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IN THE COURT OF CHANCERY OF THE STATE OF DELAWARE

IN RE APPRAISAL OF	)	Consolidated
AOL INC.	)	C.A. No. 11204-VCG

REVISED EXPERT REPORT OF PROFESSOR BRADFORD CORNELL

February 16, 2017

Contents

I. INTRODUCTION

1. My name is Bradford Cornell. I have been retained by counsel for Brigade Leveraged Capital Structures Fund Ltd., Brigade Distressed Value Master Fund Ltd., Tasman Fund LP, BlueMountain Guadalupe Peak Fund L.P., BlueMountain Summit Trading L.P., BlueMountain Logan Opportunities Master Fund L.P., BlueMountain Foinaven Master Fund L.P., BlueMountain Montenvers Master Fund SCA SICAV-SIF, BlueMountain Timberline Ltd., Farallon Capital Institutional Partners III, LP, Noonday Offshore Inc., Farallon Capital Institutional Partners, LP, Farallon Capital Offshore Investors II, LP, Farallon Capital Institutional Partners II, LP, Farallon Capital AA Investors, LP, Farallon Capital Partners, LP, Farallon Capital (AM) Investors, LP, Second Series of Halcyon Trading (MI) LLC, Flagler Master Fund SPC Ltd. acting for and on behalf of the Class B Segregated Portfolio, Verition Partners Master Fund Ltd., and Verition Multi-Strategy Master Fund Ltd. (collectively, the "Petitioners") in the above-captioned appraisal action in the Court of Chancery of the State of Delaware. Counsel for Petitioners has asked me to provide an opinion on the fair value of AOL Inc. ("AOL" or the "Company") as of June 23, 2015 (the "Valuation Date"), the date upon which Verizon Communications Inc. ("Verizon" or the "Acquirer") completed its acquisition of AOL (the "Merger" or the "Acquisition"). This report supersedes my January 11, 2017 expert report.

2. As of the Valuation Date, AOL was a "leading global media technology company…focused on attracting and engaging consumers by creating and offering high quality branded online digital content, products and services and providing valuable advertising services on both [its] owned and operated properties and third-party websites."[1] The Company operated three core segments: AOL platforms ("Platforms"), the brands group ("Brands"), and the membership group ("Membership").

3. AOL and Verizon entered into and announced an Agreement and Plan of Merger (the "Merger Agreement") on May 12, 2015.[2] As contemplated in the Merger Agreement, on May 26, 2015, Verizon commenced a cash tender offer (the "Tender Offer") to purchase all of AOL's outstanding common stock at a price of $50.00 per share (the "Purchase Price") through its wholly-owned direct subsidiary Hanks Acquisition Sub, Inc.[3] On June 23, 2015, following the expiration of the Tender Offer, Verizon announced the completion of the Merger.[4]

4. The Purchase Price represented a 17.4 percent premium relative to $42.59, the closing price of AOL's common stock on May 11, 2015, the last trading

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[1] AOL Inc. Form 10-Q for the Quarterly Period Ended March 31, 2015 (hereafter *AOL Inc. Q1 2015 10-Q*), at 2.
[2] AOL Inc. Form 8-K dated May 12, 2015, at 1.
[3] AOL Inc. Schedule TO filed May 26, 2015 (hereafter, *Schedule TO*), at Exhibit (a)(1)(A).
[4] AOL Inc. Schedule TO Amendment No. 3 dated June 23, 2015, at 2.

date prior to the announcement of the Merger. As of May 26, 2015, there were 78,537,804 shares of AOL common stock outstanding, and an additional 3,053,962 shares reserved for issuance upon settlement of outstanding equity incentive compensation awards.[5] The Acquisition was valued at approximately $4.3 billion.[6]

5. In forming my opinion on the fair value of AOL as of the Valuation Date, I examined a variety of relevant factors, including the transaction price, internal AOL management financial projections, market evidence, opinions of analysts, and standard valuation techniques.

6. Based on my review of the foregoing factors, the fair value of AOL as of the Valuation Date is $68.98. I also find that the analysis in the fairness opinion of AOL's financial advisor, Allen & Company ("Allen & Co.") is unreliable, and not an indicator of AOL's fair value as of the Valuation Date.

7. I explain in the remainder of this report my qualifications, a summary of my opinions and the bases for those opinions, and my conclusions.

II. QUALIFICATIONS

8. I am currently a Visiting Professor of Financial Economics at the California Institute of Technology ("Caltech"). Previously, I was a Professor of Finance and Director of the Bank of America Research Center at the Anderson

[5] *Schedule TO*, at cover.
[6] *Schedule TO*, at cover.

Graduate School of Management at the University of California, Los Angeles for 26 years.

9. I earned a master's degree in Statistics from Stanford University in 1974 and earned my doctorate in Financial Economics from Stanford in 1975. I have served as an editor of numerous journals relating to business and finance and have written more than 100 articles and two books on finance and securities, including *Corporate Valuation: Tools For Effective Appraisal and Decision Making* (1993), published by McGraw-Hill (hereafter *Corporate Valuation*), and *The Equity Risk Premium and the Long-Run Future of the Stock Market* (1999), published by John Wiley and Sons. To complement my academic writing, I have also authored numerous articles for *The Wall Street Journal* and the *Los Angeles Times.*

10. My research has been widely recognized. In 1988, I was cited by the Financial Management Association as one of the ten most prolific authors in the field of finance. I have received prizes and grants for my research from the Chicago Board of Trade, the Chicago Mercantile Exchange, and the Institute for Quantitative Research in Finance. My article, "Corporate Stakeholders and Corporate Finance," received the 1987 Distinguished Applied Research Award from the Financial Management Association. In 1999, I was awarded the I/B/E/S prize for empirical work in finance and accounting (with Wayne Landsman and Jennifer Conrad). Richard Roll and I received a Graham and Dodd Scroll Award in 2006 from the

Financial Analyst Society for our work on delegated agent asset pricing theory. I won this award again in 2011 for my work on economic growth and equity investing. My paper entitled "Luck, Skill, and Investment Performance" in *The Journal of Portfolio Management* won an Outstanding Article prize from the 11th Annual Bernstein Fabozzi/Jacobs Levy Awards. I won this award again in 2015 for my article "Tesla: Anatomy of a Run Up" (with Aswath Damodaran). And my *Corporate Valuation* book has been cited as an authority on valuation by numerous courts including the Delaware Court of Chancery.

11. I have also been active in my profession. I have served as a Vice President of the Western Finance Association. I am also a past director of both the American Finance Association and the Western Finance Association. I have served as an associate editor of numerous professional journals including: *The Journal of Finance*, *The Journal of Futures Markets*, *The Journal of Financial Research,* and *The Journal of International Business Studies*. I have served as a reviewer for nearly a dozen other professional journals.

12. My teaching and writing have focused on a number of different financial and economic issues, many of which are relevant to the subject matter of this report. I currently teach Applied Corporate Finance and Investment Banking at Caltech. Examples of other classes I have taught over the course of my academic career include Corporate Valuation, the Law and Finance of Corporate Acquisitions

and Restructurings, Corporate Financial Theory, and Security Valuation and Investments.

13. In addition to my teaching, writing, and research studies, I serve as Senior Consultant affiliated with Compass Lexecon, an international consulting firm. As a Senior Consultant, I advise business and legal clients on financial economic issues. Prior to December 2011, I served as a Senior Consultant affiliated with Charles River Associates from March 1999 through December 2011. Between 1990 and March 1999, I operated FinEcon, a financial economic consulting company, through which I also advised business and legal clients on financial economic issues.

14. I also operate an investment fund through San Marino Business Partners. The fund specializes in investments in technology companies. It has been in operation since 2009.

15. I have served as a consultant and have given testimony for both plaintiffs and defendants in a variety of securities, regulatory, and commercial lawsuits. During my many years of experience as an expert witness and consultant, I have provided economic analyses and expert testimony (again, for both plaintiffs and defendants) related to valuation, corporate finance, portfolio management, and damages issues. I have been engaged as a damages expert in numerous high-profile cases which revolved around complex financial and securities transactions.

16. My background is described more fully in my curriculum vitae, which is attached hereto as **Exhibit 1**. A list of my publications may also be found in **Exhibit 1**. A list of testimony I have given in deposition or at trial over the past five (5) years may be found in **Exhibit 2**. A list of documents I relied upon in forming my opinions set forth in this report may be found in **Revised Exhibit 3**.

17. In performing my work, I have received assistance from Coherent Economics personnel working under my supervision.[7]

18. I am being compensated at a rate of $1,050 per hour for my work in this matter. Coherent Economics personnel are being paid at their customary rates, ranging from $150 to $755 per hour. Neither my compensation nor Coherent Economics' is contingent on the results of this case or on my opinions.

III. SUMMARY OF OPINIONS

19. I understand that the standard for fair value applied to appraisal cases in Delaware Chancery Court is based upon the standalone value of the target as a going concern, where merger-specific value is excluded. Further, this Court has determined that, when considering the fair value of a target in an appraisal dispute, one "must take into consideration all factors and elements which reasonably might

[7] Coherent Economics is an economic consulting firm specializing in the application of economics to legal, regulatory, and public policy disputes.

enter into the fixing of value," and account for "facts which were known or which could be ascertained as of the date of the merger."[8]

20. To develop my opinions, I reviewed and analyzed production materials including management projections and communications; board presentations by financial advisors including Allen & Company ("Allen & Co."), retained by AOL, and Guggenheim Partners ("Guggenheim"), retained by Verizon; and annual impairment analyses performed by Deloitte Transactions and Business Analytics LLP ("Deloitte"); publicly-available trading and financial data; financial news articles; analyst reports; and AOL's and Verizon's public disclosures and financial statements.

21. I also considered three widely-used valuation techniques: discounted cash flow analysis (the "DCF Approach"), peer companies' analysis ("Peer Multiples Approach"), and precedent transactions analysis ("Precedent Transactions Approach"). After considering the inputs and findings using each of these methods, and as explained further below, I determined that it is appropriate to place a higher weight on implied values using the DCF Approach.

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[8] *In Re: ISN Software Corp. Appraisal Litigation*, C.A. No. 8388-VCG, Letter Opinion of Vice Chancellor Sam Glasscock III, dated August 11, 2016, at 6; *In Re: Appraisal of Ancestry.com, Inc.*, Consolidated C.A. No. 8173-VCG, Memorandum Opinion dated January 30, 2015 (hereafter *Ancestry.com Appraisal Opinion*), at 2, 34-35.

22. Based on my review of the foregoing factors, as well as my expertise, I have reached the following principal conclusions:

- The fair value per share of AOL common stock as of the Valuation Date was $68.98; and
- The valuation analysis provided by Allen & Co. in its fairness opinion is unreliable and underestimates the fair value of AOL.

23. In the following sections, I provide a background on AOL's historical and recent business leading up to the Merger, and explain the bases for my opinions.

IV. BACKGROUND OF AOL INC.

A. AOL from 1985 to 2009

24. AOL was incorporated on May 24, 1985 as Quantum Computer Services, an "…online bulletin board for owners of Commodore 64 computers."[9] In 1989, Quantum Computer Services launched an instant messaging service.[10] In 1991, Quantum Computer Services was renamed America Online.[11] In 1992,

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[9] Rothman, Lily. "A Brief Guide to the Tumultuous 30-Year History of AOL," *TIME*, May 22, 2015, http://time.com/3857628/aol-1985-history/. Accessed Nov. 16, 2016 (hereafter *Brief Guide to the Tumultuous 30-Year History of AOL*).
[10] "Timeline: AOL Through the Years," *CNBC.com*, May 12, 2015, www.cnbc.com/2015/05/12/timeline-aol-through-the-years.html. Accessed Nov. 16, 2016 (hereafter *AOL Timeline*).
[11] *Brief Guide to the Tumultuous 30-Year History of AOL*.

American Online, Inc., which by then offered services including "electronic mail, conferencing, news, sports, weather, stock quotes, software, computing support and online classes" completed an initial public offering of 2.3 million shares at a price of $11.50 per share.[12] In 1993, AOL began mailing CDs to households offering internet service.[13]

25. America Online grew at a rapid pace through the remainder of the 1990s, reporting revenue and net income of $6.89 billion and $1.23 billion for the year ended June 30, 2000,[14] up from revenue and net income of $38.8 million and $3.8 million in 1992.[15] By the year 2000 America Online was the largest internet provider in the United States and had a market capitalization of $125 billion.[16] Of America Online's $6.89 billion in revenue, approximately 70 percent, or $4.4 billion, came from user subscription services, while $1.6 billion was generated by advertising and electronic commerce fees.[17] America Online generated advertising revenue by placing ads on America Online's web-based properties (including,

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[12] "America Online Announces Completion of Initial Public Offering," *PR Newswire*, March 26, 1992. Retrieved Sept. 10, 2016, from Factiva.
[13] *AOL Timeline*.
[14] America Online, Inc. Form 10-K for the Fiscal Year Ended June 30, 2000 (hereafter *America Online Year 2000 10-K*), at 19.
[15] America Online, Inc. Form 10-K for the Fiscal Year Ended June 30, 1996, at 11-12.
[16] *Brief Guide to the Tumultuous 30-Year History of AOL*.
[17] *America Online Year 2000 10-K* at 23, 25.

among others, AOL.com, Moviefone, and MapQuest.com) and subscriber services and viewed continued growth in advertising as a critical component of its business strategy.[18]

26. On January 10, 2000, America Online Inc. and Time Warner Inc. entered into a merger agreement, and on January 11, 2001, following regulatory approval, the merger was completed.[19] As a result of the merger, former America Online Inc. stockholders owned approximately 55 percent of AOL Time Warner, Inc., which combined the largest internet service provider and the largest media company in the United States.[20]

27. By 2006, America Online (which officially changed its name to AOL in April 2006)[21] was facing competitive pressures on several fronts. Broadband internet connectivity was reducing demand for AOL's dial-up internet service; free email services offered by Google, Yahoo, Microsoft, and others were reducing demand for AOL's paid email services; and Google and Yahoo were successfully

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[18] *America Online Year 2000 10-K* at 12.

[19] "AOL, Time Warner Complete Merger After FCC Grants Conditional Approval," *Dow Jones Business News*, January 11, 2001. Retrieved Sept. 10, 2016, from Factiva.

[20] "AOL, Time Warner Complete Merger After FCC Grants Conditional Approval," *Dow Jones Business News*, January 11, 2001. Retrieved Sept. 10, 2016, from Factiva.

[21] "America Online Changes Name to AOL," *The Wall Street Journal*, April 3, 2006, www.wsj.com/articles/SB114407477586115280. Accessed Nov. 16, 2016.

monetizing online advertising.[22] In order to stem the loss of subscribers to AOL's services, AOL announced in August 2006 that it would begin offering its services and software for free to broadband users and would pivot to an advertising-based revenue model.[23] Time Warner reported fiscal year 2006 revenues for AOL of $7.87 billion and operating income of $1.92 billion.[24]

28. On March 12, 2009, Tim Armstrong was named Chairman and CEO of AOL, and was tasked with "…helping Time Warner determine the optimal structure for AOL."[25] Two months later, on May 28, 2009, Time Warner formally announced a spin-off of AOL, stating that:

> AOL will compete as a standalone company – focused on growing its Web brands and services, which currently reach more than 107 million domestic unique visitors a month, as well as its advertising business, which operates the leading online display network that reaches more than 91% of the domestic online

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[22] Annett, Tim. "WSJ.COM/The Afternoon Report: You've Got AOL, For Free," *The Wall Street Journal Online*, August 2, 2006. Retrieved Nov. 16, 2016, from Factiva.

[23] Richmond, Riva. "Time Warner CEO: Strategy Shift To Speed Move To Ad Model," *Dow Jones Newswires*, August 2, 2006. Retrieved Nov. 16, 2016, from Factiva.

[24] Time Warner Inc. Form 10-K for the Fiscal Year Ended December 31, 2006, at 96. After being spun-off in 2009, AOL in 2010 reported 2006 revenue of $7.79 billion, operating income of $1.17 billion, and net income of $749.7 million. *See* AOL Inc. Form 10-K for the Fiscal Year Ended December 31, 2009, at 35.

[25] "Tim Armstrong Named Chairman and CEO of AOL; Former Google Executive to Build AOL's Future and Help Determine Optimal Structure for AOL," *Business Wire*, March 12, 2009. Retrieved Dec. 8, 2016, from Factiva.

> audience. AOL will also continue to operate one of the largest Internet access subscription services in the U.S.[26]

On December 9, 2009, Time Warner completed the spin-off of AOL Inc.[27]

29. From 2006, when AOL began its transition to an advertising based model, to 2010, the year after Tim Armstrong was hired and AOL was spun-off from Time Warner, AOL's financial performance suffered significantly. **Exhibit 4** shows that subscription revenue declined from $5.8 billion to $1.0 billion, while advertising and "other" revenue fell from $2.0 billion to $1.4 billion. EBITDA likewise diminished from $1.9 billion to $710.7 million, as shown in **Exhibit 5**.

B. AOL's performance from 2010 to 2014

30. Between 2010 and the Acquisition, AOL engaged in a series of strategic moves that improved its overall performance and grew revenue and earnings.

31. The AOL Platforms segment (known as the "AOL Networks" segment prior to 2014) experienced revenue growth from, among other things, (i) sales of third party properties through Advertising.com, (ii) increased utilization of the segment by publishers and advertisers, (iii) increased sales of premium packages and products, and (iv) increased sales of premium formats across the programmatic

[26] "Time Warner Inc. Announces Plan to Separate AOL," Time Warner Press Release, May 28, 2009. Retrieved Nov. 16, 2016, from Factiva.
[27] "Time Warner Inc. Completes Spin-off of AOL Inc.," Time Warner Press Release, December 10, 2009. Retrieved Nov. 16, 2016, from Factiva.

platform.[28] The Brands segment experienced growth due to, among other things, increased search revenue and increased global display revenue.[29] The Membership segment revenue, however, continued to decline from the loss of domestic AOL subscribers.[30]

32. A central element of AOL's development during this period involved the acquisition of key components to its programmatic platform. As online advertising and marketing rapidly expanded, AOL invested in its programmatic technology "in order for advertisers and agencies to better manage their advertising campaigns through the use of [AOL's] optimization technology."[31] This strategy included a series of acquisitions, including the following:[32]:

- In 2010, AOL engaged in a series of acquisitions with an aggregate purchase price of $160.6 million, including TechCrunch, StudioNow, Inc., 5 Minutes Ltd., Thing Labs, Inc., Pictela, Inc., and About.me, Inc.

- On January 31, 2011, AOL acquired goviral ApS (now "Be On"), a "company that distributes branded online video for

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[28] AOL Inc. Form 10-K for the Fiscal Year Ended December 31, 2013 (hereafter *AOL Inc. Year 2013 10-K*), at 49.
[29] *AOL Inc. Year 2013 10-K*, at 47.
[30] *AOL Inc. Year 2013 10-K*, at 48.
[31] *AOL Inc. Q1 2015 10-Q*, at 4.
[32] AOL Inc. Form 10-K for the Fiscal Year Ended December 31, 2010, at 85-86 (comprising of the acquisitions of StudioNow, Inc. (for a purchase price of $32.1 million), 5 Minutes Ltd. (for a purchase price of $64.7 million), and other acquisitions including Thing Labs, Inc., TechCrunch, Inc., Pictela, Inc., and About.me Inc. (for a combined aggregate purchase price of $63.8 million); *AOL Inc. Year 2013 10-K*, at 80-82, 84; AOL Inc. Form 10-K for the Fiscal Year Ended December 31, 2014 (hereafter *AOL Inc Year 2014 10-K*), at 2, 85-87, 90.

media agencies, creative agencies and content producers," paying total consideration of $69.1 million.

- On March 4, 2011, AOL acquired The Huffington Post, an "innovative internet source of online news, analysis, commentary, entertainment and community engagement" for total consideration of $295.5 million. AOL disclosed that it expected that the acquisition would "enhance the Company's ability to serve audiences across several platforms."

- AOL completed several acquisitions in 2012 with combined consideration paid of $29.0 million, including a share purchase agreement concerning an additional 3 percent stake in Ad.com Japan.

- On June 15, 2012, AOL completed the sale of approximately 800 patents and a non-exclusive license to AOL's retained patent portfolio to Microsoft Corporation in exchange for net consideration of $1.056 billion in cash.

- On September 5, 2013, AOL acquired Adap.tv, "an online video advertising company whose advertising technology platform provides advertisers and publishers the ability to buy and sell video advertising inventory across desktop, mobile, and connected TV platforms," for a purchase price of $410.6 million.

- AOL completed strategic acquisitions in 2014 that it touted as "important components" to its Platforms segment. On January 23, 2014, AOL completed its acquisition of Project Rover, Inc. (Gravity), "a company that offers multi- screen content optimization and personalization using patented technology that creates interest graphs based on individuals' interests, preferences and habits and that allows publishers to offer a tailored and relevant selection of editorial and advertising content to readers" for a purchase price of $83.2 million. On May 6, 2014, AOL completed its acquisition of Convertro, "a leading multi- touch attribution modeling technology company" for a purchase price of $98.6 million.

> And on December 1, 2014, AOL completed its acquisitions of Vidible, "a programmatic video exchange platform for discovering and distributing video content that will enable licensees and licensors to distribute and monetize video content across all internet- enabled devices" for a purchase price of $55.9 million.

33. AOL's August 13, 2014 convertible notes offering presentation reported that AOL revenue was "growing consistently" and that earnings (adjusted OIBDA) continued to experience growth "driven by a combination of revenue growth and strategic investment with overall expense reduction."[33] This growth was also reflected in AOL's revenue shift toward the Platforms (previously called Networks) segment and away from the Membership segment. In 2010, the Platforms segment contributed 17.7 percent and the Membership segment contributed 52.9 percent of AOL's $2.4 billion annual revenues from its operating segments.[34] The remaining 30.1 percent of revenues were generated by the Brands segment. By 2014, the Platforms segment had grown to contribute 42.8 percent of AOL's $2.5 billion annual revenues from its operating segments, while the Membership segment

[33] AOL Inc., "A Media Technology Company: $300M Convertible Notes Offering," August 13, 2014 (AOL0000465011- 49) (henceforth, *August 2014 Convertible Notes Offering Presentation*), at AOL00465040.
[34] AOL Inc. annual year-end financial data per S&P Capital IQ. Revenue figures include AOL's three operating segments and do not reflect the Corporate segment.

had declined to contribute only 31.3 percent of revenues.[35] The remaining 30.5 percent of total annual revenues were generated by the Brands segment.

34. The offering presentation also shows an annotated stock price chart showing that, between November 2009 and August 2014, AOL's stock price outperformed the S&P 500 Index and MS Internet Index.[36] Notably, the annotations on the chart correspond to selected AOL earnings announcements and strategic acquisitions, including those listed above.

35. Likewise, **Exhibit 6** shows that AOL underperformed relative to the market (measured by the S&P 400 Mid-Cap Index and the S&P 500 Index) after its 2009 spinoff from Time Warner through the first half of 2011. In fact, AOL's stock price experienced a total return of -56.5 percent by the time it reached the trough of its descent on October 10, 2011. But the exhibit also shows that AOL's stock price recovered thereafter and overperformed relative to the market.

36. The series of strategic actions, including its acquisitions from 2010 through 2014, meaningfully contributed to AOL's improved financial performance.

[35] AOL Inc. annual year-end financial data per S&P Capital IQ. Revenue figures include AOL's three operating segments and do not reflect the Corporate segment.
[36] *August 2014 Convertible Notes Offering Presentation*, at AOL00465043.

C. Outlook for AOL as of the Valuation Date

37. As I show in the following subsections, AOL's three segments varied in the expectation of their future growth and prospects as of the Valuation Date. Nonetheless, in a January 7, 2015 interview on CNBC, Tim Armstrong responded to inquiries of takeover rumors that "AOL has a killer strategy for the future."[37] At a March 10, 2015 Deutsche Bank Media, Internet and Telecom Conference, Armstrong also said that:

> I'm of the fundamental belief that if we take the first half of this year to continue to get our platform products right, we get the brand products correctly done, and we continue to focus on AOL core and make it decline less, we will be in a really good position in the second half of '15 and '16 and '17 and '18 to take advantage of what I would say are fairly epic platform shifts happening in media overall.[38]

These public statements suggest an optimism of what was achievable by AOL as a standalone entity in the near future.

1. The Membership Segment

38. AOL's Membership group is comprised of communication products (such as AOL Mail) and services (such as AOL Search) to registered account

[37] Tim Armstrong, CNBC, "Squawk on the Street," http://www.cnbc.com/2015/01/07/aol-ceo-armstrong-dismisses-merger-takeover-rumors.html (video clip).
[38] "AOL Inc. Company Conference Presentation," March 10, 2015, at 5.

holders.[39] AOL generates revenue on paid services and through advertising fees targeted at their registered account holders. These advertising revenues are generated through display and search advertising.[40]

39. AOL and parties valuing AOL had different views about the prospects for Membership.

40. During AOL's earnings call discussing results for the first quarter of 2015 held on May 8, 2015, Karen Dykstra stated that Membership continued to experience declining revenues based on fewer subscribers, but that AOL "continue[s] to explore additional means of driving future growth."[41]

41. On the other hand, Guggenheim, one of Verizon's financial advisors in the Merger, concluded in a May 1, 2015 valuation presentation that: "Hanks' Core/Membership segment is already in a stage of steady long-term decline, but its

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[39] *AOL Inc. Q1 2015 10-Q* at 3.
[40] *AOL Inc. Q1 2015 10-Q* at 3.
[41] AOL Inc. FQ1 2015 Earnings Call Transcripts, May 8, 2015 (hereafter *AOL Inc. FQ1 2015 Earnings Call*), at 7 (stating that: "[w]e continue to see solid trends as Membership Group revenues declined 7%, remained constant with last quarter on 11% fewer subscribers. Churn declined year-over-year to 1.4% and ARPU grew 7% year-over-year. Membership adjusted OIBDA declined by 8%, primarily reflecting the revenue decline I just mentioned as well as the expenses associated with R&D. We had previously said that declining less is not our long-term goal, and we continue to explore additional means of driving future growth. Some of this investment impacted margins this quarter, although we still expect margins for the year to remain in the low 70% range.").

Platforms and Brands segments will not have reached steady state revenue growth rates and margins by the end of the projection horizon in 2018."[42]

2. The Brands Segment

42. AOL's Brands segment consists of its "portfolio of distinct and unique content brands as well as certain service brands."[43] These Brands websites include the Huffington Post, TechCrunch and MapQuest, as well as "co-branded websites [that are] owned or operated by third parties."[44] AOL generates advertising revenues in the Brands segment "primarily through display advertising (which includes video advertising) and search advertising."[45] Display advertising includes the "display of graphical advertisements and other performance-based advertising" on Brands sites.[46]

43. AOL's then-Chief Financial Officer Karen Dykstra expressed high expectations for Brands, stating in May 2015 that the Brands segment OIBDA margins increased to 7% "despite the increase in investment in video production across our owned and operated properties during the quarter" and that "[l]ong-term,

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[42] Guggenheim presentation titled "Project Hanks Preliminary Thoughts on Valuation" May 1, 2015 (VZ-0007847-928) (hereafter, *Guggenheim May Valuation*) at 1.
[43] *AOL Inc. Q1 2015 10-Q* at 3.
[44] *AOL Inc. Q1 2015 10-Q* at 3.
[45] *AOL Inc. Q1 2015 10-Q* at 3.
[46] *AOL Inc. Q1 2015 10-Q* at 3

we believe we can and should be operating this business with consistent margins of approximately 20%."[47] During her deposition, Karen Dykstra testified that she considered Brands to be a growth business.[48]

3. The Platforms Segment

44. AOL's Platforms segment "consists of interconnected programmatic (automated) and premium advertising offerings and technologies that advertisers and publishers use to reach consumers across all devices."[49] Platforms features "end-to-end open programmatic buying experience[s]" to advertisers and publishers "by providing access to Third Party Properties and AOL Properties, ad serving, content personalization, targeting, attribution and cross-channel analytics."[50]

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[47] *AOL Inc. FQ1 2015 Earnings Call* at 6 (stating that: "Brand Group OIBDA increased by $11 million year-over-year, driven by growth in Search revenue and the significant overall cost savings from the reorganization we began in Q1. Margin expansion is a key callout for the segment for the quarter, rising to 7% and highlighting both the incremental high margins of the group and the potential for further margin expansion once display revenue returns to stable growth. I'm particularly encouraged by the fact that margin expansion came despite the increase in investment in video production across our owned and operated properties during the quarter. As we think about the remainder of the year, we expect Brand Group margins to be in the mid-single digits for the next two quarters, reflecting the impacts on display revenue from the sales reorg before rebounding to low double digits for the fourth quarter. Long-term, we believe we can and should be operating this business with consistent margins of approximately 20%.").

[48] Deposition of Karen E. Dykstra, August 30, 2016 (hereafter *Dykstra Deposition*), at 34.

[49] *AOL Inc. Q1 2015 10-Q* at 4.

[50] *AOL Inc. Q1 2015 10-Q* at 4.

45. In April 2015, AOL launched an initiative called "ONE by AOL," which it describes as a "single, unified enterprise-level platform" that integrates its "data, attribution, and…buying platforms to provide advertisers with predictive analytics."[51] Considered a product aimed at competing with Google and Facebook, AOL's initial clients of ONE included Bank of America, General Motors, and Verizon.[52]

46. AOL's Platforms segment primarily generates revenue through "the sale of advertising on third party websites and from advertising inventory on AOL Properties not sold directly to advertisers."[53] Platforms also earns revenues from "fees generated from publishers and advertisers using Adap.tv's platform technology and features," and "from licensing Convertro's attribution modeling technology."[54] With respect to the business prospects of the segment, AOL reported in May 2015 that:

> The online display advertising market has experienced a rapid and significant increase in programmatic buying of advertising inventory…We believe there is a significant opportunity to attract advertisers through the increased sale of premium formats, including video, through AOL Platforms. We believe

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[51] *AOL Inc. Q1 2015 10-Q* at 4.

[52] Gelles, David. "Verizon Bets on Video Ads in $4 Billion Deal for AOL," NYT Dealbook, May 12, 2015, www.nytimes.com/2015/05/13/business/dealbook/verizon-to-buy-aol-for-4-4-billion.html. Accessed Nov. 16, 2016.

[53] *AOL Inc. Q1 2015 10-Q* at 4.

[54] *AOL Inc. Q1 2015 10-Q* at 4.

> our scale, ability to target premium audiences and investments in technology and premium formats will allow us to increase the number of advertisers we work with and enable us to capitalize on the increase in programmatic buying. We believe our investments in premium formats and targeting will enable us to maximize yield for our advertisers.[55]

47. In line with these prospects, AOL's senior management expressed high expectations for growth in its Platforms business. In AOL's February 11, 2015 earnings call concerning results for the fourth quarter of 2014, Karen Dykstra explained that "2014 was a transformational year for the group which grew 20% year-over-year for the fourth quarter, which was driven by strong growth across all programmatic offerings including Adap.tv, AOP and MARKETPLACE."[56]

48. During the same earnings call, Tim Armstrong told investors that "basically we believe long-term the platform business is going to be a significant growth driver for the company" and that "the most important thing is, is [sic] AOL have the capabilities and the systems to compete in growth markets on the Platform business going forward? The answer is definitively yes. And I think you'll see at the second half of '15 and certainly in '16 and '17 a much different growth trajectory and profitable trajectory out of that business."[57]

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[55] *AOL Inc. Q1 2015 10-Q* at 4.
[56] AOL Inc. FQ4 2014 Earnings Call Transcripts, February 11, 2015 (hereafter *AOL Inc. FQ4 2014 Earnings Call*), at 6.
[57] *AOL Inc. FQ4 2014 Earnings Call* at 10.

49. AOL's senior management described another "strong quarter for AOL" in AOL's May 2015 earnings conference concerning results for the first quarter 2015. With respect to the Platforms segment, Karen Dykstra stated that "I see the signs where we have clear plans and I think that we are executing against our plans to get to the double-digit margin in the Platforms business."[58] Tim Armstrong emphasized that "we're really trying to position ourselves and really building towards being 1 of the top 3 in this area [platforms]."[59]

50. AOL's expectations concerning rapid growth in programmatic advertising are consistent with those expressed in the financial press. For example, Business Insider reported in a May 29, 2015 article that "[s]pending on programmatic advertising is growing quickly, at ~20% annually" and that real-time bidding was projected "to move from a 31 percent share of total U.S. digital advertising revenue in 2015 to 48 percent in 2020."[60]

51. During her deposition, Karen Dykstra testified that she considered Platforms a growth business and that she expected "the platform programmatic

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[58] *AOL Inc. FQ1 2015 Earnings Call* at 15.
[59] *AOL Inc. FQ1 2015 Earnings Call* at 15-16.
[60] May 29, 2015, *Business Insider*, "The Programmatic Advertising Report: Mobile, video, and real-time bidding drive growth in programmatic," accessed at http://www.businessinsider.com/buyers-and-sellers-have-overwhelmingly-adopted-programmatic-with-mobile-leading-growth-2015-3

revenue and the platforms growth to continue."[61] AOL Board Member Fredric G. Reynolds also testified during his deposition that AOL's strategy was "to grow and become a significant player in the programmatic advertising business" and that he believed programmatic advertising was a growth opportunity "because it was a nascent industry."[62]

D. AOL's M&A Activity

52. Consistent with its recent history of acquisitions, AOL prioritized merger and acquisition ("M&A") activity as a key part of AOL's strategy prior to and as of the Valuation Date. For 2015, management expected its cash funding needs for M&A activity to range between $200 million and $1 billion.[63] AOL also maintained long-term projections both including and excluding M&A activity through the Platforms segment.[64]

53. Moreover, AOL was in advanced negotiations to complete key transactions prior to closing the Merger that were part of AOL's standalone growth strategy: deals involving Millennial Media Inc. ("Millennial Media") and Microsoft Corp. ("Microsoft"). In fact, AOL's final approval memo concerning Millennial

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[61] *Dykstra Deposition* at 34 and 69.
[62] Deposition of Fredric G. Reynolds, October 27, 2016, at 34.
[63] AOL Board of Directors Meeting Materials, February 27, 2015 (AOL00002429) at 459, 463.
[64] *See*, for example, V22.1 M&A Adjusted (AOL00277900) at tabs "Consolidated no M&A" and "Consolidated with M&A".

Media documents its view that the acquisition of Millennial Media was critical to its mobile scale needs and that AOL planned to complete the acquisition of Millennial Media regardless of the outcome of its merger plans with Verizon.[65]

54. In an October 23, 2014 presentation to the Board of Directors, AOL stated that its 2015 strategy was to "transform AOL into a video, mobile, and programmatic platform company."[66] Among other competitive moves it contemplated to achieve this strategy, AOL pursued the acquisition of companies like Millennial Media, a "mobile advertising marketplace delivering products and services to advertisers and developers." The goal of Millennial Media's products and services is to "help developers and advertisers remove the complexity from mobile advertising"[67] and "build end-to-end 'high ground' advantage with acceleration of ONE by AOL for advertisers."[68]

55. In a January 29, 2015 presentation to AOL's Board of Directors, Allen & Co. explained that AOL had "developed a scale tech stack, but has areas to complete its end-to-end solution," including building a mobile programmatic

[65] Memorandum re: Agreement and Plan of Merger between Millennial Media, Inc. and AOL Inc., August 25, 2015 (AOL00304862), at 1-2.
[66] AOL Board of Directors Meeting Materials, October 23, 2014 (AOL00001567) at 587.
[67] Millennial Media, Inc. Form 10-K for the Fiscal Year Ended December 31, 2014, at 5.
[68] AOL Board of Directors Meeting Materials, October 23, 2014 (AOL00001567) at 684.

technology. Allen & Co. further explained that while internal development was scheduled to continue, value creation could be accelerated through M&A.[69]

56. In a February 27, 2015 presentation, AOL characterized the deal as a "potential acquisition of end-to-end mobile programmatic ad stack" with Millennial Media representing "the only major scaled mobile scaled player to significantly increase mobile inventory for AOLP [AOL Platforms]."[70]

57. In a March 29, 2015 presentation to the Board, AOL stated it had retained Goldman Sachs as its financial advisor for a transaction involving Millennial Media, that it was "[finalizing its] acquisition business and valuation" and that it would "[m]ake a go/no go decision and determine transaction structure and proposal."[71]

58. In an internal presentation dated June 10, 2015, AOL explained it had "received approval from Verizon to engage with [Millennial Media] for confirmatory due diligence to be in position to execute a definitive agreement in mid-July post the closing of the AOL/Verizon transaction."[72]

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[69] Allen & Company Presentation, "AOL Board Discussion Materials," January 29, 2015 (AOL00191667), at 7-8.

[70] AOL presentation, "AOL Inc. Strategic Priorities & Deal Landscape," February 27, 2015 (AOL00122114) (hereafter *AOL00122114*), at 10.

[71] AOL presentation, "AOL Inc. Strategic Priorities & Deal Landscape," March 29, 2015 (AOL00002625) (hereafter *AOL00002625*), at 3, 7.

[72] AOL presentation, "Project MARS Kick-Off Meeting," June 10, 2015 (AOL00159738), at 2.

59. On September 3, 2015, Millennial Media entered into a merger agreement with AOL commencing a "tender offer to purchase all of the outstanding shares of [Millennial Media's] common stock... at a price of $1.75 per share" or approximately $280.7 million. AOL completed the acquisition of Millennial Media on October 23, 2015.[73] AOL Platforms President Bob Lord stated in the press release announcing the deal that the "acquisition of Millennial Media accelerates [AOL's] competitive mobile offering in ONE by AOL and enhances [AOL's] current publisher offering with an 'all in' monetization platform for app developers."[74]

60. When the deal closed on October 23, 2015, AOL explained that the acquisition: "Solidifies ONE by AOL as the Premier Open and Mobile-First Programmatic Platform in the Market and Enhances AOL's Suite of Publisher Offerings with Leading Monetization Platform for App Developers."[75] Bob Lord reported that the acquisition "boosts our global, mobile capabilities and scale across ONE by AOL for advertisers and agencies, and offers the most attractive monetization platform for app developers."[76] AOL also disclosed that nine executives from Millennial Media were taking "leadership and integral roles" in the

[73] Millennial Media, Inc. Form 8-K filed on October 23, 2015, at 2-3.
[74] Millennial Media, Inc. Form 8-K filed on September 3, 2015, Exhibit 99.1.
[75] "AOL Completes Acquisition of Millennial Media," AOL Press Release, Oct. 23, 2015. Retrieved Nov. 16, 2016, from Factiva (hereafter *AOL Press Release, Oct. 23, 2015*).
[76] *AOL Press Release, Oct. 23, 2015.*

Platforms segment in technology, sales, product and operations.[77] Tim Armstrong sent an email to the (by then disbanded) AOL board of directors informing them that the deal had closed and thanking them for approving the transaction, which he described as a "big deal."[78]

61. In addition to Millennial Media, on June 29, 2015, just six days following the closing of the Merger, AOL and Microsoft announced "a global, enterprise-level partnership where AOL will assume management and sales responsibility for all of Microsoft's display, mobile and video advertising inventory in nine key global markets" and that "AOL will represent inventory from across Microsoft's suite of leading online brands, including MSN Homepage and verticals, Outlook Mail, Xbox, Skype and ads in apps."[79] The announcement disclosed that the partnership included a 10-year "global search and search advertising agreement between AOL and Microsoft" with AOL transitioning to a "Bing-powered search solution beginning January 1, 2016."[80] Prior to the global search agreement with

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[77] *AOL Press Release, Oct. 23, 2015.*
[78] E-mail from Tim Armstrong (AOL) to Frederic Reynolds, James Stengel, Patricia Mitchell, Alberto Ibarguren, Rick Dalzell, Hugh Johnston, Dawn Lepore, Eve Burton, Julie Jacobs; Karen Dykstra (AOL), and David Bell, September 3, 2015 (AOL00348775).
[79] "AOL and Microsoft Expand Global Enterprise-Level Partnership" AOL News Release, June 29, 2015, http://corp.aol.com/news/aol-and-microsoft-expand-global-enterprise-level-partnership. Accessed on September 3, 2016 (hereafter *AOL News Release, June 29, 2015*).
[80] *AOL News Release, June 29, 2015*.

Microsoft, Google was the "exclusive web search and search-based advertising provider for AOL Properties, based on [the] agreement that runs through December 31, 2015."[81]

62. The deal between AOL and Microsoft had been contemplated well in advance of the Acquisition.

63. In a presentation dated February 27, 2015, AOL characterized the deal as an "opportunity to purchase Microsoft's global portal business (MSN) as well as enter into a long-term commercial deal to monetize MSFT's other advertising inventory (i.e. Skype, Outlook, Xbox)."[82]

64. In a March 29, 2015, presentation to the Board, AOL management informed the Board that completed terms for the Microsoft Display deal were targeted for mid-April 2015 but that a deal announcement was "to occur by mid-June or earlier." AOL management also told the Board that the "signing of [the] search deal with [Microsoft] would be a condition to the deal going through."[83]

65. In an internal memo dated April 11, 2015, AOL CEO Tim Armstrong explained that:

> the [Microsoft Display] deal also continues to progress and it is an operational deal fro [sic] search and display. Regardless of the [Verizon] outcome, [Microsoft Display] is a deal we would like to do and is a non-transaction based deal. We do not have papered

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[81] *AOL Inc Year 2014 10-K* at 10.
[82] *AOL00122114* at 9.
[83] *AOL00002625* at 3, 6.

> terms or definitive documents done on [Microsoft Display], but we will move to that stage shortly. The value of that this deal has been modeled, but it is a fill in for the search changes we will see in 2016 – and may not add additional profits to AOL unless the risks can be removed.[84]

66. Subsequently, in a May 14, 2015, e-mail, AOL's Timothy Lemmon stated that AOL was "on final approach for landing of a whole squadron of planes on the AOL Carrier during the 5 day period May 27 - June 1… Maple [Microsoft Display] deal 5-27 (no announcement)… Search deal 5-27 (no announcement)."[85] Thus, it appears the Microsoft Display deal was in an advanced stage, and effectively completed, prior to the Valuation Date.

67. To sum, the Millennial Media and Microsoft Display deals were expected to have a material impact on AOL's financial performance. The transactions were at an advanced stage – or effectively completed – as of the Valuation Date, and the economic impact of their additions must reasonably be considered as part of an appraisal of AOL as a going concern as-of the Valuation Date.

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[84] Memo from Tim Armstrong (AOL), April 11, 2015 (AOL00191571).
[85] E-mail from Timothy Lemmon (AOL), May 14, 2015 (AOL00210850).

V. THE FAIR VALUE OF A SHARE OF AOL COMMON STOCK AS OF THE VALUATION DATE WAS $68.98

68. I consider the DCF Approach, the Peer Multiples Approach, and Precedent Transactions Approach in determining the fair value of AOL as of the Valuation Date. In this section, I describe each of these valuation methods, the reasons why these approaches can or cannot be applied when valuing AOL, the inputs that I applied to each method (and the rationale for those inputs), and the implied values for AOL resulting from the application of these methods.

A. DCF Approach

69. The DCF Approach is based on the widely-accepted principle that a company is worth its expected future cash flows discounted to the present.[86] In other words, the value of a company today is based on its ability to generate future income.

70. This approach has three primary components: (1) expected future cash flows over a discrete projection period, (2) a discount rate, and (3) a terminal value.

71. The discount rate reflects the riskiness of the company in achieving the expected future income as well as the time value of money. Practitioners, investment

[86] One textbook describes it as follows: "The enterprise DCF model discounts free cash flow, meaning the cash flow available to all investors—equity holders, debt holders, and any other nonequity investors—at the weighted average cost of capital, meaning the blended cost for all investor capital. The claims on cash flow of debt holders and other nonequity investors are subtracted from enterprise value to determine equity holders' value." Tim Koller, Marc Goedhart, and David Wessels, *Valuation: Measuring and Managing the Value of Companies*, 5th ed., (Hoboken, NJ: John Wiley & Sons, 2010) at 102 (footnote omitted).

banks, and companies routinely compute the discount rate using the formula for an entity's weighted average cost of capital ("WACC"). The WACC is weighted by the firm's capital structure components: equity, debt, and (if applicable) any preferred stock. It weights the riskiness of each of a company's capital components based on the company's capital structure. For example, if the enterprise value of a company is comprised of 50 percent equity and 50 percent debt, and its cost of equity equals 12 percent and its (after-tax) cost of debt equals 9 percent, then that firm's WACC is equal to 10.5 percent (= (50 percent x 12 percent) + (50 percent x 9 percent)).

72. Determining a firm's cost of equity and cost of debt typically requires estimating both based on the key features of the firm's equity and debt, and those of its peers. In the sections that follow, I describe the inputs that go into my DCF model in detail and set forth my estimated range for AOL's fair value as of the Valuation Date.

1. Free Cash Flow Projections

73. The proposition that managers know more about the operations and value of the companies than investors lies at the core of modern corporate finance. Originally developed in classic articles by Jensen and Meckling (1976), Myers (1977) and Myers and Majluf (1984), the view that there is asymmetric information between managers and investors has been developed and tested in hundreds of

articles and found its way into the leading textbooks in the field.[87] For example, Brealey, Myers and Allen (2014) state that:

> Managers obviously know more than investors. We can prove that by observing stock price changes caused by announcements by managers. For example, when a company announces an increased regular dividend, stock price typically rises, because investors interpret the increase as a sign of management's confidence in future earnings.[88]

74. In the case of AOL, management's insider knowledge was particularly important because the market was not yet fully aware of all of AOL's initiatives. For example, AOL was finalizing strategic transactions with Millennial Media and Microsoft Display before, during and after it disclosed the Acquisition, but did not disclose these transactions until after completion of the Acquisition.

75. During the years 2014 and 2015, AOL's management prepared and updated four-year long-term plans ("LTP") that included annual segment-level projections for total revenue, total expenses, and adjusted operating income before

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[87] *See*, Jensen, Michael C. and William H. Meckling. "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure." *Journal of Financial Economics* 3 (1976) 305-360; Myers, Stewart C. "Determinants of Corporate Borrowing." *Journal of Financial Economics* 5 (1977): 147-175; and Myers, Stewart C. and Nicholas S. Majluf, "Corporate Financing and Investment Decisions when Firms have Information that Investors do not have," *Journal of Financial Economics* 13 (1984) 187-221.

[88] Richard A. Brealey, Stewart C. Myers, and Franklin Allen, *Principles of Corporate Finance*, 11th Ed. (McGraw-Hill Irwin, 2014) at 467.

depreciation and amortization ("AOIBDA").[89] These segment-level LTP projections are comprised of AOL's individual business level revenue, margin, and AOIBDA projections, as well as segment-level expense items.[90]

76. I sought out the most contemporaneous management projections as of the Valuation Date. I reviewed numerous versions of AOL's LTP projections. Typically, the projections used by a target's financial advisors reflect the most updated version of management's projections available at the time of a transaction. However, the production documents that I have reviewed indicate that Allen & Co. used a set of LTP projections in its Fairness Opinion that AOL management described as outdated. Moreover, the projections used by Allen & Co. differ from those that were supplied to, and used by, Verizon's financial advisors. I therefore had to use the evidence in the production to independently determine what version

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[89] See, e.g. V22 M&A Adjusted – TH (AOL00338395) (hereafter *AOL00338395*). AOL's LTP AOIBDA projections match Allen & Co.'s EBITDA projections. AOL also defines in the LTPs free cash flows as cash paid for interest, plus other income/expense, minus restructuring payments, minus working capital timing, minus Google prepayment, minus product development costs, minus principal payments on capital leases and fixed assets, minus cash paid for taxes. Because this definition includes items such as cash paid for interest and principal payments on capital leases and fixed assets, the cash flows calculated by AOL are *levered* free cash flows. *Unlevered* free cash flows, which do not include the impact of leverage, are used in the DCF Approach.

[90] *See*, *e.g.*, *AOL00338395* at tabs "I.B.1 AOL CORE LTP," "I.B.2 iBRANDs," and "I.B.3 AOL Platforms."

of AOL's LTP projections were the most reliable indicator of AOL's prospects as of the Valuation Date.

77. Documents produced in discovery show that Allen & Co. considered a series of AOL projections from at least March 2014 through the Valuation Date. In the months leading up to the Acquisition – in particular, during the period April 13, 2015 through May 11, 2015 (the date of Allen & Co.'s Fairness Opinion) – Allen & Co. considered a series of AOL projections. Throughout this period, production materials show Allen & Co. using AOL revenue and EBITDA projections for the years 2015 through 2018 that are constant across different updates to the AOL LTP projections. *See* **Exhibits 7-1** and **7-2**. However, the same materials also show Allen & Co. using a range of projections for other key metrics that affect free cash flow: namely, (i) depreciation & amortization, (ii) stock-based compensation ("SBC"), (iii) capital expenditures, and (iv) change in working capital. **Exhibits 7-1** through **7-6** compare the projected values for these metrics used in various Allen & Co. materials, with differences in projected values for certain metrics – except for revenue and EBITDA.

78. Typically, one would expect Allen & Co.'s analysis to evolve over time such that it ultimately incorporated the most-updated versions of management projections into its Fairness Opinion. Allen & Co. apparently did not do so in this case; instead, it seemingly used outdated projections for key metrics.

a) Depreciation & Amortization

79. **Exhibit 7-3** shows the projections that Allen & Co. used for depreciation & amortization in its analyses prior to and in its Fairness Opinion. AOL's projections for depreciation & amortization do not vary significantly across versions of the LTP: the largest deviation occurs in the version provided to Verizon, which shows higher depreciation & amortization in the near term.

b) Stock-Based Compensation

80. **Exhibit 7-4** shows the projections that Allen & Co. used for stock-based compensation in its analyses prior to and in its Fairness Opinion. The exhibit summarizes "Old" projections based on a "Previous LRP" and "Improved CF" projections reflecting updated stock-based compensation forecasts. Allen & Co. used the "Old" stock-based compensation projections in their Fairness Opinion Presentation to AOL's Board. The exhibit also shows management's projections for stock-based compensation in its sum-of-the-parts ("SOTP") analyses, which I incorporate into my own sum-of-the-parts analysis. **Exhibit 7-4** compares management's projections for stock-based compensation used by Allen & Co. (based on the "Old" projections), Verizon (based on "Improved CF" projections), and myself (based on management's sum-of-the-parts projections).

c) **Capital Expenditures**

81. **Exhibit 7-5** shows the projections that Allen & Co. used for capital expenditures in its analyses prior to and in its Fairness Opinion. The projections of capital expenditures used by Allen & Co. in its Fairness Opinion exceed those from management's updated projections and those provided to Verizon. The capital expenditures that I use are similar to those used by Verizon, and are based upon the "updated" projections that were provided to Allen & Co. *See* **Exhibit 7-5**.

d) **Change in Working Capital**

82. Email communications between AOL members of management dated April 20, 2015, describe change in working capital projections that were formed "in a vacuum" and are "stale," whereas updated projections are "a better estimate of future working capital needs."[91] Yet Allen & Co.'s Fairness Opinion includes the older, "stale" change in working capital projections. Because the outdated projections imply lower free cash flow projections, Allen & Co.'s findings concerning AOL's value *understate* the value that Allen & Co. would have found had it used the most updated version of AOL's projections. The last available projections that I identified in the production materials are a set of AOL LTP

[91] Email from Vijay Kori (AOL) to Mike Nolan (AOL), et al., April 20, 2015 (AOL00221212-214) (hereafter *AOL00221212*).

projections that were updated on or around April 20, 2015.[92] Communications from AOL to Allen & Co. indicate that these LTP projections include updated working capital requirements figures that "were created by our Controller, FP&A [Financial Planning & Analysis], and the CFOs of the segments to factor in our current payable and receivable cycles so is a better estimate of future working capital needs."[93] AOL also provided these projections to Verizon, purportedly to replace outdated projections.[94] With respect to AOL providing information such as the updated projections to Verizon, Tim Armstrong cautioned his team on April 23, 2015 to be:

> really careful that the data going over to [Verizon] is highly organized and is not point solution focused. Based on some of the data like working capital and tax, [Verizon] may struggle to correctly understand how our business works and what the velocity / story is. To be super direct, we should not let [Verizon] find pieces of data – they should find us providing full context and progress. Can't stress this enough. No one-offs and make sure internal AOL transparency is very high and communication is flowing. Measure twice / cut once.[95]

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[92] ALLEN_00030067 (03 14 2015 v12b - Backup 05 10 2015 @ 154am).xlsx (hereafter *Allen 05-10-15 Backup Workbook*) at tabs "Forecast" and "SOTP – DCF."

[93] *AOL00221212*. *See also* a comparison of the "previous" and "updated" Net Working Capital figures circulated by Matthew Malagari (Allen & Co.) in an e-mail to Michael Nolan (AOL), et al., April 20, 2015 (AOL00221227-37 and AOL00221238).

[94] Series of e-mails between Matthew Malagari (Allen & Co.) and Michael Nolan (AOL), Tom Lee (AOL), Nicholas Bellomo (AOL), Mark Roszkowski (AOL), Vijay Kori (AOL); Omar Isani (Allen & Co.), AJ Sanna (Allen & Co.) re: Updated Cash Flow Items Discussion, April 18-20, 2015 (AOL00276974-81).

[95] E-mail from Tim Armstrong (AOL) to Christopher Kane (AOL), et al., April 23, 2015 (AOL00211247).

As I describe further below in Section VI, Allen & Co. was provided with these updated projections, but instead used an earlier set of projections when considering the value of AOL in the final version of their Fairness Opinion.

e) Deriving Free Cash Flows

83. An Allen & Co. analysis dated May 10, 2015 includes segment-level projections that incorporate the updates in working capital requirements discussed above and other minor adjustments contained therein. Because these are the latest management-approved LTP projections that have been produced and provided to me, I use them as a foundation for projected cash flows in the DCF Approach.[96] As I explain below in Section VI, however, these are not the projections that Allen & Co. used in their final Fairness Opinion.

84. Having studied the differences in expected growth trajectories, margins and risk profiles of AOL's segments, and given the availability of up-to-date, segment-level long-term projections, I believe it appropriate to use segment-level projections when modeling the value of the whole Company. This is not a novel approach: Verizon's advisor, Guggenheim, also considered AOL's value using segment-level projections.[97]

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[96] However, these are not the projections ultimately used in the Allen & Co. Fairness Opinion. Instead, Allen & Co. used a prior set of projections, which appear to have been outdated. It is not appropriate to value AOL using outdated projections.

[97] *Guggenheim May Valuation* at 1 and 27-41.

85. Other parties valuing AOL had previously relied upon management projections. For example, Deloitte relied on "the LTP (Operational Management LTP reflecting $537 million in 2015 AOIBDA)" for 2015-2018 which was "approved by AOL management and reviewed with the board in December 2014 and January 2015."[98] Additionally, three financial advisors retained by Verizon – Guggenheim, LionTree, and KPMG – relied on AOL's management projections dated April 24, 2015.[99]

86. However, to obtain net available cash flow projections to be discounted to June 23, 2015, certain adjustments need to be made to the LTP projections, including: (i) adding expected cash flows from Millennial Media and Microsoft Display, (ii) extending the projections through 2025, and (iii) computing net available cash flow projections based on those inputs. I explain those adjustments below.

87. By the time of the Valuation Date, the Millennial Media and Microsoft Display transactions were in advanced stages toward completion and were therefore

[98] Memo from Melissa Frank (AOL) and Celia Linkow (AOL) to Accounting Policy Files, February 7, 2015, "AOL Inc. 4Q14-011 Q42014 Goodwill Impairment Analysis" (AOL00345384) (hereafter *Goodwill Impairment Analysis*) at 4.

[99] *Guggenheim May Valuation* at 27-41, LionTree May 9, 2015 Workbook (LIONTREE-AOL0014658 at tab "Hanks Projections per Mngmt"), and KPMG Draft Report, "Verizon Communications Inc., Valuation of Certain Assets and Liabilities in Connection with Project Hanks," September 1, 2015 (AOL00346180), at Schedule 4.

relevant to AOL's value as a going concern. The impact of these transactions should be incorporated into the projections to appropriately capture AOL's future value prospects as of the Valuation Date. Further, because these two transactions had not been announced prior to the closing of the Merger (but were known within AOL), the market had not had the opportunity to account for the effects of the transactions and AOL's price therefore did not reflect that information.

88. By adding the cash flows from Millennial Media and Microsoft Display to the most up to date LTP projections, these cash flows better reflect AOL's prospects as of the Valuation Date. **Exhibit 8** contains detailed projections for Platforms with and without Millennial Media and Microsoft Display to illustrate the impact of these transactions on the Platforms segment. The Millennial Media synergized projections, contained in Goldman Sachs' June 2015 Project Mars Model, extend through year-end 2019. The Microsoft Display projections, contained in a June 2015 AOL internal model, extend through 2024.[100] As the exhibit shows, these transactions have an immediate, significant impact on AOL Platforms' revenues: revenues increase by more than 40 percent for the years 2016 through

[100] Goldman Sachs "Project Mars Model" workbook (AOL00160436) (hereafter, *Goldman Sachs June Mars Model*) at tabs "Mars SbS" and "FCF Bridge" attached to an e-mail from Vijay Kori (AOL) to Nicholas Bellomo (AOL) re: Mars Business / Financial Diligence, June 15, 2015 (AOL00160435). Maple internal model (AOL00133460 at tab "DCF") attached to an e-mail by Nicholas Bellomo (AOL) to Michael Nolan (AOL) re: maple & mars, June 20, 2015 (AOL00133459).

2018. While the initial impact on EBITDA is slightly negative, the incremental estimated positive impact on AOL Platforms EBITDA is between 20 percent and 50 percent for the years 2016 through 2018.

89. When considering an appropriate explicit cash flow period, the key issue is the time it will take for the company to reach a steady state (or equilibrium state). Sometimes this corresponds to the explicit forecast period used in management projections, but this is not always so. AOL's LTPs contain a four-year period of explicit forecasts, but two of its three operating segments were on growth trajectories that imply that AOL would not reach a steady state by the end of the four-year explicit forecast period. (For example, management projected that the Platforms segment would experience double-digit revenue growth for each of those four years.) As I discussed in my book, *Corporate Valuation*, one need not abandon the DCF Approach when the explicit forecasts end before the company reaches steady state (as is often the case with recent start-ups and high-technology firms). Rather, "individual cash flows are forecast up to an equilibrium point where the cash flow growth becomes predictable though not necessarily constant. That predictability is then used to forecast the trend in cash flow without developing an item-by-item cash flow forecast."[101] This is called an "extended growth model."

[101] *Corporate Valuation,* at 151-152.

90. Financial economists, valuation practitioners, investment bankers and equity analysts routinely apply this approach, sometimes forecasting an explicit projection period in excess of ten years. In fact, when valuing AOL, Guggenheim applies cash flow forecasts for more than fifteen years, Deloitte applies cash flow forecasts for more than eleven years, and Jefferies & Co. applies a ten-year projection period.[102]

91. In a February 7, 2015 internal memo concerning AOL's fourth quarter 2014 goodwill impairment analysis, AOL's Melissa Frank and Celia Linkow explained that, while AOL's LTP provides projections through only 2018, "we determined that a more reliable methodology for estimating fair value would be to extend the projections out to 10 years (through 2025) before estimating a terminal value."[103] Consequently, Deloitte stated in its impairment analyses that "projections

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[102] *Guggenheim May Valuation* at 30-31 and 35-36; Deloitte, AOL, Inc. Valuation For the Purpose of Accounting Standards Codification Topic 350, Goodwill and Other Intangible Assets as of December 1, 2014, February 24, 2015 (AOL00346654) (hereafter *Deloitte Goodwill Impairment Report*) at 20 and Exhibits 3-5; Jefferies Group, "AOL, Inc. (AOL): Strong Quarter Ahead of Expectations," May 8, 2015 (AOL00121193 at -1198).

[103] *Goodwill Impairment Analysis* at 4 (stating that: "[a]s the LTP only goes through 2018, and given the evolution of the business that is projected over the next several years, we determined that a more reliable methodology for estimating fair value would be to extend the projections out to 10 years (through 2025) before estimating a terminal value. As a result, we worked with FP&A [Financial Planning and Accounting] and Deloitte to come up with reasonable growth estimates for revenues, margin and profitability for the seven years following the approved 2015-2018 LTP projections.").

for [AOL's] revenues, expenses (including depreciation), and capital expenditures through 2025 for Membership, Platforms, and Brands were prepared or approved by Management."[104]

92. Given the positive expected Brands and Platforms revenue growth rates through 2018, projected future growth that Allen & Co describes as "hyper growth,"[105] and AOL management's practice of developing projections through 2025 when engaged in a fair value of the Company,[106] it is appropriate to likewise extend the LTP projections through 2025 based on projected revenue growth rates and EBITDA margins for Membership, Brands and Platforms before calculating a terminal value. As a sensitivity check on this analysis, I consider an alternative DCF

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[104] *Deloitte Goodwill Impairment Report* at 20 (stating that: "[f]or the purpose of this analysis, projections for the [AOL's] revenues, expenses (including depreciation), and capital expenditures though 2025 for Membership, Platforms, and Brands were prepared or approved by Management. [AOL] is responsible for these representations about its plans and expectations and for the disclosure of significant information that might affect the ultimate realization of any forecasted results… We considered the reasonableness of Management's projections in light of (1) Management's statements and other [AOL] data regarding the outlook for [AOL] and [the] industry and (2) our analysis and comparisons of the projections to (a) [AOL's] historical financial performance and (b) the outlook for the industry, especially companies engaged in the same or similar lines of business.").

[105] Deposition of Omar Isani, December 7, 2016 (hereafter *Isani Deposition*), at 182:5-20.

[106] In connection with the goodwill impairment test performed in the fourth quarter of 2014, AOL explains in its 2014 10-K that the "cash flows employed in the DCF analysis are based on our most recent budgets, forecasts, and business plans as well as various growth rate assumptions for years beyond the current business plan period." *AOL Inc Year 2014 10-K* at 61.

model that uses management's four-year explicit forecasts with an appropriate terminal multiple, and find valuation results for AOL that support my conclusion concerning the fair value of AOL.

93. I determine unlevered free cash flows in the standard manner by (i) calculating net operating profits after tax ("NOPAT") by subtracting depreciation and amortization, stock-based compensation and taxes from EBITDA, (ii) adding back depreciation and amortization, and (iii) subtracting capital expenditures and subtracting (adding) the increase (decrease) in working capital. *See* **Revised Exhibit 9**.

94. For the years between 2019 and 2025, I used the revenue growth rates and EBITDA margins presented in the Deloitte Goodwill Impairment Analysis. Additionally, following Deloitte, I maintain constant capital expenditures at the 2018 level through 2025 for AOL.[107]

95. Because the updated 2015-2018 LTP projections allow for changes in working capital that are different across operating segments, I model the change in working capital from 2019 forward for each operating segment by holding the change in working capital constant at the 2018 level through 2025. I also note that Deloitte models zero incremental debt-free cash-free working capital for all years (2015 – 2025) across operating segments "[b]ased on the debt-free excess cash-free

[107] *Deloitte Goodwill Impairment Report* at Exhibits 3, 4, and 5.

working capital requirements of the comparable companies and historical financials."[108]

96. I adjust earnings to account for stock-based compensation by subtracting stock-based compensation from EBITDA. This reduction in EBITDA fully accounts for the expenses (including potential future expenses) concerning stock-based compensation in the year in which it is granted. When and whether future payouts from conversion of stock-based compensation occur is uncertain. Consistent with the approach advocated in recent years by financial economists, I treat the entire amount of stock-based compensation as a current operating expense that reduces EBITDA.[109] Any alternative approach does not fully offset the total current expense from EBITDA, and EBITDA is therefore *higher*. Thus, my approach to stock-based compensation necessarily *lowers* EBITDA and cash flows.

[108] *Deloitte Goodwill Impairment Report* at Exhibits 3, 4, and 5.
[109] *See*, e.g., Aswath Damodaran. *Damodaran on Valuation*. Wiley Finance (2nd Edition) at 369-405 (including the following excerpt at 404: "In the past two decades, the floodgates have opened on equity compensation, especially at technology firms. At many of these firms, managers were rewarded primarily through options, aided by the lax accounting and tax treatment of these grants (by not expensing them until exercise). In the past few years, the awareness of employee options has been raised by two developments…. The second was the belated acceptance by accounting standards boards that employee options are compensation and that they should be valued and expensed at the time of the grant (and not at exercise).").

For purposes of calculating post-tax earnings for 2019 - 2025 in my DCF model, I hold the stock-based compensation-to-revenues ratio constant at the 2018 level.[110]

97. Lastly, for the years between 2019 and 2025, Deloitte modeled depreciation and amortization as "trend[ing] down over a 5 year period to be equal to capital expenditures by 2023."[111] I adopt this assumption through 2025 and model depreciation and amortization as equal to capital expenditures in the normalized year.[112]

98. The scope of Deloitte's services provided to AOL were limited to the development of "an estimate of the fair value of the equity of AOL's Reporting Units… Membership, AOL Platforms, [and] Brands." That is, "Corporate assets were not allocated to any of the Reporting Units." Instead, "[t]o value the Corporate assets, [Deloitte] applied the adjusted book value method."[113] To maintain a consistent model that extends projections for all segments through at least 2025, I extend management projections from 2019 through 2025 by using a linear step-down

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[110] This approach has been adopted by this Court in the past (*see Ancestry.com Appraisal Opinion* at 52-53).
[111] *Deloitte Goodwill Impairment Report* at Exhibits 3, 4, and 5.
[112] This is a reasonable approximation of the relationship between AOL's capital expenditures and depreciation given the perpetuity growth rate of 3.0 percent. A more detailed estimate would have to take account of things like the rate of technical change, the impact of inflation on the existing capital stock, and the role of intangible capital, such as know-how, that does not appear on the balance sheet. Given the complexities involved in evaluating all those factors, I consider the basic assumption to be the better choice in this case.
[113] *Deloitte Goodwill Impairment Report* at 1 and 11.

schedule. This method allows Corporate's annual revenue growth to steadily decline from 12.1 percent in 2018 (as projected by management) to 3.0 percent by the normalized period after 2025. I also apply management's projected 2018 Corporate EBITDA margin of 58.6 percent throughout the extended period.

99. Other financial advisors valuing AOL at the time of the Merger modeled projections beyond 2018. For instance, Guggenheim stated in its May 1, 2015 valuation presentation that "[d]eveloping a view on [AOL's] stand-alone value requires forming a view about a likely range of potential growth scenarios since the bulk of [AOL's] value is attributable to the later years in the projection period and beyond…" and that AOL's "Core/Membership segment is already in a stage of long-term decline, but its Platforms and Brands segments will not have reached steady state revenue growth rates and margins by the end of the projection horizon in 2018." In fact, Guggenheim extends projections for Brands and Platforms through 2030.[114] In a June 15, 2015 workbook, Goldman Sachs, AOL's advisor in the Millennial Media acquisition, also prepared AOL stand-alone free cash flow projections beyond 2018 and through 2022.[115]

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[114] *Guggenheim May Valuation* at 1, 31, and 35.
[115] *Goldman Sachs June Mars Model* at tab "Apollo SA".

100. Equity analyst Jefferies Group also issued an analyst report on May 8, 2015 with a $67 per share price target for AOL based upon its ten-year DCF model.[116]

101. To summarize, I use the last available LTP projections prior to the Valuation Date as a starting point for AOL's expected future cash flows. I adjust these projections to account for two transactions that were in AOL's pipeline (regardless of the outcome of the Acquisition), extend the projections through 2025 to account for the "hyper growth"[117] expected in the Platforms and Brands segments, and compute unlevered cash flows.

102. In the next sections, I explain the basis for the discount rates and terminal values that I apply in my DCF Approach.

2. WACC

103. I performed an analysis of the appropriate discount rate to apply to AOL's future cash flows to determine their present value as of the Transaction Date. As I described above, it is standard in DCF models to use the company's cost of capital, or WACC, as the discount rate. This is the appropriate calculation for the discount rate because it considers the risk related to an investment in AOL's stock,

[116] Jefferies Group, "AOL, Inc. (AOL): Strong Quarter Ahead of Expectations," May 8, 2015 (AOL00121193).
[117] *Isani Deposition*, at 182:5-20.

the riskiness of the market in general, and the time value of money. The formula for the WACC is:

Cost of Capital = Cost of Equity x Equity Weight + After-Tax Cost of Debt x Debt Weight

104. The cost of equity and cost of debt are weighted based on the company's capital structure: in this case, AOL's actual capital structure as of May 11, 2015 (the last date prior to the Merger's announcement) consisted of 86.3% Market Value of Equity-to-Total Capital (equity weight) and 13.7% Total Debt-to-Total Capital (debt weight).

105. I relied upon a widely-used model, the capital asset-pricing model ("CAPM"), to determine AOL's cost of equity as of the Valuation Date:

Cost of Equity = Risk-Free Rate + Equity Beta x Equity Risk Premium

a) <u>Risk-Free Rate</u>

106. For the risk-free rate, I use the 20-year U.S. Treasury rate as of June 23, 2015 of 2.92 percent. This reflects what the discount rate would be if there was no market risk and the projected cash flows would be achieved with certainty. I select the 20-year U.S. Treasury rate as of June 23, 2015 because the risk-free rate should be consistent with the period over which one is considering the cost of equity and, ultimately, the expected return for the company. As I noted in my book on valuation, a long-term horizon is frequently used when practitioners are computing the CAPM

because of the stability of long-term rates and the duration of long-term bonds having a close proximity to the duration of corporate cash flows that are being discounted.[118] The 20-Year U.S. Treasury rate is used in standard valuation guides, such as the Ibbotson SBBI 2015 Classic Yearbook, that lists historical rates for the purpose of use in CAPM by practitioners.

b) <u>Beta</u>

107. Next I determined what equity beta to use for AOL and its reporting segments. The equity beta (or "beta") informs a practitioner about a company's risk, or volatility, relative to the market's volatility. If a company has a beta equal to one, this means that the company experiences the exact same volatility as the market; when the market goes up, the company's stock goes up, and when the market goes down, the company's stock goes down. A company or asset with a beta below one is less volatile (i.e., less risky) than the market. If a company's beta is greater than one, then the company is more volatile than the market, and tends to rise by more than the market when the market goes up, and tends to decline by more than the market when the market goes down. A company or asset can also have a negative beta. In such a case, the asset's value rises when the market declines and the asset's value falls when the market rises.

[118] *See Corporate Valuation*, at 211.

108. Beta is computed by performing a statistical technique called regression analysis that fits a line to a series of observed returns by minimizing the squared distances of those observed returns from the line. The formula for the regression analysis is as follows:

Company Return – Risk-Free Rate = ß x (Equity Risk Premium) + Random Error Term

109. There are five key factors that affect how one computes the beta:

- the choice of the proxy for the market portfolio, the observation interval (e.g., daily, weekly, or monthly);
- the length of the sample period of the data used in the regressions (e.g., 2 years);
- the estimation procedure (typically, ordinary least squares regression); and
- the measurement error of the estimated beta.[119]

The "random error" term is the portion of company volatility that cannot be explained by the model.

110. I estimate the betas for each of AOL's reporting segments (Membership, Brands and Platforms) using peer companies' betas based on the following steps. First, I identify the relevant set of segment-specific peers. I use the

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[119] *Corporate Valuation* at 220.

superset of publicly-traded segment-level peers identified by AOL in its 2014 10-K, Allen & Co., Guggenheim, Deloitte, KPMG and equity analysts. *See* **Exhibit 10**.

111. Next, I estimate the historical equity beta for each peer company through an ordinary least squares regression using two years of weekly total stock returns for the comparable companies (ending on June 23, 2015), and the S&P 500 Total Gross Returns Index (ending on June 23, 2015). I select two years of weekly returns because this provides me with a sample of 104 weeks of data, which means that I can obtain enough meaningful results without including older data that is less likely to meaningfully reflect current risks. I also select the S&P 500 Total Gross Returns Index because it is a common index used as a market proxy.[120] Then I un-lever each peer company's equity beta to remove the impact of company-specific leverage (which might vary significantly across the peers and AOL). Then, I calculate the median peer company asset beta.[121] Finally, I calculate the median re-levered beta applying AOL's actual capital structure as of May 11, 2015 (the last day prior to the Merger's announcement) applicable to each of AOL's operating segments.

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[120] *See*, e.g., Joshua Rosenbaum and Joshua Pearl, *Investment Banking*, 2nd Ed. (Hoboken: John Wiley & Sons, 2013) at 145, note 24 (stating that "The S&P 500 is typically used as the proxy for the return on the market.").

[121] I apply the median so that the peer beta to limit the potential bias resulting from measurement error and outliers in the data.

112. As **Revised Exhibit 11-1** shows, I find twelve peer companies for the Membership segment: AT&T, Comcast, EarthLink, Facebook, Google, Harte-Hanks, IAC, Netflix, Twitter, United Online, Verizon, and Yahoo!. The equity betas for these peers range between 0.55 and 1.50. The unlevered asset betas range between 0.46 and 1.29, implying a median unlevered beta of 0.86. *See* **Revised Exhibit 11-1**. After relevering the median peer beta using AOL's actual debt-to-equity ratio of 15.9 percent, I find a median relevered beta of 1.00. This is the beta that I use when I estimate the discount rate for the Membership segment.

113. For the Brands segment, I use 14 peer companies to estimate the beta. These 14 companies are: Bankrate, Comcast, Demand Media, Facebook, Google, IAC, Travelzoo, TripAdvisor, Twitter, WebMD, XO Group, Yahoo!, Yelp, and Zillow. The equity betas for these peers range from 0.25 to 2.13. The unlevered asset betas range from 0.25 to 2.13, with a median unlevered beta of 0.98. After relevering the median peer beta using AOL's actual debt-to-equity ratio of 15.9 percent, I find a median relevered beta of 1.13.[122] This is the beta that I use when I estimate the discount rate for the Brands segment. *See* **Revised Exhibit 11-2**.

[122] I calculate Unlevered Asset Beta = Equity Beta / (1+D/E) and Relevered Equity Beta = Median Unlevered Asset Beta * (1+D/E) relevered using AOL's D/E as of 05/11/15 (the last day prior to the Merger's announcement). These equations imply that the risk of interest tax shields equals the risk of operating assets (i.e. the unlevered firm) and that the company's debt is risk free. (*See* Robert W. Holthausen and Mark E. Zmijewski, *Corporate Valuation* (Cambridge Business Publishers, LLC 2014), at 400.

114. As **Revised Exhibit 11-3** shows, I use 19 peer companies to estimate the beta for the Platforms segment. These 19 companies are: Acxiom, Amazon, Blackbaud, comScore, Criteo, Facebook, Google, Harte-Hanks, Marchex, Marin Software, Millennial Media, Nielsen, Oracle, Rocket Fuel, Rubicon Project, Tremor Video, Twitter, Yahoo!, and YuMe. The equity betas for these peers range from 0.43 to 1.81. The unlevered asset betas range from 0.35 to 1.80, with a median unlevered beta of 1.15. After relevering the median peer beta using AOL's actual debt-to-equity ratio of 15.9 percent, I find a median relevered beta of 1.33. This is the beta that I use when I estimate the discount rate for the Platforms segment.

c) <u>Equity Risk Premium</u>

115. The equity risk premium equals the expected return on the market net of the risk-free rate. In recent years, I have applied an equity risk premium of 5.5 percent based on an extensive review of academic literature and empirical evidence, including my own book on the topic (*The Equity Risk Premium and the Long-Run Future of the Stock Market* (1999)), a widely-cited academic article on equity risk premia by esteemed finance Professors Eugene Fama and Kenneth French (both of whom having dedicated their careers to empirical research concerning evidence on CAPM), Duff & Phelps' *Risk Premium Report*, Ibbotson data on the supply-side approach, and research conducted by New York University Stern School of Business Professor Aswath Damodaran (a prominent academic expert on valuation and my

co-author on several publications).[123] I provide a summary of the basis for applying a 5.5 percent equity risk premium in Appendix A.

116. I understand, however, that the Supply-Side Equity Risk Premium, reported as 6.19 percent in the Ibbotson SBBI *2015 Classic Yearbook*,[124] has been frequently relied upon for purposes of appraisal proceedings by the Delaware Court of Chancery.[125] Moreover, some valuation books, such as Rosenbaum and Pearl's (2013) *Investment Banking*, also cite to the Supply-Side Equity Risk Premium.[126] The equity risk premium "employed on Wall Street typically ranges from approximately 5% to 8%."[127]

117. In my calculation of WACC for AOL's operating segments, I therefore use the Supply-Side Equity Risk Premium of 6.19 percent recognizing that this will decrease my value estimate. *See* **Revised Exhibits 11-1** through **11-3**.

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[123] Bradford Cornell, *The Equity Risk Premium: The Long-Run Future of the Stock Market*, (Hoboken, NJ: John Wiley & Sons, 1999); Eugene F. Fama & Kenneth R. French, "The Equity Premium," *The Journal of Finance*, vol. 57, no. 2, April 2002, at 637-659; Duff & Phelps 2013 *Risk Premium Report*; Morningstar's Ibbotson *SBBI Yearbook*; Aswath Damodaran, "Equity Risk Premiums (ERP): Determinants, Estimation and Implications – The 2013 Edition," Working Paper, March 2013, at 97.

[124] Morningstar's Ibbotson *SBBI 2015 Classic Yearbook* at 157.

[125] *See*, e.g., Memorandum Opinion of Vice Chancellor Laster *In Re: Appraisal of Dell Inc.*, decided May 31, 2016 at 109.

[126] Rosenbaum & Pearl (2013), *Investment Banking* at 145 & note 25 (stating that "[f]or the 1926 to 2011 period, Ibbotson calculates a market risk premium of 6.62%.").

[127] Rosenbaum & Pearl (2013) at 146.

d) Size Premium

118. I also consider a modification to the CAPM based on academic studies that have found that there is an inverse relationship between a company's size and its returns. Because these studies indicate that observed excess returns of smaller stocks are generally larger than the returns for those companies as predicted by CAPM, some valuation practitioners and academics consider an adjustment for a size premium that modifies the formula for CAPM as follows:

Cost of Equity = Risk-Free Rate + Equity Beta x Equity Risk Premium + Size Premium

119. There is no agreement in the academic community and among practitioners, however, as to whether a size premium should be applied at all.[128] This remains a controversial issue, and while my preferred method for computing discount rates does not include a size premium, I consider the adjusted CAPM formula above in my analysis of WACC to account for the possibility that the Court may find it is a reasonable adjustment.

120. Thus, in my calculation of WACC for AOL's operating segments, I consider a range of size premiums between 0 percent and 1.6 percent, the size for

[128] *See*, e.g., Shumway, Tyler and Vincent A. Warther, "The Delisting Bias in CRSP's Nasdaq Data and its Implications for the Size Effect," *The Journal of Finance,* 54 (1999); Grabowski, Roger J., "The Size Effect-It Is Still Relevant," *The Business Valuation Review,* 35 (2016).

the decile range corresponding to AOL's market capitalization, per Duff & Phelps' *2015 Valuation Handbook*. As the handbook shows, AOL's market capitalization of $3,337 million as of the Transaction Date fits into the 5th decile, which includes companies with a market capitalization of $2,543 million to $3,724 million. *See* **Revised Exhibits 11-1** through **11-3**.

e) <u>Cost of Debt</u>

121. The final piece is the after-tax cost of debt. AOL's debt was not subject to credit ratings at or around the time of the Merger, so I must consider alternative estimates of the cost of debt. S&P Capital IQ provides an estimate of AOL's credit rating through its CreditModel Score service. As of March 31, 2015, the last date S&P Capital IQ had an estimate available for AOL, the CreditModel score assigned to AOL was bb+ (meaning that the model assesses the creditworthiness of AOL as equivalent to a S&P BB+ rating). To estimate AOL's pre-tax cost of debt, I considered an index of the yields on bonds with a BB rating. BofA Merrill Lynch US High Yield BB Effective Yield reported a yield of 4.91 percent as of June 23, 2015, per the St. Louis Federal Reserve.[129] I also note that, in its December 2014 analysis, Deloitte used a similar pre-tax cost of debt of 4.8 percent, based on

[129] <u>https://fred.stlouisfed.org/series/BAMLH0A1HYBBEY</u>, accessed September 8, 2016.

Moody's yield on seasoned corporate bonds rated Baa which, as of June 23, 2015, was 5.24 percent.[130]

122. This Court has favored the use of marginal tax rates in the past "[b]ecause of the transitory nature of tax deductions and credits."[131] The effective marginal tax rate for AOL is 40 percent.[132] Using the 4.91 percent BofA Merrill Lynch US High Yield BB Effective Yield as of June 23, 2015 and applying a 40 percent tax rate, I calculate AOL's overall after-tax cost of debt to equal 2.9 percent. Allen & Co. also applies a 40 percent tax rate, which I find reasonable because it is consistent with Professor Damodaran's computation of the U.S. corporate marginal tax rate.[133] *See* **Revised Exhibits 11-1** through **11-3**.

123. Using the inputs discussed above leads to the following WACC ranges for each of AOL's operating segments: 8.25 percent to 9.63 percent for Membership, 8.98 percent to 10.36 percent for Brands, and 10.03 percent to 11.41 percent for AOL Platforms. *See* **Revised Exhibits 11-1** through **11-3**. For the Corporate segment, I apply the 2015E revenue-weighted average of AOL's operating

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[130] https://fred.stlouisfed.org/series/DBAA, accessed September 8, 2016.
[131] *Ancestry.com Appraisal Opinion* at 47.
[132] *See* Allen & Company presentation titled "Project Thor: Presentation to Hanks Board of Directors," May 11, 2015 (ALLEN_00013530-70) (hereafter *Fairness Opinion*) at 558.
[133] http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/countrytaxrate.htm, accessed September 8, 2016.

segments' WACC, which ranges between 9.28 percent and 10.66 percent. *See* **Revised Exhibit 9**.

124. **Revised Exhibit 12** shows a detailed break-down of the WACC inputs used by Deloitte, Guggenheim, and KPMG, each of whom applied segment-level WACC calculations to AOL. As reported, these parties estimated a (i) Membership segment WACC from 7.75 percent to 9.75 percent, (ii) Brands segment WACC from 8.75 percent to 17.70 percent, and (iii) Platforms segment WACC from 8.75 percent to 21.70 percent. The notably high end of the ranges for Brands (17.70 percent) and Platforms (21.70 percent) is driven by certain ad hoc adjustments for unsystematic risk factors by Deloitte. Specifically, Deloitte adds a size premium and a segment-specific risk factor to its otherwise-standard WACC calculations. Deloitte explains in its report that the "cost of equity for each Reporting Unit was estimated based on the application of the capital asset pricing model (CAPM)."[134] Deloitte, however, is wrong. Under the CAPM, required rates of return are determined by a firm's systematic risk as measured by its beta. CAPM does not add an additional company-specific risk. Academics caution against adding such "fudge" factors as company-specific risk in applying CAPM because such factors imply that cash flows were not

[134] *See Deloitte Goodwill Impairment Report* at 25.

appropriately analyzed and projected.[135] In effect, applying an ad hoc company-specific risk adjustment to CAPM suggests that there is not sufficient information to provide a reasonable estimate of AOL's value. But if that is so, then either the analysis should not be performed at all, or additional information is required to create a reasonable estimate. And because such ad hoc adjustments are purely speculative, they can be used in a results-oriented manner to derive a "desired" outcome, rather than a reliable one. Removing the company-specific risk factor from Deloitte's calculations yields much lower estimated WACC figures of 9.74 percent for Brands and 10.68 percent for Platforms. Removing a size/liquidity premium further reduces Deloitte's estimated WACC figures to 8.64 percent for Brands and 9.58 percent for Platforms. These adjusted estimates of the discount rates are also more like those estimated by the other two financial advisors. *See* **Revised Exhibit 12**.

125. Finally, **Revised Exhibit 12** shows that, when unsystematic risk factors (size/liquidity premiums and segment-specific risk) are removed, the estimated WACC figures that I calculate fall within the range of the financial advisors' assessments of discount rates for AOL at the segment-level.

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[135] *See*, e.g., Brealey, Meyers, and Allen (2014) at 230, (stating that "You could [get] the right [present value] by adding a fudge factor to the discount rate and discounting the original forecast… But you have to think through the possible cash flows to get the fudge factor, and once you forecast the cash flows correctly, you don't need the fudge factor. Fudge factors in discount rates are dangerous because they displace clear thinking about future cash flows).

3. Terminal Value

126. Since companies have indefinite lives, forecasted cash flows must stop at some point and a simplified rule must be applied to estimate the continuing value of the company. When using a constant growth model, as with the Brands and Platforms segments, the terminal date must be far enough into the future so that it is reasonable to assume that the segment will be growing at a constant rate.

127. AOL used a 3.0 percent long-term growth rate for Brands when determining the fair value of the segment on the basis that "we believe this to be an appropriate growth rate for a mature set of cash flows."[136] Deloitte justifies its use of a 3.0 percent long-term growth rate by "considering expectations for the long-term growth rate of the industry and inflation."[137] Additionally, Deloitte presents estimates through 2019 for U.S. real GDP growth of 1.4 percent and U.S. consumer price inflation of 2.0 percent.[138] As a general rule, the following equation holds:

(1 + nominal GDP growth rate) = (1 + real GDP growth rate) x (1 + inflation rate)

Using the estimates reported by Deloitte, this suggests an implied long-term nominal GDP growth rate equal to 3.4 percent = (1 + 1.4 percent) x (1 + 2.0 percent) – 1.

[136] *Goodwill Impairment Analysis* at 4.
[137] *Deloitte Goodwill Impairment Report* at 20.
[138] Based on the Economist Intelligence Unit N.A. Incorporation's "Country Forecast, United States" report December 2014, per *Deloitte Goodwill Impairment Report* at 6.

128. Therefore, a 3.0 percent long-term growth rate falls reasonably between the long-term expected rate of inflation of 2.0 percent and the long-term expected nominal growth rate of the U.S. economy of 3.4 percent. I adopt this long-term growth rate for the Brands, Platforms, and Corporate segments in my DCF model because this reflects a reasonable estimate of the long-term segment growth prospects in line with nominal GDP growth.

129. The thrust of the academic literature is that if the growth in the final forecast year is well above the terminal growth rate, then a three-stage model is preferred. For instance, Professor Damodaran advises the use of a three-stage growth model if a company is growing at a high rate. He defines a high growth rate as "more than 8% higher than the stable growth rate."[139] Given the double-digit growth rates for Platforms revenue for the years into 2025, I model a three-year period after 2025 in which the growth rate declines linearly from 7.5 percent to a long-term steady state growth of 3.0 percent. I then apply this long-term growth rate of 3.0 percent in all subsequent periods in perpetuity. This reflects the fact that companies tend to converge to a steady state growth rate over time. Thus, rather than simply dropping from, 14.2 percent growth in 2025 to 3.0 percent growth in perpetuity thereafter, I model a transition during a three-year period from a high growth segment into a

[139] http://pages.stern nyu.edu/~adamodar/New Home Page/lectures/basics html, accessed September 8, 2016.

mature segment nearing its steady state at 3.0 percent growth thereafter. This two-stage approach to long-term growth was also adopted by Deloitte in their analysis of the fair value of Platforms.[140]

130. In the case of Membership, the terminal value is simply the value of the entity in run-off until it no longer exists (in 2065). AOL's management concedes that Membership is expected to have declining cash flows into 2025 but "also believes that some level of investment in the Membership Group will continue to be

[140] *Deloitte Goodwill Impairment Report* at 20 (stating that "[f]or the AOL Platforms reporting unit, the projections before the terminal period indicated growth rate [sic] in revenues of 15.0 percent. Since it is not typical for companies in high growth to experience a drastic decline in growth rate, the terminal value for AOL Platforms was estimated using an H-Model… which assumes a high initial growth rate… that declines linearly over time to reach a stable growth rate… in the steady state"). If the high growth period (in this case, 2016-2028, or 3 years) is assumed to be 2H, the terminal value of the company can be calculated as: $TV = \frac{FCFx(1+LTGR)}{(WACC-LTGR)} + \frac{FCFxHx(STGR-LTGR)}{(WACC-LTGR)}$. *See also, Goodwill Impairment Analysis* at 4 (stating that "[f]or Platforms a constant short term terminal growth rate of 7.5% was assumed to be appropriate for determining the terminal value of the net cash flows for the periods 2026-2028, and then a terminal growth rate of 3% was used thereafter, as we believe this to be an appropriate growth rate for a segment in which cash flows are growing and expansion of the business is expected to continue into the future. Note that the 7.5% short term rate was used in the current year calculation in order to appropriately reflect the gradual future expected step down in terminal growth as it was not deemed to be reasonable to go from a growth rate of 15% in 2025 down to a terminal growth rate of 3%. As a result, the use of the two step approach was deemed to be reasonable… Given the increase in the growth projections for Platforms as compared to the prior year as a result of the acquisitions that took place during the year and increased outlooks in the market, the change is deemed to be reasonable.").

made (e.g., different product mix and offering strategies) that would likely stabilize and offset the projected decline."[141] Nonetheless, AOL's expectations that Membership revenues will continue to decline into 2025 indicates that the use of any long-term growth rate above zero could be overly optimistic for the segment. I therefore assume run-off of the segment's net available cash flows at a rate of negative 4 percent (Deloitte's 2025 projected revenue growth rate) per year through the year 2065 (when the present value of Membership's available cash flows in run-off is equal to zero). This leads to a lower value for the Membership segment, but absent information by AOL that there was a specific strategy in place to renew the segment, I conclude that it is appropriate to assume that the segment is in runoff.

B. Discounted Cash Flow Value of AOL Inc.

131. Having identified the appropriate projected cash flows, discount rates, and growth rates for computing terminal values, I apply the DCF Approach to determine the implied enterprise values for the Membership, Brands, Platforms, and Corporate segments. The sum of these segments' implied enterprise values equals the implied total enterprise value for standalone AOL as of the Transaction Date.

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[141] *Goodwill Impairment Analysis* at 4 (stating that "[f]or Membership a constant rate of 3% (despite the projected decline in cash flows into 2025) was assumed to be reasonable for determining the terminal value of the net cash flows as the Membership. While the cash flows are expected to decline in the outer years, management also believes that some level of investment in the Membership Group will continue to be made (e.g., different product mix and offering strategies) that would likely stabilize and offset the projected decline.").

1. DCF Using an Extended Growth Model

132. I observed in *Corporate Valuation* that, when determining an appropriate terminal date, two principles serve as a guide: (i) one should not select a terminal date that "precede[s] the point at which the firm can be said to have reached an equilibrium state"; and (ii) that "the terminal date should be sufficiently far in the future that valuation errors caused by using simplified procedures to estimate the continuing value are mitigated by the discounting process."[142] Given the projected growth for AOL's segments, I believe that an extended growth model most accurately accounts for the length of time it will take for AOL to reach steady state. Accordingly, I model a 10-year sum-of-the-parts DCF to evaluate the fair value of Corporate, Brands, and Platforms, and use a run-off model for Membership. For the years 2015 – 2018, I rely on segment-level updated management projections as presented in the Allen & Co. 05-10-15 Backup Workbook. I extend the projections through 2025, which are adjusted to account for the Millennial Media and Microsoft Display future expected cash flows. *See* **Revised Exhibit 9**.

133. As **Revised Exhibit 9** shows, this DCF Approach leads to enterprise values of $4,249 million for Platforms (with a sensitivity range of $3,747 million to $4,858 million), $1,443 million for Brands (with a sensitivity range of $1,295 million to $1,627 million), $1,601 million for Membership (with a sensitivity range

[142] Cornell, Bradford. *Corporate Valuation*, at 145.

of $1,535 million to $1,673 million), and negative $1,513 million for Corporate (with a sensitivity range of minus $1,687 million to minus $1,372 million). The total enterprise value for AOL using the DCF Approach is between $5,205 million and $6,472 million.

134. I calculate AOL's DCF-based fair value per share as the sum of the Membership, Brands, Platforms and Corporate segments' enterprise value, plus cash & equivalents and tax attributes, minus total debt and noncontrolling interest, divided by AOL's fully diluted shares outstanding as of June 23, 2015.[143] This leads to a fair value per share for AOL as of the Transaction Date of $62.41 to $76.89. *See* **Revised Exhibit 9**.

135. I also consider the impact of excluding the Millennial Media and Microsoft Display projections on the implied per share value of AOL. **Revised Exhibit 13** shows the resulting enterprise value of $3,479 million for AOL Platforms (with a sensitivity range of $3,092 million and $3,949 million). AOL's total enterprise value is between $4,550 million and $5,563 million, which leads to an implied fair value per share for AOL as of the Transaction Date of $54.92 to $66.50.

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[143] Fully diluted shares outstanding per AOL00227520 at tabs "Total Fee" and "AOL Diluted Results_m20150622". Fully diluted shares outstanding change due to the number of in-the-money options and repurchased shares at a given price. *See* **Revised Exhibit 9**.

2. Alternative DCF

136. While I believe that it is appropriate to apply an extended growth model to AOL since it was not expected to achieve a steady state by the end of management's four-year projection period, as a check I apply a DCF model using only management's explicit forecasts. In this case, doing so requires the calculation of a terminal value that reasonably captures the higher growth that is projected for AOL during the early part of the terminal period. This cannot be done by using the constant growth model, because, by definition, that involves a constant rate that ignores the faster growth in the earlier years. As I noted in my book, a potential solution is to calculate "the continuing value of the firm […] by applying the direct comparison approach using currently mature firms as comparables."[144] By the direct comparison approach, I meant valuation using multiples derived from comparable companies.

137. In its 2014 Proxy Statement and as part of its executive compensation process, AOL identified its Industry Peer Group as reflecting "the companies with which [AOL] compete[s] based on the scope of [its] operations, as measured by revenue."[145] **Exhibit 14** shows multiples of enterprise value - to - projected EBITDA as of the Valuation Date for these peers.

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[144] *Corporate Valuation*, at 160.

[145] AOL Inc., Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934, filed on April 16, 2015, at 34.

138. I use 17 peer companies to estimate the beta for AOL as a whole. *See* **Revised Exhibit 15**. These 17 companies are: Adobe Systems Incorporated, Akamai Technologies, Inc., Autodesk, Inc., CA, Inc., Discovery Communications, Inc., Electronic Arts Inc., IAC/Interactive Corp., Intuit Inc., LinkedIn Corporation, Netflix, Inc., Salesforce.com, Inc., Symantec Corporation, The Interpublic Group of Companies, Inc., The New York Times Company, The Priceline Group Inc., Time Warner Cable Inc., Yahoo! Inc. The equity betas for these peers range from 0.78 to 1.58. The unlevered asset betas range from 0.72 to 1.51, with a median unlevered beta of 1.04. After relevering the median peer beta using AOL's actual debt-to-equity ratio of 15.9 percent, I find a median relevered beta of 1.20. This is the beta that I use when I estimate the discount rate for AOL as whole.

139. Using the inputs discussed above leads to a WACC for AOL ranging from 9.36 percent to 10.74 percent.

140. As **Revised Exhibit 16-1** shows, I perform a whole company DCF valuation based on management's four-year explicit forecasts and using a terminal multiple based upon projected 2018 EBITDA for AOL's peers. *See* **Exhibit 14**. I show the results of this analysis including Millennial Media and Microsoft Display in the management cash flow forecast, which results in a range of values per share of $74.55 to $84.55. *See* **Revised Exhibit 16-1**. I also consider an alternative DCF model that is identical except for its removal of Millennial Media and Microsoft

Display from management's explicit forecast, which results in a range of values per share of $68.64 to $77.28. *See* **Revised Exhibit 16-2**.

141. While I believe that a technology firm expected to experience superior growth after management's explicit forecast period should be valued using an extended growth model, these alternative DCF models provide support for the findings from the extended growth model.

C. Peer Multiples Approach

142. A Peer Multiples Approach applies the principle that similar assets should sell at similar prices. Industry-specific factors, for example, are likely to affect all firms in an industry. Typically, one applies a ratio of the peer companies' enterprise value to earnings, and then multiplies the ratio with the target company's earnings to estimate the target company's value.

143. In the previous section, I identified a group of 18 peers AOL characterized as its Industry Peer Group. *See* **Exhibit 14**. I use the 17 peers with complete multiples data to value AOL as a whole using the Peer Multiples Approach.

144. Because future performance is the most meaningful in determining a fair value, I consider forward EBITDA multiples as of the Valuation Date for each of AOL's peers, as shown in **Revised Exhibit 17**. The exhibit shows a median 2015 forward EBITDA multiple of 13.6x and a median 2016 forward EBITDA multiple of 11.9x. When applied to AOL's EBITDA forward projections (including EBITDA

from the Millennial Media and Microsoft Display deals), the Peer Multiples Approach implies AOL's per share equity values from $76.91 to $80.27.

145. Additionally, in **Revised Exhibit 17**, I show a sensitivity to this approach that excludes the effect of adding the Millennial Media and Microsoft Display deals on AOL's 2015 and 2016 EBITDA projections. The resulting implied equity values per share range from $80.05 to $82.05.[146] This range of values is higher than the range including Millennial Media and Microsoft Display because both deals include projected losses in 2015 and AOL had offered to pay $327 million in 2015 related to the Millennial Media deal.

146. Lastly, I considered performing a sum-of-part multiples approach in an effort to capture the differences in projected growth rates in AOL's reportable segments, as I did in the DCF approach. I determined that the available information was not sufficient for me to rely on this analysis for two reasons. First, consensus estimates for the segment peers generally did not extend after 2016, which was not enough of a horizon to adequately capture the medium to long-term differences in growth profiles amongst AOL's segments. Second, there was not a clear way to

[146] If I remove the three peers with extremely high multiples (LinkedIn Corporation, Netflix, Inc., and Salesforce.com, Inc.), the range of implied equity values per share is between $72.15 (including Millennial Media and Microsoft Display) and $77.20 (excluding Millennial Media and Microsoft Display). While I do not advocate selectively removing observations, I examine this sensitivity given that these companies' multiples appear to be outliers.

assign a multiple to the Corporate segment, which includes intersegment eliminations, based on the multiples assigned to the operating segments. This occurs because the Platforms segment suffered negative earnings in the twelve-month period immediately preceding the Valuation Date and had very low projected 2015 earnings, which would suggest that one should instead apply a revenue multiple to Corporate based on the Platforms segment. But this suggests that applying multiples for the Corporate segment requires either mixing revenue and earnings multiples, or strictly applying a revenue multiple. Given the limitations of a revenue multiple approach and the flaws with mixing revenue and earnings multiples (which I criticize in Allen & Co.'s approach to their sum-of-parts multiples analyses), I determined that it would not be helpful to me in forming my opinion to consider an AOL sum-of-the-parts multiples analysis.

D. Precedent Transactions Approach

147. As an additional indicator of AOL's fair value as of the Valuation Date, I investigate Implied Enterprise Value – to – forward EBITDA multiples from acquisitions of U.S. internet software and services companies with total transaction values between $1 billion and $10 billion completed between 2006 and 2015.

148. **Exhibit 18** shows the implied Enterprise Value – to – forward EBITDA multiples as reported by S&P Capital IQ for the resulting 16 transactions, including the acquisition of AOL by Verizon. AOL's multiple of 8.3x implied enterprise value

– to – forward EBITDA is the second lowest in the sample, which implies that the consideration paid in connection with the Transaction was amongst the lowest in the industry with respect to the future expected earnings of the Company.

149. I notice, however, that the variability in multiples across transactions is too great, ranging from 8.2x to 295.9x, in order for me to reliably base my analysis of AOL's fair value per share on this approach. Therefore, while finding the analysis useful in contextualizing the consideration paid for the Transaction, I assign no weight to this approach when estimating AOL's fair value per share as of the Valuation Date.

E. Additional Valuation Considerations

1. Recent Positive News about AOL

150. Verizon's financial advisor, LionTree, created a presentation called "Project Hanks Update" dated May 10, 2015, that notes that AOL had disclosed strong first quarter 2015 earnings, beating Wall Street consensus estimates and experiencing a 10.2 percent increase in its stock price after the release of its earnings.[147] LionTree also acknowledged that the "standalone projections" that they

[147] Project Hanks Update, May 10, 2015 (LIONTREE-AOL0069902) at -9905.

had used in their WholeCo DCF "exclude recent earnings momentum and replacement of Google search contract with more lucrative Microsoft deal."[148]

2. AOL's Share Repurchase Plan

151. Companies engage in share repurchase plans for a variety of reasons, including as a signal to the market that management believes that the firm's intrinsic value per share exceeds the market price per share.[149] In the years leading up to the Merger, AOL engaged in a share repurchase plan designed to facilitate its repurchase of AOL common stock. In 2012, AOL repurchased common stock valued in aggregate of $698.7 million, and, in 2013, it repurchased common stock valued in aggregate of $134.8 million.[150] In June 2014, AOL sought the authorization of an additional $150 million in share repurchases. AOL viewed such an authorization as allowing AOL to "eliminate the dilutive impact of exercised options or vested restricted stock units ("RSUs") on shares outstanding and/or of any shares issued as part of any future potential acquisitions" and that it would allow AOL to "accumulate shares at attractive valuations."[151]

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[148] Project Hanks Update, May 10, 2015 (LIONTREE-AOL0069902) at -9907.
[149] *See*, e.g., Brealey, Meyers, and Allen (2014) at 405 (stating that "[r]epurchases can also reflect management optimism, perhaps their view that their company's shares are underpriced by investors.")
[150] Audit & Finance Committee Meeting Agenda, January 27, 2014 (AOL00358448), at AOL00358453, AOL00358459.
[151] Aol. Stock Repurchase Analysis, June 2014 (AOL00300731), at AOL00300734.

152. A February 27, 2015, presentation to the Board also contemplated additional share repurchases.[152] The presentation also reported Allen & Co.'s DCF analysis of $52 to $62 per share.[153]

3. Indication of Interest in Acquiring Huffington Post

153. On May 4, 2015, AOL received a preliminary indication of interest in purchasing a 51 percent stake in Huffington Post at a valuation of $1 billion.[154] The offer was made by Axel Springer SE on behalf of a consortium of investors, including Huffington Post founder Arianna Huffington.[155] A valuation of $1 billion is directly in line with the "High" end of Allen & Co.'s "Illustrative Brands Sketch" which reports a value of $1.51 billion for the total Brands segment, compared to my discounted cash flow valuation of $1.32 billion, which is in line with Allen & Co.'s "Mid" values.[156] Moreover, this valuation as of 2015 suggests that AOL had been able to effectively monetize its 2011 purchase of Huffington Post for $295.5 million.

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[152] AOL Board of Directors Update, February 27, 2015 (AOL00002429), at AOL00002459 - 472.
[153] AOL Board of Directors Update, February 27, 2015 (AOL00002429), at AOL00002470.
[154] AOL00305557-58, at 58.
[155] AOL00305557-58, at 58.
[156] ALLEN_00030067, at tab "Illustrative Brands."

F. Findings Concerning Fair Value of AOL

154. Because the DCF Approach incorporates management insider knowledge about the prospects of AOL, I view this method as the most reliable of the valuation techniques. As I explained above, **Revised Exhibit 9** shows that this method leads to a range of values from $62.41 to $76.89. Therefore, in determining the fair value of AOL, I adopt the midpoint from the DCF Approach (including Millennial Media and Microsoft Display) and find a fair value of $68.98. As supporting evidence, I consider that the range of per share values implied by the Peer Multiples Approach is $76.91 to $80.27, which reinforces my finding that the fair value of AOL as of the Valuation Date exceeded the Purchase Price. *See* **Revised Exhibit 17**.

VI. THE VALUATION ANALYSIS PROVIDED BY ALLEN & CO. IN ITS FAIRNESS OPINION IS UNRELIABLE AND UNDERESTIMATES THE FAIR VALUE OF AOL

A. Overview of Allen & Co.'s Fairness Opinion

155. Allen & Co. has periodically acted as a financial advisor to AOL, including in 2013 and 2014 on "general corporate matters" and on corporate transactions.[157] AOL retained Allen & Co. to act as its financial advisor in

[157] AOL Inc. Schedule 14-D-9 filed on May 26, 2015 at A-1.

connection with the Merger.[158] On May 11, 2015, AOL's Board received Allen & Co.'s opinion "as to the fairness, from a financial point of view… of the $50.00 per Share cash consideration..."[159] In rendering its Fairness Opinion, Allen & Co. performed valuation analyses of AOL using a Peer Multiples Approach, Precedent Transactions Approach, and DCF Approach.[160]

B. Allen & Co.'s DCF Analysis Relies on Flawed Financial Projections

156. For the purposes of the Fairness Opinion, Allen & Co. relied upon financial projections that were characterized by AOL itself as "not correct," "created in a vacuum," and "stale" and which are therefore not reliable.

157. On April 28, 2015, two weeks prior to delivering the Fairness Opinion, Allen sent updated net working capital projections to Verizon on AOL's behalf, stating that the "…old numbers should be disregarded as they are not correct."[161] In discussing Verizon's inquiry regarding the rationale for the changes, AOL's Vijay Kori explained to others at AOL that:

> AOL doesn't forecast balance sheet or working capital by segment…[the] old file was created by accounting [in 2014] in a vacuum in connection with a preliminary analysis around a possible spin of Core…AOL's CFO, Controller, or [Corporate Development] was privy to the analysis so the original file shared

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158 AOL Inc. Schedule 14-D-9 filed on May 26, 2015 at A-1.
159 AOL Inc. Schedule 14-D-9 filed on May 26, 2015 at 21.
160 *Fairness Opinion* at 543.
161 E-mail from Matthew Malagari (Allen & Co.) to AOL employees, April 18, 2015 (AOL00162554-63).

> by AllenCo was something that was stale and not reviewed by corporate or the business unit…the updated numbers were created by our Controller, FP&A [Financial Planning & Analysis], and the CFOs of the segments to factor in our current payable and receivable cycles so is a better estimate of future working capital needs.[162]

158. Despite the foregoing, Allen & Co. did not adopt the updated net working capital figures in their DCF Approach presented to the Board on May 11, 2015, as part of the Fairness Opinion. In an email exchange on May 6, 2015, AOL's Senior Vice President of Corporate Financial Planning & Analysis Mike Nolan and AOL's Chief Financial Officer Karen Dykstra discussed the significance of this discrepancy: "…the info provided to Thor [Verizon] to build to FCF would result in higher FCF than shown on this schedule. We need to confirm with Omar [Isani (Allen & Co.)] this morning if we and BOD are OK with the # shown on the schedule Omar provided so they can complete fairness opinion."[163]

159. An analysis prepared on May 10, 2015, just one day prior to the May 11, 2015, presentation to AOL's Board, quantifies this difference. The workbook shows that the projections ultimately used in the Fairness Opinion – which Allen refers to as the "Old CF" (old cash flows) and "Previous LRP Cash Flow Items"

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[162] *AOL00221212*. *See also* a comparison of the "previous" and "updated" Net Working Capital figures circulated by Matthew Malagari in an e-mail to Michael Nolan (AOL), et al, April 20, 2015 (AOL00221227) and (AOL00221238).
[163] E-mail from Mike Nolan (AOL) to Karen Dykstra (AOL), May 6, 2015 (AOL00189627-30).

(previous long-range plan cash flow items) – yield materially lower unlevered free cash flows than the updated financial projections.[164] **Exhibit 19** compares these projections.

160. Consistent with my DCF approach, I calculate unlevered free cash flows implied by projections used by different parties valuing AOL by (i) calculating NOPAT by subtracting depreciation and amortization, stock-based compensation and taxes from EBITDA, (ii) adding back depreciation and amortization, and (iii) subtracting capital expenditures and subtracting (adding) the increase (decrease) in working capital. **Exhibit 19** shows that the unlevered cash flows obtained when using Allen & Co.'s choice of projections in the Fairness Opinion lead to significantly lower figures than those implied by the management projections in (i) Verizon's financial advisors' valuation analyses; and (ii) the updated projections in Allen & Co. May 10, 2015 workbook that I use in my DCF model. *See* **Exhibit 19**.

161. In relying on outdated, lower free cash flow projections, Allen & Co. inappropriately reduced their DCF valuation of AOL.

C. Additional Flaws With Allen & Co.'s DCF Valuation

162. Allen & Co.'s DCF Approach models consolidated cash flows using four years of AOL management projections, and terminal 2018 EBITDA multiples

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[164] *See Allen 05-10-15 Backup Workbook* at tabs "WholeCo DCF (Old CF)" and "Forecast".

between 6.5x and 7.5x, yielding implied enterprise values between $3.9 billion and $4.6 million and implied equity values between $46.88 and $55.61 per share.[165]

163. Allen & Co.'s DCF Approach relied on only four years of management financial projections before applying a terminal value. Yet at his deposition, Mr. Omar Isani indicated that when applying the DCF Approach, "[l]ike I mentioned, I ideally would want as long-term a forecast as possible and what we try to do is at a minimum have five years ideally for management when we can. And in this case, the businesses are still growing at such a rate that we would rather see more steady state financials before we apply a terminal."[166] Indeed, as discussed above, a significantly longer horizon is necessary in order to arrive at a "steady state."

164. In addition, Allen & Co. provide no basis for their selected terminal EBITDA multiples of between 6.5x and 7.5x. In fact, earlier analyses produced by Allen & Co. – and presented to the AOL board of directors – use higher terminal multiples, which would lead to higher valuations.[167]

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[165] *Fairness Opinion* at ALLEN_00013545 and 555.
[166] *Isani Deposition*, at 169:23-170:7.
[167] *See*, *e.g*., AOL Board of Directors Meeting Materials, February 27, 2015 (AOL00002429). When asked at his deposition about the multiples used by Allen & Co in the February 27 board materials, including the higher DCF terminal multiple range of 7x to 8x EBITDA, Mr. Isani stated that they were all "reasonable." *See Isani Deposition*, at 170:8-170:20.

D. Allen & Co.'s Analyses Omit the Financial Impact of the Microsoft Display and Millennial Media Transactions

165. AOL essentially completed the Microsoft Display deal prior to the Valuation Date. In addition, as of the Valuation Date, AOL was in advanced negotiations to acquire Millennial Media. These transactions were expected to impact AOL's financial performance. However, the financial projections Allen & Co. presented in the Fairness Opinion did not include this M&A activity and therefore understated AOL's projected revenue, EBITDA, and cash flows as of the Valuation Date.[168]

166. Both the Millennial Media acquisition and the Microsoft Display deal were expected to contribute significant revenue to AOL's Platforms segment. This additional revenue has a dramatic impact on Allen & Co.'s Peer Multiples and Precedent Transactions analyses.

167. Allen & Co. presented four analyses in its Peer Multiples Approach: (1) using enterprise value-to-2015E EBITDA multiples for AOL as a whole; (2) using enterprise value-to-2016E EBITDA multiples for AOL as a whole; (3) a sum-of-the-parts exercise using enterprise value-to-2015E EBITDA multiples for the Membership and Brands segments, and enterprise value-to-2015E Revenue multiples for the Platforms segment; and (4) a sum-of-the-parts exercise using

[168] *Isani Deposition*, at 132:13-133:7.

enterprise value-to-2016E EBITDA multiples for the Membership and Brands segments, and enterprise value-to-2016E Revenue multiples for the Platforms segment.

168. To perform these analyses, Allen & Co. developed several distinct sets of comparable companies: a set of "whole company" comparable companies, and one set of comparable companies for each of AOL's three segments, Membership, Brands, and Platforms.

169. **Exhibit 20** illustrates the impact that the financial performance of Millennial Media and the Microsoft Display deal have on Allen & Co.'s sum-of-the-parts multiples analysis, leaving all else equal. Millennial Media and the Microsoft Display deal contribute an additional $300 million in projected Platforms revenue in 2015 and $950 million in 2016. The additional cash flows from these acquisitions increase Allen & Co.'s Implied Equity Value per Share Range to $48.44 - $61.43 (using Allen & Co.'s 2015E multiples) and $57.99 - $69.52 (using Allen & Co.'s 2016E multiples). *See* **Exhibits 20-1** and **20-2**.

170. The impact on Allen & Co.'s Precedent Transactions Approach is similar. Allen & Co. selected 15 acquisitions completed between July 2009 and April 2015 with a total firm value (or enterprise value) of between $80 million and $2.4 billion. Using an Enterprise Value-to-2015E EBITDA multiple for Brands and Membership, and an Enterprise Value-to-2015E revenue multiple for Platforms,

Allen & Co. determines a sum-of-the-parts valuation with an implied equity value range between $47.67 and $58.82.[169] Adding the incremental projected revenue from the Millennial Media and Microsoft Display deals, and leaving all else equal, increases this range to $54.11 – $67.10. *See* **Exhibit 21**.

E. Additional Flaws With Allen & Co.'s Peer Multiples and Precedent Transactions Analyses

171. Allen & Co. selected peers based on their "professional judgment."[170] In their May 10, 2015 Backup Workbook, Allen & Co. identify at least 14 peers of AOL that were "not selected" to be included in the peer multiples analysis but that, had they been included, would have had the effect of significantly raising median multiples. Allen & Co. do not lay out the basis for this exclusion in their workbook.[171]

172. In their Sum-of-Parts Selected Public Companies Analysis, Allen & Co. selected two companies as peers for the Membership segment: EarthLink and United Online. The Enterprise Value-to-2015 EBITDA multiples for these companies ranged between 4.5x and 5.0x and the Enterprise Value-to-2016 EBITDA multiples ranged between 4.4x and 5.6x. However, Allen & Co. ultimately applied an Enterprise Value-to- EBITDA multiple range of 2.5x – 3.0x, a significantly lower

[169] *Fairness Opinion* at ALLEN_00013543, 552-554.
[170] *See Isani Deposition*, at 70:17-70:22.
[171] See *Allen 05-10-15 Backup Workbook* at tab "WholeCo Editor".

range than that implied by the selected segment comparables.[172] Allen & Co. justified their choice stating that:

> [g]iven the declines in the Company's Membership Group segment anticipated by the Company, Allen & Company also calculated implied EBITDA multiples from the estimated net present value of the Company's Membership Group segment based on internal forecasts and other estimates of the Company's management and assuming that the unlevered free cash flow from such segment runs-off at a 10% annual rate after calendar year 2018, which indicated implied ranges of calendar year 2015 and calendar year 2016 estimated EBITDA multiples of 2.5x to 2.7x and 2.8x to 3.0x, respectively.[173]

Allen & Co. therefore ignored the implied multiple range based on their own selected peers for the Membership segment and instead applied to a relative valuation multiple-based analysis, or multiples implied by a DCF run-off analysis. Allen & Co. therefore mixed different valuation methodologies to arrive at a total enterprise value for AOL.

173. In addition, Allen & Co. inappropriately blends EBITDA and revenue multiples in their Sum-of-Parts analyses. Allen & Co. performed a Sum-of-Parts Selected Public Companies Overview (a peer multiples analysis) and a Sum-of-Parts Selected Precedent Transactions Analysis. In both frameworks, Allen & Co. applies forward EBITDA multiples to the Membership, Brands and Corporate segments and forward revenue multiples to the Platforms segment. Allen & Co. derived a “total”

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[172] *Fairness Opinion* at ALLEN_00013548-551.
[173] AOL Inc. Schedule 14D-9 filed on May 26, 2015, at 27.

selected multiple range of 6.98x – 8.85x 2015E EBITDA multiple and 6.39x – 7.69x 2016E EBITDA multiple based on a mix of EBITDA and revenue multiples. While the use of revenue multiples might be appropriate for Platforms, especially when the segment's earnings were negative, it is inappropriate to blend different types of multiples to achieve a "total" multiple applicable to the entire company. EBITDA and revenue multiples not only differ in nature, but greatly vary in magnitude as well.

174. Allen & Co.'s Sum-of-Parts Selected Precedent Transactions Analysis incorrectly applies the Membership and Corporate multiples used in its Sum-of-Parts Selected Public Companies Analysis (peer multiples analysis).[174] This results in an internally inconsistent analysis because precedent transactions analyses and peer multiples analyses, while similar in their mechanics, differ in their inputs and the interpretation of the resulting multiples. The multiples in a peer multiples analysis results from the enterprise value of a publicly traded company at a certain point in time, which implies that multiples resulting from this analysis are to be interpreted as tied to a minority stake in the subject company. Conversely, the multiples resulting from a precedent transactions analysis are based on the implied consideration paid for an entire company on a controlling basis, which may include premiums and/or account for synergies.

[174] AOL Inc. Schedule 14D-9 filed on May 26, 2015, at 29.

VII. CONCLUSION

175. Based on the foregoing analyses, I conclude that the fair value per share of AOL common stock as of the Valuation Date was $68.98. I base this conclusion on my independent evaluation of AOL's value using standard valuation techniques, particularly the DCF Approach. Moreover, I find that AOL's financial advisor, Allen & Co., produced an unreliable valuation analysis in its fairness opinion that understates the fair value of AOL. Collectively, the analyses that I perform in this report show that the consideration of $50 per share offered in the Merger is not a reliable indicator of AOL's fair value as of the Valuation Date.

2/16/2017

Date

Professor Bradford Cornell