valuation of a closely held company is an inexact science (some might say an art), and relevant probative evidence should never be ignored."); *Burdick v. Bryant (In re Bryant)*, No. 10-81783, 2012 WL 2131947, at \*7 (Bankr. C.D. Ill. June 12, 2012) (Asset "[v]aluation is an art not a science . . ."); *In re Strever*, 468 B.R. 776, 782 (Bankr. D.S.C. 2012) ("real estate valuations 'are matters of art more than science.'").

<sup>84</sup> See 1 JAMES C. BONBRIGHT, VALUATION OF PROPERTY 5-6 (1937).

<sup>85</sup> *Charter Commcn's*, 419 B.R. at 236.



Thus, valuation comprises aspects of both art and science. In sum, valuations performed in a dispute environment call on both sets of skills, reflecting the application of approaches and methods of valuation technique and theory that are being applied and conducted within the context of answering a factual and legal issue in dispute.

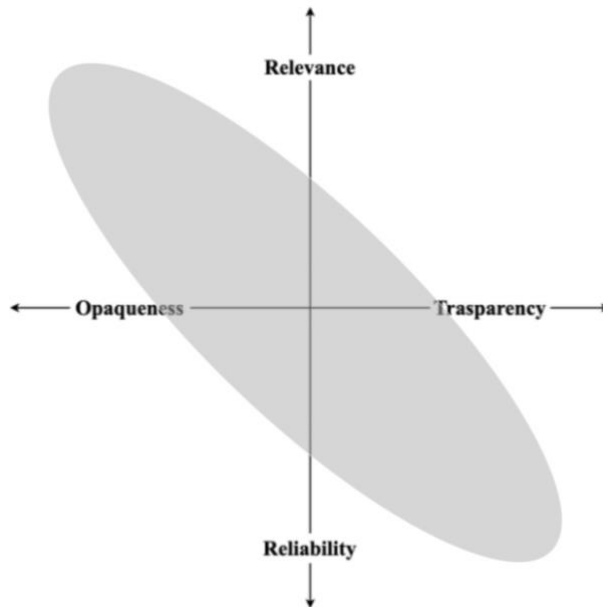
*B. Choices Made*

Valuations performed in bankruptcy disputes require that experts, bankruptcy practitioners, and courts make choices, and choices of this type in this context should involve reasoned judgment. As introduced below, this Article addresses assumptions, inputs, and tradeoffs that must be predicated on sound judgment, the evidence, application of reliable methods, and use of relevant and timely data.<sup>86</sup> Although there are many assumptions and inputs to valuation techniques, these assumptions and inputs generally come from seven sources: (1) management, (2) peer industries, (3) market evidence, (4) analysts' judgment, (5) experts' judgment, (6) academic research, or (7) consensus. These seven sources may be further classified by whether each source is being consulted for historical record, for forward outlooks, or for timeframe of those outlooks (that is, the number of years to be considered in a financial projection).

Then, there are the tradeoffs. Bankruptcy professionals and courts must often choose between degrees of reliability and degrees of relevance. They must also often choose between degrees of transparency and degrees of opaqueness. These attributes of inputs often coalesce in an interesting way: relevance tends to move with opaqueness; whereas reliability tends to move with transparency, as illustrated by the conceptual framework in Figure 1.

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<sup>86</sup> See, e.g., *In re Tribune Co.*, 464 B.R. 126, 151 (Bankr. D. Del. 2011) ("A valuation should be based on the most up to date information available.").

**Figure 1: Tradeoffs**

Each input or assumption under a given approach or method—even the choice of approach or method—requires choices that, themselves, often require tradeoffs. Along one spectrum lies the choices between degrees of relevance and reliability. Relevance has a specific meaning in law: whether evidence offered tends to prove or disprove a fact in issue. Relevance must be framed, by design, by the law applicable to a dispute. For example, valuation inputs are relevant if they aid (not supplant) a trier of fact in resolving a fact in issue. Was the debtor insolvent in that its debts exceeded its property at a fair valuation? Was the transfer made for reasonably equivalent value? Is the cramdown plan “fair and equitable?” Law frames relevance. In valuation, what is relevant is future economic benefits, risk, and growth.<sup>87</sup> Inputs are relevant if they have predictive

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<sup>87</sup> See *Consol. Rock Prods. Co. v. Du Bois*, 312 U.S. 510, 525–26 (1941) (A valuation “estimate must be based on an informed judgment which embraces all facts relevant to future earning capacity and hence to present worth, including, of course, the nature and condition of the properties, the past earnings record, and all circumstances which indicate whether or not that record is a reliable criterion of future capacity.”).

powers because valuation is a forward-looking exercise.<sup>88</sup> This is no less true in the bankruptcy ecosystem. “Modern finance has caught up with the Supreme Court’s direction in *Consolidated Rock* by providing courts with valuation methodologies that focus upon earning capacity.”<sup>89</sup> Historical performance, in and of itself, is not particularly relevant except to the extent that historical performance has something to say about the drivers of expected value. As discussed previously, no investor pays for yesterday’s dollar. Think of relevance as a measure of fit between the evidence offered and the fact in dispute.

Reliability rests on the qualities of dependability, trustworthiness, consistency, and replicability. Proven facts are more reliable; and so are stipulated or admitted facts, by definition. An exercise in sound judgment should be based on reliable assumptions, inputs, and methods. Think of it in this fashion: do unreliable but relevant facts aid the trier of fact? Historical performance is often more reliable—it is a historical fact—and often may have something to say about the future, that is, past performance may have predictive powers, making historical performance relevant as well.<sup>90</sup> Projected, expected, or forward inputs and assumptions are generally less reliable—after all, predictions about the future are notoriously suspect. And yet, the projected, the expected, or the forward input is what we are most interested in, that is, the most relevant to the valuation inquiry. We are not interested in the historical equity risk premium for its sake; we become interested in the *historical* equity risk premium because it aids an expert, and thus the trier of fact, in estimating an *expected* equity risk premium. And so on. Think of reliability as a measure of trustworthiness.

Relevance and reliability are not necessarily binary choices. Rather, I suggest we think of these attributes as choices of degree. There is a natural tension between them, and a balance must be found or selected, while recognizing the tradeoffs involved in the selection. It is often the case in valuations in dispute

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<sup>88</sup> “Value today always equals future cash flow discounted at the opportunity cost of capital.” RICHARD A. BREALEY & STEWART C. MYERS, *BREALEY & MYERS ON CORPORATE FINANCE: CAPITAL INVESTMENT AND VALUATION* 67 (2002); see also RATNER ET AL., *supra* note 17, at 39–40.

<sup>89</sup> See *In re Exide Techs.*, 303 B.R. 48, 65–66 (Bankr. D. Del. 2003); see also *Consol. Rock Prods.*, 312 U.S. at 526 (“The criterion of earning capacity is the essential one if the enterprise is to be freed from the heavy hand of past errors, miscalculations or disaster, and if the allocation of securities among the various claimants is to be fair and equitable.” (citations omitted)), *quoted in Exide*, 303 B.R. at 65.

<sup>90</sup> But one must be cautious when considering historical financial evidence; it may not be reliable in certain circumstances. See, e.g., *Adelphia Recovery Tr. v. FPL Grp., Inc (In re Adelphia Commc’ns Corp.)*, 512 B.R. 447, 471 (Bankr. S.D.N.Y. 2014), *aff’d*, No. 02-41729, 2015 WL 1208588 (S.D.N.Y. Mar. 17, 2015) (financial statements tainted by fraud); *Tronox Inc. v. Kerr McGee Corp. (In re Tronox Inc.)*, 503 B.R. 239, 249–50, 278 (Bankr. S.D.N.Y. 2013) (company failed to disclose certain contingent environmental liabilities in its financial statements, requiring a postpetition restatement of those financial statements).

that that which is more relevant may be less reliable and that which is more reliable may be less relevant.

We also must make another choice, that is, a choice between degrees of transparency and opaqueness. These are potentially the knottier choices. These attributes, and their tradeoffs, often associate themselves with relevance and reliability but not always. For example, book value as an estimate of a fair valuation may be both reliable and transparent. It, however, is usually not relevant.<sup>91</sup> As another example, the company specific risk premium as an adjustment to the cost of equity is often opaque and frequently considered unreliable;<sup>92</sup> yet, this adjustment is frequently deemed relevant even though reasonable minds disagree as to its relevance. More generally, the income approach requires that we specifically identify and estimate the assumptions and inputs associated with all drivers of value to estimate a firm's intrinsic value.<sup>93</sup> The income approach appears to be transparent, but it can be subjected to criticisms, primarily of reliability, but also relevance in some situations. In contrast, the market approach is a relative "black-box," by its nature opaque, and rests on a theory of relative, and not intrinsic, value.<sup>94</sup> It appears to be reliable, but it is vulnerable to criticisms that several drivers of value (risk and growth) may be impounded in the market multiple and are by no means explicit.<sup>95</sup> Moreover, in normalizing the subject company and the peer group for an "apples to apples" comparison, we must often squeeze out the very qualities and character of cash flows, risk, and growth that may be unique to the subject company (or its peers) and may drive value, thus making it less relevant to a trier of fact.

Consider the question: "What are this firm's future cash flows?" Economic logic specifies that investors do not pay for yesterday's benefits measured in yesterday's dollars; rather, investors pay for what they believe tomorrow's dollars are anticipated to yield. This is where the tradeoffs come in. If prioritizing relevance, then one is interested in whether those benefits, measured in dollars, are anticipated to be received for some period of time or into

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<sup>91</sup> See, e.g., RATNER ET AL., *supra* note 17, at 134 ("The book value of assets is often said to be irrelevant to the determination of fair valuation.").

<sup>92</sup> See, e.g., *In re Sunbelt Beverage Corp. S'holder Litig.*, No. 16089, 2010 Del. Ch. LEXIS 1, at \*45-51 (Del. Ch. Jan. 5, 2010).

<sup>93</sup> BERKSHIRE HATHAWAY INC., 2013 ANNUAL REPORT 107 (2013) ("Intrinsic value can be defined simply: It is the discounted value of the cash that can be taken out of a business during its remaining life.").

<sup>94</sup> See ASWATH DAMODARAN, INVESTMENT VALUATION: TOOLS AND TECHNIQUES FOR DETERMINING THE VALUE OF ANY ASSET 453 (3d ed. 2012) [hereinafter DAMODARAN, INVESTMENT VALUATION] ("In relative valuation, the objective is to value assets based on how similar assets are currently priced in the market.").

<sup>95</sup> *Id.* at 454.

perpetuity. If prioritizing reliability, then one embraces a concept that assumes that yesterday's dollar lays a foundation to develop an understanding of the future benefits that may be reaped by tomorrow's dollar, frequently applying the assumption that historical trends can be used to predict future expectations.<sup>96</sup> Any number of concepts and methods may be applied as predictors in the valuation of such future benefits, such as book value (typically historical cost) of accounts relative to adjusted-market values, actual performance relative to projected performance, historical data relative to future estimates, capitalization of historical earnings relative to discounting of projected earnings as in the multi-stage discounted cash flow method.

Now consider the degrees of transparency and opaqueness. How are the risk(s) associated with the business's ability to generate future cash flows estimated? Under the income approach,<sup>97</sup> the estimate of risk and its underlying components is more transparent. This is because, under the income approach, risk is generally captured through the underlying assumptions and inputs to the discount rate,<sup>98</sup> as often determined using a Weighted Average Cost of Capital ("WACC").<sup>99</sup> The underlying assumptions and inputs to the WACC, cost of equity, cost of debt, and capital structure, are typically made explicit and cited, where appropriate, to a source.<sup>100</sup> Yet, the estimated cost of equity may include numerous disputable and often hotly contested inputs in both the cost of equity, including a risk-free rate, an equity risk premium, a company-specific or industry-specific beta to adjust that equity risk premium,<sup>101</sup> a small size premium, a company specific risk premium, a country risk premium, a distress

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<sup>96</sup> Nevertheless, historical trends are often not self-evident, and are subject to interpretation and adjustments. See Maxwell, *supra* note 28, at ¶ 12.04[1].

<sup>97</sup> The income approach estimates value driven by some "form of expected economic income stream." See PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 24.

<sup>98</sup> Discount rate is the "market's required rate of return for investments of comparable risk and other characteristics." *Id.* at 47.

<sup>99</sup> WACC is the "blended cost of the company's capital structure components [(common equity, preferred equity, and long term debt)], each weighted by the market value of that capital component." JAMES R. HITCHNER, FINANCIAL VALUATION: APPLICATIONS AND MODELS 190 (4th ed. 2017) [hereinafter HITCHNER, 4th ed.].

<sup>100</sup> Under the WACC, the "weight assigned to each component is at *market value* and not at *book value*." See PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 70.

<sup>101</sup> As described later, beta is a measure of an entity's volatility with respect to movements of the overall public market in which it, or others in its industry, trade. Betas for debt and equity can be measured over varying lengths of time under differing assumptions for leverage and taxes. See AIRA STANDARDS, *supra* note 22, at 33; RATNER ET AL., *supra* note 17, at 53. Put another way, beta is a coefficient that measures market risk by measuring the sensitivity of returns on a specific investment to those on the market. PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 63–64.

premium, etc.<sup>102</sup> Individual inputs and assumptions used in estimating the cost of debt, the value of the tax shield for a distressed or declining firm, and the target capital structure of the firm may also be contested and often are. If a business's value is a function of its future cash flows, risk, and growth, then the sources of the inputs to the WACC are vitally important.

However, if a decision-maker is willing to sacrifice degrees of transparency to achieve what some valuation professionals deem a more reliable approach, then the market approach to valuation may be viewed as more attractive even though assumptions regarding risk are not explicit.<sup>103</sup> The market approach can be (but should not be!) easy to compute. For example, one could apply the market multiple approach by simply identifying a set of guideline peers for comparison, calculating an earnings metric, dividing the enterprise value of each peer by their respective earnings metric, and then applying that multiple to the subject company's earnings metric to estimate the subject company's enterprise value. While this market approach does not rest explicitly on all these assumptions and inputs regarding risk that underlie the estimation of WACC, those assumptions and inputs do not simply vanish. Instead, risk is captured within the market multiple, where it resides, less visible, like the unseen activity that occurs below the waterline in a well-contested water polo match. Thus, the assumptions underlying the market multiple approach can be reconciled to the WACC. Mathematically, this concept is straightforward to apply.<sup>104</sup> But how does one understand the relative importance among the drivers of firm value—that is, cash flows, risk, and growth—and then explain the role those value drivers play in the market multiple to a trier of fact? Beyond generalizations, this reconciliation of drivers is often not explained well.

It is the intention of this article, to the extent possible, to classify the assumptions and inputs associated with valuation approaches and methods into

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<sup>102</sup> For a case that illustrates interesting additional inputs beyond the CAPM in estimating a discount rate, see *In re Emerging Commc'ns, Inc. S'holders Litig.*, No. Civ. A. 16415, 2004 WL 1305745 (Del. Ch. 2004). The CAPM, or capital asset pricing model, is used to estimate a cost of equity. It is a "model in which the cost of capital for any stock or portfolio of stocks equals a risk-free rate plus a risk premium that is proportionate to the systematic risk of the stock or portfolio." AIRA STANDARDS, *supra* note 22, at 69. In *Emerging Communications*, one expert used the traditional CAPM to estimate cost of equity that would then be used with the cost of debt and the chosen capital structure to estimate the discount rate. The other expert initially started with the CAPM and then added additional premiums, including a small size premium, company specific risk premium, super-small size premium, and a "hurricane" risk premium. *Emerging Commc'ns*, 2004 WL 1305745, at \*19.

<sup>103</sup> The market approach estimates value driven by reference to stock transactions in other companies or companies that have been sold. See PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 25.

<sup>104</sup> See Aswath Damodaran, *Value Multiples* 13–14, N.Y.U. STERN SCH. OF BUS., <http://people.stern.nyu.edu/adamodar/pdfiles/eqnotes/vbitda.pdf>.

three broad categories of disputes. This pedagogical tool allows the student of valuations in bankruptcy the opportunity to explore the interconnectedness of inputs and assumptions in ways that are not always obvious and to understand how, factually, future economic benefits, risk, and growth drive value.

Moving forward from my general discussion of inputs and assumptions used in each of the valuation approaches surveyed in Sections III through VII, I consider the three broad categories of disputes in Section VIII as follows:

- **Category 1 (“C<sub>1</sub>”)** disputes primarily involve assumption and input choices between relevance and reliability.
- **Category 2 (“C<sub>2</sub>”)** disputes also involve hard choices between relevance and reliability and throw challenging choices between transparency and opaqueness into the mix.
- **Category 3 (“C<sub>3</sub>”)** disputes involve those choices drawn from C<sub>1</sub> and C<sub>2</sub> that drive the most significant variances among experts. We will revisit many of the usual suspects at home in C<sub>3</sub>, and also be introduced to some new ones that may surprise us. Of those inputs and assumptions that have fallen into C<sub>3</sub>, most involve disputes about risk. This observation should not surprise, for a distressed business runs risk that its healthy, going concern brethren typically do not; that is, that its future cash flows may cease to exist at all. That cash flow truncation risk focuses one’s attention on something more than a theoretical notion of risk.<sup>105</sup>

### III. METHODOLOGY

“Value,” wrote Justice Brandeis, “is a word of many meanings.”<sup>106</sup> In bankruptcy disputes, the standard of value helps frame its meaning. The appropriate standard of value depends on the relevant facts and circumstances, the context of the valuation, and any applicable legal directives. To that end, section 506(a)(1) of the Bankruptcy Code suggests that value is determined considering the purpose for which it serves. The Bankruptcy Code employs no single standard or definition of value.<sup>107</sup>

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<sup>105</sup> See DAMODARAN, DARK SIDE OF VALUATION, *supra* note 69, at 738.

<sup>106</sup> *Mo. ex rel. Sw. Bell Tel. Co. v. Pub. Serv. Comm’n*, 262 U.S. 276, 310 (1923).

<sup>107</sup> Depending on the questions asked and the purpose of the inquiry, the Bankruptcy Code directs the use of “fair valuation” for determining insolvency under section 101(32), “reasonably equivalent value” as an element of a constructive fraudulent transfer or obligation under section 548, “fair market value” for determining the value of exempt property under section 522, a form of liquidation value under section 1129(a)(7)(A)(ii), “replacement value” in individual chapter 11 and 13 cases when valuing personal property as collateral to determine a secured claim under section 506(a)(2), and a “facts-and-circumstances or investment-like” value in all other cases in which collateral is valued to determine a secured claim under section 506(a)(1).

However, the Bankruptcy Code also mandates legal directives for valuation that may be generally unfamiliar to a valuation expert without the education and/or experience to understand the legal aspects of conducting a bankruptcy valuation. For example, a fair valuation of the property and a determination of the debts of a debtor in determining insolvency or an assessment of reasonably equivalent value in a fraudulent transfer action bring with them a rich history of bankruptcy law and practice. These legal tests and standards are offshoots of bankruptcy law, and foreign to general or basic valuation theory.<sup>108</sup> Nevertheless, the Bankruptcy Code leaves unanswered the appropriate valuation standard regarding many important legal questions in bankruptcy practice. For example, a court, with no explicit valuation standard to work with, often needs to value collateral when determining the value of a secured claim, the rights to adequate protection of a secured claim under the “indubitable equivalent” standard, the feasibility of a plan, or the permissibility of cramdown under section 1129(b).<sup>109</sup>

The Association of Insolvency and Restructuring Advisors (“AIRA”) Standards for Distressed Business Valuation (“AIRA Standards”) recognize that “[a]ny valuation reflects an assessment of value at a particular point in time, and the value of an asset or business may change as different facts and circumstances arise.”<sup>110</sup> The AIRA Standards cite approvingly the guidance and standards in section 506:<sup>111</sup> “The selection of the appropriate valuation approach and methods will depend on the purpose and intended use of the valuation, the facts and circumstances involved, available data and the professional judgment of the Valuation Analyst.”<sup>112</sup>

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<sup>108</sup> Professional training programs in valuation (and those with certifications) generally state that valuation professionals need to understand the purpose of the valuation as one of the first steps in defining the engagement. The various training programs emphasize the need for relevant expertise and professional background as prerequisites for an analyst to undertake a valuation engagement. University courses also provide instruction on fundamental theory and the applications of theory that are used in valuations, but these courses also generally convey the need for relevant expertise when undertaking professional work assignments.

<sup>109</sup> Section 506(a) of the Bankruptcy Code does speak to value in the context of secured claims, and it has been interpreted in the financial literature and the law to provide general guidance on valuations in bankruptcy. Section 506(a) provides, in relevant part, that “[s]uch value shall be determined in light of the purpose of the valuation and of the proposed disposition or use of such property, and in conjunction with any hearing on such disposition or use or on a plan affecting such creditor’s interest.” 11 U.S.C. § 506. The legislative history, in discussing section 506 of the Bankruptcy Code, states: “[v]alue does not necessarily contemplate forced sale or liquidation values of the collateral; nor does it always imply a full going concern value. Courts will have to determine value on a case-by-case basis, taking into account the facts of each case and the competing interests in the case.” H.R. REP. NO. 95-595, at 356 (1977), *as reprinted in* 1978 U.S.C.C.A.N. 5963, 6312.

<sup>110</sup> AIRA STANDARDS, *supra* note 22, at 7.

<sup>111</sup> 11 U.S.C. § 506.

<sup>112</sup> AIRA STANDARDS, *supra* note 22, at 30.



The appropriate standard of value for assessing insolvency is a fair valuation standard. Although the ultimate definition of fair valuation is a legal one and depends on the nature of the transfer made, the purpose of the valuation, and applicable law, courts and valuation experts customarily employ the fair market value standard to the Balance Sheet Test for insolvency under section 101(32).<sup>113</sup> That standard can be defined as:

[T]he price, expressed in terms of cash equivalents, at which property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, acting at arm's length in an open and unrestricted market, when neither is under compulsion to buy or sell and when both have reasonable knowledge of the relevant facts.<sup>114</sup>

Further, a variant of the same idea is that fair market value is “the price that a seller is willing to accept and a buyer is willing to pay on the open market and in an arm's-length transaction; the point at which supply and demand intersect.”<sup>115</sup>

The question of value itself begs context—and context, in large part, is provided by the purpose of the valuation. Therefore, to determine the value of a debtor at any given point in time, an expert must first determine the purpose and context of the engagement and the appropriate premise and standard of value, such as, for example, the fair market value of the debtor as a going concern for plan confirmation or for a solvency test or some other purpose.<sup>116</sup>

Valuation further requires the implementation of a generally accepted methodology or protocol.<sup>117</sup> Although methodologies are varied, those passing

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<sup>113</sup> See, e.g., *Ohio Corrugating Co. v. DPAC, Inc. (In re Ohio Corrugating Co.)*, 91 B.R. 430, 436 (Bankr. N.D. Ohio 1988) (“Fair valuation has been construed to refer to the fair market value of the Debtor’s assets and liabilities within a reasonable time of the transfer.”); see also RATNER ET AL., *supra* note 17, at 22, 132.

<sup>114</sup> AM. INST. OF CERTIFIED PUB. ACCTS. ET AL., INTERNATIONAL VALUATION GLOSSARY—BUSINESS VALUATION 10 (Dec. 14, 2020), <https://us.aicpa.org/content/dam/aicpa/interestareas/forensicandvaluation/resources/standards/downloadabledocuments/56175896-international-valuation-glossary-business-valuation-dec14-2020.pdf>.

<sup>115</sup> *Fair Market Value*, BLACK’S LAW DICTIONARY (11th ed. 2019).

<sup>116</sup> “Valuation engagements require many items to be defined that together set the context and expectations of the scope of work and the intended uses of the data gathering, due diligence, analyses and calculations, conclusions, and finally the opinions reached.” DAVID P. BART & ERIC DAUCHER, *DEVELOPING THE EVIDENCE: USING PROSPECTIVE FINANCIAL INFORMATION IN BANKRUPTCY AND OTHER LITIGATION FOR BUSINESS VALUATION, DAMAGES, AND OTHER APPLICATIONS* 7 (2020). See also AIRA STANDARDS, *supra* note 22, at 5 (“Traditional valuation methods may require significant adjustment to reflect the unique financial or operating situation of a firm in distress, the legal context of the valuation and the intended purpose of the valuation.”).

<sup>117</sup> Numerous texts outline general valuation approaches and methods used in performing business valuations. Two of the more commonly cited texts used in professional certification training courses include

muster under *Daubert*<sup>118</sup> and *Kumho Tire*<sup>119</sup> tend to follow an accepted set of tests for the bankruptcy dispute context.<sup>120</sup> The techniques employed in valuing distressed businesses require applications drawn from experience, reasoned judgment, and discretion. These quantitative tools for valuation are steeped in a qualitative space and subject to an intellectual rigor that has been developed by experts over time. Thus, identifying and applying an explicitly defined methodology with identified assumptions permits the trier of fact to consider the relevance and reasonableness of assumptions and procedures in an expert's opinion on value and indirectly tests for reliability. That methodology begins with the premise and standard of value.

#### A. *Premise of Value and Standard of Value*

There are two operational premises of value in valuation theory that generally apply to bankruptcy disputes: going concern value and liquidation value.<sup>121</sup> Going concern value is “the value of a business enterprise that is expected to continue to operate into the future under a going concern premise of

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PRATT & NICULITA, VALUING A BUSINESS, *supra* note 17, and JAY FISHMAN ET AL., PPC'S GUIDE TO BUSINESS VALUATIONS, (2022). I further recommend BVR's excellent book on business value in bankruptcy: BUS. VALUATION RES., BUSINESS VALUATION AND BANKRUPTCY CASE LAW COMPENDIUM (3d ed. 2021).

<sup>118</sup> *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 597 (1993).

<sup>119</sup> *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 149 (1999).

<sup>120</sup> While both *Daubert* and *Kumho Tire* are relevant to the analysis, such analysis is generally referred to as the *Daubert* standard. For an extended discussion of this topic, see generally BERNSTEIN, SEABURY & WILLIAMS, ADMITTING EXPERT VALUATION, *supra* note 1.

<sup>121</sup>

One of the most vexing problems in the valuation of the assets of a business enterprise as of a specified date is the question whether, and under what conditions, it should be treated as a going concern requiring appraisal of its property as an active unit rather than on an item-by-item basis. Fair value, in the case of a going concern, is determined by ‘the fair market price of the debtor’s assets that could be obtained if sold in a prudent manner within a reasonable period of time.’ There is overwhelming authority to the effect that normally such valuation must be made from the vantage of a going concern and that subsequent dismemberment or impossibility to dispose of plant, equipment, inventory, etc., as an entirety should not enter into the picture. Indeed, it has been held that the court should use fair market going concern price “unless a business is on its deathbed,” in which case a liquidating value should be used. Where the enterprise was already defunct at the critical date a non-going concern value has been applied by the courts.

Where the going concern value is the appropriate standard, the appraisal must take into account the additional value element which flows from the combination of the various assets to an economic unit.

2 COLLIER ON BANKRUPTCY ¶ 101.32[4] (16th ed. 2021) (citations omitted); *see also* Israel Shaked & Allen Michel, *Valuing the Financially Distressed Firm*, AM. BANKR. INST. J., Apr. 1999, at 34–35 (discussing common valuation methodology including liquidation and going concern).

value.”<sup>122</sup> The AIRA standards further note that “[t]he intangible elements of going concern value result from factors such as having a trained work force, an operational facility, and the necessary licenses, systems, and procedures in place.”<sup>123</sup> Liquidation value is “the net amount that would be realized if the business is terminated and the assets are sold piecemeal. Liquidation can be either ‘orderly’ or ‘forced.’”<sup>124</sup> Where liquidation is neither clearly imminent on the transfer date under avoidance powers challenges, nor clearly contemplated in a proposed plan of reorganization, it is generally accepted that assets should be valued on a going concern basis.<sup>125</sup>

The legal concept of going concern is not technically a measure or standard of valuation at all; it is an expression of the current status of a business, and a premise of valuation based on the operational profile and prospects of the business as framed and informed by the law. The determination that a business is a going concern influences the assumptions an expert adopts and selection of the tools and models employed in the valuation analysis.

After determining the premise of value, the valuation professional must also determine the standard of value before beginning the analytical work. As with the premise of value, the standard of value is driven by the need for, and context of, the valuation. Often, the standard of value is prescribed or influenced by statute, administrative ruling, or case law. Valuation standards in play in bankruptcy disputes include, among others:<sup>126</sup>

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<sup>122</sup> AIRA STANDARDS, *supra* note 22, at 71; *see also* INTERNATIONAL VALUATION GLOSSARY—BUSINESS VALUATION, *supra* note 114, at 11.

<sup>123</sup> AIRA STANDARDS, *supra* note 22, at 71; *see also* INTERNATIONAL VALUATION GLOSSARY—BUSINESS VALUATION, *supra* note 114, at 11.

<sup>124</sup> AIRA STANDARDS, *supra* note 22, at 72; *see also* INTERNATIONAL VALUATION GLOSSARY—BUSINESS VALUATION, *supra* note 114, at 11.

<sup>125</sup> BERNSTEIN, SEABURY & WILLIAMS, ADMITTING EXPERT VALUATION, *supra* note 1, at 81 & n.294 (and cases cited therein); *see also* Lawson v. Ford Motor Co. (*In re Roblin Indus., Inc.*), 78 F.3d 30, 35 (2d Cir. 1996).

<sup>126</sup> For a more thorough examination of the definitions, *see* AIRA STANDARDS, *supra* note 22, at 25–27. *See generally* BLACK’S LAW DICTIONARY (11th ed. 2019); J. Douglas Bacon & Christopher J. Peters, *Sounding the Floating Lien Creditor’s Safe Harbor: “Value” and “Prejudice” Under Section 547(c)(5) of the Bankruptcy Code (Part I)*, 5 J. BANKR. L. & PRAC. 29, 42–44 (1995) (discussing definitions and standards of “value” which affect valuation); Robert F. Reilly, *Ten Elements of the Bankruptcy Business Valuation Assignment*, AM. BANKR. INST. J., Mar. 2007, at 48 (analyzing how the definition of “value” can alter the valuation process). Levels, but not standards, of value include minority value (value reflecting an ownership position of less than 50%, frequently expressed as a discount or multiple discounts); control value (additional value inherent in a legally controlling interest, reflecting the power of control, frequently expressed as a premium); illiquidity value (decreased value because of limitations in the marketability of an equity, usually expressed as a discount); and marketable value (increased value because of the ability to convert securities into cash in a quick and efficient manner, the gold standard being forty-eight hours or less).

- *fair market value* (the price at which the subject asset would trade hands between a hypothetical willing buyer and a hypothetical willing seller when both have reasonable knowledge of relevant facts and neither is under any compulsion to act, without consideration of unforeseeable subsequent events);
- *investor or investment value or value to the owner* (the value to a particular buyer/investor considering his specific circumstances, knowledge of the transaction, and potential synergies);
- *liquidation value* (the value from a piecemeal sale of assets, either orderly or forced); and
- *fair valuation* (the legal standard identified in §101(32) of the Bankruptcy Code).

### B. Approaches and Methods

Once the premise and standard of value are determined, experts and courts often consider three accepted valuation approaches—the income approach, the market approach, and the asset approach.<sup>127</sup> The first of these is the “Income Approach,” usually implemented in the form of a discounted cash flow method or, in appropriate circumstances, a direct capitalization method.<sup>128</sup> The second approach, the “Market Approach,” is implemented usually in the form of the guideline or comparable public company method, the guideline merged and acquired transaction method (also referred to as the comparable transaction method), or the observable market method (also referred to as the stock and debt method).<sup>129</sup> The last of these three canonical approaches is the “Asset Approach,” usually implemented in the form of an adjusted balance sheet

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<sup>127</sup> See PRATT & NICULITA, VALUING A BUSINESS, *supra* note 17, at 62–63. A fourth approach that has emerged in the literature and case law, in appropriate circumstances, is the use of option pricing approaches that use contingent claim valuation. See DAMODARAN, INVESTMENT VALUATION, *supra* note 94, at 23–25 (“Perhaps the most revolutionary development in valuation is the acceptance, at least in some cases, that the value of an asset may be greater than the present value of expected cash flows if the cash flows are contingent on the occurrence or nonoccurrence of an event.”); see also Sontchi, *supra* note 31, at 13–16 (discussing a judge’s thoughtful observations and reservations about methods and approaches to valuations in bankruptcy, including the option pricing approach).

<sup>128</sup> See Robert F. Reilly, *Business/Stock Valuation Discount Related to the Built-In Gains (Big) Tax Liability*, AM. BANKR. INST. J., Mar. 2003, at 42 (observing that the most common income valuation approaches to be direct capitalization and discounted cash flow analysis).

<sup>129</sup> See generally Bernstein, Seabury & Williams, *Empowerment of Bankruptcy Courts*, *supra* note 32, at 408 (stating the “comparable transaction method” and “comparable company method” to be a generally accepted valuation techniques); Reilly, *supra* note 128, at 42 (discussing both “mergers and acquisition” and “guideline company” methods under the same “market” approach); Shaked & Michel, *supra* note 121, at 34 (discussing methods under the market approach); *Tronox Inc. v. Kerr McGee Corp. (In re Tronox Inc.)*, 503 B.R. 239, 302–03 (Bankr. S.D.N.Y. 2013) (rejecting observable market approach and market evidence of solvency).

method that requires a comparison of assets (including both severable and non-severable intangible assets and off-balance sheet assets such as causes of action, if appropriate) and the liabilities (including contingent liabilities usually discounted by the probability of their occurrence and off-balance sheet liabilities, where appropriate).<sup>130</sup>

As indicated above, numerous *valuation methods* can be implemented within each of these three *approaches*.<sup>131</sup> The appropriate use of any of these valuation methods depends on the facts, circumstances, and purposes of the valuation.<sup>132</sup> The selection of valuation approaches and methods also depends on the quantity and quality of available data required for each valuation approach. Developing supportable reasoning behind the selection of a valuation approach under constraints of the available data and other factors is critical for resolving the tradeoffs involved in answering relevance and reliability inquiries about the indicated values obtained under each method, and for addressing why a given approach or method should be adopted or eliminated from consideration in the determination of value.

#### IV. INCOME APPROACH

The income approach determines the value of a company by estimating the present value of the projected future economic benefits (frequently measured as cash flows) that the business is anticipated to generate. These benefits are theoretically available to the capital providers of the company: the holders of the company's debt and equity.<sup>133</sup> Many commentators state that the income approach is the most rigorous of the methodologies used to estimate business

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<sup>130</sup> Courts generally do not assess contingent liabilities at face value; rather, contingent liabilities are discounted by the probability that the contingency will occur, reducing its present value to a fraction of its face value. *See, e.g., In re Xonics Photochemical, Inc.*, 841 F.2d 198, 200 (7th Cir. 1988). *See generally* KENNEDY, COUNTRYMAN & WILLIAMS, *supra* note 14, at § 6.05[D]; Jack F. Williams, *The Fallacies of Contemporary Fraudulent Transfer Models as Applied to Intercorporate Guaranties: Fraudulent Transfer Law as a Fuzzy System*, 15 CARDOZO L. REV. 1403 (1994).

<sup>131</sup> *See* PRATT & NICULITA, *VALUING A BUSINESS*, *supra* note 17, at 62.

<sup>132</sup> *See* Statutory Comm. of Unsecured Creditors v. Motorola, Inc. (*In re Iridium Operating LLC*), 373 B.R. 283, 351 (Bankr. S.D.N.Y. 2007) (noting that certain valuation methods may be preferred in certain circumstances).

<sup>133</sup> *See* ASWATH DAMODARAN, *APPLIED CORPORATE FINANCE* 340 (4th ed. 2014) [hereinafter DAMODARAN, *APPLIED CORPORATE FINANCE*]. The discounted cash flow method uses net cash flows as a measure of future economic income. PRATT & NICULITA, *BUSINESS VALUATION HANDBOOK*, *supra* note 36, at 49, 72. The market approaches use other measures of earnings, such as EBITDA, EBIT, and revenue. *Id.*

value because it considers the fundamental factors that determine value—primarily timing of cash flow, growth, and risk.<sup>134</sup>

The Delaware Court of Chancery made the following observation regarding the discounted cash flow (“DCF”) method in the income approach: “The DCF analysis is a well-established method of determining the going concern value of a corporation. ‘The DCF . . . methodology has featured prominently in this Court because it is the approach that merits the greatest confidence within the financial community.’”<sup>135</sup> The income approach seeks to determine a debtor’s value by first analyzing applicable financial projections to calculate the projected free cash flow for each year for which projections are available.<sup>136</sup> The approach is appropriate in many situations for determining the debtor’s going concern value when the value of any asset, including a company, can be reasonably estimated to be the present value of the future cash flows that are generated by that asset.<sup>137</sup> That the enterprise is a going concern is a fundamental premise to the income approach because the value is determined by future cash flows generated by continued operations of the company.

Under the DCF method, a company’s future cash flows are projected and then discounted to present value at an appropriate discount rate, generally

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<sup>134</sup> The income approach, as implemented through the discounted cash flow method, is generally favored by valuation scholars, *see, e.g.*, PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 45; BRADFORD CORNELL, CORPORATE VALUATION 102–03 (1993) [hereinafter CORNELL, CORPORATE VALUATION], and by bankruptcy courts, *see, e.g.*, Brandt v. Samuel, Son & Co. (*In re* Longview Aluminum, LLC), 2005 Bankr. LEXIS 1312, at \*18 (N.D. Ill. July 14, 2005) (noting that DCF is the preferred method); Lippe v. Bairnco Corp., 288 B.R. 678, 689 (S.D.N.Y. 2003) (“Many authorities recognize that the most reliable method for determining the value of a business is the discounted cash flow (‘DCF’) method.”); Questrom v. Federated Dept. Stores, Inc., 84 F. Supp. 2d 483, 488 (S.D.N.Y. 2000). *See also* DAMODARAN, INVESTMENT VALUATION, *supra* note 94, at 928, 930 (noting that the “rigor of the discounted cash flow valuation” is among its “best features”); Siegert & Turnbull, *supra* note 36, at ¶ 8.01; PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 45 (Discounted cash flow method is the “dominant approach,” “most conceptually correct”, and “most widely practiced” method in finance.”).

<sup>135</sup> *In re* Appraisal of Dell, Inc., No. 9322, 2016 WL 3186538, at \*44–45 (Del. Ch. May 31, 2016) (quoting Owen v. Cannon, No. 8860, 2015 WL 3819204, at \*16 (Del. Ch. June 17, 2015)).

<sup>136</sup> This is referred to as the “discrete” or “projection” period. *See* Bernhard Grossfeld, *Global Financial Statements/Local Enterprise Valuation*, 29 J. CORP. L. 327, 348 (2004) (defining income approach as a corporation’s ability to generate earnings and cash flow); Robert F. Reilly, *Valuation of Goodwill and Other Intangible Assets*, 21 AM. BANKR. INST. J., June 2002, at 30–31 (basing income approach on the economic principle of anticipation where “the value of the discrete intangible asset is the present value of the expected economic income to be earned from the ownership of that intangible”); Robert F. Reilly, *Analysis of Intangible Contract Rights*, 16 AM. BANKR. INST. J., Feb. 1997, at 31 (recognizing that within projection period a longer remaining useful life would indicate higher value, and shorter remaining useful life would indicate lower value).

<sup>137</sup> *See* DAMODARAN, APPLIED CORPORATE FINANCE, *supra* note 133, at 5; CORNELL, CORPORATE VALUATION, *supra* note 134, at 102–08.

reflecting the expected risk of achieving those cash flows.<sup>138</sup> The DCF method requires three basic components: (1) an estimation of net cash flows that the firm is projected to generate over a discrete period, often called the projection period; (2) a terminal or residual value equal to the future value of the firm's projected cash flows beyond the projection period as of the end of the projection period;<sup>139</sup> and (3) a cost of capital,<sup>140</sup> that approximates the riskiness of the cash flows, which is then used to discount both the projected net cash flows and the estimated terminal or residual value to a present value.<sup>141</sup> All contain inputs and assumptions that are fact- and perspective-driven and involve a considerable amount of thoughtful and reasoned judgment.

#### A. Projections

“The DCF works best (and arguably only) when a company has accurate projections of future cash flows; when projections are not tainted by fraud; and when at least some of the cash flows are positive.”<sup>142</sup> Under a discounted cash flow method, the first step is to identify an appropriate set of projections, or for the valuation expert to create the projections, from which to calculate each period's projected free cash flow.<sup>143</sup> In theory, the projections used in a DCF

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<sup>138</sup> MFS/Sun Life Tr.-High Yield Series v. Van Dusen Airport Servs. Co., 910 F. Supp. 913, 925 (S.D.N.Y. 1995); see also *Alberts v. HCA Inc. (In re Greater Se. Cmty. Hosp. Corp. I) (Greater Se. Hosp. II)*, No. 02-02250, 2008 Bankr. LEXIS 1607, at \*108 (Bankr. D.D.C. May 19, 2008) (endorsing the DCF as “the most reliable method” for determining the value of a business). The saga of this bankruptcy case, resulting in at least three published opinions, would make its own advanced bankruptcy seminar. See generally *Alberts v. HCA Inc. (In re Greater Se. Cmty. Hosp. Corp.) (Greater Se. Hosp. I)*, No. 02-02250, 2007 Bankr. LEXIS 6 (Bankr. D.D.C. Jan. 2 2007); *Greater Se. Hosp. II*, 2008 Bankr. LEXIS 1607; *Alberts v. HCA Inc. (In re Greater Se. Cmty. Hosp. Corp.) (Greater Se. Hosp. III)*, No. 02-2250, 2012 Bankr. LEXIS 618 (Bankr. D.D.C. Feb 22, 2012).

<sup>139</sup> Terminal or residual value represents value after the projection period into perpetuity.

<sup>140</sup> See SHANNON P. PRATT & ROGER J. GRABOWSKI, COST OF CAPITAL: APPLICATIONS AND EXAMPLES 3 (5th ed. 2014) [hereinafter PRATT & GRABOWSKI, COST OF CAPITAL, 5th ed.] (defining cost of capital as the “expected rate of return that market participants require [to] attract funds to a particular investment”).

<sup>141</sup> The time value of money dictates that the value of a dollar today is worth more than the value of a dollar tomorrow. Thus, the sum of projected cash flows, discounted at the cost of capital, equals the value of the asset today. See *Van Dusen Airport Servs.* 910 F. Supp. at 939–40.

<sup>142</sup> *Adelphia Recovery Tr. v. FPL Grp., Inc. (In re Adelphia Commc'ns Corp.)*, 512 B.R. 447, 471 (Bankr. S.D.N.Y. 2014), *aff'd*, No. 02-41729, 2015 WL 1208588 (S.D.N.Y. Mar. 17, 2015).

<sup>143</sup> See *Weisfelner v. Blavatnik (In re Lyondell Chem. Co.)*, 567 B.R. 55, 74–76, 89–90 (Bankr. S.D.N.Y. 2017) (discussing the generation of multiple projections by experts and the court as essential to valuation efforts). Courts caution to be mindful of management's projections where there is a history of fraud or a demonstrated inability to reach forecasted results. See, for example, *Greater Se. Hosp. II*, 2008 Bankr. LEXIS 1607, where both experts rejected a DCF method because of the historical performance of management in meeting forecasts and a history of fraud; see also Robert F. Reilly, *Analyst Ethics Considerations in Bankruptcy Business/Stock Valuations*, AM. BANKR. INST. J., Apr. 2007, at 59 (including analytical review procedures and due diligence investigations of projection variables as appropriate procedures to test reasonableness of income approach). For a thoughtful discussion on the use of prospective financial information in this context, see BART & DAUCHER,

analysis should accurately represent the probability-weighted expected true cash flow to the firm generated by a company, over a discrete time period, reflecting both the best and worst case scenarios.<sup>144</sup> Projections prepared at or around the time of the transaction may be appropriate for the DCF method; however, an assessment should be made whether the contemporaneous projections were “reasonable and prudent when made” and the purpose for which the projections were made.<sup>145</sup> Inquiries may evaluate when and why the projections were prepared in comparison to the valuation date (that is, were they contemporaneous in nature and used in the ordinary course of business, or were they purposeful and intended to influence a valuation outcome). Issues may include the number and variety of projections, the source of the data and projections, the purpose for which the projections were prepared, management’s experience in both preparing and meeting projections, whether the projections are bottom-up or top-down or a hybrid of both approaches, and whether the

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*supra* note 116. See generally MICHAEL SAMONAS, FINANCIAL FORECASTING, ANALYSIS, AND MODELLING: A FRAMEWORK FOR LONG-TERM FORECASTING (2015).

<sup>144</sup> The cash flow stream used in a valuation depends on the business interest being valued. When valuing the total or business enterprise, an expert should use cash flows to the firm (often also referred to as cash flows to invested capital). See CDBV STUDY COURSE, PART III, *supra* note 44, at 3:3–3:4. If an expert is valuing equity, they should generally use either cash flows to equity or indirectly value equity by estimating the value of the firm and subtracting interest-bearing debt. *Id.* at 3:3.

<sup>145</sup> Statutory Comm. of Unsecured Creditors v. Motorola, Inc. (*In re Iridium Operating LLC*), 373 B.R. 283, 345 (Bankr. S.D.N.Y. 2007). Projections may reflect management’s anticipated changes in markets, strategies, and course of business, and may be prepared for several different purposes and to be shared with different end users. Maxwell, *supra* note 28, at ¶ 12.04[1][a]. There has been a fascinating body of case law developed around the question of what is “known or knowable.” An excellent discussion of the meaning of this directive may be found in the prepared materials for one of the panels of the 2016 Rocky Mountain Bankruptcy Conference. See Paul N. Shields et al., *Controversial Valuation Issues in the Context of Financial Distress and Bankruptcy*, in AMERICAN BANKRUPTCY INSTITUTE: ROCKY MOUNTAIN BANKRUPTCY CONFERENCE 2016, at 357 (2016), <https://abi-org-corp.s3.amazonaws.com/materials/ControversialValuationIssues.pdf>. The AIRA Standards further recognize that hindsight can be an issue when evaluating management’s prospective financial information, especially for distressed businesses. “A critical issue in valuation is the use of subsequent information and/or subsequent events and the reliance, if any, that should be put on such information . . . . Generally accepted valuation theory would typically not permit those subsequent events or conditions to be reflected.” AIRA STANDARDS, *supra* note 22, at 20–21. The AIRA Standards further state that

[T]he valuation procedures being performed will depend on the purpose of the valuation which is being prepared for the intended user. The unique facts and circumstances of the situation, relevant case law and the intended use of the valuation may permit the use of “hindsight”, or the knowledge of events occurring after the Valuation Date, in the interpretation of subsequent events and their impact on the valuation conclusion . . . . Ultimately, the use or application of any hindsight regarding subsequent events will depend on the purpose of the valuation and the intended user and should be fully disclosed in the valuation report.

*Id.* at 22. As an example, when should the knowledge, or later knowledge, regarding fraud and its impact on financial results and financial projections be incorporated into a valuation analysis? Case law and the facts and circumstances of the valuation may yield different answers.



projections were prepared and used by management in the ordinary course of business.<sup>146</sup>

Courts have shown a preference for contemporaneous management projections prepared in the ordinary course of business for purposes of managing the business, as opposed to projections prepared to support a particular corporate action or prepared in the throes of litigation and the adversarial process:

This Court has a preference for the use of management forecasts because management is typically deemed most knowledgeable about the Company's prospects. However, because "post hoc litigation driven forecasts have an untenably high probability of containing hindsight bias and other cognitive distortions," this Court is "skeptical of ex post adjustments to such predictions."<sup>147</sup>

However, court deference to contemporaneous management projections is not unbounded.<sup>148</sup> Over time, case law has identified several circumstances that may warrant caution toward management projections, such as "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."<sup>149</sup>

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<sup>146</sup> See, e.g., *Tronox Inc. v. Kerr McGee Corp. (In re Tronox Inc.)*, 503 B.R. 239, 258–60, 316 (Bankr. S.D.N.Y. 2013) (Management's projections, prepared in support of a leveraged initial public offering and spin, were disregarded where management deviated to a more favorable pricing model to support higher values and a greater distribution to former equity.).

<sup>147</sup> *Cede & Co. v. MedPointe Healthcare, Inc.*, No. Civ. A. 19354, 2004 WL 2093967, at \*16 (Del. Ch. Sept. 10, 2004) (internal quotations omitted).

<sup>148</sup> See, e.g., *Tronox*, 503 B.R. at 258–60, 316 (rejecting management's projections developed to support a leveraged initial public offering and spin in assessing insolvency, ability to pay, and inadequate capitalization for various reasons); *In re Nellson Nutraceutical, Inc.*, No. 06-10072, 2007 Bankr. LEXIS 99, at \*49, \*61 (Bankr. D. Del. Jan. 18, 2007) (noting that manipulation by management of the enterprise's long-range plan makes valuation more difficult); see also *Stark & Coffey, supra* note 6, at ¶ 3.02[1].

<sup>149</sup> See, e.g., *In re Chemtura Corp.*, 439 B.R. 561, 581–83 (Bankr. S.D.N.Y. 2010) (observing that the need for adjustments to projections because of aggressive forecasts and the importance of the terminal value estimate are heightened in a cyclical business); *In re Nine Sys. Corp. S'holders Litig.*, No. 3940, 2014 WL 4383127, at \*41 (Del. Ch. Sept. 4, 2014). One group of commentators has noted:

The primary criticism of DCF analysis is its heavy reliance on management earnings projections . . . . DCF analysis can largely reject past performance as irrelevant and may not sufficiently reflect then-prevailing market attitudes. As a result, skepticism regarding management projections can, in turn, engender skepticism regarding the ultimate DCF valuation conclusion. That is especially true if (1) management's projections seem unduly optimistic or dour, (2) they are prepared by the same management team overseeing the debtor's financial downfall and are uncorroborated by well-known turnaround professionals, (3) there is reason to suspect case strategy infects the projections, (4)

Projections of cash flows during a discrete period are the foundation of an income-based valuation. The Delaware Court of Chancery “has consistently recognized the importance of management’s contemporaneous projections because ‘the outcome of a DCF analysis depends heavily on the projections used in the model.’ Valuations that have ignored or altered management’s contemporaneous projections are ‘sometimes completely discounted.’”<sup>150</sup> As such, it is necessary to begin these types of analyses with a thorough assessment of whether the financial projections in question were reasonable at the time they were made. This analysis is necessary because “a court must consider the reasonableness of the company’s projections, not with hindsight, but with respect to whether they were prudent when made.”<sup>151</sup> Reasonable financial projections, prepared using a deliberate process and supportable assumptions, provide a basis for assessing the feasibility of a transaction, as well as evaluating the future viability of a business. To assess whether financial projections were reasonable and reliable when made, the projections must be subjected to scrutiny and evaluation in conjunction with: (1) the process by which the projections were constructed; (2) their timing and purpose; (3) historical financial performance; (4) existing business, industry, and economic trends; (5) anticipated future performance challenges; and (6) management’s track record in achieving its projections in the past.<sup>152</sup> Such scrutiny and evaluation should generally include a review of management’s views regarding the business, and an assessment of the contemporaneous observations of other stakeholders and participants in the market.

During periods of distress, businesses often undergo fundamental change; thus, careful attention must be dedicated to the process, assessment, and construction of expected cash flows. Necessary attention must be given to

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management has a financial stake in the case conclusion, or (5) there are other reasons for doubting the veracity or credibility of the forecasts.

Stark & Coffey, *supra* note 6, at ¶ 3.03[1][a]. For a look into how courts confront various issues with projections, see U.S. Bank Nat’l Ass’n v. Wilmington Tr. Co. (*In re Spansion, Inc.*), 426 B.R. 114, 131–32 (Bankr. D. Del. 2010) (adopting multiple projections and then weighting them into a blended model); *Alberts v. HCA Inc. (In re Greater Se. Cmty. Hosp. Corp. I) (Greater Se. Hosp. II)*, No. 02-02250, 2008 Bankr. LEXIS 1607, at \*108–13, \*183–85 (Bankr. D.D.C. May 19, 2008).

<sup>150</sup> S. Muoio & Co. v. Hallmark Ent. Invs. Co., No. 4729, 2011 WL 863007, at \*19 (Del. Ch. Mar. 9, 2011) (quoting *Cede & Co.*, 2004 WL 286963, at \*2).

<sup>151</sup> *MFS/Sun Life Tr.-High Yield Series v. Van Dusen Airport Servs. Co.*, 910 F. Supp. 913, 944 (S.D.N.Y. 1995).

<sup>152</sup> See PRATT & NICULITA, *VALUING A BUSINESS*, *supra* note 17, at 56–58 (5th ed. 2008).

potential changes in working capital needs, capital expenditures, depreciation,<sup>153</sup> taxes, and other relevant charges.<sup>154</sup> In the context of plan confirmation, an expert often needs to consider whether the estimate of cash flows includes restart costs, additional advertising allowances to re-attract customers, underfunded pension plan costs, and the normalization of operational costs.<sup>155</sup> In that vein, the AIRA Standards carefully note that:

[i]t is critical to understand that determination of a valuation conclusion in one context is not necessarily determinative of the valuation conclusion reached in a different context. For example, the value determined for adequate protection may not be the same as the value for confirmation of a plan or liquidation. The purpose, timing and the intended use of the valuation will determine the context of the valuation results, methodology and the relevance of the valuation conclusion.<sup>156</sup>

### B. Terminal Value

Once an expert estimates this projected free cash flow for the chosen projection horizon, the next step requires an expert to estimate the terminal or residual value of the company.<sup>157</sup> The terminal value is essentially an estimate of the value of the business after the discrete projection period, and it incorporates the assumption of perpetual operations and some mark of implicit growth or stabilization.<sup>158</sup> The careful estimate of terminal value highlights the difference between incremental value creation (typically reflected in the discrete

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<sup>153</sup> PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 57 (“[A]lthough depreciation can exceed capital expenditures in some years, over the long term, capital expenditures must exceed depreciation in a growing company.”). This relationship between capital expenditures and depreciation is often referred to as the “wedge.”

<sup>154</sup> See CDBV STUDY COURSE, PART III, *supra* note 44, at 3:1.

<sup>155</sup> See *id.* at 3:7.

<sup>156</sup> AIRA STANDARDS, *supra* note 22, at 8.

<sup>157</sup> A debtor’s terminal value is the value of the debtor as of the end of the given projection period. See *In re* Nellson Nutraceutical, Inc., 356 B.R. 364, 367 (Bankr. D. Del. 2006); see also *ONTI, Inc. v. Integra Bank*, 751 A.2d 904, 923 (Del. Ch. 1999) (stating that the “constant growth valuation model is the best method . . . to determine terminal value for a discounted cash flow analysis.”).

<sup>158</sup>

Many analysts incorrectly assume the perpetuity approach does not reflect growth beyond the explicit forecast period. This assumption is wrong. The perpetuity assumption does not rule out growth. But since growth has no necessary link to value creation, companies can continue to grow without creating any shareholder value. The essential assumption of the perpetuity approach relates to incremental value creation, not incremental growth.

Michael J. Mauboussin, *Common Errors in DCF Models*, LEGG MASON CAP. MGMT: MAUBOUSSIN ON STRATEGY 4 (Mar. 16, 2016), <http://csinvesting.org/wp-content/uploads/2015/02/CommonErrors-in-DCF-Models.pdf>.

projection period) and long-term growth/value neutrality (typically captured in the terminal value). Growth is expensive, and not all growth is value-enhancing.<sup>159</sup>

There are several issues that should be addressed when determining the terminal value, including the term of the discrete projection period, growth during this period, and anticipated growth in perpetuity. The assumptions used in the estimation of terminal value are of keen importance because studies have shown that over 70% of the value of a business may be found in the terminal value estimate.<sup>160</sup>

Generally, the Income Approach projects cash flows until the business has reached a normalized “steady state.” The most common discrete projection horizon is from three to five years, but the analysis should attempt to represent as much of a full business cycle as reasonable under the circumstances.<sup>161</sup> A shortened projection horizon could miss the full business cycle of a firm and its industry, makes it challenging to determine a mid-cycle (as opposed to mid-year) cash flow and earnings estimate, and may result in a substantial value concentration in the terminal value that may be unwarranted and result in an overstatement of value.

One critic of the perceived value concentration in the terminal value of the DCF method suggests that a projection period should be no less than five years and should perhaps be more likely ten or more years. In support, he notes that “many companies require over ten years of value-creating cash flows to justify their stock prices.”<sup>162</sup> The problem with requiring at least ten years is that management teams often base their own outlooks on five-year plans. Without a long-range plan more than five years, an expert who thought it reasonable to extend a projection horizon to capture a full business cycle would need to overcome management’s ordinary course projection process of five-year estimates and forecasts. Further, the longer the projection period, the greater the uncertainty of the projections being reliable and predictive.

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<sup>159</sup> DAMODARAN, DARK SIDE OF VALUATION, *supra* note 69, at 737.

<sup>160</sup> *See, e.g.*, Gilson, et al., *supra* note 30, at 57.

<sup>161</sup> *In re Chemtura Corp.*, 439 B.R. 561, 582 (Bankr. S.D.N.Y. 2010) (“[T]aking the business cycle into account makes for a better analysis.”).

<sup>162</sup> Mauboussin, *supra* note 158, at 2.

There are several different ways to estimate terminal value,<sup>163</sup> including applying a cash flow capitalization rate<sup>164</sup> (also known as the “Gordon Growth Model” or “GGM”) or using exit market multiples.<sup>165</sup> Generally, valuation professionals and academics prefer the Gordon Growth Model over the exit market multiple in determination of the terminal value, because the Gordon Growth Model determines the “perpetuity cash flows” of the entity assuming a steady state future cash flow and an explicitly derived discount rate less long-term growth rate.<sup>166</sup> Use of an exit market multiple: (1) includes a requirement to rely on assumptions about forward multiples (i.e., multiples at the end of the projection horizon) that are not generally observable and would likely differ from current observed multiples;<sup>167</sup> (2) blends the income approach with the market approach by using multiples to estimate the terminal value; and (3) results in a significant reduction in the importance of cash flow projections and the discount rate, which are central to the discounted cash flow method.<sup>168</sup> Nevertheless, in certain circumstances and with certain industries, the use of exit multiples at the end of the projection horizon has strong advocates, and has been regularly consulted and often accepted by courts.<sup>169</sup>

Because the Gordon Growth Model assumes a steady state of future cash flow, it is challenging to apply. Management’s detailed projections may reflect a strategy of fluid and changing capital expenditures, creating volatile free cash flows during the projection horizon. The capital expenditure program would be

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<sup>163</sup> See generally PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 57–58; see also Siegert & Turnbull, *supra* note 36, at ¶ 8.04.

<sup>164</sup> PRATT & GRABOWSKI, COST OF CAPITAL, 5th ed., *supra* note 140, at 38 (“The capitalization rate is a function of the discount rate.”). The capitalization rate equals the discount rate minus long-term growth rate. In cases where there is no growth, the capitalization rate will equal the discount rate. See also PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 48–49.

<sup>165</sup> One of the shortcomings with applying a market multiple to estimate the residual value is that it blends a market approach method with an income approach method.

<sup>166</sup> See, e.g., *Alberts v. HCA Inc. (In re Greater Se. Cmty. Hosp. Corp. I) (Greater Se. Hosp. II)*, No. 02-02250, 2008 Bankr. LEXIS 1607, at \*226, \*229–30 (Bankr. D.D.C. May 19, 2008) (adopting GGM over Exit Multiple because GGM is the “most often used” method and the more “appropriate method”); see also PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 53 (“The procedure preferred by most appraisers for developing the estimate of the terminal value is to use the capitalization model, usually the constant growth capitalization model (Gordon Growth Model). In other words, the implied assumption is that, after the specific forecast period, the business’s net cash flow will continue to grow at some average annual compound rate.”).

<sup>167</sup> Generally, the overall risk in the terminal year should be reflected in the market multiple selected. See Siegert & Turnbull, *supra* note 36, at ¶ 8.04[2] (“In general a more optimistic and therefore less certain (or ‘riskier’) terminal year forecast may result in a more conservative (lower) multiple selection (and vice versa).”).

<sup>168</sup> See PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 57; see also, e.g., *Hoyd v. Trussway Holdings, LLC*, No. 2017-0260, 2019 Del. Ch. LEXIS 72, at \*9–11, \*13–18 (Del. Ch. Feb. 28, 2019).

<sup>169</sup> See, e.g., PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 57 (noting that investment bankers commonly use the exit market multiple approach).

expected to add significant value to the existing asset base,<sup>170</sup> but this value is difficult to quantify using the Gordon Growth Model.<sup>171</sup> Understanding how the terminal year cash flows are derived is foundationally important in applying the Gordon Growth Model. For example, should experts rely on the final year of cash flows from the annual projections, or grow that final year by some positive or negative amount, or take an average of the projection period, or estimate a mid-cycle cash flow, or consider industry and analyst inputs and observations? And how is the expert modelling reinvestment (or lack thereof) to support any value-enhancing growth into perpetuity? And, yet, regardless of these complexities, the Gordon Growth Model is consistent, logically and mathematically, with the DCF method, extending the method in an effort to mirror the life of a going concern business.

Advocates of the exit market multiple approach offer up the criticism—consistently leveled against the discounted cash flow in general, and the Gordon Growth Model in particular—that these models are highly sensitive to changes in inputs, particularly in the terminal value assumptions.<sup>172</sup>

Some investors swear off the DCF model because of its myriad assumptions. Yet they readily embrace an approach that packs all of those same assumptions, without any transparency, into a single number: the multiple. Multiples are not valuation; they represent shorthand for the valuation process. Like most forms of shorthand, multiples come with blind spots and biases that few investors take the time and care to understand.<sup>173</sup>

Accordingly, an expert could estimate terminal value using an EBITDA multiple, as a proxy for unobserved forward multiples, after consideration of contemporaneous and historical multiples of the guideline companies. This method has some well-known shortcomings, but it is often used by experts and

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<sup>170</sup> Capital expenditures are important considerations for both the discrete projection period and terminal value estimates. See Siegert & Turnbull, *supra* note 36, at ¶ 8.02[3][c]. These expenses affect net cash flows and represent a dedicated portion of gross cash flows that must be plowed back into the business to support projected operations. Cf. PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 42. Thus, value-enhancing growth can be expensive.

<sup>171</sup> See, e.g., HITCHNER, 3d ed., *supra* note 57, at 151–52 (noting that “the GGM is susceptible to . . . common mistakes” in this arena).

<sup>172</sup> See *supra* footnote 165 and text accompanying footnotes 167–68 for further discussion on the limitations of the use of an exit multiple in the DCF method.

<sup>173</sup> Mauboussin, *supra* note 158, at 2.

accepted by courts and can function as a useful tool for cross-validating the Gordon Growth Model in the assessment of the value of long-term cash flow.<sup>174</sup>

### C. Discount Rate

After estimating the subject company's future cash flows during the projection period and determining the terminal value, the next step is to discount those cash flows to their present value equivalent using a rate of return that reflects the relative risk of the investment,<sup>175</sup> as well as the time value of money.<sup>176</sup> For this rate of return, or discount rate, experts estimate and apply a weighted average of the cost of equity and cost of debt of the firm under an assumed capital structure: the WACC. "The definition of the [WACC] is the blended cost of the company's capital structure components, each weighted by the market value of the capital component."<sup>177</sup> The WACC reflects the blended risk of the capital components of the subject company—its debt and equity—and its resulting cash flows. It is calculated by weighting the required returns on interest-bearing debt and common equity and preferred equity in proportion to their estimated long-term percentages in the targeted capital structure. The WACC is the appropriate rate to apply to cash flows of invested capital (also referred to as "debt-free" cash flows)<sup>178</sup> when estimating the MVIC of a company.<sup>179</sup>

The calculation of the WACC includes a variety of inputs, related assumptions, and well-reasoned choices, some of which inspire more debate than others. All are integral inputs in capturing risk and often in dispute. This Article focuses on the most challenged, and challenging, of those inputs. The WACC's three primary components are:

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<sup>174</sup> See, e.g., *Alberts v. HCA Inc. (In re Greater Se. Cmty. Hosp. Corp. I) (Greater Se. Hosp. II)*, No. 02-02250, 2008 Bankr. LEXIS 1607, at \*229–30 (Bankr. D.D.C. May 19, 2008) (using an exit market multiple approach as a "sanity" check on the GGM estimate); PRATT & NICULITA, *BUSINESS VALUATION HANDBOOK*, *supra* note 36, at 53, 58. There should be a natural relationship between capitalization rates and exit multiples, even if there is a preference for one over the other, otherwise the resulting terminal value is questionable. I thank my colleague Adam Ortega for this observation.

<sup>175</sup> See PRATT & GRABOWSKI, *COST OF CAPITAL*, 5th ed., *supra* note 140, at 3 (noting that cost of capital reflects the "expected rate of return that market participants require in order to attract funds to a particular investment").

<sup>176</sup> *Id.* at 6.

<sup>177</sup> HITCHNER, 3d ed., *supra* note 57, at 228.

<sup>178</sup> The combined capital structure components (market value of long-term debt, short-term debt, preferred stock, and the market value of equity) make up invested capital.

<sup>179</sup> PRATT & GRABOWSKI, *COST OF CAPITAL*, 5th ed., *supra* note 140, at 546 ("The most obvious instance in which to use weighted average cost of capital (WACC) is when the objective is to value the overall business enterprise.").

1. The required rate of return on equity capital or **cost of equity** (“COE”), which may include, depending on the model used in the calculation, the following inputs:
  - a. Risk-free Rate of Return, typically a long-term U.S. Treasury bond
  - b. Equity Risk Premium
  - c. Systematic or non-diversifiable risk based on the firm’s industry as a whole or selected guideline publicly-traded companies measured as:
    - i. Beta, incorporating related capital structure assumptions; or
    - ii. Industry Risk Premium
  - d. Small Size Risk Premium
  - e. Company Specific Risk Adjustment based on an assessment and specification of factors supporting its use
2. The after-tax required rate of return on debt capital or **cost of debt** (“COD”), which may be based on, among others:
  - a. Actual cost of debt proposed in a plan of reorganization
  - b. Cost of debt of selected guideline publicly companies
  - c. Corporate bond ratings
  - d. Historical cost of debt of subject company
  - e. Applicable tax rate
3. **Capital structure**, which may be based on, among others:
  - a. Historical capital structure of the debtor;
  - b. Projected capital structure proposed in the Plan of Reorganization; or
  - c. Capital structure of the industry or selected guideline publicly-traded companies.

*1. Required Rate of Return on Equity or Cost of Equity (“COE”)*

The COE is generally derived by using one of two methods as a base: the build-up method (“BUM”)<sup>180</sup> or the Capital Asset Pricing Model (“CAPM”).<sup>181</sup> From here, the cost of equity calculation may be modified for additional risk for size and/or unsystematic risk specific to the company being valued: “specific-

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<sup>180</sup> The BUM is often used for very small, private companies, where no public guideline companies are present.

<sup>181</sup> For an interesting case where a court struggled with one expert’s use of the BUM and the other’s use of the CAPM, see *Alberts v. HCA Inc. (In re Greater Se. Cmty. Hosp. Corp. I) (Greater Se. Hosp. II)*, No. 02-02250, 2008 Bankr. LEXIS 1607, at \*209–10 (Bankr. D.D.C. May 19, 2008). The court ultimately adopted the BUM. *Id.*



company” risk. The BUM and CAPM methods use many of the same inputs. The primary difference is that where the BUM may use an industry risk premium to measure systematic risk or nondiversifiable risk, the CAPM instead uses beta. This Article focuses on determining the COE under the CAPM because this is the most commonly used method for estimating the rate of return on common equity.<sup>182</sup>

*a. Capital Asset Pricing Model*

CAPM provides that the rate of return on equity is the current risk-free rate of return, which is conventionally measured by consideration of returns on U.S. Treasury bonds, plus an expected equity risk premium that is multiplied by a relative risk adjustment, commonly known as beta.<sup>183</sup> Due to perceived limitations in the CAPM as applied to valuation models, experts have employed, and many courts have accepted, the MCAPM, which is an extended application of the CAPM. The MCAPM provides additional adjustments to account for size and company specific risk.<sup>184</sup> The MCAPM typically adjusts the CAPM with a size premium to correct for a historical tendency of the CAPM to underestimate rates of return for small- and mid-cap companies, and a company specific risk adjustment to account for risk factors not accounted for elsewhere in the overall analysis.<sup>185</sup>

*b. Risk-Free Rate of Return*

The risk-free rate of return depicts the market consensus expected return on a value of security with no risk of default and no uncertainty about reinvestment rates.<sup>186</sup> Experts typically use the yield on a long-term U.S. Treasury bond as a proxy for this hypothetical risk-free rate of return because these government securities are directly observable and capture the expected real rate of interest and the expected rate of inflation.<sup>187</sup> The most common selection is the contemporaneous yield on a twenty-year U.S. Treasury bond as an appropriate

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<sup>182</sup> See generally William F. Sharpe, *Capital Asset Prices: A Theory of Equilibrium Under Conditions of Risk*, 19 J. FIN. 425–42 (1964).

<sup>183</sup> PRATT & GRABOWSKI, *COST OF CAPITAL*, 5th ed., *supra* note 140, at 192.

<sup>184</sup> See *id.* at 196.

<sup>185</sup> See *id.* at 196–97.

<sup>186</sup> CORNELL, *CORPORATE VALUATION*, *supra* note 134, at 205 (The CAPM presumes “all investors can borrow and lend at the risk-free rate.”); DAMODARAN, *APPLIED CORPORATE FINANCE*, *supra* note 133, at 88.

<sup>187</sup> See BRADFORD CORNELL, *THE EQUITY RISK PREMIUM: THE LONG-RUN FUTURE OF THE STOCK MARKET* 27 (1999) [hereinafter CORNELL, *EQUITY RISK PREMIUM*].

risk-free rate of return, as of the valuation date.<sup>188</sup> The twenty-year rate is predominantly used because it represents a longer-term return measure and matches the duration for which historical equity returns are typically measured.<sup>189</sup>

*c. Equity Risk Premium*

Practical application of the CAPM and MCAPM relies on an estimate of the equity risk premium.<sup>190</sup> The equity “risk premium measures the return the investor expects to earn, on average over the long run, in excess of the return on a risk-free investment.”<sup>191</sup> As a matter of practice, the equity risk premium is the difference between the market return on common stocks and the return on government securities;<sup>192</sup> therefore, in the CAPM equation, the equity risk premium is added to the risk-free rate of return. Considered from a different perspective, the marginal well-diversified investor in equity is not expected to forgo the risk-free investment and invest in the market portfolio unless that investor receives a premium that reflects the increased risk of such an investment: “The risk premium in the CAPM measures the extra return that would be demanded by investors for shifting their money from a riskless investment to the market portfolio or risky investments, on average.”<sup>193</sup>

The selection of a specific measure to estimate the equity risk premium has been and continues to be a matter of considerable debate.<sup>194</sup> We cannot observe the equity risk premium. Rather, an expert estimates an equity risk premium employing several methods. For example, an expert could analyze premiums historically earned compared to returns on long-term Treasury bonds. This

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<sup>188</sup> See, e.g., *Alberts v. HCA Inc. (In re Greater Se. Cmty. Hosp. Corp. I) (Greater Se. Hosp. II)*, No. 02-02250, 2008 Bankr. LEXIS 1607, at \*211–12 (Bankr. D.D.C. May 19, 2008); see also PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 60 (“Analysts generally prefer the 20-year maturity.”); PRATT & GRABOWSKI, LITIGATION COST OF CAPITAL, *supra* note 43, at 28; CDBV STUDY COURSE, PART II, *supra* note 42, at 2:13.

<sup>189</sup> PRATT & GRABOWSKI, COST OF CAPITAL, 5th ed., *supra* note 140, at 94. Interestingly, historical return data derived from the CRSP database (e.g., the Ibbotson SBBI Yearbook) uses twenty-year bonds, because that is what is available in the CRSP database, which is maintained by the Center for Research in Security Prices, LLC at the University of Chicago Booth School of Business.

<sup>190</sup> See PRATT & GRABOWSKI, COST OF CAPITAL, 5th ed., *supra* note 140, at 110–14.

<sup>191</sup> CORNELL, CORPORATE VALUATION, *supra* note 134, at 206 (emphasis omitted).

<sup>192</sup> CORNELL, EQUITY RISK PREMIUM, *supra* note 187, at 18.

<sup>193</sup> DAMODARAN, APPLIED CORPORATE FINANCE, *supra* note 133, at 93.

<sup>194</sup> See, e.g., Maxwell, *supra* note 28, at ¶ 12.04[1] (“While the build-up in the discount rate, or [WACC], is formulaic, there is frequent debate over the equity premia . . .”).

historical approach is sensitive to the duration of the chosen look-back period and whether the arithmetic or geometric mean is used.<sup>195</sup>

Most of the problems with the cost of capital come from stale inputs for beta and the equity risk premium . . . .

In addition, research suggests the equity risk premium is probably nonstationary, which means using past averages may be very misleading. Specifically, variables shaping the equity risk premium—like past stock returns, stock price volatility, and business conditions—clearly change, making it likely the ex-ante equity risk premium changes as well.<sup>196</sup>

An expert could also analyze the projected rates of return shared by analysts who evaluate the stock market. Again, this approach can lead to differing estimates depending upon the source. Commentators<sup>197</sup> and judicial authorities<sup>198</sup> have disagreed over whether a historical or forward-looking approach to estimate the equity risk premium is more appropriate, whether a longer-term or shorter “longer-term” horizon is more appropriate, and whether

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<sup>195</sup> See, e.g., *Alberts v. HCA Inc. (In re Greater Se. Cmty. Hosp. Corp. I) (Greater Se. Hosp. II)*, No. 02-02250, 2008 Bankr. LEXIS 1607, at \*212–13 (Bankr. D.D.C. May 19, 2008) (adopting the Ibbotson long-term lookback estimate of 7.8% in 1998). “As [one expert] correctly noted at trial, the Ibbotson yearbook ‘is sort of the Bible,’ for determining equity risk premiums.” *Id.* at \*213.

<sup>196</sup> Mauboussin, *supra* note 158, at 4.

<sup>197</sup> See, e.g., Roger Ibbotson & James Harrington, *Stocks, Bonds, Bills, and Inflation (SBBI): 2020 Summary Edition*, CHARTERED FIN. ANALYST INST. (2020), <https://www.cfainstitute.org/-/media/documents/book/rf-publication/2020/rf-sbbi-summary-edition.pdf>; DUFF & PHELPS, LLC, 2019 VALUATION HANDBOOK: U.S. INDUSTRY COST OF CAPITAL (2019); CORNELL, EQUITY RISK PREMIUM, *supra* note 187, at 201–02; PRATT & GRABOWSKI, COST OF CAPITAL, 5th ed., *supra* note 140, at 110–40; TIM KOLLER ET AL., VALUATION: MEASURING AND MANAGING THE VALUE OF COMPANIES 272–75 (6th ed. 2015); Pablo Fernandez & Javier del Campo Baonza, *Market Risk Premium Used in 2010 by Analysts and Companies: A Survey with 2400 Answers*, SSRN.COM (May 19, 2010) [hereinafter Fernandez & Baonza, *Survey with 2400 Answers*], [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1609563](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1609563); Pablo Fernandez & Javier del Campo Baonza, *Market Risk Premium Used in 2010 by Professors: A Survey with 1500 Answers*, SSRN.COM (May 16, 2010) [hereinafter Fernandez & Baonza, *Survey with 1500 Answers*], [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1606563](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1606563); Pablo Fernandez et al., *Market Risk Premium Used in 71 Countries in 2016: A Survey with 6932 Answers*, SSRN.COM (May 9, 2016) [hereinafter Fernandez et al., *Survey with 6932 Answers*], <http://ssrn.com/abstract=2776636>; DUFF & PHELPS, LLC, 2016 VALUATION HANDBOOK: GUIDE TO COST OF CAPITAL 3–41 (2016); Aswath Damodaran, *Equity Risk Premiums (ERP): Determinants, Estimation and Implications—The 2020 Edition*, SSRN.COM (Mar. 19, 2020) [hereinafter Damodaran, *Equity Risk Premiums*], [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3550293](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3550293).

<sup>198</sup> See, e.g., *Glob. GT LP v. Golden Telecom, Inc.*, 993 A.2d 497, 514, 516 (2010) (Strine, J.). Interestingly, then-vice-chancellor of the Delaware Court of Chancery Leo E. Strine, Jr. embraced an approach that considered multiple sources and estimates of the equity risk premium, including academic research, surveys, and other data sources. His 6% equity risk premium was based on a consideration of estimates from multiple sources. See also *IQ Holdings, Inc. v. Am. Com. Lines, Inc.*, No. 6369, 2013 WL 4056207, at \*4 (Del. Ch. Mar. 18, 2013) (adopting expert’s use and consideration of multiple sources of equity risk premium, “including Duff & Phelps, Ibbotson Associates, and Pratt & Grabowski,” in determining the WACC).

the arithmetic mean or geometric mean is more appropriate, among many other issues.

*d. Beta ( $\beta$ )*

The CAPM “expresses the risk premium for an individual security in terms of the risk premium for the market . . . .”<sup>199</sup> This makes the CAPM a *relative* asset pricing model. Beta is a risk measure that reflects the “expected sensitivity of changes in returns of a security to changes in returns to ‘the market’”<sup>200</sup> and reflects “market or systematic risk” of an individual security as measured by the CAPM.<sup>201</sup>

Beta is the “CAPM measure of nondiversifiable risk.”<sup>202</sup> Beta captures the sensitivity of a stock’s price movement relative to the market, where beta for the market portfolio overall is 1.0. “The beta . . . is the only firm-specific input in [the CAPM] equation. In other words, the only reason two investments have different expected returns in the [CAPM] is because they have different betas.”<sup>203</sup> Therefore, it is necessary to adjust the magnitude of the equity risk premium to the debtor firm’s risk profile, commonly achieved through the use of beta.<sup>204</sup>

The higher the perceived risk of a particular common stock investment (i.e., owning the debtor’s stock) relative to an average common stock investment, the higher the beta. For example, if the beta of the average common stock investment in a market portfolio is 1.0, a company beta above 1.0 is considered riskier than the market, and a company beta of less than 1.0 is considered less risky than the market. For public companies, an expert can estimate a firm’s beta

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<sup>199</sup> CORNELL, CORPORATE VALUATION, *supra* note 134, at 212.

<sup>200</sup> PRATT & GRABOWSKI, COST OF CAPITAL, 5th ed., *supra* note 140, at 78.

<sup>201</sup> *Id.* at 203. A beta may be greater than 1 (greater systematic risk than the market), equal to 1 (same systematic risk as the market), or less than 1 (less systematic risk than the market). See CDBV STUDY COURSE, PART II, *supra* note 42, at 2:7–2:8. Beta can also be negative: “A stock with a negative beta will move in the opposite direction as the market.” *Id.* at 2:7.

<sup>202</sup> CORNELL, CORPORATE VALUATION, *supra* note 134, at 219.

<sup>203</sup> DAMODARAN, APPLIED CORPORATE FINANCE, *supra* note 133, at 29.

<sup>204</sup> Experts often capture this adjustment through an analysis of past relationships between the return of the stock and the market return. This involves collecting a sample of past returns on both the stock and the market and estimating the line of best fit between the two sets of returns. The beta (or more strictly, the estimated beta) is the slope of this *regression* line. See Aswath Damodaran, *Estimating Beta*, N.Y.U. STERN SCH. OF BUS. 63 (2020), <https://pages.stern.nyu.edu/~adamodar/pdfiles/eqnotes/discrete2.pdf>. There is a dispute brewing among practitioners, academic theorists, and the authors of finance textbooks regarding CAPM. Use of CAPM is common among practitioners, but many academic theorists are deeply questioning, and in many instances, rejecting CAPM. CAPM, however, still seems to prevail after all these years in management school textbooks. See Welch, *supra* note 42.

by using published estimates or by directly estimating the beta of a firm, including using comparable company estimated betas.<sup>205</sup> For private companies, an expert generally estimates a firm's beta by estimating from betas derived from comparable companies.<sup>206</sup>

The predictive power of a beta derived from comparable companies, a synthetic beta, draws directly from comparability of the selected peer group, as noted by respected valuation experts Pratt and Grabowski:

The accuracy [of measuring beta] 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. Use of the beta estimate derived from guideline public companies larger than the subject company will generally result in too low an estimate of the cost of equity capital.<sup>207</sup>

Beta may be estimated using historical observations of beta for guideline public companies (described above) or forward-looking alternatives, such as: historical beta as adjusted by an algorithm to reflect estimates of future beta (“Adjusted Beta”), or an estimated future beta available from proprietary methods (“Predicted Beta”). The “objective is not to estimate the best beta we can over the last period but to obtain the best beta we can for the future.”<sup>208</sup>

A commonly used Adjusted Beta is provided by Bloomberg. The Bloomberg Adjusted Beta employs a “one size fits all” gloss to every company, adjusting all historical betas uniformly by weighting them relative to a market mean of

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<sup>205</sup> See CDBV STUDY COURSE, PART III, *supra* note 44, at 2:4–2:5. For a discussion of the potential problems associated with the use of historical betas where a company has experienced financial distress, see *id.* at 2:4–2:7; see also RATNER ET AL., *supra* note 17, at 53 (voicing concern that historical beta in a business in bankruptcy may not be a good indicator of the company as it emerges from bankruptcy).

<sup>206</sup> See CORNELL, CORPORATE VALUATION, *supra* note 134, at 221–22; see also PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 64 (noting that analysts often use the same comparable or guideline public company set for both an estimate of beta and for the Market Approach). Comparable companies, however, often employ leverage amounts different than the subject company. An expert unlevers comparable company betas using the capital structure of each respective comparable company and then relevers using the expected or target capital structure of the subject company.

<sup>207</sup> PRATT & GRABOWSKI, COST OF CAPITAL, 5th ed., *supra* note 140, at 223.

<sup>208</sup> Aswath Damodaran, *Estimating Risk Parameters*, N.Y.U. FAC. DIGIT. ARCHIVE (1999) [hereinafter Damodaran, *Estimating Risk Parameters*], <https://archive.nyu.edu/bitstream/2451/26906/2/wpa99019.pdf>.

1.0.<sup>209</sup> Explanations for this adjustment generally involve one or both of the following rationales:

1. Betas tend to drift toward the average over time because many companies change their underlying operations or strategy, such that they tend to become more like the average company.
2. Betas tend to move toward the market average as a statistical phenomenon. Because observed raw betas are estimated with error (relative to the true beta), then observed betas above the average will more likely have a positive error, and the observed betas below the average will more likely have a negative error.<sup>210</sup>

The first rationale fails because a discount rate is intended to value an existing company, rather than a hypothetical company that may shift into as-of-now-unknown lines of business. Adjusted Beta presumes that companies become more stable, grow over time, increase assets and cash flows, make more conservative financing and investment decisions, and may become more diversified. This assumes a hypothetically different company in the future that may be inconsistent with its operational reality as a stand-alone going concern as of the valuation date and could be considered inconsistent with the fair valuation standard under the Clawback Scenario and the fair and equitable standard under the Plan Scenario.

The second rationale also fails because reliance is rarely based on a single observed beta in business valuations. A typical approach, and often the *only* approach for a private company without an observable beta, is to use the historical betas of guideline public companies in a comparable industry—for example, observing historical betas over the preceding five years at monthly intervals as a proxy to predict future beta for the subject company. This method is effective, provided certain conditions are met: that there is no reason to distrust historical betas, that those betas are drawn from a robust dataset, that sufficient data points exist within that dataset, and that there appear to be no market mean reversion tendencies in the trends over a reasonable lookback period. If that is the case, there is likely no persuasive rationale for using Adjusted Betas. Generally, the use of historical betas derived from a domain of

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<sup>209</sup> The Bloomberg Adjusted Beta derives from early research by Professor Marshall Blume. Marshall E. Blume, *On the Assessment of Risk*, 26 J. FIN. 1 (1971). Bloomberg calculates this adjusted beta as: Adjusted beta = (.67) · Raw beta + (.33) · 1.0. See, e.g., *Finding Beta Research Guide*, BABSON COLLEGE: HORN LIBRARY (Nov. 4, 2022), <https://libguides.babson.edu/c.php?g=26447&p=161469>.

<sup>210</sup> I thank my colleague David King for sharing these observations with me.

comparable companies as a proxy for the industry beta is well-supported unless there is reason to distrust the historical data as a stable or reliable predictor of a future beta.<sup>211</sup>

Another academic study compared alternative beta-adjustment techniques, including adjustments like Bloomberg, and concluded that the adjustments did not provide improvements relative to unadjusted betas. Summarizing their results, the authors stated:

Our findings lead us to conclude that there is an uncertain and statistically insignificant gain from adjusting betas with the “appropriate” technique and there is a significant loss if an “inappropriate” technique is used. The implication should be clear: our advice to investors is to rely on simple, no-change, unadjusted betas to select securities for their portfolios, to control portfolio risk, or to estimate securities’ and portfolios’ required rate of return.<sup>212</sup>

Research supports the proposition that extreme betas tend to move towards the market mean.<sup>213</sup> However, betas near the mean in one period may move away from the mean in the next period.<sup>214</sup> Research also shows that it is false to state that all betas exhibit a long-term drift toward the market mean of 1.0. Finally, even if one assumes that market factors exist that push beta of a firm toward the market mean of 1.0 over time, the rate at which firms revert to the mean varies by firm and industry. The speed of convergence can vary across companies and across industries. Thus, the constant weighting across all firms employed by Bloomberg makes little sense and raises questions about its usefulness for valuations in dispute.

Predicted Betas are another means of computing betas. Predicted Betas are usually derived from a proprietary formula by a private company.<sup>215</sup> These formulas incorporate a variety of company-specific risk factors and industry

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<sup>211</sup> See *Glob. GT LP v. Golden Telecom, Inc.*, 993 A.2d 497, 523 (2010) (“[N]o reliable literature or evidence was presented to show that the beta of a telecom company like Golden, which operates in a risky market, will revert to 1.0.”); see also *Merion Cap., L.P. v. 3M Cogent, Inc.*, No. 6247, 2013 WL 3793896 (Del. Ch. July 8, 2013); *IQ Holdings, Inc. v. Am. Com. Lines, Inc.*, No. 6369, 2013 WL 4056207, at \*4 (Del. Ch. Mar. 18, 2013) (rejecting use of Bloomberg Adjusted Beta and holding that “[m]ean reversion is a sound concept in the abstract, but the specific mean-reverting path must be justified on the facts”).

<sup>212</sup> Gabriel A. Hawawini & Ashok Vora, *Adjusting Beta Estimates: Real Gains or Illusion?*, EUR. INST. BUS. ADMIN. (INSEAD) 2 (June 1981), [https://flora.insead.edu/fichiersti\\_wp/inseadwp1981/81-16.pdf](https://flora.insead.edu/fichiersti_wp/inseadwp1981/81-16.pdf).

<sup>213</sup> See Robert W. Kolb & Ricardo J. Rodriguez, *The Regression Tendencies of Betas: A Reappraisal*, 24 FIN. REV. 319, 333 (1989).

<sup>214</sup> See *id.*

<sup>215</sup> See PRATT & GRABOWSKI, COST OF CAPITAL, 5th ed., *supra* note 140, at 334.

exposures,<sup>216</sup> whereas, as discussed above, the Bloomberg Adjusted Betas reflect a blanket market adjustment that treats all companies and industries the same, incorporating the same speed of convergence toward the same market mean.

Experts often consider historical betas and Adjusted Betas, like those published by Bloomberg (and others), and Predicted Betas such as those published by MSCI Barra, as well as other sources including survey results.<sup>217</sup> Because the published betas reflect the leverage (or debt levels) of the comparable companies used to create them, an expert should consider adjusting these betas to reflect the company's actual or expected capital structure. This adjustment is accomplished by unlevering the selected comparable company betas to eliminate the effect of debt in the capital structure of these companies and relevering the unlevered betas to reflect the target debt to total capital ratio of the subject company. That is, the unlevered betas are relevered to the sustainable and normalized capital structure of the target company as selected by the expert. Experts regularly use either the Harris-Pringle formula,<sup>218</sup> or the Hamada formula,<sup>219</sup> for the purposes of unlevering and relevering the betas in bankruptcy disputes.<sup>220</sup>

The Harris-Pringle formula incorporates the assumption that “the debt has default risk, and there is some risk that the tax deductions on interest expense will not result in tax savings in the same period as the interest is paid in future years for the guideline public company.”<sup>221</sup> The Harris-Pringle formula accounts for the risk of realizing these tax savings.<sup>222</sup> The Harris-Pringle formula also assumes risky debt and a rebalancing of debt/equity over time. The beta of debt can be estimated for the comparable companies and the debtor using benchmarks

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<sup>216</sup> See *id.* See generally MSCI BARRA, BARRA RISK MODEL HANDBOOK (2007).

<sup>217</sup> See, e.g., *IQ Holdings, Inc. v. Am. Com. Lines, Inc.*, No. 6369, 2013 WL 4056207, at \*4 (Del. Ch. Mar. 18, 2013) (court adopts expert's use and consideration of multiple sources of beta estimates, especially the Barra predicted beta, in determining the WACC). “Bloomberg offers the most flexible beta calculation system, allowing users to choose different market proxies, historical time periods, and daily, weekly, monthly, or annual time intervals.” CDBV STUDY COURSE, PART II, *supra* note 42, at 2:9.

<sup>218</sup> See Robert S. Harris & John J. Pringle, *Risk-Adjusted Discount Rates—Extensions from the Average-Risk Case*, 8 J. FIN. RSCH. 237 (1985).

<sup>219</sup> See Robert S. Hamada, *The Effect of the Firm's Capital Structure on the Systemic Risk of Common Stocks*, 27 J. FIN. 435 (1972).

<sup>220</sup> PRATT & GRABOWSKI, *COST OF CAPITAL*, 5th ed., *supra* note 140, at 250–52 (discussion of various formulas); PRATT & GRABOWSKI, *LITIGATION COST OF CAPITAL*, *supra* note 43, at 39–40 (same); see also DUFF & PHELPS, LLC, 2015 VALUATION HANDBOOK: INDUSTRY COST OF CAPITAL 36–37 & n.44 (2015) [hereinafter 2015 VALUATION HANDBOOK].

<sup>221</sup> PRATT & GRABOWSKI, *COST OF CAPITAL*, 5th ed., *supra* note 140, at 250.

<sup>222</sup> *Id.* at 246.



for their respective credit ratings as published in multiple sources depending on the relevant valuation date.<sup>223</sup> This method finds support in academic textbooks<sup>224</sup> and in professional publications,<sup>225</sup> as well as in court.<sup>226</sup> Courts have used, in the absence of observable debt betas, a company's credit rating to infer individual debt betas.<sup>227</sup>

Alternatively, the Hamada formula uses some simplifying assumptions: namely, that debt has zero beta and that the tax shield is risk-free in perpetuity. As one of the first published beta levering formulas, it became widely adopted by practitioners and courts.<sup>228</sup> Both the Harris-Pringle formula and the Hamada formula are based on the same relationship from finance theory, equating the value of assets (including tax shields) with the value of financial claims against those assets. Yet, contrary to the assumptions relied on in the Hamada formula, debt (and equity) holders face heightened economic risk for their investments in companies that find themselves in distress and bankruptcy, and tax shields may be minimized or eliminated with corporations that can no longer deduct interest from taxable income. Another shortcoming of the Hamada formula is that it is inconsistent with rebalancing to maintain a target debt/equity ratio. However, if one is estimating a WACC by releveraging the capital structure of the debtor to

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<sup>223</sup> See *id.* at 221, 250–52; 2015 VALUATION HANDBOOK, *supra* note 220, at 5–24; PRATT & GRABOWSKI, COST OF CAPITAL, 5th ed., *supra* note 140, at 246 (“These methodologies are generally functions of the risk of realizing the tax savings resulting from the tax deductions resulting from the interest expense of the debt component of the capital structure.”).

The Harris Pringle formulas are consistent with the theory that: . . . [(1) T]he risk of the tax shield is comparable to the risk of the operating cash flows[.] That is, the risk of realizing the tax deductions is greater than assumed in the Hamada and Miles-Ezzell formulas. [(2)] Debt capital bears the risk of variability of operating net [free] cash flow in that interest payments and principal repayments may not be made when owed, which implies that tax deductions on the interest expense may not be realized in the period in which the interest is paid . . . [(3)] The market value of debt capital remains at a constant percentage of equity capital, which is equivalent to saying that debt increases in proportion to the net [free] cash flow . . . to invested capital[] in every period.

*Id.* at 252.

<sup>224</sup> RICHARD A. BREALEY ET AL., PRINCIPLES OF CORPORATE FINANCE 543 (9th ed. 2008)

<sup>225</sup> See, e.g., TIM KOLLER ET AL., VALUATION: MEASURING AND MANAGING THE VALUE OF COMPANIES (7th ed. 2020); PRATT & GRABOWSKI, COST OF CAPITAL, 5th ed., *supra* note 140, at 126; see also DAMODARAN, INVESTMENT VALUATION, *supra* note 94, at 199.

<sup>226</sup> See, e.g., *Hoyd v. Trussway Holdings, LLC*, No. 207-0260, 2019 Del. Ch. LEXIS 72, at \*14–18 (Del. Ch. Feb. 28, 2019).

<sup>227</sup> See, e.g., *id.* at \*17; see also CDBV STUDY COURSE, PART III, *supra* note 44, at 2:10. See generally 2015 VALUATION HANDBOOK, *supra* note 220.

<sup>228</sup> Siegert & Turnbull, *supra* note 36, at ¶ 8.05[5] (“[T]he Hamada Formula is one of the most frequently and widely-used approaches.”). In some versions of Hamada, the tax effect is ignored. One would then rewrite the equation without the  $(1 - T)$  term. See Aswath Damodaran, *Estimating Beta*, N.Y.U. STERN SCH. OF BUS. 71, <https://pages.stern.nyu.edu/~adamodar/pdfiles/eqnotes/discrete2.pdf>.

the average leverage of the guideline public companies, rather than some other target capital structure, it may not matter much which formula one uses.<sup>229</sup>

*e. Size Premium*

Experts often adjust the CAPM by a premium to reflect the incremental risk due to size, thus estimating an MCAPM.<sup>230</sup> Empirical evidence and historical evidence indicate that rates of return on equity vary with the size of a company in a manner that the CAPM does not fully capture.<sup>231</sup> These studies, dating back to the 1980s,<sup>232</sup> have found that the “realized total returns on smaller companies have been substantially greater over a long period of time than pure CAPM would have predicted.”<sup>233</sup> This premium is derived from historical differences in returns between small and large companies that are not fully captured by the CAPM formula.<sup>234</sup> Subsequent studies reaffirmed the general correlations just mentioned as the basis for a size premium.<sup>235</sup> Based on these studies, experts and courts have accepted adjustments to the CAPM by adding a size premium.

Experts often capture the indications and bounds for size premiums based on studies from Ibbotson & Associates and/or Duff & Phelps/Kroll. Most users of the size premium assert that such adjustment is necessary for the required return on equity to capture risk associated with illiquidity or to reflect the increased financial distress associated with small cap firms. Application of the size premium depends on the specific facts of the situation, like many of the other inputs and assumptions.

The size premium is frequently adopted by bankruptcy courts, tax court, and Delaware courts, but it does not lack for critics. Prominent and well-respected academics and valuation professionals have challenged its use in estimating the cost of equity. Andrew Ang observed, as early as 2014, that “[t]he size effect—

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<sup>229</sup> See, e.g., *Hoyd*, 2019 Del. Ch. LEXIS 72, at \*17 (noting that under such circumstances, “the difference between [the Harris-Pringle approach] and the Hamada approach . . . is *de minimus* [sic]”).

<sup>230</sup> See generally SHANNON P. PRATT & ROGER J. GRABOWSKI, *COST OF CAPITAL: APPLICATIONS AND EXAMPLES* 232–61, 277 (4th ed. 2010) [hereinafter PRATT & GRABOWSKI, *COST OF CAPITAL*, 4th ed.].

<sup>231</sup> PRATT & GRABOWSKI, *COST OF CAPITAL*, 5th ed., *supra* note 140, at 196.

<sup>232</sup> See Rolf W. Banz, *The Relationship Between Return and Market Value of Common Stocks*, 9 J. FIN. ECON. 3, 16 (1981); Marc R. Reinganum, *The Anomalous Stock Market Behavior of Small Firms in January*, 12 J. FIN. ECON. 89, 89 (1981); Eugene F. Fama & Kenneth R. French, *Common Risk Factors in the Returns on Stock and Bonds*, 33 J. FIN. ECON. 3, 55 (1993). But see Eugene F. Fama & Kenneth R. French, *International Test of a Five-Factor Asset Pricing Model*, 123 J. FIN. ECON. 441, 457 (2017).

<sup>233</sup> PRATT & GRABOWSKI, *COST OF CAPITAL*, 5th ed., *supra* note 140, at 196.

<sup>234</sup> See *id.* at 309, 318.

<sup>235</sup> All things equal, a small size premium increases the cost of equity capital, thus, increasing the discount rate and decreasing the value of the firm. *BCIM Strategic Value Master Fund, LP v. HFF, Inc.*, No. 2019-0558, 2022 Del. Ch. LEXIS 25, at \*100 & n.27 (Del. Ch. Feb. 2, 2022).

that small stocks outperform large stocks—was brought to investors’ attention by Banz in 1981 and reached its peak after that . . . . Since the mid-1980s, however, there has been no size premium after adjusting for market risk.”<sup>236</sup> Clifford Ang has also written thoughtfully on why a size premium should not be employed to estimate cost of equity capital. He concludes that a size premium is unsupported by present empirical evidence, and he notes several deficiencies in its application.<sup>237</sup> Prominent valuation scholar Aswath Damodaran is yet another critic of the size premium as it is generally applied.<sup>238</sup>

*f. Company Specific Risk Adjustment*

The company specific risk adjustment accounts for risk factors specific to the subject company that would be priced by market participants and that are not accounted for elsewhere in the CAPM or CAPM plus small size premium.<sup>239</sup> Common adjustments are typically based on lack of diversification, lack of depth of management, key supplier dependence, key customer risk, unique operating limitations, and key person dependence.<sup>240</sup> In their treatise, Professors Israel Shaked and Richard Reilly state that:

The CAPM was *developed* for, and is used by, investment managers who invest in publicly traded securities as a component of a diversified portfolio of publicly traded securities. The CAPM (and each other cost of equity model) is well-suited to estimate the required return on investment for this purpose. However, analysts need to estimate the cost of equity capital for purposes of the bankruptcy valuation of a closely held business ownership interest, a closely held business, or an

<sup>236</sup> ANDREW ANG, ASSET MANAGEMENT: A SYSTEMATIC APPROACH TO FACTOR INVESTING 457 (2014).

<sup>237</sup> See Clifford S. Ang, *Why We Shouldn't Add a Size Premium to the CAPM Cost of Equity*, NAT'L ASS'N. CERTIFIED VALUATORS & ANALYSTS: QUICKREAD (Feb. 17, 2017), <http://quickreadbuzz.com/2017/02/15/shouldnt-add-size-premium-capm-cost-equity/>. See also Ang, *Absence of a Size Effect*, *supra* note 60; Clifford S. Ang, *It's Time for Valuation Experts to Let Go of the Size Premium*, LAW360 (June 22, 2020, 6:22 PM), <https://www.law360.com/articles/1283192>. Mr. Ang writes with concision and clarity on this subject.

<sup>238</sup> See, e.g., Aswath Damodaran, *The Small Cap Premium: Where Is the Beef?*, MUSINGS ON MKTS. (Apr. 11, 2015, 1:57 PM), <http://aswathdamodaran.blogspot.com/2015/04/the-small-cap-premium-fact-fiction-and.html>. Damodaran may have tempered his stance against a small size premium, although that remains unclear. See Aswath Damodaran, *Equity Risk Premiums (ERP): Determinants, Estimations and Implications*, SSRN.COM 2 (Mar. 23, 2022), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4066060](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4066060). I highly recommend Prof. Damodaran's thoughtful website to students of business valuations.

<sup>239</sup> See PRATT & GRABOWSKI, COST OF CAPITAL, 5th, ed., *supra* note 140, at 196 (“[I]n practice we find that the term company-specific risk has various uses” when returns on equity do not follow a pure CAPM where all unique or unsystematic risk is not diversified away.)

<sup>240</sup> RATNER ET AL., *supra* note 17, at 56; see also Siegert & Turnbull, *supra* note 36, at ¶ 8.05[7].

intangible asset. The CAPM has to be modified to achieve this purpose.<sup>241</sup>

This adjustment may be upward or downward, depending on how the risks of the company compare to the risks of the guideline companies used in the analysis, and also to the risks of the companies that comprise the general market indices used in the analysis of the discount rate.<sup>242</sup>

Quantifying such an adjustment presently relies exclusively on an expert's judgment.<sup>243</sup> Therein, for many detractors, lies the rub. The criticism is that this input is a purely subjective choice and is frequently added to achieve a desired outcome.<sup>244</sup>

There are generally recognized empirical data sources to measure all other (non-CSRP [company specific risk premium]) cost of equity components. However, there is no single recognized data source to measure the CSRP. The CSRP is based on the analyst's informed assessment of company-specific internal and external factors. These factors may be both financial and operational in nature, and these factors may be both historical and prospective in nature.<sup>245</sup>

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<sup>241</sup> ISRAEL SHAKED & ROBERT F. REILLY, A PRACTICAL GUIDE TO BANKRUPTCY VALUATION 212 (2d ed. 2017) (emphasis added). Both authors are prolific publishers on valuation subjects. I do quibble with the first sentence in the quote. CAPM was developed by financial economists to model the theoretical conditions for equilibrium prices. It was soon after promoted as a tool that could aid in the analysis of returns and investments involving capital budgeting decisions. This is the main context in which CAPM is explained within corporate finance textbooks.

<sup>242</sup> *Id.* at 179.

<sup>243</sup> *Id.* at 397.

<sup>244</sup> Courts are critical of the CSRP and some simply exclude the adjustment to cost of equity outright. *See, e.g.,* U.S. Bank Nat'l Ass'n v. Verizon Commc'ns Inc., No. 3:10-CV-1842-G, 2013 WL 230329, at \*7 (N.D. Tex. Jan. 22, 2013) (rejecting CSRP); *In re* Sunbelt Beverage Corp. S'holder Litig., No. 16089, 2010 Del. Ch. LEXIS 1, at \*45-46 (Del. Ch. Jan. 5, 2010) ("Even though courts may approve the use of these premiums, 'to judges, the company specific risk premium often seems like the device experts employ to bring their final results in line with their clients' ojectives, when other valuation inputs fail to do the trick.'" (quoting Del. Open MRI Radiology Assocs. v. Kessler, 89 A.2d 290, 339 (Del. Ch. 2006))); *Hintmann v. Fred Weber, Inc.*, No. 12839, 1998 WL 83052, at \*5 (Del. Ch. Feb. 17, 1998). Thus, an expert confronts a burden in the use of the CSRP, certainly not insurmountable in bankruptcy disputes, but nevertheless a challenge. *See, e.g.,* *Drs. Hosp. of Hyde Park, Inc. v. Desnick (In re Drs. Hosp. of Hyde Park, Inc.)*, 360 B.R. 787, 827 (Bankr. N.D. Ill. 2007). If the CSRP is used, however, then it should be an input to the cost of equity and not added to WACC. *See* RATNER ET AL., *supra* note 17, at 56-57 (2009) ("[I]f a company specific risk premium is to be added at all, it is to be added in as a cost of equity . . . it is not appropriate to tack the full premium onto the WACC." (quoting *Hintmann*, 1998 WL 83052, at \*5)). Other courts have embraced the use of a CSRP. *See, e.g.,* *Alberts v. HCA Inc. (In re Greater Se. Cmty. Hosp. Corp. I) (Greater Se. Hosp. II)*, No. 02-02250, 2008 Bankr. LEXIS 1607 (Bankr. D.D.C. May 19, 2008). There, experts disagreed over the magnitude of the CSRP and not its existence. One expert used a CSRP of 12%; the other expert used an eye-popping rate of 23%. The court found that the appropriate CSRP was 13.5%. *Id.* at \*217-19.

<sup>245</sup> SHAKED & REILLY, *supra* note 241, at 202-03.

Shaked and Reilly advocate using a company specific risk premium (“CSRP”) when warranted under the facts and circumstances and when relevant to the purposes of the valuation.<sup>246</sup> They acknowledge that there is no recognized empirical data source to support the company specific risk premium.<sup>247</sup> Borrowing from several sources, including the Trugman factors,<sup>248</sup> Shaked and Reilly impose discipline on the application of the company specific risk premium by recommending the evaluation of: risk factors,<sup>249</sup> nonfinancial factors,<sup>250</sup> and additional company-specific factors.<sup>251</sup> They further discuss ways for an expert to explain the company specific risk premium to a trier of fact.<sup>252</sup> Yet, there remain many detractors that reject a factor-evaluative approach, as summarized nicely by Brian Calvert and David Smith:

Problems with factor methods for determining a CSRP are probably obvious. The system is completely ad-hoc and relies on the judgment of the user in supplying inputs for each factor to come up with a measure of the premium. None of these factor methods have been established via any sort of formal tests of their efficacy. Their popularity is based more on practitioner folklore than anything else. Often, the factors appear to be more relevant to scoring expected cash flow levels, with higher premiums being assigned to companies with poorer cash-generating ability, than to risks that a given company will do better or worse. Thus, these models might be useful for adjusting

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<sup>246</sup> See also Siegert & Turnbull, *supra* note 36, at ¶ 8.05[7] (noting that CSRP is not warranted in all situations and underscoring concern about double counting same risk); PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 62 (same).

<sup>247</sup> SHAKED & REILLY, *supra* note 241, at 215. There is empirical support for the other inputs under the MCAPM, such as the risk-free rate, equity risk premium, beta, and the small size premium.

<sup>248</sup> *Id.* at 217–18 (citing GARY R. TRUGMAN, UNDERSTANDING BUSINESS VALUATION: A PRACTICAL GUIDE TO VALUING SMALL TO MEDIUM SIZED BUSINESSES (5th ed. 2017)). The Trugman approach collects numerous factors under several categories. See GARY R. TRUGMAN, UNDERSTANDING BUSINESS VALUATION 491–95 (6th ed. 2022). First, the Trugman factors assess certain types of risk. These include “economic risk, operating risk, asset risk, market risk, regulatory risk, business risk, financial risk, product risk, technological risk, and legal risk.” *Id.* at 491–92. Second, the Trugman factors assess certain conditions, such as “economic conditions . . . industry conditions . . . location of business . . . competition . . . depth of management . . . quality of management . . . barriers to entry into market, [and] avoiding double counting.” *Id.* at 494–95. For an example of a Trugman-style estimation of the CSRP following a “risk factor value chart,” see *id.* at 495–96.

<sup>249</sup> Risk factors include economic, operating, asset, market, regulatory, business, financial, product, technology, and legal risks. SHAKED & REILLY, *supra* note 241, at 217.

<sup>250</sup> Nonfinancial factors include economic conditions, location of business, management depth, barriers to entry, industry conditions, competition, and management quality. *Id.* at 218.

<sup>251</sup> Company-specific factors track the nonfinancial factors as applied to the specific company and include the bottom-line factor. *Id.*

<sup>252</sup> *Id.* at 218–21.

cash flow forecasts, but have no place as models of the cost of capital.<sup>253</sup>

Shaked and Reilly should be commended for their work to impose discipline in the selection of a company specific risk premium. It is, however, a heavy lift. Courts generally agree that it may be too great a leap, preferring any company specific adjustments be made to the projections of cash flows,<sup>254</sup> because of lack of methodological rigor, existence of expert subjectivity, and potential bias present when estimating a company specific risk premium.<sup>255</sup> However, many courts, particularly in bankruptcy disputes, do recognize a company specific risk premium in certain circumstances and freely adjust it.<sup>256</sup> The debate is not over whether company-specific (unsystematic and diversifiable) risk exists in certain circumstances—it likely does—but whether such risk is already captured in security returns.<sup>257</sup> Moreover, according to some critics, a company specific risk premium violates the “no-arbitrage” principle, namely that:

If the diversifiable risk of stocks were compensated with an additional risk premium, then investors could buy the stocks, earn the additional premium, and simultaneously diversify and eliminate the risk. By doing so, investors could earn an additional premium without taking on additional risk. This opportunity to earn something for nothing would quickly be exploited and eliminated.<sup>258</sup>

## 2. Required Rate of Return on Debt or Cost of Debt (“COD”)

The rate of return on debt capital or COD is the rate a likely investor would require on interest-bearing debt of the subject company based on its target capital structure. Specifically, “[t]he cost of debt capital should reflect the expected average of interest rates over a long period of time.”<sup>259</sup> Because interest on debt capital is deductible for income tax purposes, an after-tax interest rate is generally employed in the calculations.

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<sup>253</sup> R. Brian Calvert & David C. Smith, *Company-Specific Risk Premiums: Update on the Scholarly Evidence*, SSRN.COM 18 (May 28, 2011), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1791213](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1791213).

<sup>254</sup> See, e.g., RICHARD A. BREALEY ET AL., *PRINCIPLES OF CORPORATE FINANCE* 241 (13th ed. 2020) (“Fudge factors in discount rates are dangerous because they displace clear thinking about future cash flows.”).

<sup>255</sup> See Arthur H. Rosenbloom et al., *Using Company-Specific Risk in the Delaware Chancery Court*, *BUS. VALUATION UPDATE*, Dec. 2011, at 1. The Business Valuation Update is published by Business Valuation Resources, LLC (“BVR”), a wonderful organization with excellent coverage of business valuations in many areas of the law. I recommend BVR publications and seminars to any serious student of this subject.

<sup>256</sup> See *id.* at 1.

<sup>257</sup> See Shields et al., *supra* note 145, at 357.

<sup>258</sup> JONATHAN BERK & PETER DEMARZO, *CORPORATE FINANCE* 372 (4th ed. 2017); see also Shields et al., *supra* note 145, at 357.

<sup>259</sup> PRATT & GRABOWSKI, *COST OF CAPITAL*, 5th ed., *supra* note 140, at 1206; see also *id.* at 565, 692–93.

The COD is typically defined as the yield to maturity on comparable debt instruments traded in the public market, as adjusted for specific risk factors related to the relevant company.<sup>260</sup> In general, the yield to maturity represents the market consensus on the percentage return that is appropriate for the particular debt instrument. It is an estimate of the promised return as of a particular point in time, and it is relatively easy to compute given the amount and timing of future payments.

Most companies finance their operations largely through debt and equity. The cost of debt, especially for large companies, is generally transparent because companies have contractual obligations to make coupon payments and return principal on a timely basis. Some yield premium over risk-free securities is appropriate, with the size of the premium reflecting the company's creditworthiness. The large and generally liquid corporate bond market makes comparisons between fixed-income securities relatively straightforward.<sup>261</sup>

This input may be influenced by legal context. Experts' approaches to the input tend to fall into one of three categories: (1) employing the actual cost of debt of the reorganized (future) debtor as projected in a proposed plan, such as in the Plan Scenario;<sup>262</sup> (2) using a synthetic industry cost of debt harvested from a peer or comparable company set, such as in the Clawback Scenario;<sup>263</sup> or (3) assessing both the peer group's credit ratings and the historical costs of debt of the debtor and then selecting an interest rate based on a careful consideration of those multiple sources. In a Clawback Scenario, experts often employ one of the various rates derived from these multiple sources as a floor: (i) the lower of the debtor's historical costs; (ii) a synthetic cost derived from a peer group; or (iii) a medium grade, moderate credit risk, corporate bond rating.<sup>264</sup> Burdening the debtor's property in the Clawback Scenario with a junk bond rating rather than a moderate risk corporate bond rating raises concern that by assuming the default risk associated with the debtor's business, the fair market value standard of value

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<sup>260</sup> See HITCHNER, 3d ed., *supra* note 57, at 1026–27 (noting also that specific risk factors include interest rate risk, payment or call risk, and default risk).

<sup>261</sup> Mauboussin, *supra* note 158, at 4.

<sup>262</sup> CDBV STUDY COURSE, PART III, *supra* note 44, at 2:23–2:25.

<sup>263</sup> See, e.g., *Alberts v. HCA Inc. (In re Greater Se. Cmty. Hosp. Corp. I) (Greater Se. Hosp. II)*, No. 02-02250, 2008 Bankr. LEXIS 1607, at \*208–09, \*219–23 (Bankr. D.D.C. May 19, 2008) (adopting synthetic cost of debt).

<sup>264</sup> See *Moody's Seasoned Baa Corporate Bond Yield*, FED. RSRV. BANK OF ST. LOUIS, <https://fred.stlouisfed.org/series/DBAA> (last visited Nov. 16, 2022). Under Moody's Long-Term Rating Definitions, an obligor rated 'Baa' is subject to moderate credit risk and is considered medium grade, which may possess speculative characteristics. The Baa rating is also the threshold for an investment-grade credit rating; any investment rated below Baa is considered "junk-rated." Such ratings use Moody's Global Scale and reflect both the likelihood of default and any financial loss suffered in the event of default.

may be breached. This occurs when otherwise valuable assets (particularly if they are long-lived assets) are undervalued at the hands of the debtor; while a fair market value standard applied to the same property assumes a hypothetical exchange between hypothetical parties, neither under compulsion to transact.<sup>265</sup>

### 3. Capital Structure

Importantly, the costs of capital (debt, equity, and preferred stock, if applicable) used in the WACC are estimates of what investors would demand for providing capital to the company. As discussed above, these variables can be estimated by examining similar investment opportunities in the public market and by attempting to determine the market consensus expected returns for these investments. These “comparable” figures can then be used as a basis for selecting appropriate expected returns for the company,<sup>266</sup> albeit often adjusted based on judgment and reason to reflect the particular and peculiar circumstances of the debtor and its financial distress.

The fair market value standard requires an evaluation of a company’s targeted capital structure—that is, the percentages of debt and equity used to capitalize the subject entity. Here, in the bankruptcy context, experts have several choices, each involving tradeoffs between relevance and reliability as well as transparency and opaqueness. Experts may use a debtor’s historical capital structure; or, because a buyer who is acquiring a controlling interest could influence the capital structure,<sup>267</sup> experts may estimate a sustainable and normalized capital structure by analyzing industry indications (including harvesting such information from a set of comparable companies).<sup>268</sup>

Clawback Scenario authority often, but not always, tends to migrate toward a target capital structure. The target capital structure may be drawn from a

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<sup>265</sup> Valuation should reflect an “implicit value of the company, irrespective of insolvency-driven prejudices, hypothesizing how a reasonably well-informed and efficient marketplace (capital and/or M&A) would appraise the company if the bankruptcy never happened.” Stark & Coffey, *supra* note 6, at ¶ 3.02[3][e]. This goal is more consistent with contemplation of fair value or fair market value. *See, e.g.*, Travellers Int’l AG v. Trans World Airlines, Inc. (*In re* Trans World Airlines, Inc.), 134 F.3d 188, 193–94 (3d Cir. 1998) (cases look to market value rather than distressed value, assessed in a realistic framework); United States v. Gleneagles Inv. Co., 565 F. Supp. 556, 578 (M.D. Pa. 1983) (same); *In re* Coram Healthcare, Inc., 315 B.R. 321, 340 (Bankr. D. Del. 2004) (same).

<sup>266</sup> Calculating the WACC for a distressed company is especially challenging because of a potential changing capital structure. A practice emerging in the distressed business context is to employ an iterative process or the adjusted present value method. *See* CDBV STUDY COURSE, PART III, *supra* note 44, at 2:31.

<sup>267</sup> *Cf.* PRATT & GRABOWSKI, COST OF CAPITAL, 5th ed., *supra* note 140, at 565.

<sup>268</sup> *See also* HITCHNER, 3d ed., *supra* note 57, at 257 (“[C]apital structures from publicly traded guideline companies can be helpful in determining the weights of a closely held company’s debt and equity.”).



market analysis as a proxy for the optimal debt to total capital structure or a combination of a market analysis and historical assessment of the debtor.<sup>269</sup> On the other hand, Plan Scenario authority often, but not always, opts for the reorganized debtor's projected capital structure in the proposed plan.<sup>270</sup> A careful consideration of the relevant authority on capital structure in both the Clawback and Plan Scenarios leads to the observation, as with all aspects of valuation in distress, that facts and circumstances matter, and these can inform how best to approach this assessment.

## V. MARKET APPROACH

The market approach estimates the MVIC of a business based on comparisons of various market indicators, including other guideline publicly traded companies, transactions in the industry of the subject company, and prices for traded securities. This approach can be applied through a number of different methods, such as the "Guideline Public Company Method" (also known as the "Comparable Company Method"), the "Guideline Merged and Acquired Method" (also known as the "Comparable Transaction Method"), or the Observable Market Value Method ("OMV Method").

The market approach relies on the fundamental assumption that a "prudent buyer will pay no more for the asset than it would cost to acquire a substitute property of the same utility."<sup>271</sup> The foundational principle is that the value of a business can be determined by considering the market pricing from comparable transactions that have already occurred, i.e. the market replacement theory.<sup>272</sup> When comparing the DCF (or income approach) to the market approach, Professor Damodaran states, "[i]n discounted cash flow valuation, the objective is to find the value of assets given their cash flow, growth, and risk characteristics. In relative valuation [market approach], the objective is to value assets, based on how similar assets are currently priced in the market."<sup>273</sup>

The OMV Method relies upon the observed market value of debt and equity of the debtor to estimate the debtor's MVIC. The two guideline-based methods described above instead rely on market data of similar companies or transactions

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<sup>269</sup> *Tronox Inc. v. Kerr McGee Corp. (In re Tronox Inc.)*, 503 B.R. 239, 292 (Bankr. S.D.N.Y. 2013).

<sup>270</sup> *See, e.g., In re Exide Techs.*, 303 B.R. 48, 65–66 (Bankr. D. Del. 2003).

<sup>271</sup> *See* CDBV STUDY COURSE, PART III, *supra* note 44, at 4:1.

<sup>272</sup> Comparable transactions may involve stock or other market security prices and/or whole company transactions such as merger and acquisition prices.

<sup>273</sup> DAMODARAN, *APPLIED CORPORATE FINANCE*, *supra* note 133, at 562; *see also* Flip Huffard & Hank Hsu, *Comparable Transactions Analysis*, in *CONTESTED VALUATION*, *supra* note 3, at ¶ 10.01.

of similar companies to estimate the MVIC of a debtor. The Guideline Public Company Method relies upon the market for publicly traded securities, such as transactions in the equity of particular guideline public companies, i.e., trading prices of comparable company stock.<sup>274</sup> In contrast, the Guideline Merged and Acquired Method examines the market for transactions involving entire companies or the sale of parts of companies, i.e., transaction prices for comparable merged and acquired companies.<sup>275</sup> By applying valuation multiples as determined by these markets to a debtor's performance or operational metrics, an expert determining value in a bankruptcy matter may arrive at an estimate of value based on a sample of either comparable publicly traded companies and/or of comparable market-based company transactions.

#### A. *Guideline Public Company Method*

The Guideline Public Company Method provides an indication of the value of a business by comparing the business to publicly traded companies with similar characteristics often drawn from the relevant industry based on the observation that firms within an industry experience common factors, such as overall demand for their products and services.<sup>276</sup> An analysis of the public market valuation multiples of companies engaged in similar lines of business yields insight into investor perceptions and, therefore, the value of the business.

Courts have referred to the Guideline Public Company Method as the “market multiple approach” or the “comparable company approach” or “CompCo” and have stated that, under the market multiple approach, “net revenues and earnings are multiplied by an appropriate range of risk-adjusted multiples to determine the company's total enterprise value.”<sup>277</sup> The multiples chosen must accurately reflect the comparable companies' values,<sup>278</sup> which can be achieved “by bench marking [sic] certain publicly traded companies, using quantitative and qualitative factors.”<sup>279</sup>

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<sup>274</sup> See HITCHNER, 3d ed., *supra* note 57, at 259–61, 270–78; PRATT & NICULITA, VALUING A BUSINESS, *supra* note 17, at 265–67; Russell A. Belinsky et al., *Comparable Public Companies Analysis*, in CONTESTED VALUATION, *supra* note 3, at ¶¶ 9.01, 9.02.

<sup>275</sup> See HITCHNER, 3d ed., *supra* note 57, at 259–61, 270–78; PRATT & NICULITA, VALUING A BUSINESS, *supra* note 17, at 310–12.; Huffard & Hsu, *supra* note 273, at ¶ 10.01.

<sup>276</sup> See, e.g., Lippe v. Bairnco Corp. 288 B.R. 678, 697 (S.D.N.Y. 2003); *In re Cellular Info Sys., Inc.*, 171 B.R. 926, 935–36 (Bankr. S.D.N.Y. 1994); see also PRATT & NICULITA, VALUING A BUSINESS, *supra* note 17, at 265, 270, 271–72. Other criteria include company size, products, markets, and position in the industry, among others.

<sup>277</sup> *Lids Corp. v. Marathon Inv. Partners (In re Lids Corp.)*, 281 B.R. 535, 543 (Bankr. D. Del. 2002).

<sup>278</sup> See *id.* at 544.

<sup>279</sup> See *id.* at 543.

Indications of value derived from the Guideline Public Company Method often result in an estimate of the MVIC on a marketable, minority basis.<sup>280</sup> A premium for control, if applicable, is then applied to indicate the MVIC on a marketable, controlling basis.<sup>281</sup> Alternatively, the Guideline Merged and Acquired Method usually results in an indicated MVIC on a marketable, controlling basis without adjustment.

### *B. Guideline Merged and Acquired Method*

The Guideline Merged and Acquired Method estimates the MVIC of a subject company based on exchange prices in actual transactions for interests in similar companies.<sup>282</sup> This method estimates the price at which the subject company would trade in the marketplace by examining recent transactions where similar companies have been bought and sold in the market.<sup>283</sup> A subject company's past transactions may also be appropriate for providing guidance as

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<sup>280</sup> See PRATT & NICULITA, VALUING A BUSINESS, *supra* note 17, at 301. When applying valuation multiples for publicly traded companies, it is generally assumed that the resulting value is equivalent to a minority interest since publicly traded companies typically have numerous shareholders, none of whom have a controlling interest in the company. Thus, many experts and courts consider the need for an adjustment to value based on a control premium. *See id.* at 132, 228.

<sup>281</sup> *See id.* at 132, 228, 301. "A control owner . . . might make control adjustments, but a minority owner, generally, could not force the same changes." *Id.* at 132. Such considerations include changes in capital structure and elimination of operations involving company insiders, among others. A control premium is defined as the additional consideration that an investor would pay over a marketable, equity value (i.e., current, publicly traded stock prices) to own a controlling interest in the equity of a subject company. As noted previously, the ability to impact capital structure, steer operations and strategy, and add or reduce company personnel are examples of controlling elements. Because the value estimate of equity using the Guideline Public Company Method results in a value on a marketable, minority basis, a control premium is generally considered and often applied to reflect the value of equity on a controlling basis. The traditional method of applying a control premium is expressed as a percentage of equity, in conformity with a common reliance upon percentage premiums paid for common stock in transactions where a controlling interest was acquired. Sources for premiums may include industry resources such as MergerStat, or CapIQ. However, in cases where there is limited to no equity value, a mechanical application of the traditional approach would indicate no adjustment for control. In such cases, an expert may consider making an adjustment to the MVIC to recognize that additional value may be attached to the underlying assets or operations of the business on a control basis. *See* Brad Pursel, *Control Premiums: Applications and Analysis*, BUS. VALUATION UPDATE, Mar. 2010, at 1, 4 ("The basis for such an argument would be that a key driver of the magnitude of a control premium is the level of synergies that a buyer would be expected to derive from the acquisition, and such synergies are more appropriately measured relative to the overall business, regardless of the capital structure.").

<sup>282</sup> *See, e.g., In re Exide Techs.*, 303 B.R. 48, 62–63 (Bankr. D. Del. 2003).

<sup>283</sup> *Lids Corp.*, 281 B.R. at 545 ("To decide whether a firm is insolvent . . . a court should ask: What would a buyer be willing to pay for the debtor's entire package of assets and liabilities? If the price is positive, the firm is solvent; if negative, insolvent." (quoting *Covey v. Com. Nat'l Bank*, 960 F.2d 657, 660 (7th Cir. 1992))).

to value estimates.<sup>284</sup> Circumstances such as location, time of sale, physical characteristics, and conditions of sale are also analyzed.<sup>285</sup>

Like the Guideline Public Company Method, the Guideline Merged and Acquired Method involves both the selection of an appropriate valuation multiple and benchmark to calculate the value of the debtor's MVIC. In reviewing comparable transactions, one must also consider and adjust, where appropriate, for minority discounts and/or control premiums embedded in the transaction prices from comparable transactions.<sup>286</sup>

Courts have referred to the Guideline Merged and Acquired Method as the "comparable transactions" method of valuation. For this method to yield reasonable results, it is essential that the sales used in the analysis be truly comparable, and that any adjustments made are justified.<sup>287</sup>

### C. Selection of Comparable Company Sets Under the Guideline Methods

Both the Guideline Public Company Method and the Guideline Merged and Acquired Method are predicated on a set of guideline or comparable companies or transactions. There are several ways in which this screening process may occur. Transparency regarding that screening process begins with the filter applied. One could simply use a NAICS or SIC code of the subject company and pull every entity identified under those codes and include all those entities in a comparable set.<sup>288</sup> Comparable sets compiled in this way are generally quite large and include dozens of companies that share a NAICS or SIC code with the subject company. While this simplistic practice removes any discretion and judgment by the expert from the selection process and eliminates the potential for errors associated with bias, prejudice, or hindsight, it does so at great cost.

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<sup>284</sup> PRATT & NICULITA, VALUING A BUSINESS, *supra* note 17, at 318–19 ("If the company has made one or more acquisitions in the last several years, such transactions may prove to be excellent sources of valuation multiples . . . . The subject company may be the *only* source for such data, but typically is a very comprehensive and reliable source.").

<sup>285</sup> *See, e.g., In re Bos. Generating, LLC*, 440 B.R. 302, 325–28 (Bankr. S.D.N.Y. 2010) (noting that sales price, coupled with indicia of fair process, is often the "best indicator of enterprise value.").

<sup>286</sup> *See, e.g., ASARCO LLC v. Americas Mining Corp.*, 396 B.R. 278, 348, 354 (S.D. Tex. 2008) ("The Court finds that a control premium should be added to the market multiples valuation."); *see also* PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 19 (discussing level of value, including degrees of control and of liquidity). *See generally* SHANNON P. PRATT, BUSINESS VALUATION: DISCOUNTS AND PREMIUMS (2d ed. 2009) [hereinafter PRATT, DISCOUNTS AND PREMIUMS].

<sup>287</sup> *See Lids Corp.*, 281 B.R. at 545 (rejecting a comparison that placed a company that had never been profitable against profitable companies, and that otherwise relied on outdated and irrelevant transactions).

<sup>288</sup> NAICS is the North American Industry Classification System; the standard used by Federal statistical agencies in classifying business establishments. The SIC code is the Standard Industrial Classification system, an older federal classification system that is still used by many statistical data sources.

Frequently, this dragnet catches companies that strain one's credulity when considering comparability to the subject company.

Alternatively, an expert could use the peers identified by the debtor in any public filings under the assumption that management knows best who its comparable companies may be.<sup>289</sup> An expert could also consider or adopt comparable companies identified by market participants, particularly in market analyst reports regarding the subject company, or competitors identified by the company's own management. Perhaps most common is an independent screening conducted by the expert, which considers one or more of the comparable sets identified above and further screens for comparable companies or transactions that share certain relevant characteristics and attributes with the subject company.<sup>290</sup>

What might those relevant characteristics and attributes be? Given that experts and courts are focused on value, attention is generally focused on attributes and characteristics that affect cash flows, risk, and growth. A comparable company shares similarities with the subject company, such as the same cash flow, risk, and growth profile. Comparable company or transaction sets are often derived from the same industry as the subject company but may include companies or transactions outside the subject company's precisely defined industry if they are deemed relevant and comparable by the expert. Companies within the same industry can provide a rough proxy for the operational and risk profile of the subject company as a starting point. Further screenings for similarity in certain attributes including size (measured by revenue, market capitalization, or some other metric), geographical location, diversification, earnings segments, leverage, and other relevant characteristics are often performed.<sup>291</sup>

An expert that does not use comparable company screening tools is a rare find. Although widely used, relative valuations like the Guideline Public Company and the Guideline Merged and Acquired Methods pose interesting challenges. Initially, it can be difficult to identify a public company or similar

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<sup>289</sup> There is a difference between guideline or comparable companies and competitors. Not all competitors may serve as guideline or comparable companies.

<sup>290</sup> See HITCHNER, 3d ed., *supra* note 57, at 270–80; PRATT & NICULITA, VALUING A BUSINESS, *supra* note 17, at 269–75. The screening process generally employs the use of several proprietary services and databases. *Id.* at 277–87.

<sup>291</sup> See PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 90. An expert follows substantially the same process to establish a comparable set for the Guideline Merged and Acquired Method, although the sources of data regarding merged and acquired transactions can differ from sources considered under the Guideline Public Company Method.

transaction that is truly comparable to the debtor's business. Adjustments to harmonize differences among companies in a peer group necessarily require the exercise of professional judgment, yet standardizing the basis for selecting the companies is essential.<sup>292</sup>

Expert disputes over the selected set of comparables, as well as over the appropriate valuation multiple, are notorious and legion. The two issues are clearly intertwined but possess different characteristics. An expert who has a reasonably high level of confidence in the comparable set may select the median or mean as a measure of central tendency and use it as the benchmark valuation multiple to be applied to value the subject company.<sup>293</sup> Those with less confidence in the comparable set may opt to select a benchmark valuation multiple from the lower or upper quartile, introducing an element of judgment that must be supported by reason and facts. Those with even less confidence in their comparable set may decide that the most appropriate benchmark valuation multiple is the minimum or the maximum from the comparable set. Finally, those with little to no confidence in the comparable set may simply report the results, discuss the method's deficiencies, and attach little to no weight to any indication of value.<sup>294</sup>

#### *D. Selection of Valuation Multiples Under the Guideline Methods*

An interesting but different phenomenon involves the selection of the valuation pricing multiple. Experts use their judgment to select valuation multiples based on a consideration of a number of factors and attributes, including revenue, EBITDA, earnings before interest and taxes ("EBIT"), whether a company trades at a premium or discount of its peers, size, growth, operating performance, and financial risk or other relevant metrics.<sup>295</sup> There are

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<sup>292</sup> DAMODARAN, APPLIED CORPORATE FINANCE, *supra* note 133, at 562.

<sup>293</sup> Although the median and arithmetic mean are often used, experts also regularly use the upper and lower quartile, the minimum/maximum, intervals created off of one company's multiple, the weighted harmonic mean, the harmonic mean, and regression estimates. See Mark G. Filler, *How to Determine Which Market Multiple to Use*, NATIONAL ASS'N CERTIFIED VALUATORS & ANALYSTS: QUICKREAD (July 2, 2018), <http://quickreadbuzz.com/2018/07/02/how-to-determine-which-market-multiple-to-use/>.

<sup>294</sup> See, e.g., *Alberts v. HCA Inc. (In re Greater Se. Cmty. Hosp. Corp. I) (Greater Se. Hosp. II)*, No. 02-02250, 2008 Bankr. LEXIS 1607, at \*44-46 (Bankr. D.D.C. May 19, 2008) (rejecting market approach as insufficiently "accurate or reliable" given the absence of "sufficiently comparable" public companies, and criticizing an expert for drawing his comparison set from seven of "the largest hospital companies in the nation, [which were] not even remotely comparable to" the hospital at issue).

<sup>295</sup> See PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 87; RATNER ET AL., *supra* note 17, at 68. An expert typically adjusts the debtor and the Guideline Companies' EBITDA and EBIT to remove the impact of one-time, non-recurring, or other unusual costs or income, to reflect a normalized level of earnings.

no hard and fast rules for the selection criteria surrounding the appropriate valuation multiple.<sup>296</sup> The objective is to select valuation multiples that provide the most predictive power when estimating the subject company's MVIC.

An expert must then select the appropriate benchmark valuation multiple for each respective metric as of each valuation date to estimate the value of the debtor's MVIC. The appropriate benchmark valuation multiple may be selected from the comparable range using the median, mean, minimum, maximum, or one of the quartiles, among other methods.<sup>297</sup> The expert makes this selection based on a comparison of various financial ratios and other facts related to cash flows, risk, and growth of the debtor and the guideline public companies or transactions. An expert then applies the appropriate multiple for each selected financial metric at each valuation date. After selecting the appropriate valuation multiples, an expert would then apply these multiples to the debtor's financial results to arrive at the debtor's indicated MVIC.

Recall that the valuation multiple reflects risk and assumptions about growth. Occasionally, a valuation professional (in or out of a court dispute) selects a multiple from the comparable set and applies it to management's projected future earnings. The multiple selected may be significantly lower than the median or mean, and yet the subject company may match its benchmarked comparable set reasonably well. This practice often demonstrates the exercise of professional judgment in accounting for the riskiness of management's estimates of earnings and growth.<sup>298</sup>

It is difficult to define precisely how a multiple should be adjusted to account for a change in business circumstance; this is particularly true, for example, when evaluating debtor businesses that are undergoing fundamental change through a restructuring or that are experiencing times of dramatic change and high market volatility. Although necessary to apply the two methods, the analysis of the multiples for comparable companies arguably averages away the

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<sup>296</sup> While generally financial metrics are used, in some cases sector-specific multiples may be more appropriate. See DAMODARAN, INVESTMENT VALUATION, *supra* note 94, at 571 ("The value of a firm can be standardized using a number of sector-specific multiples. The value of steel companies can be compared based on marked value per ton of steel produced, and the value of electricity generators can be computed on the basis of kilowatt hour (kwh) of power produced.").

<sup>297</sup> See Filler, *supra* note 293 (discussing use of arithmetic mean, harmonic mean, weighted harmonic mean, or regression estimates).

<sup>298</sup> It is also common for a valuation professional to increase a multiple or select the upper quartile or maximum multiple and apply it to a subject company to account for enhanced growth characteristics; the contra downward adjustment by a selection of the lower quartile or minimum may reflect substandard growth. See PRATT & NICULITA, VALUING A BUSINESS, *supra* note 17, at 290-93; SHANNON P. PRATT, THE MARKET APPROACH TO VALUING BUSINESSES 123-26 (2d ed. 2005) [hereinafter PRATT, MARKET APPROACH].

very distinctions that are important in estimating value—the specific fundamental characteristics of value embedded in the debtor business. These challenges are then amplified where one relies on public company data to estimate the value of a small, privately owned business. Applying multiples derived from publicly-held companies to a private company fails to account for an array of potential distortions, such as minority ownership value “discount,” majority ownership “control premium,” and illiquidity adjustments.<sup>299</sup> Additional factors (both qualitative and quantitative) arising in the particular circumstances of business distress may also need to be incorporated.<sup>300</sup> “These factors include excessive leverage, significant changes in business strategies, quality of new management (including the skills of a chief restructuring officer or other advisor), constraints on liquidity, and potential operational hurdles attendant to the restructuring.”<sup>301</sup>

#### *E. Observable Market Value Method and Associated Challenges*

The OMV Method, also known as the “Market Capitalization Method” or the “Stock and Debt Method,”<sup>302</sup> relies on the quoted market prices of equity and/or debt securities of a subject company trading in active, well-informed, and efficient markets.<sup>303</sup> The OMV Method may not be appropriate in circumstances where markets are illiquid, inefficient, or where fraud or other exogenous events drive market prices away from the economic fundamentals of the business.

For equity, the quoted market price per share is multiplied by the number of equity shares outstanding to yield the market value of the equity of a business on a marketable, minority basis. For debt, the observed quoted market price is multiplied by the face value of the debt to yield the value of debt. The equity and debt values are combined to arrive at the indicated MVIC of the business on a marketable, minority basis. A premium for control, if applicable, is then applied to indicate the market value of the equity of a business on a marketable, controlling basis.

Consistent with the OMV Method, experts and courts have looked to contemporaneous market evidence to support valuation propositions.<sup>304</sup> The

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<sup>299</sup> See PRATT, DISCOUNTS AND PREMIUMS, *supra* note 286, at 16–18, 25–29, 38–39.

<sup>300</sup> See CDBV STUDY COURSE, PART III, *supra* note 44, at 4:1.

<sup>301</sup> *Id.*; see also *id.* at 4:16.

<sup>302</sup> CORNELL, CORPORATE VALUATION, *supra* note 134, at 34.

<sup>303</sup> Lids Corp. v. Marathon Inv. Partners (*In re Lids Corp.*), 281 B.R. 535, 545 (Bankr. D. Del. 2002).

<sup>304</sup> See, e.g., VFB LLC v. Campbell Soup Co., 482 F.3d 624, 633 (3d Cir. 2007) (“[T]he market’s valuation of VFI as solvent in FY1999 was strong evidence that VFI was solvent at the time of the spin . . . . [W]e do not



classic point of evidence is a recent purchase price of the property at issue.<sup>305</sup> Offers are significantly less probative, but courts and experts do consider them, though usually applying them less weight.<sup>306</sup>

In the Clawback Scenario, experts and courts may consider investments in debt and equity of the debtor or other indications of value contained in contemporaneous fairness or solvency opinions issued by third parties.<sup>307</sup> These investment activities are theorized to support indications of solvency. The proposition usually seeks to corroborate a substantial market capitalization existing at the time of the challenged transfer or obligation. The thought is that sophisticated and well-informed participants in the market process would not invest treasure or reputation in an insolvent or inadequately capitalized business. As observed by the Delaware Supreme Court in *DFC Global Corp. v. Muirfield Value Partners*:

Market prices are typically viewed [as] 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. Indeed, the relationship between market valuation and fundamental valuation has been strong historically. As one textbook puts it, "[i]n an efficient market you can trust prices, for they impound all available information about the value of each security." More pithily: "For many purposes no formal theory of value is needed. We can take the market's word for it." But, a single person's own estimates of the cash flows are just that, a good faith estimate by a single, reasonably informed person to predict the future.

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think that the district court erred in choosing to rely on the objective evidence from the . . . markets."); *Statutory Comm. of Unsecured Creditors v. Motorola, Inc. (In re Iridium Operating LLC)*, 373 B.R. 283, 292–96 (Bankr. S.D.N.Y. 2007). *But see Tronox Inc. v. Kerr McGee Corp. (In re Tronox Inc.)*, 503 B.R. 239, 302–03, 316 (Bankr. S.D.N.Y. 2013).

<sup>305</sup> *See, e.g., MFS/Sun Life Tr.-High Yield Series v. Van Dusen Airport Servs. Co.*, 910 F. Supp. 913, 939 (S.D.N.Y. 1995) ("Where a transaction is consummated after arms-length negotiations, and particularly where other potential purchasers expressed interest in buying the company on similar terms, the sale price is a good indicator of the value of the target's assets.").

<sup>306</sup> *See, e.g., Tronox*, 503 B.R. at 304 (finding that the defendants' experts "overstate[d] the nature and significance of [another company's] bid" to purchase Tronox); *see also PRATT, MARKET APPROACH, supra* note 298, at 46.

<sup>307</sup> *See, e.g., VFB*, 482 F.3d at 633; *Iridium*, 373 B.R. at 293 ("After careful deliberation, the Court is persuaded that contemporaneous market data for Iridium's publicly traded securities are both consistent with substantial enterprise value and inconsistent with insolvency.").

Thus, a singular discounted cash flow model is often most helpful when there isn't an observable market price.<sup>308</sup>

The debate about OMV and market evidence is an interesting one, and a detailed and robust analysis is beyond the scope of this article.<sup>309</sup> Courts have addressed the issue directly in several notable bankruptcy cases. *VFB*<sup>310</sup> and *Iridium*<sup>311</sup> have embraced the relevance and reliability of OMV or market evidence at least absent strong reasons why the market evidence should not be trusted. Under this line of authority, the introduction of market evidence is not a “gavel-down” moment; however, absent reasons to distrust that evidence, a court may rightly embrace the market evidence as probative. One court has persuasively observed that *VFB* does not require that solvency of a public company be valued using the OMV approach.<sup>312</sup> The court carefully noted, “In *VFB*, the plaintiffs made no attempt to reconcile the disparity between the testimony of their expert witnesses and the objective value of the company at issue in the marketplace . . . . In contrast, the data and analysis accepted by the Bankruptcy Court in this case was consistent with the available marketplace data.”<sup>313</sup>

#### F. Additional Challenges to the Market and Income Approaches

The debate regarding the relevance and reliability of these various market approaches, as well as the appropriateness of reliance on management's projections as the basis of analysis under the income approach, is well

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<sup>308</sup> *DFC Glob. Corp. v. Muirfield Value Partners*, 172 A.3d 346, 369–70 (Del. 2017) (citations omitted), *rev'g In re Appraisal of DFC Glob. Corp.*, No. 10107, 2016 WL 3753123 (Del. Ch. Jul. 8, 2016). The Chancery Court opinion is an excellent teaching case on business valuations under Delaware law. The Delaware Chancery Court addressed two experts articulating dramatically different values and employing different inputs and assumptions to support their opinions. The court tutors on capital structure, cost of debt, tax rate, risk-free rate, choice between Barra v. Bloomberg beta, use of a peer group to estimate beta, five-year look-back over two-year look-back on considering historical betas, smoothing or not smoothing betas, selection of Hamada formula for unlevering beta, and size premium. For an informative analysis of the Delaware Chancery Court's *DFC Global* opinion, see Michael Bankus, *In re Appraisal of DFC Global*, NAT'L ASS'N CERTIFIED VALUATORS & ANALYSTS: QUICKREAD (June 27, 2018), <http://quickreadbuzz.com/2018/06/27/in-re-appraisal-of-dfc-global/>.

<sup>309</sup> See generally Robert J. Stark, Jack F. Williams & Anders Maxwell, *Market Evidence, Expert Opinion, and the Adjudicated Value of Distressed Businesses*, 68 BUS. LAW. 1039 (2013).

<sup>310</sup> See *VFB*, 482 F.3d 624.

<sup>311</sup> See *Iridium*, 373 B.R. 283.

<sup>312</sup> *Am. Classic Voyages Co. v. JP Morgan Chase Bank (In re Am. Classic Voyages Co.)*, 384 B.R. 62, 65 (D. Del. 2008) (“[T]he Court does not read *VFB* to compel that analysis.”).

<sup>313</sup> *Id.*

documented in case law. *Tronox*<sup>314</sup> and *TOUSA*<sup>315</sup> both stand for the counterfactual position that OMV, market evidence, or other contemporary evidence of value based on market prices may be unreliable in certain circumstances. Specifically, *Tronox* identifies the type of evidence that would lead a court to dismiss OMV and market evidence as unreliable and instead embraces the traditional income and market transaction-based valuation approaches and methods to determine solvency and reasonably equivalent value.<sup>316</sup> *TOUSA* challenges reliance on a solvency opinion issued in response to a request by management to a pending transaction and finds it probative of little because most fairness and solvency opinions rely exclusively on management projections that may have been constructed to support a pending transaction.<sup>317</sup>

In the Plan Scenarios, most courts—and many experts—have rejected the use of market evidence, usually presented in the form of trading price activity in debt and/or equity, as evidence relevant to valuation disputes.<sup>318</sup> The Third Circuit summarized this sentiment well when it stated:

That argument [that the OMV Method should not be used] has considerable force when the securities in issue represent equity in, or long term interest-bearing obligations of, a reorganized debtor. In such cases, the market value of the security will depend upon the investing public's perception of the future prospects of the enterprise. That perception may well be unduly distorted by the recently concluded reorganization and the prospect of lean years for the enterprise in the immediate future. Use of a substitute "reorganization value" may under the circumstances be the only fair means of determining the value of the securities distributed.<sup>319</sup>

In applying the Third Circuit's directive, the court in *In re Exide Technologies* stated:

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<sup>314</sup> See *Tronox Inc. v. Kerr McGee Corp.* (*In re Tronox Inc.*), 503 B.R. 239 (Bankr. S.D.N.Y. 2013).

<sup>315</sup> See *Off. Comm. of Unsecured Creditors v. Citicorp N. Am., Inc.* (*In re TOUSA, Inc.*), 422 B.R. 783 (Bankr. S.D. Fla. 2011), *quashed*, 444 B.R. 613 (S.D. Fla. 2011), *rev'd*, 680 F.3d 1298 (11th Cir. 2012) (reversing the district court's quashing of the bankruptcy court's ruling).

<sup>316</sup> *Tronox*, 503 B.R. at 297–309. "There is no substitute for performing an analysis of [a company's] assets . . . and measuring them against its liabilities." *Id.* at 308.

<sup>317</sup> See *TOUSA*, 422 B.R. at 839–43.

<sup>318</sup> See, e.g., *In re Mirant Corp.*, 334 B.R. 800, 832–33 (Bankr. N.D. Tex. 2005); see also RATNER ET AL., *supra* note 17, at 108–09 & n.40.

<sup>319</sup> *In re Pa. Cent. Transp. Co.*, 596 F.2d 1102, 1115–16 (3d Cir. 1979); see also *In re Exide Techs.*, 303 B.R. 48, 65 (Bankr. D. Del. 2003) (explaining that not using the OMV Method was "not a rejection of the market; rather, this reflected a notion that markets undervalued entities in bankruptcy, and that the taint of the proceeding would adversely affect what someone would pay" (quoting 7 COLLIER ON BANKRUPTCY ¶ 1129.06[2][a] (rev. 15th ed. 2003))).

The stated purpose for [the expert's] numerous adjustments to the valuation methodologies were to bring value calculations in line with current market value. This is not appropriate when seeking to value securities of a reorganized debtor since the "taint" of bankruptcy will cause the market to undervalue the securities and future earning capacity of the Debtor . . . . The more appropriate method, in this instance, is a straight forward application of the valuation methodologies to arrive at a better understanding of whether the Debtor's Plan treats creditors fairly and equitably.<sup>320</sup>

## VI. ASSET APPROACH

The Asset Approach indicates the fair market value of a business by adjusting the asset and liability balances on the subject company's balance sheet to their fair market value equivalents,<sup>321</sup> and then summing the individual values of each of the underlying assets and determining all liabilities.<sup>322</sup> Generally, the Asset Approach is not a preferred approach for valuing an operating business on a going-concern basis; this is particularly true for service businesses, businesses with substantial intangible property, and "asset-lite" businesses.<sup>323</sup>

Although the asset approach can be used in almost any valuation, it is seldom used in the valuation of operating companies. The time and costs involved in valuing individual tangible and intangible assets typically is not justified, because there is little, if any, increase in the accuracy of the valuation.<sup>324</sup>

The Asset Approach is more applicable when valuing real estate companies, holding companies whose only assets are the stock ownership in its subsidiaries, and companies facing potential liquidation. Balance sheets that may be heavily laden with wasting assets, such as depreciated real estate or depreciated tangible personal property, may understate the fair market value of these assets with low book values, and therefore, likely require adjustment under this method. In addition, the Asset Approach requires an assessment of off-balance sheet assets, such as intangible property, which may need to be added to the balance sheet for valuation purposes.

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<sup>320</sup> *Exide*, 303 B.R. at 66. Thus, any bankruptcy stigma should be removed from the valuation analysis in this context. See, e.g., *Pa. Cent. Transp.*, 596 F.2d at 1115–16 (discussing the difference between market value of securities in debtor—"unduly distorted" by bankruptcy stigma—and reorganizational value as a fair means of determining the value of the securities distributed under a plan).

<sup>321</sup> See PRATT & NICULITA, VALUING A BUSINESS, *supra* note 17, at 350–51.

<sup>322</sup> See HITCHNER, 4th ed., *supra* note 15, at 343 (stating that the asset approach considers the value of the individual tangible and intangible assets of the business).

<sup>323</sup> See *id.* at 345–46.

<sup>324</sup> HITCHNER, 3d ed., *supra* note 57, at 312.

Recall that many companies record the book value of assets and liabilities on the balance sheet at values as determined under GAAP for accounting purposes.<sup>325</sup> But not all companies adhere to GAAP, and some companies are required to adhere to statutorily mandated accounting approaches and standards. Courts have noted that accounting values may not be reflective of fair market values and, in particular, certain assets and debts may not be listed on the balance sheet because they are only recorded to the extent they are known and quantifiable.<sup>326</sup> For example, assets not found on the GAAP balance sheet, such as causes of action, may need to be valued and added.<sup>327</sup>

Although assets such as cash and cash equivalents often need little to no adjustment, other asset balances may need significant adjustments to arrive at their appropriate relevant value equivalents. Such assets include, for example, inventory, land, fixed assets (such as property and equipment), intangibles including nonseverable goodwill (that may or may not be present on the GAAP balance sheet), and deferred tax assets.<sup>328</sup> In addition, a significant portion of the debtor's value may arise from intangible assets not recorded on the debtor's balance sheet under GAAP. Intangible assets are those that, although often not appearing on a debtor's balance sheet, nevertheless contribute to the business' earning power.<sup>329</sup> Because balance sheets prepared in accordance with GAAP often represent historical costs rather than economic values, intangible assets are often not entirely accounted for on the balance sheet. This asset class may be greatly discounted or simply removed in its entirety where a liquidation measure is employed.<sup>330</sup>

Generally, GAAP-based current liabilities are estimated based on their carrying value. In addition, the amount of liabilities reflected on the balance sheet may increase, or additional liabilities may not be recorded on the financial

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<sup>325</sup> Generally Accepted Accounting Principles ("GAAP") are founded on a set of concepts prescribed by early authoritative bodies such as the Accounting Principles Board (APB) and the Financial Accounting Standards Board (FASB). *See, e.g.*, FIN. ACCT. STDS. BD., STATEMENT OF FINANCIAL ACCOUNTING CONCEPTS NO. 2, at ¶ 91 (2008) ("Frequently, assets and liabilities are measured in a context of significant uncertainties. Historically, managers, investors, and accountants have generally preferred that possible errors in measurement be in the direction of understatement rather than overstatement of net income and net assets. This has led to the convention of conservatism . . . ." (quoting AM. INST. CERTIFIED PUB. ACCTS., STATEMENT OF THE ACCOUNTING PRINCIPLES BOARD NO. 4: BASIC CONCEPTS AND ACCOUNTING PRINCIPLES UNDERLYING FINANCIAL STATEMENTS OF BUSINESS ENTERPRISES ¶ 171 (1970))).

<sup>326</sup> *See* Trans World Airlines, Inc. v. Travellers Int'l AG. (*In re* Trans World Airlines, Inc.), 180 B.R. 389, 405 n.22 (Bankr. D. Del. 1994) (noting that "the balance sheet is only the starting point in the analysis").

<sup>327</sup> *See* PRATT & NICULITA, VALUING A BUSINESS, *supra* note 17, at 351.

<sup>328</sup> HITCHNER, 3d ed., *supra* note 57, at 310.

<sup>329</sup> *See* PRATT & NICULITA, VALUING A BUSINESS, *supra* note 17, at 351.

<sup>330</sup> *See id.*

statements; both may need to be included.<sup>331</sup> Long-term and other liabilities may need a careful review for proper adjustment, if necessary, that reflects all current activity, contingencies (both those recorded on the balance sheet and those that are not), or other issues.<sup>332</sup>

Like certain assets, courts have noted that accounting values of liabilities may not be reflective of a fair valuation. In particular, certain debts may not be listed on a subject company's balance sheet because they are only recorded to the extent they are known and quantifiable under GAAP.<sup>333</sup> Any contingent or disputed debt must be valued based on the likelihood of the contingency occurring generally applied to the liability should it occur.<sup>334</sup> Specifically with regard to contingent liabilities, the Seventh Circuit sought "to avoid creating the unsettling impression that contingent liabilities must for purposes of determining solvency be treated as definite liabilities even though the contingency has not occurred."<sup>335</sup> These determinations are made based on the facts and circumstances that were known or reasonably foreseeable as of the valuation date.

Predicting the future is always uncertain, and hindsight is perfect. Under the circumstances in which the court is attempting to determine the amount of future asbestos liabilities for determining B&W's solvency[,] . . . the court cannot use hindsight and can only determine whether the predictions by B&W were reasonable under the circumstances existing at the time they were made.<sup>336</sup>

Therefore, for valuation purposes under the Asset Approach, book values for assets and liabilities are subjected to adjustments to reflect the values of those assets and liabilities consistent with the relevant standard of value.<sup>337</sup> This adjustment of balance sheet assets and liabilities converts accounting entry

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<sup>331</sup> *See id.*

<sup>332</sup> *See id.* at 350.

<sup>333</sup> *See* Trans World Airlines, Inc. v. Travellers Int'l AG. (*In re* Trans World Airlines, Inc.), 180 B.R. 389, 405 n.22 (Bankr. D. Del. 1994).

<sup>334</sup> *See In re* Xonics Photochemical, Inc., 841 F.2d 198, 200 (7th Cir. 1988).

<sup>335</sup> *See id.* at 201 ("[T]o value the contingent liability it is necessary to discount it by the probability that the contingency will occur and the liability become real."). It is not unusual for a question of insolvency to turn on the assessment of contingent liabilities at a fair valuation. *See, e.g.,* Bakst v. United States (*In re* Kane & Kane), 419 B.R. 617, 625–27 (Bankr. S.D. Fla. 2012) ("The parties acknowledge that the only material difference between the [two] expert witness reports . . . is the value of the contingent liability . . .").

<sup>336</sup> *Diamond Power Int'l, Inc. v. Babcock & Wilcox Co. (In re* Babcock & Wilcox Co.), 274 B.R. 230, 262 (Bankr. E.D. La. 2002).

<sup>337</sup> *See* Lids Corp. v. Marathon Inv. Partners (*In re* Lids Corp.), 281 B.R. 535, 542–43 (Bankr. D. Del. 2002). A court may insist that an expert employ a going concern premise under this approach unless the business is on its "deathbed." *Alberts v. HCA Inc. (In re* Greater Se. Cmty. Hosp. Corp. I) (*Greater Se. Hosp. II*), No. 02-02250, 2008 Bankr. LEXIS 1607, at \*48–49 (Bankr. D.D.C. May 19, 2008).

values to economic values. To determine value under the Asset Approach, the debtor's books and records are an important first step; however, the GAAP standards upon which these accounts are most likely based do not govern the valuation, though they may influence the interpretations of accounting information. For example, revenue recognition methods in some industries or other items may have accounting rules that impact how receivables or other items are interpreted and valued. Often, a deeper review is necessary, including an analysis of the general ledger and any relevant sub-ledgers. This review should also include, to the extent practicable, consultation with the debtor's management or professionals, an often-important source of relevant information and understanding.<sup>338</sup>

Under this approach, the value of the assets of a company may be a prime determinant of operational value of the business.<sup>339</sup> As noted above, this approach is particularly appropriate for holding companies, real estate companies, capital-intensive companies, some investment companies, and failed businesses that might require some form of liquidation valuation where assets are separable.<sup>340</sup> This approach also may have greater utility when, for example, the debtor expects limited returns generated by operations and there are large values embedded in the debtor's interest in leases (i.e., the debtor is better thought of as a "real estate play"), whether for personal property or real property, etc. In other words, the approach of building a valuation based upon assets can reveal when a company has more value when broken up than as a going concern.

## VII. RECONCILING MULTIPLE APPROACHES AND METHODS

Most approaches to valuation are sympathetic to the market. Tension exists when an expert or a court clearly prefers one approach to the exclusion of the others across all valuation disputes. That, however, is not usually the case. Rather, an expert or court generally may accord greater weight to one approach over another based on the facts and circumstances of the case.

Usually, an expert does not rely on one approach alone, but rather applies, or attempts to apply, multiple approaches to estimate value.<sup>341</sup> However, it may

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<sup>338</sup> Although an important source of relevant information, consultation with a debtor's management should not be tantamount to abdication by an expert of that expert's duties of independence and objectivity.

<sup>339</sup> See HITCHNER, 4th ed., *supra* note 15, at 345.

<sup>340</sup> AIRA STANDARDS, *supra* note 22, at 36.

<sup>341</sup> See, e.g., PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 23–24 (Experts consider multiple approaches to maximize reliability, making "the data and procedures used in each method as discrete as possible from those used in other methods to reach different indications of value as independently as possible.").

not be possible to apply certain approaches in all circumstances. For instance, high-growth companies or companies with large capital expenditures may have negative free cash flow for the projected period,<sup>342</sup> leaving the concentration in value exclusively in the terminal period. This situation renders the Income Approach problematic. The Income Approach could be employed as a means of cross-validating the results from a Market Approach, for example. Further, where reliable projections are not available such that the expert would have to create projections using a myriad of assumptions, the Income Approach may become less persuasive.<sup>343</sup> Moreover, there are some assets, such as excess land or collectibles, etc., that do not generate routine and recurring cash flows. In such instances, the Income Approach may not be possible; rather, an expert might consider a relative approach to estimating the value, such as a Market Approach.

The Market Approach also presents interesting challenges for the expert. As noted above, finding appropriate or reasonable “guideline” or “comparable” companies or transactions may be difficult or impossible, particularly when dealing with a distressed private business. Furthermore, identifying and applying the best valuation multiple can be challenging. Experts may opt to use more conventional valuation multiples rather than selecting the best possible multiple for the relevant valuation, falling back on past patterns of acceptability or discomfort of adopting a riskier, but possibly more appropriate, selection.

Thus, an expert valuing a firm has multiple approaches from which to choose. As noted by Professor Damodaran, “[m]atching the valuation model to the asset or firm being valued is as important a part of valuation as understanding the models and having the right inputs.”<sup>344</sup> An expert should apply multiple methods properly to determine value when possible.<sup>345</sup>

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<sup>342</sup> See RICHARD A. BREALEY ET AL., PRINCIPLES OF CORPORATE FINANCE 103, 535 (12th ed. 2017).

<sup>343</sup> See *Adelphia Recovery Tr. v. FPL Grp., Inc (In re Adelphia Commc’ns Corp.)*, 512 B.R. 447, 471 (Bankr. S.D.N.Y. 2014), *aff’d*, No. 02-41729, 2015 WL 1208588 (S.D.N.Y. Mar. 17, 2015) (finding that where expert’s DCF calculation was driven by his own assumptions, it was overly arbitrary and speculative).

<sup>344</sup> ASWATH DAMODARAN, APPLIED CORPORATE FINANCE 938 (3d ed. 2012).

<sup>345</sup> In *Nanovation Technologies*, the court favorably observed that

[v]aluation analysts use different methods in order to adjust for the pros and cons of each method. As a result, analysts must exercise their judgment in according different weights to the different factors or methods, as illustrated by KPMG’s valuation analysis. However, there is nothing wrong with placing equal value on two different valuation methods if, in the judgment of the analyst, their pros and cons justify such weighting.

*Chatz v. BearingPoint Inc. (In re Nanovation Techs., Inc.)*, 364 B.R. 308, 354 (Bankr. N.D. Ill. 2007).



Experts' opinions can diverge once different estimates of value have been established under various approaches and methods. Some report the results on a "football field," illustrating the valuation estimates from each method. Others synthesize the estimates from the various approaches and methods, assigning weights to some of the results, or assigning an approach, method, and result to the role of cross-validation in some circumstances. An expert should explain why they have or have not used each approach or method in synthesizing the results into an opinion of value.<sup>346</sup>

### VIII. OBSERVATIONS

As discussed in the overview of the Income, Market, and Asset Approaches in Sections IV through VI, experts and courts have broad discretion in selecting the appropriate approaches and methods to value a business as a going concern. Within those approaches and methods, experts and courts must make choices, balancing reliability and relevance as well as transparency and opaqueness. Many disputes among experts, some of which are frustrating to courts, involve the tradeoff between reliability and relevance. For example, experts frequently must choose between historical data, which is more reliable, versus future projections, which are more relevant to an estimation of value. There is also a tension between transparency and opaqueness. The most relevant elements for valuation—namely, cash flows, risk, and growth—are relatively transparent under the income approach and are explicitly stated. However, under the market approach these characteristics are opaque and cannot be observed, as they are embedded in the choice of comparable companies (or transactions), multiples, and benchmarks, among other things. In each case, tradeoffs between these attributes occur in a variety of settings in which valuations are relevant, including the boardroom, debt and equity markets, and the courtroom. One can classify these tradeoffs into three clusters of disputes, which are discussed below in ascending order of controversy.<sup>347</sup>

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<sup>346</sup> A common situation where the step of synthesizing various methods may be unnecessary is when all tests employed reach a conclusion of insolvency or solvency.

<sup>347</sup> For an interesting avoidance powers case where a court grapples with heated controversy surrounding almost every input and assumption in competing DCF methods, see *Bachrach Clothing, Inc. v. Bachrach (In re Bachrach Clothing, Inc.)*, 480 B.R. 820, 866–74 (Bankr. N.D. Ill. 2012). There, the court had to address differences between experts on various inputs. For debt to total capital structure ratios, the debtor used an industry proxy, whereas defendant used historical data. For equity risk premium, although all experts relied on Ibbotson Valuation Yearbook and all used the arithmetic and not geometric mean of historical data, the debtor's expert went back to 1926 and used 7.2%, whereas the defendant went back only 50 years, because of globalization and market trends, and used 5.6%. For small size premium, all experts relied on Ibbotson data and found that the relevant market capitalization fit into "three categories: the 'micro-cap' category (deciles 9 and

A. *Cluster C<sub>1</sub>: Choosing Between Relevance and Reliability*

Cluster C<sub>1</sub> includes those inputs, adjustments, and choices that generally center on tradeoffs between relevance and reliability. Transparency is usually not an issue. Choices of relevance are driven by the applicable legal standard and not necessarily a valuation standard. These choices usually boil down to two groups of issues: (i) whether to use the historical performance of the debtor or a historical industry proxy gleaned from a peer group as a source, or (ii) whether to attempt to predict a future input or adjustment. In either case—historical or future—an expert seeks to estimate an input with reasonable predictive power. Cluster C<sub>1</sub> includes issues surrounding selection of (1) the risk-free rate, (2) the lookback and interval of selected historical betas, (3) cost of debt, (4) capital structure in the Income Approach, and (5) selection of the earnings base for the market metric in the Market Approach.

1. *Risk-Free Rate (Income Approach)*

The choice of twenty-year treasury bonds (first choice for many business valuations in bankruptcy) or another source such as ten-year treasury bonds as a proxy for the risk-free rate can vary depending upon the time horizon of the investment to determine the return on equity and WACC as of the valuation date.<sup>348</sup> Both have become well-accepted by the courts and both are used by experts.<sup>349</sup> The sources of this input are generally relevant, reliable, and transparent.

2. *Historical Beta Lookback and Interval (Income Approach)*

This factor is related to how beta is measured from historical data, and not the selection of beta, from a variety of choices including historical, Adjusted, or Predicted betas. The selection of the type of beta is more controversial than the population of the beta dataset and is discussed as part of Cluster C<sub>2</sub>. The lookback period pertains to how far back an expert goes to gather data for historical betas of the subject company and its peer group. The measurement interval refers to the intervals for which data is collected (e.g., yearly, monthly, weekly, daily, hourly). All these inputs are generally relevant, reliable, and

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10), decile 10 or [subdecile] 10B,” *id.* at 871. However, debtor’s expert used the smallest category exclusively and a higher estimate at 9.8%, whereas defendant’s expert used a broader set of categories and an estimate at 4.02%. Finally, for the terminal value estimator, the debtor used the Gordon Growth Model, whereas the defendant used the exit market multiple model. *See id.* at 866–74. It is an excellent teaching case, for many reasons.

<sup>348</sup> RATNER ET AL., *supra* note 17, at 53.

<sup>349</sup> *See supra* text accompanying notes 186–89 for further discussion on the risk-free rate.

transparent. The objective is to collect enough observations to have confidence that any estimate of beta is not simply a result of chance. One can collect more betas by going farther back in time—but not without a potential sacrifice of relevance. If the true relationship of the stock and market has changed over an extended lookback period, the resulting estimate of future beta is problematic and thus, less relevant. To overcome these concerns, an expert can choose to temper a reasonable lookback period by measuring returns more frequently. That, however, is not cost-free. For small, illiquid stocks, more frequent interval measurements in the presence of thin trading can result in an underestimate of the true beta. Balancing these considerations, experts tend to gravitate to one of two camps: (1) a five-year lookback measured at monthly intervals; or (2) a two-year lookback measured at weekly intervals.<sup>350</sup>

The Delaware Chancery Court has devoted much attention to this question and has generally observed that a five-year lookback period measured at monthly intervals typically strikes the right balance between relevance and reliability.<sup>351</sup> More importantly, the Delaware Chancery Court has largely reduced the scope of disputes about this input by articulating parameters for it.<sup>352</sup> To be sure, the court recognizes that its approach should not amount to a per se rule because it is, after all, a court of equity, but the court's observations appear to have gone a long way in settling the sand on this input.

### 3. *Cost of Debt (Income Approach)*

Differences exist over how to approach the Cost of Debt. This is one input that may be clearly influenced by the legal reason for the valuation in the first instance. When employing a fair market value standard in assessing insolvency, such as in the Clawback Scenario, an expert may choose to use either a historical or projected cost of debt reflective of the industry as represented by a debtor's peer group, rather than the historical or projected actual cost of debt of the

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<sup>350</sup> See PRATT & GRABOWSKI, *COST OF CAPITAL*, 4th ed., *supra* note 230, at 164–66.

<sup>351</sup> See, e.g., *Hoyd v. Trussway Holdings, LLC*, No. 2017-0260, 2019 Del. Ch. LEXIS 72, at \*16 (Del. Ch. Feb. 28, 2019); *In re Appraisal of DFC Glob. Corp.*, No. 10107, 2016 WL 3753123, at \*10 (Del. Ch. Jul. 8, 2016) (“A five-year period is the most common for measuring beta and generally results in a more accurate measurement.”), *rev'd on other grounds*, *DFC Glob. Corp. v. Muirfield Value Partners*, 172 A.3d 346 (Del. 2017); see also PRATT & GRABOWSKI, *COST OF CAPITAL*, 5th ed., *supra* note 140, at 208; HITCHNER, 3d ed., *supra* note 57, at 256.

<sup>352</sup> See, e.g., *Appraisal of DFC Glob.*, 2016 WL 3753123, at \*10 (setting forth that, “consistent with authoritative literature,” although a five-year lookback is the norm, “two-year periods are used in certain circumstances . . . [S]horter periods are used when a fundamental change in business operations occurs, [or for other reasons] such as a major acquisition or divestiture, financial distress, or cancellation of a significant contract”); see also PRATT & GRABOWSKI, *COST OF CAPITAL*, 5th ed., *supra* note 140, at 208.

debtor. Moreover, in the Clawback Scenario, burdening valuable long-term operating assets with a cost of debt influenced by the declining financial performance and distress of the debtor may not square with the directive found in section 101(32) to determine the debtor's property at a "fair valuation."<sup>353</sup> In the Plan Scenario, the actual cost of debt for the reorganized debtor may be more appropriate in many circumstances in informing the application of the fair and equitable test and feasibility test for a contested confirmation. The actual cost of debt identified in the proposed plan of reorganization and sources of information about the reasonableness of those costs are relevant, typically reliable, and fairly transparent.

#### 4. *Debt to Total Capital Structure (Income Approach)*

Here again, the choice surrounding this input is often the result of a choice between degrees of relevance and reliability. What is relevant here is framed by the legal context. In the Clawback Scenario, an expert is generally expected to apply the fair market value standard in assessing insolvency, as previously discussed.<sup>354</sup> That standard would suggest the use of a target capital structure mined from the guideline or comparable companies and other industry data and not necessarily the historical capital structure of the debtor.<sup>355</sup> In the Plan Scenario, the actual projected capital structure in the proposed plan would appear to be appropriate in satisfying the fair and equitable test for a contested confirmation. These sources are all relevant and relatively reliable. While the choice of the projected plan structure in the Plan Scenarios is transparent, the target capital structure applied under the Clawback Scenarios is no more or less transparent than the selection of the peer group upon which the target structure is based.

#### 5. *Earnings Base Metric Selection (Market Approach)*

EBITDA is a common selection for a base market metric, often with some adjustments well-recognized in a specific relevant market;<sup>356</sup> its use is not without thoughtful criticism and many experts use different multiples in addition

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<sup>353</sup> 11 U.S.C. § 101(32).

<sup>354</sup> See *supra* text accompanying notes 75–81 for further discussion on fair market value and the fair valuation legal standard in the Clawback Scenario.

<sup>355</sup> PRATT & NICULITA, BUSINESS VALUATION HANDBOOK, *supra* note 36, at 71–72 (under fair market value standard, valuing a controlling interest would suggest an industry average capital structure).

<sup>356</sup> See, e.g., U.S. Bank Nat'l Ass'n v. Wilmington Tr. Co. (*In re Spansion, Inc.*), 426 B.R. 114, 132–33 (Bankr. D. Del. 2010) (where experts used an EBITDA multiple in the market approach, and one of the three also used a revenue multiple not favored by the court as an outlier under the circumstances).

to, or in place of, an EBITDA multiple.<sup>357</sup> Other common metrics include revenue and EBIT. EBITDA may not be a reasonable proxy for cash flows to the firm because, among other things, this metric does not directly address working capital and capital expenditure needs.<sup>358</sup> Nonetheless, it has stood the test of time as a proxy for cash flows in many situations. Thus, it is generally relevant, reliable, and transparent.

*B. Cluster C<sub>2</sub>: Addition of the Opaque v. Transparent Choice*

The C<sub>2</sub> Cluster is more turbulent and controversial than the C<sub>1</sub> Cluster because, in addition to the reliability and relevance tradeoffs, we also often observe a reduction in transparency in reaching an estimate of each input. Cluster C<sub>2</sub> includes use of (1) future cash flows based on historical cash flows or projections in the Income Approach and Market Approach, (2) historical, Adjusted, or Predicted Betas in the Income Approach, and (3) the equity risk premium in the Income Approach.

*1. Future Economic Benefits or Projections (Income Approach and Market Approach)*

Under either the Income Approach or Market Approach, an expert generally must estimate future cash flows or earnings of the subject company. The use of historical cash flows or earnings to estimate future economic benefits, while more reliable, is often not highly relevant for valuation purposes. This disconnect between relevance and reliability is amplified in the Plan Scenarios. For example, although trailing EBITDA and cash flows are reliable, without more information regarding the firm's ability to sustain those cash flows, a historical measure may pose relevancy issues as to whether a proposed plan is fair and equitable.<sup>359</sup> However, projected cash flows and EBITDA, while highly relevant, are estimates of future performance, and thus are usually less reliable than historical performance. Estimates of earnings and cash flows require estimates over multiple years of revenue, operating expenses, working capital, capital expenditures, depreciation, and taxes. As noted above, case law accords

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<sup>357</sup> See, e.g., *Adelphia Recovery Tr. v. FPL Grp., Inc (In re Adelphia Commc'ns Corp.)*, 512 B.R. 447, 464–67 (Bankr. S.D.N.Y. 2014), *aff'd*, No. 02-41729, 2015 WL 1208588 (S.D.N.Y. Mar. 17, 2015) (adopting one expert's use of value-per-subscriber metric and that expert's rejection of an EBITDA metric); see also HITCHNER, 3d ed., *supra* note 57, at 292–300; PRATT & NICULITA, *VALUING A BUSINESS*, *supra* note 17, at 290–97, 301; DAMODARAN, *INVESTMENT VALUATION*, *supra* note 94, at 454–56.

<sup>358</sup> “Although EBITDA removes charges for interest, and, therefore, eliminates the effects of capital structure and leverage, it does not take into account taxes that must be paid and capital expenditures that may be needed to maintain or expand the business.” RATNER ET AL., *supra* note 17, at 42.

<sup>359</sup> See *In re Exide Techs.*, 303 B.R. 48, 62–65 (Bankr. D. Del. 2003).

considerable weight to management's projections constructed in the ordinary course for purposes of operating the business. If management prepared the projections in a meaningfully informed and competent manner, in good faith, without a conflict of interest, and for purposes of managing the business as opposed to supporting a proposed transaction, then judicial deference should not be controversial. However, if management's projection process is tainted by fraud or gross negligence, unreasonable aspirations, a bad faith reason for the undertaking, or constructed for purposes of inflating or maintaining value to support a proposed transaction, deference is another matter altogether. Thus, the assessment of the reliability of projections should be a process-sensitive matter based on the context in which the projections were created.

## 2. *Beta (Income Approach)*

In the CAPM, beta is the only company-specific input when estimating the required rate of return on equity. As outlined above, observed historical betas of a public company are harvested from a comparable company set and are generally reliable and transparent. We often conclude that they are also relevant but recognize that the degree of relevance is driven by facts and circumstances. For the reasons outlined above, Adjusted Betas do not usually appear to be as reliable or relevant because, among other things, the Bloomberg Adjusted Beta applies a "one size fits all" modification to every company.<sup>360</sup> For example, the Bloomberg Adjusted Beta adjusts all equities in the same direction and magnitude toward the market beta or 1.0.

Yet, we have decades of beta data suggesting that such movement toward the market beta does not uniformly or always take hold.<sup>361</sup> Consider, for example, utility betas, which have been collected for a long, long time and are still not at 1.0. Utility betas appear to be stable where they continue to track below 1.0. However, despite the weight of criticism lobbied against its use, the

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<sup>360</sup> See *supra* text accompanying notes 209–17 for discussion on Bloomberg Adjusted Beta and criticisms. See also Gabriel A. Hawawini & Ashok Vora, *Investment Horizon, Diversification, and the Efficiency of Alternative Beta Forecasts*, 5 J. FIN. RSCH. 1 (1982) (concluding that alternative beta-adjustment techniques, including adjustments similar to Bloomberg, were not improvements relative to unadjusted betas.)

<sup>361</sup> See Damodaran, *Estimating Risk Parameters*, *supra* note 208 ("Using constant weights to estimate these betas, however, does not make sense. The speed with betas converge on one should vary across companies. Firms that tend to diversify more should see their betas converge on one far faster than firms which stay focused in one business. While conceding the fact that betas for most firms will move towards one over time, we would argue that there is no need to adjust regression betas towards one right now to reflect this tendency.").

Bloomberg Adjusted Beta is transparent, and some courts have accepted its use for valuation in the appropriate circumstances.<sup>362</sup>

On the other hand, transparency is *not* a hallmark of the Barra Beta (a Predicted Beta). This proprietary beta estimates a future beta based on several inputs. Over time, the market and valuation experts have developed a pretty good understanding about the inputs, but less understanding about how those inputs are interconnected and weighted in MSCI's proprietary model; in other words, it is a black box. Thus, while a Barra Beta is relevant because it estimates future beta and can be checked against historical or raw betas for reliability, it lacks transparency. An expert would be hard-pressed to explain to the trier of fact the proprietary engine behind the Barra Beta. However, what has been disclosed in the public space about Barra Betas suggests that they are relevant and reliable, despite their lack of transparency.<sup>363</sup> Moreover, one of Barra Betas' larger groups of users is active investors in the equity markets, which presents an interesting phenomenon.<sup>364</sup> The ubiquitous use of Barra Betas by market participants may have moved the beta world in Barra's direction. Courts are beginning to consider Barra Betas in the mix of acceptable sources of information used to estimate beta.<sup>365</sup>

In response to the challenges of using historical betas to estimate future beta, two thoughtful commentators have suggested the use of "1.0" as the beta with a higher correlation than calculated or Adjusted Betas,<sup>366</sup> which would be both reliable and transparent. However, the use of 1.0 removes any company-specific factor from the CAPM. Thus, the equity risk premium (applicable by definition to all equities) would be the price that an investor would demand above the risk-free rate to invest in the stock of any company, and thus the return on equity, absent other adjustments, would be identical for all companies.

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<sup>362</sup> As touched upon *supra* note 211, the Delaware Chancery Court has noted that "mean reversion is a sound concept in the abstract, but the specific mean-reverting path must be justified on facts." *IQ Holdings, Inc. v. Am. Com. Lines, Inc.*, No. 6369, 2013 WL 4056207, at \*4 (Del. Ch. Mar. 18, 2013)

<sup>363</sup> Context here is important. Some industries are more amenable to using historical betas, especially commodity-based businesses that experience business cycles (even if these are not totally predictable). And yet valuation is a forward-looking exercise. While several criticisms have been directed at Barra betas due to their reduced transparency, at least they are predicted betas that are seeking to regress various factors in hopes of forecasting future behavior. The regression factors are very clear, the underlying formulas are not always, but I don't think the information gap voids their relevance in considering an appropriate beta.

<sup>364</sup> See generally *About Us*, MSCI, <https://www.msci.com/> (last visited Dec. 12, 2022).

<sup>365</sup> See, e.g., *IQ Holdings, Inc.*, 2013 WL 4056207, at \*4.

<sup>366</sup> Pablo Fernandez & Vicente Bermejo,  *$\beta = 1$  Does a Better Job Than Calculated Betas*, SSRN.COM (2019), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1406923](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1406923).

### 3. *Equity Risk Premium (Income Approach)*

“[T]he expected return on any investment can be written as the sum of the riskfree [sic] rate and a risk premium to compensate for the risk.”<sup>367</sup> The equity risk premium is the measure of a premium investors demand for investing in an “average risk” equity.<sup>368</sup> It is a fundamental component of every valuation and thus, clearly relevant to the estimation of a discount rate. However, its estimation is often haphazard and subject to bias, prejudice, and error, and thus suffers from a lack of reliability and less-than-complete transparency.

In fact, an expert could empirically support an equity risk premium in the U.S. of 3% to 12%,<sup>369</sup> although many estimates converge to about 4.5% to 7.5%,<sup>370</sup> depending on how the equity risk premium is interpreted and computed. The wide range of estimates is not caused by differences in any underlying datasets, which have been well-established, nor is it due to a shortage of proxies for measuring market returns, because a well-diversified index fund generally suffices. Rather, the controversy and challenges lie with how experts and courts analyze the data to estimate the equity risk premium to fit different situations and points of view. Choices regarding data-harvesting techniques introduce considerable differences that account for large swings in the estimate of the equity risk premium. As a foundational matter, an expert must first determine how far back to look to capture data, and the chosen data horizon can have a substantial effect on the ultimate estimate. In fact, there is no settled, self-evident lookback period.<sup>371</sup> An additional element of opacity can arise from measures of central tendency used to analyze returns over the lookback period. Contenders include an arithmetic mean (“ . . . computed in the standard way: Add up all the annual returns and divide by the number of years”)<sup>372</sup> or a geometric mean.<sup>373</sup> And while experts are fighting this fight, courts (and most lawyers) weep. Experts also often consult survey results from management, investors, and academics.<sup>374</sup>

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<sup>367</sup> Damodaran, *Equity Risk Premiums*, *supra* note 197, at 5.

<sup>368</sup> *Id.*

<sup>369</sup> *Id.* at 123.

<sup>370</sup> *Id.*

<sup>371</sup> See David W. King, *The Equity Risk Premium for Cost of Capital Studies: Alternatives to Ibbotson*, 13 BUS. VALUATION REV. 123–29 (1994) (exploring different lookback periods).

<sup>372</sup> CORNELL, EQUITY RISK PREMIUM, *supra* note 187, at 37.

<sup>373</sup>  $((\text{Final Value} / \text{Initial Value})^{1/n} - 1)$ . *Id.*; see also CDBV STUDY COURSE, PART III, *supra* note 44, at 2:11–2:12.

<sup>374</sup> See Fernandez & Baonza, *Survey with 2400 Answers*, *supra* note 197; Fernandez & Baonza, *Survey with 1500 Answers*, *supra* note 197; Fernandez et al., *Survey with 6932 Answers*, *supra* note 197; see also Jerald E. Pinto et al., *Equity Valuation: A Survey of Professional Practice*, 37 REV. FIN. ECON. 219 (2018).



With the equity risk premium in particular, an expert should be careful to identify all sources, assumptions regarding the lookback period, and the type of mean or other measures of central tendency used to enhance transparency and assist the trier of fact. Although these sources and inputs appear to meet the relevance and reliability criteria, some may be more relevant than others, and others may be more reliable than some. The key here is that great debate surrounds this estimate.<sup>375</sup> As a general rule, as we move deeper into C<sub>2</sub> and C<sub>3</sub>, transparency becomes a key driver of court acceptance of choices made by experts.

### *C. Cluster C<sub>3</sub>: Hotly Contested Risk Determinations*

Our final cluster is where a disproportionate number of heated disputes live. The C<sub>3</sub> Cluster is more turbulent than the C<sub>1</sub> and C<sub>2</sub> Clusters. In addition to tradeoffs between reliability and relevance, we also observe more serious concerns over transparency. In some cases, there is also concern over whether the input is either relevant or reliable. This is not a dispute over degrees; it is often a dispute over use of the associated input at all. These troubling choices include: use of the Gordon Growth Model or an exit multiple to estimate terminal value in the Income Approach; use of small size and company specific risk premiums in the Income Approach; selection of a set of comparable or guideline public companies or transactions under the Market Approach and as an input in the WACC of the Income Approach; and reconciliation of multiple indications of value across several approaches and methods. These levers account for an outsized number of heated disputes and court decisions, as previously discussed. Why these?

As an initial matter, these inputs and expert differences over their applicability and use often drive the largest differences in the opinion of value, and, not surprisingly, are often the difference between insolvency and solvency or between being “in the money” or “out of the money” in a contested cramdown plan confirmation. While all approaches, methods, assumptions, inputs, and adjustments discussed in this Article are practically significant, these inputs also happen to be legally significant in many disputes. There is something more serious afoot for some of these inputs, however. Namely, while several of these inputs pose concerns regarding reliability and transparency, some commentators

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<sup>375</sup> See CDBV STUDY COURSE, PART III, *supra* note 44, at 2:11–2:12; Siegert & Turnbull, *supra* note 36, at ¶ 8.05[5] (“[N]o standardized methodology exists.”); Maxwell, *supra* note 28, at ¶ 12.04[1].

and courts believe they have no relevance and are not justified at all in most situations.<sup>376</sup>

### 1. *Terminal Value (Income Approach)*

With terminal value regularly constituting over 70% of the business value of a debtor under the DCF method under the Income Approach,<sup>377</sup> the choice between Gordon Growth and an exit multiple for the estimation of terminal value can be significant. Many experts use or check the impact of both. The Gordon Growth Model requires estimates of perpetual cash flows as well as economic growth in the long term—both of which represent estimates that may suffer from a lack of reliability and potentially of transparency. However, the use of an exit multiple to estimate terminal value converts the Income Approach to a composite of the Income Approach and Market Approach that overwhelms the importance of, and rationale for, specific estimates including estimates of risk and growth. The use of a terminal value multiple may violate the structural integrity of the Income Approach and may undermine the usefulness of conducting multiple approaches to assess value. Experience has also colored the view of the use of an exit multiple to estimate terminal value, because it often seems to have an outsized effect on the underlying legal issue. Because so much turns on this choice, heated debate and protracted disputes are likely to continue.<sup>378</sup>

### 2. *Small Size and Company Specific Risk Premiums (Income Approach)*

Initially, let us address two controversial inputs taken together—the size premium and the company specific risk premium—that may be added to the CAPM, to determine the required return on equity. These inputs share a few qualities in common. First, the traditional CAPM does not recognize either of them. Second, their presence may often make the difference between a determination of value that results in solvency or insolvency, and between a reorganization plan that recognizes sufficient value to yield a distribution or no distribution under the terms of a reorganization plan. Third, they require considerable judgment in their use.

These two inputs, however, are also different in important ways. First, the size premium is generally reliable, relevant, and transparent; it also has a long

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<sup>376</sup> See *supra* note 244.

<sup>377</sup> See, e.g., Gilson et al., *supra* note 30, at 57.

<sup>378</sup> See, e.g., *Hoyd v. Trussway Holdings, LLC*, No. 2017-0260, 2019 Del. Ch. LEXIS 72, at \*9–10 (Del. Ch. Feb. 28, 2019).

history of acceptance by courts.<sup>379</sup> Conversely, the company specific risk premium, while potentially relevant in a given set of circumstances, particularly as applied to small private companies, is of questionable reliability and is not transparent. On top of those limitations, the use of a company specific risk premium has a checkered past with mixed and changing notions of acceptability by academics, professionals, and the courts (including the Delaware Chancery Courts as well as Bankruptcy Courts) because it is viewed as overly subject to the arbitrary application of “appraiser’s judgment.”<sup>380</sup> While it is common for a court to consider and use the size premium, it is less common for the court to consider the use of a company specific risk premium. The size premium is supported by empirical studies as well as well-established practice. The company specific risk premium is not; yet, it can be supported by situational logic and the acknowledged theoretical limitations of CAPM.<sup>381</sup> Many experts have presented strong arguments for the use of a company specific risk premium and have developed various techniques to impose a discipline in how it is used. Nevertheless, Delaware Chancery Courts regularly reject its use (either generally or as applied to the facts of the specific controversy), observing that any company specific risk in addition to beta should be accounted for in the future cash flows of the firm.<sup>382</sup> On the other hand, bankruptcy courts have been more receptive to the use of a company specific risk premium.<sup>383</sup> Perhaps this is a recognition of the unique circumstances of dealing with distressed businesses in bankruptcy that may theoretically possess heightened risk, as against those operating under the typical market conditions for non-distressed businesses from which CAPM is derived. Whether this risk is addressed in the projections or in the discount rate or some combination of these, it is important not to double count the impact of the inherent riskiness of the assets being valued.

When an expert expands beyond the CAPM, they begin to flirt with the possibility of double counting risk. CAPM already includes beta which, depending on the reliability of the companies used in the beta comparisons, may

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<sup>379</sup> It appears that some of the disputes over the estimate of a small size premium draw from how the data is collected and presented. The Ibbotson Associates SBBI Valuation Edition Yearbook and Duff & Phelps’ Risk Premium Report are common sources for a small size premium. See RATNER ET AL., *supra* note 17, at 54. Ibbotson “slices” the data into deciles (with an added breakdown of the 10th decile) and in three more granular groupings of the decile information (mid-cap companies, low cap companies, and micro-cap).” *Id.* Disputes with large swings in the cost of capital can often be traced to differences on how granular one must go to capture any additional risk associated with relatively very small companies. *Id.*; see also, e.g., *Bachrach Clothing, Inc. v. Bachrach (In re Bachrach Clothing, Inc.)*, 480 B.R. 820 (Bankr. N.D. Ill. 2012).

<sup>380</sup> See generally Rosenbloom et al., *supra* note 255, at 1.

<sup>381</sup> See generally Smith & Walsh, *supra* note 60.

<sup>382</sup> See *supra* note 244.

<sup>383</sup> See *id.*

already include industry-wide financial risk, and an equity risk premium. Sufficient empirical work supports the size premium in a CAPM world—but not without controversy, as previously described.<sup>384</sup> No such empirical support exists to ensure that we are not double counting risk by adding a company specific risk premium.<sup>385</sup> Both the bull and bear cases, and all iterations in between, are already theoretically impounded in the expected cash flows of the firm.

A final observation about the company specific risk premium: to a purist, it is excluded in the CAPM.<sup>386</sup> Such company specific adjustments should be made to the projected cash flows, and they have no place in the cost of capital. Like so many valuation debates, this one has its share of inconsistencies. Company specific adjustments are regularly made to cost of capital estimates, indirectly and in a more opaque manner; but many of the factors that would otherwise help regulate the application of a company specific risk premium are part of the screening process for comparable companies under the Guideline Public Company Method. They often underlie the selection, in part, of the appropriate market multiple through the benchmarking of the subject company against comparable companies. This practice, however, is not controversial. Shaked and Reilly recognize this: “In the market approach, the analyst should consider the same CSRPs [company specific risk premium] factors: (1) in selecting guideline companies/guideline M&A transactions; (2) in adjust[ing] guideline companies/guideline M&A transactions; and (3) in selecting guideline-derived pricing metrics.”<sup>387</sup>

Because a market multiple under the Market Approach incorporates the discount rate and reflects some assumptions of growth, many of the company specific risk premium factors, by another name, are influencing the indirect estimate of the cost of capital of the subject company. Advocates of the company specific risk premium in the DCF method, collectively shake their heads at its opaque cousin—the market multiple—and, in the words of Galileo, whisper “*Eppur si muove!*”<sup>388</sup>

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<sup>384</sup> See *supra* text accompanying notes 379–81.

<sup>385</sup> Rosenbloom et al., *supra* note 255, at 1 (citing Ted Israel, *The Generous Helping of Company-Specific Risk That May Already Be Included in Your Size Premium*, BUS. VALUATION UPDATE, June 2011).

<sup>386</sup> See generally Smith & Walsh, *supra* note 60.

<sup>387</sup> SHAKED & REILLY, PRACTICAL GUIDE, *supra* note 241, at 221.

<sup>388</sup> “And yet it [does] move!”

### 3. *Comparable Company or Comparable Transaction Set (Market Approach)*

A set of guideline or comparable companies (or transactions) is necessary to apply the guideline methods under the Market Approach, and guideline companies are also helpful for certain inputs in the Income Approach. Under the Market Approach, experts use a set of comparable companies (or transactions) to estimate an earnings valuation multiple and then apply that multiple to the relevant characteristics of the subject company to derive an estimate of MVIC. Less obviously, the comparable company set often finds use in the Income Approach as well, where it is used to estimate beta for both debt and equity, identify a target industry capital structure, and provide or corroborate inputs as to cash flows, earnings, and growth.<sup>389</sup> Disclosure by experts regarding how the comparable company set is selected increases both its reliability and transparency. Despite the importance of a clearly communicated screening process, experts in heated disputes over comparable company sets are often unclear about the process undertaken in the selection: why some companies are included, and why some companies are excluded.<sup>390</sup> An expert's opinion can fail to be persuasive if they cannot explain in an objective fashion why their comparable company set is appropriate.

An interesting thing often happens when the comparable company set identified by the screening process is unreliable. A set of comparable companies could be excluded for a variety of reasons including: (1) the comparable companies are significantly larger than the subject company (quite common when using public companies to estimate values of private companies), (2) the comparable companies are much more diversified (including international operations) than the subject company, or (3) the comparable companies have multiple, diverse sources of cash flows when the subject company does not. When an expert or a court concludes that the leap of faith from the comparable company set to the subject company is too great, then it generally rejects or greatly discounts the Market Method as an indication of MVIC.<sup>391</sup> Well, not so

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<sup>389</sup> See HITCHNER, 4th ed., *supra* note 15, at 192, 207, 313–16, 979.

<sup>390</sup> *Id.* at 306–12.

<sup>391</sup> Occasionally, no comparable companies exist, not even close. See, e.g., *Alberts v. HCA Inc. (In re Greater Se. Cmty. Hosp. Corp. I) (Greater Se. Hosp. II)*, No. 02-02250, 2008 Bankr. LEXIS 1607, at \*45–46 (Bankr. D.D.C. May 19, 2008) (“[T]here are no public companies that are sufficiently comparable to Reese Hospital to provide adequate guideline data for calculating the market value of Reese Hospital as of the Transfer Date. Because no comparable guideline transactions or guideline companies exist, the court concludes that the market approach does not lead to an accurate or reliable value for Reese Hospital.”).

fast—can there be implications for the use of that same comparable set when estimating inputs to the Income Approach?

Delaware Chancery Courts have rejected comparable company sets for the Market Approach and then used the same comparable company set for the Income Approach.<sup>392</sup> They are generally correct in this practice, because there is a difference between estimating the value of a business and estimating an input of a component within a model that in turn estimates the value of a business. A comparable company set that an expert and court may use to directly estimate value must reasonably reflect the cash flows, risk, and growth profile of the subject company. In contrast, harvesting betas from that same comparable company set may be appropriate. Beta seeks to capture company-specific financial risk relative to market risk. Because the comparable companies share the same characteristics as the subject company, they become a reasonable proxy for evaluating that risk, as opposed to market multiple pricing. A similar reason supports the use of this comparable company set to estimate the target capital structure of the subject company, specifically in the Clawback Scenario.

Thus, contests over comparable company sets are usually disguised disagreements about risk. Recall that the market multiple reflects characteristics of risk and growth,<sup>393</sup> that is, the multiple is a proxy for risk and growth.<sup>394</sup> The multiple, of course, is estimated from the comparable company set.

#### 4. *Reconciliation of Value Indications (All Approaches)*

Reconciling the indications of value under multiple approaches and methods has also ginned up its share of controversy. Some experts prepare an exhibit, much like a football field, where bar or line graphs reflect ranges of value under multiple approaches and methods. Many experts reconcile the indications of value from multiple approaches and methods.<sup>395</sup> “[E]ach method should be

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<sup>392</sup> See *Hoyd v. Trussway Holdings, LLC*, No. 2017-0260, 2019 Del. Ch. LEXIS 72, at \*13, \*16–18 (Del. Ch. Feb. 28, 2019); *IQ Holdings, Inc. v. Am. Com. Lines, Inc.*, No. 6369, 2013 WL 4056207, at \*3, \*5 (Del. Ch. Mar. 18, 2013); *In re ISN Software Corp. Appraisal Litig.*, No. 8388, 2016 Del. Ch. LEXIS 125 (Del. Ch. June 24, 2016).

<sup>393</sup> See *supra* text accompanying note 95.

<sup>394</sup> A valuation professional may also voice a level of confidence about the reliability of management’s estimates of earnings through the selection of a lower market multiple than the central tendency of a comparable company or transaction set. See *Siegert & Turnbull*, *supra* note 36, at ¶ 8.05[7] (“Perhaps the most important criterion for adding an NSRP [company specific risk premium in a DCF model] is the assessment of a company’s projections.”).

<sup>395</sup> PRATT & NICULITA, *VALUING A BUSINESS*, *supra* note 17, at 477–78 (noting that weighting of results is a common practice).

weighted and then all methods should be considered together.”<sup>396</sup> As one commentator has noted, “[i]n many situations, multiple methodologies are used to eliminate outliers and derive as accurate an estimate of values as possible given that valuation is an inexact science.”<sup>397</sup>

Some start with each *approach* giving equal weight; some start with each *method* giving equal weight.<sup>398</sup> The difference may be important. As an example, let us consider the case where one expert assigns equal weight to the DCF, the Comparable Company, and the Comparable Transaction estimates of value: 1/3, 1/3, and 1/3. Not quite. The expert has given equal weight to each method but not to each approach. Under this reconciliation, 1/3 is assigned to the Income Approach and 2/3 to the Market Approach. Now assume that the DCF used an exit multiple to estimate the terminal value and that estimate comprises 85% of the DCF value. What you are looking at is largely a Market Approach across all three methods.

So as an expert, why not avoid this cocklebur and simply assign equal weights to all approaches? The answer is not obvious outside of the world of valuations. The short answer is that their respective professional certification standards generally do not permit it. The AIRA Standards provide:

The results of several valuation methods must be synthesized into a conclusion of value. The synthesis may be quantitative, qualitative or both. The synthesis of a valuation conclusion does not need to be based solely upon a mathematical weighting of more than one approach or a mathematical formula.<sup>399</sup>

It may be that simple. Thus, these experts use their training, experience, and education to do the best they can in the reconciliation process, usually resulting in a range of values to aid the trier of fact.<sup>400</sup> Value ranges usually work in the world of bankruptcy and reflect the uncertainty associated with the process.<sup>401</sup> It is common that these various approaches and methods are subject to sensitivity

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<sup>396</sup> *In re Exide Techs.*, 303 B.R. 48, 65 (Bankr. D. Del. 2003).

<sup>397</sup> RATNER ET AL., *supra* note 17, at 26.

<sup>398</sup> See, e.g., *Alberts v. HCA Inc. (In re Greater Se. Cmty. Hosp. Corp. I) (Greater Se. Hosp. II)*, No. 02-02250, 2008 Bankr. LEXIS 1607, at \*245 (Bankr. D.D.C. May 19, 2008) (weighting income approach three times as heavily as cost approach, and ultimately assigning no weight to the market approach, in generating a final valuation for the hospital at issue).

<sup>399</sup> AIRA STANDARDS, *supra* note 22, at 41; see also APPRAISAL STDS. BD., UNIFORM STANDARDS OF PROFESSIONAL APPRAISAL PRACTICE (USPAP), Standards Rules 9-3 to -5 (2021); PRATT & NICULITA, VALUING A BUSINESS, *supra* note 17, at 472.

<sup>400</sup> See, e.g., *In re Chemtura Corp.*, 439 B.R. 561 (Bankr. S.D.N.Y. 2010); see also Maxwell, *supra* note 28, at ¶ 12.04[1].

<sup>401</sup> See, e.g., *Chemtura*, 439 B.R. 561; see also Baird & Bernstein, *supra* note 31, at 1943.

analysis<sup>402</sup> and “sanity” checks.<sup>403</sup> Not so for the brave souls that toil as chancellor or vice-chancellors in the Delaware Chancery Court. There, in fair value disputes in appraisal litigation,<sup>404</sup> the court must find *the* value, not a range of values, for the process to work in fashioning an appropriate remedy.<sup>405</sup>

#### D. Conclusion

Ample space exists between that which one measures and that which one seeks to understand. Experts may aid a trier of fact in measuring a fair valuation, fair market value, reasonably equivalent value, or investment value. But there is significant space between employing academic theory, applying commonly adopted valuation methods and standards, and fashioning equitable relief. Managing that space is a primary role for bankruptcy lawyers and courts. An expert has an important role in that endeavor to clarify and share facts, information, and an opinion, but the issues are ultimately legal in nature as a remedy is sought, argued, and ultimately defined by the court. Confounding, for example, the fair market value standard with the fair valuation standard or fair and equitable test in bankruptcy may be problematic. When an expert renders a credible opinion on the fair market value of the property of a debtor for purposes of an insolvency assessment, it then becomes incumbent on the bankruptcy lawyers and court to take that indication of value, if credible, and combine it with the totality of circumstances and determine what is a fair valuation for the property of the debtor. Likewise, when an expert renders a credible opinion on the fair market value as a proxy for the reorganizational value of the debtor’s property for plan confirmation purposes, a court must determine whether that value proposition is fair and equitable based on the totality of the circumstances. Thus, even the best experts can only advance a court’s thinking so far; they can

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<sup>402</sup> See, e.g., *ASARCO LLC v. Americas Mining Corp.*, 396 B.R. 278, 344 (S.D. Tex. 2008) (underscoring that the court found an expert’s sensitivity analysis to be helpful); see also CDBV STUDY COURSE, PART II, *supra* note 42, at 3:26–3:28 (suggesting consideration of testing value estimates by a sensitivity analysis, an implied multiple test in the DCF model, and an assessment of terminal value as a percentage of overall value).

<sup>403</sup> See, e.g., *Chemtura*, 439 B.R. at 580; *ASARCO*, 396 B.R. at 345–46; *CNB Int’l Inc. v. Kelleher*, (*In re CNB Int’l, Inc.*), 393 B.R. 306, 323 (Bankr. W.D.N.Y. 2008); *In re Nellson Nutraceutical, Inc.*, 356 B.R. 364, 367 (Bankr. D. Del. 2006) (evaluating and ultimately rejecting as unreliable a novel and unprecedented metric used by the debtors’ expert).

<sup>404</sup> See generally Brett A. Margolin & Samuel J. Kursh, *The Economics of Delaware Fair Value*, 30 DEL. J. CORP. L. 413 (2005); Barry M. Wertheimer, *The Shareholders’ Appraisal Remedy and How Courts Determine Fair Value*, 47 DUKE L.J. 613 (1998).

<sup>405</sup> “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.*, 542 A.2d 1182, 1186 (Del. 1988); see also *BCIM Strategic Value Master Fund, LP v. HFF, Inc.*, No. 2019-0558, 2022 Del. Ch. LEXIS 25, at \*39–42 (Del. Ch. Feb. 2, 2022).



seek to aid the trier of fact effectively, but then it becomes the role of the court and counsel to complete the valuation circle by considering any valuation testimony in the appropriate factual, legal, and equitable context.

Courts and valuation literature acknowledge that an expert may use and should consider the Income Approach, the Market Approach, and the Asset Approach in valuing a business to aid a trier of fact.<sup>406</sup> The state of the record, the taint of data,<sup>407</sup> and the availability of information may foreclose one or more of these approaches.<sup>408</sup> Judgment is necessary in making the choice among approaches and methods.<sup>409</sup> No “off-the-shelf” response amounts to much in these circumstances. Each approach has something to say about value, each from a different perspective. That means something.

Research suggests that there is a subset of adjustments and inputs that generate wide differences in value and considerable consternation among courts, experts, and academics. These adjustments and inputs include the use of the Gordon Growth Model or an exit multiple to estimate terminal value in the DCF method, the use of small size premium and company specific risk premium, the selection of comparable or guideline public companies or transactions, and the reconciliation of multiple indications of value across several approaches and methods. These inputs and assumptions account for an outsized number of court-decided disputes.

The history of bankruptcy valuations reveals several interesting themes. First, valuation disputes are driven generally by law and not by finance.<sup>410</sup> More precisely, valuations in dispute draw from principles of remedies in most legal contexts. Think of damages, restitution, fraudulent transfer law, dissolution in business and between spouses, and bankruptcy. As with remedies, we seek to place the parties in their rightful position. In bankruptcy, that means we are addressing creditor harm through a substitute remedy, and we are preventing unjust stakeholder enrichment in appropriate circumstances. This concept is at the heart of (i) the fair valuation standard for a determination of insolvency and

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<sup>406</sup> For Damodaran’s analysis of the challenges inherent in these approaches and methods in the distressed business context, see generally DAMODARAN, DARK SIDE OF VALUATION, *supra* note 69.

<sup>407</sup> See *Adelphia Recovery Tr. v. FPL Grp., Inc. (In re Adelphia Commc’ns Corp.)*, 512 B.R. 447, 472–74 (Bankr. S.D.N.Y. 2014), *aff’d*, No. 02-41729, 2015 WL 1208588 (S.D.N.Y. Mar. 17, 2015) (finding that fraud tainted the financial statements and information around the time of the challenged transfer).

<sup>408</sup> See *MFS/Sun Life Tr.-High Yield Series v. Van Dusen Airport Servs. Co.*, 910 F. Supp. 913, 939, 942 (S.D.N.Y. 1995).

<sup>409</sup> See Stark & Coffey, *supra* note 6, at ¶ 3.03[2][a].

<sup>410</sup> “Corporate finance is not law.” *In re Appraisal of Jarden Corp.*, No. 12456, 2019 WL 3244085, at \*1 (Del. Ch. July 19, 2019), *aff’d sub nom. Fir Tree Value Master Fund, LP v. Jarden Corp.*, 236 A.3d 313, 322 (Del. 2020).

(ii) assessments of fair and equitable treatment of creditors under a proposed plan. Accordingly, let me suggest a modest thought experiment: we should think less about valuing a business; we should think more about fashioning a remedy.

Second, valuations in dispute are always contextual; they arise in real cases with real parties where facts matter.<sup>411</sup> Stated another way, there is nothing hypothetical about the actual dispute in “valuations in dispute.” Parties in interest are often harmed, and there is a constant risk that a debtor and its management, or positionally strong creditors, may be unjustly enriched.<sup>412</sup>

Third, traditional valuation approaches and methods veer toward broader use with going concerns, where the subject business of the valuation is not in significant decline or in deep distress. This is not our world in bankruptcy. Thus, adjustments to the traditional valuation approaches and methods are often necessary and should be expected when they are used in bankruptcy contexts.

Fourth, valuations are forward-looking and rest on the three irreducible pillars of financial theory: the time value of money, the diversification of risk, and the rule of one price. We always search for the approach and inputs with the most predictive power (and, yet, historical performance may matter . . . a lot).

Fifth, relatively large differences in valuation are often driven by bona fide differences in understanding and interpreting the application of valuation theory among experts. Thus, disputes about adjustments to the WACC or estimates about the appropriate growth rate for applying the DCF method often turn on an expert’s understanding of the concepts that drive these inputs and the context in which these inputs are being considered.

Finally, all valuation approaches and methods require the exercise of judgment by an expert, the trier of fact, or both. One cannot escape this foundational “truth” that as both a fine art and science, valuation analysis requires applied proficiency and sound judgment.

Valuations in dispute help resolve questions of fact and law. In bankruptcy, they do so for the purpose of constructing a collective remedy for all stakeholders. Clawback actions seek to return property, or the value of property, unlawfully transferred by a debtor before a petition in bankruptcy was filed.<sup>413</sup>

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<sup>411</sup> Thus, successful arguments in one case “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 Cap. v. Lender Processing Servs., Inc.*, No. 9320, 2016 WL 7324170, at \*16 (Del. Ch. Dec. 16, 2016).

<sup>412</sup> See, e.g., Gilson et al., *supra* note 30, at 70.

<sup>413</sup> 11 U.S.C. §§ 550, 551.

These powers seek to return value to the bankruptcy estate for distributional purposes.<sup>414</sup> Cramdown plan confirmation battles, where stakeholders are disputing whether there is enough reorganizational value to drop to them, seek to set and then divide the reorganizational pie in a fair and equitable manner.<sup>415</sup> This is the language of remedies. Courts are the preferred institution in forming and applying remedies. This is the case because remedies are always contextual; they must be to have any chance of being fair and equitable in the broader sense. Valuations have always been a part of remedies, a means by which society substitutes money for harm. How else would a court be able to restore a plaintiff to its rightful position in damages, or return a defendant to its rightful position by disgorging any unjust economic benefits in restitution? The judicial process must measure that harm or gain, and courts do so by a careful understanding of what fundamentally drives value in these circumstances, by what comparable assets may be worth, and by historical costs and present values that assets may fetch in the market. At times our approaches and methods in crafting remedies may be complicated, but they are not without noble purpose.

If we re-imagine bankruptcy, procedurally, as a remedial device, then several natural observations follow, as drawn from the law of remedies. The automatic stay functions as a preliminary injunction triggered by the filing of a petition in bankruptcy,<sup>416</sup> the discharge order functions as a permanent injunction,<sup>417</sup> and what happens in between those two milestones functions as a structural injunction.<sup>418</sup> Within that framework several disputes can arise. Clawback and Plan Scenarios are simply two types of disputes in bankruptcy, among many. And they provide two wonderful opportunities to reflect on valuation standards and legal standards and how we manage the space between the two. These two scenarios allow us to explore the world of risk. The law may favor a target industry debt-to-capital structure for the WACC for a Clawback Scenario, while at the same time favor a projected debtor-specific capital structure as detailed in the proposed plan in the Plan Scenario. Creditors assume a going concern risk associated with a debtor and its industry in a prepetition bankruptcy world. That is, very much, a world of fair market values and market, industry, and company-

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<sup>414</sup> 11 U.S.C. § 541(a)(3).

<sup>415</sup> 11 U.S.C. § 1129(b).

<sup>416</sup> 11 U.S.C. § 362.

<sup>417</sup> 11 U.S.C. § 1141 (confirmation of a plan in chapter 11 results in a discharge unless a court orders otherwise); *see also* 11 U.S.C. § 524.

<sup>418</sup> *Cf.* DAN B. DOBBS & CAPRICE L. ROBERTS, *LAW OF REMEDIES: DAMAGES-EQUITY-RESTITUTION* 166 (3d ed. 2018). *See generally* Robert E. Easton, Note, *The Dual Role of the Structural Injunction*, 99 *YALE L.J.* 1983 (1990).

specific risk.<sup>419</sup> On the other hand, at plan confirmation, the court is assessing risk, including capital structure, embedded in the proposed plan itself. After all, that is a substantial part of the risk creditors have voted on and at least one non-insider class of impaired claims has accepted.<sup>420</sup> Valuations in bankruptcy disputes often exhibit common tension points, not because experts seek to answer slavishly to the call of valuation theory or are seduced by the tug of a client, but because all participants seek to join with the rhythm of remedies.<sup>421</sup>

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<sup>419</sup> The late Professor Barry Zaretsky captured this notion in a thoughtful article. See generally Barry L. Zaretsky, *Fraudulent Transfer Law as the Arbiter of Unreasonable Risk*, 46 S.C. L. REV. 1165 (1995).

<sup>420</sup> 11 U.S.C. § 1129(a), (b).

<sup>421</sup>

[T]he body of relevant case law generally reflects the heightened respect for the complexity of the task, as well as careful handling of the valuation assignment. And, most fortunately, recent years have witnessed an increased willingness by widely-respected jurists to issue lengthy and detailed valuation opinions, sharing the wealth of their experience and insight, thereby framing a sort of judicial thought-culture about corporate valuations.

Stark & Coffey, *supra* note 6, at ¶ 3.02[2].