Data Pinpoints Expert Valuation Differences In Del. Appraisals

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In a recent Law360 guest article, Michael Maimone and Joseph Schoell discuss the Delaware Court of Chancery appraisal decision, In re Appraisal of Jarden Corp., and how it relates to their checklist for shareholders considering an appraisal action.[1] They close their article by noting the court's "frustration with experts in appraisal proceedings," and calling on experts to "consider presenting valuations closer to the deal price" in disinterested transactions with arm's-length negotiation.

In this article, I review the sources of disagreement in valuations and examine data on experts' valuations in Delaware appraisals in order to evaluate Maimone and Schoell's call to action.

"It is Difference of Opinion That Makes Horse Races"[2] — and a Stock Market

As the court, and the authors, recognize:

> Valuing an entity is a difficult intellectual exercise, especially when business and financial experts are able to organize data in support of wildly divergent valuations for the same entity. For a judge who is not

> expert in corporate finance, one can do little more than try to detect gross distortions in the experts' opinions. This effort should, therefore, not be understood, as a matter of intellectual honesty, as resulting in the fair value of a corporation on a given date. The value of a corporation is not a point on a line, but a range of reasonable values, and the judge's task is to assign one particular value within this range as the most reasonable value in light of all of the relevant evidence and based on considerations of fairness.[3]

The value of a firm depends on the outlook for the uncertain future. At its essence, valuing a firm entails taking a view on a narrative of the firm's future.

Recognized valuation expert Aswath Damodaran emphasizes this perspective in his book "Narrative and Numbers: The Value of Stories in Business." As an example, he describes competing views investors may have about Ferrari: Will it continue as a niche brand with limited production geared toward the ultra-rich, or will Ferrari follow Maserati's example and expand production somewhat by offering a lower-priced (but still expensive) alternative for the merely rich?

Like investors, appraisal experts often have divergent narratives for a company and its competitive environment which give rise to different valuations. The CKX Inc appraisal is a good example.[4]

CKX was a media company acquired by Apollo Global Management LLC in 2011. Its primary asset was the television show "American Idol," which at the time had the highest ratings on prime time television for several years running. However, the show faced new competition from the rival show "X-Factor" and its contract with Fox was up for renewal, making the experts' narratives extremely important to a discounted cash flow, or DCF, valuation.

Would "American Idol" negotiate a favorable contract extension with Fox and continue to dominate ratings, as the petitioners' expert assumed? Or would the show's popularity wane over time, consistent with the view adopted by the respondent's expert?

These are subjective questions that are difficult to answer definitively.[5] Professor Damodaran recommends evaluating the narrative through the lens of the "iron triangle" of valuation — growth, risk and reinvestment — to ensure that the assumptions are internally consistent.[6]

Such thinking can help identify some extreme narratives, but others may be harder to rule out, despite a wide range in valuations that can result from modest changes to the inputs to a DCF model.[7] Market prices represent a consensus view that balances out the optimism of the bulls and the pessimism of the bears.

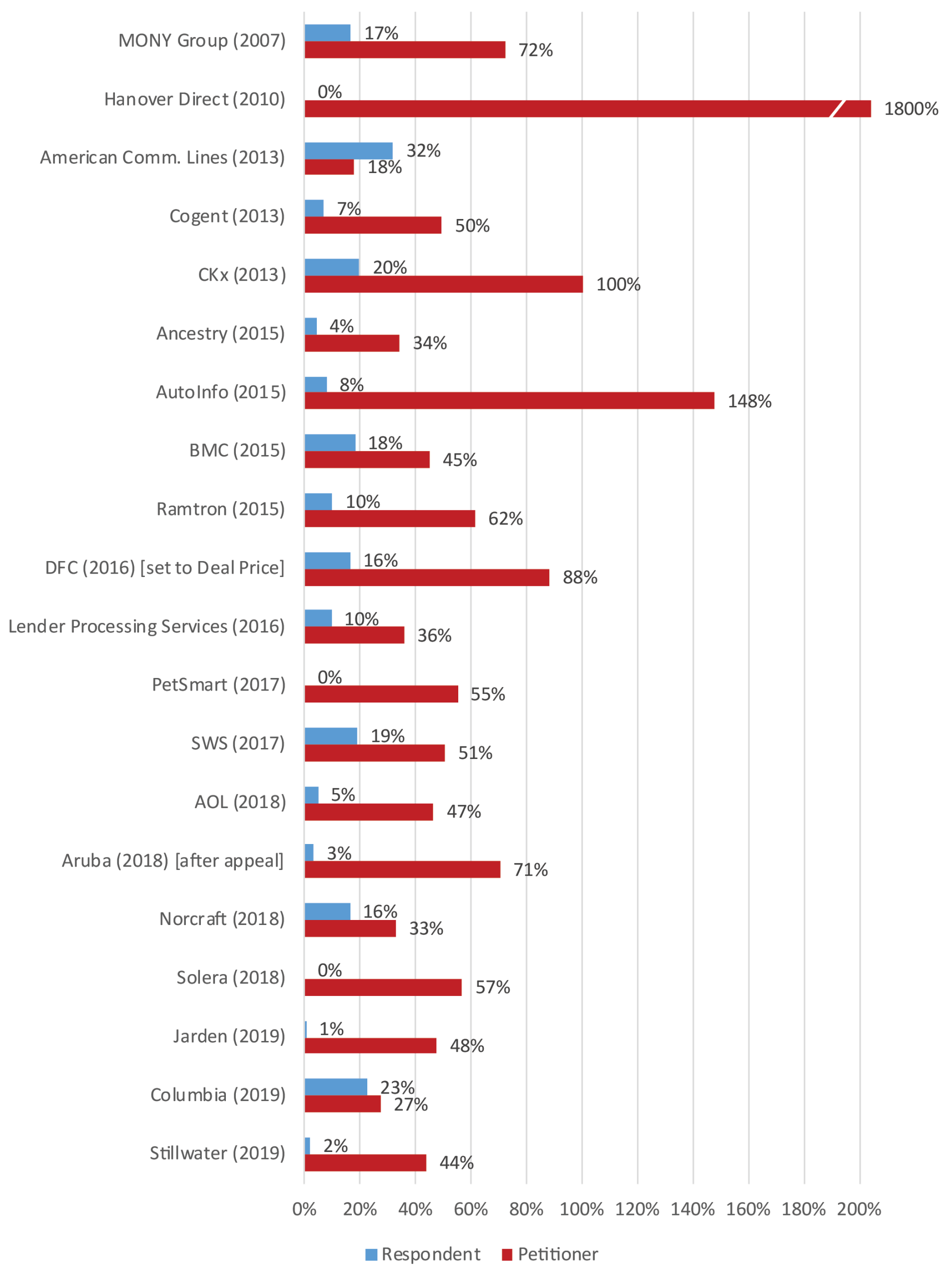
With this backdrop, it should not be surprising that there is variation in experts' opinions about fair value in appraisal cases. The Maimone and Schoell article raises interesting questions as to whether the divergence in appraisal experts' valuations is excessive, and whether that disparity is driven more by one side than the other.

Appraisal Outcomes Data

To investigate these questions, I assess the outcomes of Delaware appraisal cases since 2006.[8] To adhere to Maimone and Schoell's focus, I examine the 20 cases involving disinterested transactions of public targets, and exclude interested transactions such as management buyouts (e.g., Dell) and deals involving private targets.

Figure 1 shows the valuations of petitioners' and respondents' experts as percentage deviations from the court's determination of fair value.[9] For ease of presentation, the graph shows the absolute value of respondent valuations (all but Aruba are below the court's fair value) and is truncated at 200%. (The petitioner's expert valued Hannover Direct at $4.75 per share, but the court's fair value was only $0.25.)

Figure 1



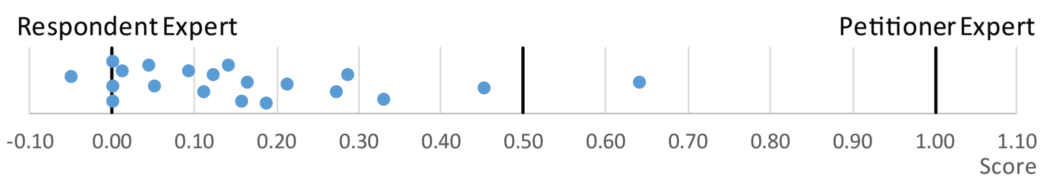
It is clear that the respondents' experts (blue bars) provided valuations much closer to the court's determination of fair value than the petitioners' experts (red bars). The median difference between expert valuation and fair value was –8.8% for respondents and 50.1% for petitioners.[10]

In 19 of the 20 cases, the petitioner's expert was further from fair value than the respondent's expert. A sign-rank test provides strong statistical evidence ($p < 0.01\%$) against the hypothesis that the magnitude of valuation errors are equal for petitioners' and respondents' experts.[11]

An alternative way of quantifying the asymmetry between petitioner and respondent valuations is to measure where the court's fair value is located in the range of the competing experts' valuations.[12] A score of 0.0 indicates that the court accepted the respondent's valuation, accepting the petitioner's valuation is a score of 1.0, and a score of 0.5 is a split-the-difference ruling.

Figure 2 shows clearly that the outcomes cluster on the respondents' side of the "football field." The average score is 0.16, with a median of 0.13. As noted above, in only one case (American Commercial Lines Inc. v. IQ Holdings Inc.) did the court determine that the fair value was closer to the respondent's valuation than the petitioners', and four opinions adopted the respondent expert's valuation or (in the case of Verition Partners Master Fund Ltd. v. Aruba Networks Inc.) a lower valuation.

Figure 2



The asymmetry between petitioner and respondent experts is perhaps not surprising in light of the narrative framework described above.

Petitioners tend to advance an optimistic narrative, effectively disagreeing with the market consensus.[13]

Respondents tend to look to market evidence as part of the mosaic of evidence informing an estimate of fair value. Such market evidence typically points to lower valuations because it balances an optimistic narrative with others that are less sanguine, and provides an anchor point for the respondents' valuations.[14]

When to Depart from Market Evidence?

To the extent that petitioners advance a valuation theory that significantly exceeds market evidence such as the unaffected price or the deal price (less synergies), they need to provide a compelling explanation as to why the court should not trust the market evidence as an indicator of fair value.

With respect to the unaffected price, there are three main strategies that petitioners tend to pursue. Two of these strategies assume the market is efficient and relate to the availability of information; the third is to challenge the efficiency of the market itself.

First, because the valuation date for an appraisal under Section 262 of Delaware General Corporation Law is the transaction closing date, petitioners can explore any favorable changes that occur during the time between news of the transaction and the deal closing. Such information could be macro in nature (e.g., all stocks rose in response to a decline in interest rates), or it could be specific to the industry (e.g., defense contractors rose on news of expanding defense spending) or firm (e.g., successful launch of a significant new product that was not already embedded in publicly available forecasts).

The second strategy starts with the idea that the market lacks value-relevant private information. The consensus view of most finance academics, and expressed in a number of appraisal opinions, is that most stocks listed on major exchanges trade in markets that are semi-strong form efficient, which means that prices reflect publicly available information.[15]

On the other hand, fair value in the Delaware Chancery Court should reflect private information as well as public information.[16] Thus, to the extent that the company has private information as of the merger announcement date and the market is semi-strong form efficient rather than strong-form efficient, the unaffected price should be adjusted to reflect that private information.

There is no reason to believe that information stemming from either the temporal gap between announcement and closing or the gap between private and public information will lead to an upward adjustment to the price. Because news by its nature could be better or worse than expected, the adjustment could well lower the valuation. Measurement is challenging: There may be multiple pieces of information to account for, each of which is difficult to translate into a valuation effect.

As a practical matter, the weight of the information may point in one direction or the other, in which case the unadjusted price may provide a useful upper or lower bound. For example, the court in Jarden considered both private information and news between the announcement and the closing, and concluded that it was neutral to negative, and therefore an upward adjustment to the unaffected price was not warranted.

The third attack on unaffected price is to establish that the market is inefficient in processing the available information.[17] Departing from market prices based on an inefficiency argument is a significant decision. Financial economists note that any test of market efficiency depends on an assumed model of expected returns.[18]

There is a large and active debate over whether apparent excess profits from various portfolios of stocks provide evidence of market inefficiency or mismeasurement of risk in the model of expected returns. Detecting deviations from market efficiency for a single stock at a given point in time is far more difficult than doing so for a portfolio over a period of time. For stocks traded on exchanges such as NYSE and Nasdaq, semi-strong form efficiency is a prudent hypothesis to maintain absent compelling evidence to the contrary.

Petitioners arguing against the deal price can point to the temporal gap between signing and closing based on the same arguments as discussed above for unaffected market price. Of course petitioners can also rebut the reliability of the deal price as an anchor point for fair value by attacking the sale process. However, the court has recognized that even with an imperfect sale process there are limits on how large the fair value could be relative to deal price before other bidders would swoop in, notwithstanding any impediments from the sale process.[19]

Conclusion

Overall, the evidence on appraisal outcomes indicates that the divergence between petitioner and respondent experts is asymmetric, with petitioner valuations generally being further from the court's fair value than those of respondents. On this basis, Maimone and Schoell's call to action is most apt for petitioners' experts, who need to explain the gap between their valuation and the market evidence — a task that becomes more difficult as the gap widens.

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Disclosure: Michael Cliff was a member of the Analysis Group teams that supported valuation experts for the respondents in the CKX, Dell and Jarden cases mentioned above.

Endnotes

1 Michael Maimone and Joseph Schoell, "Chancery Decision Demonstrates When to Skip Appraisal," Law360, August 14, 2019.

2 Mark Twain, Pudd'nhead Wilson's Calendar, 1894.

3 Cede & Co. v. Technicolor Inc., (Del. Ch. Revised July 9, 2004), at 4 (emphasis in original).

4 Huff Fund Investment P'ship v. CKX Inc. (Del. Ch. November 1, 2013).

5 Indeed, the court found a DCF valuation of CKx too speculative due to the lack of reliable projections, and instead used the deal price as the best indicator of fair value. See Huff Fund Investment P'ship, at 24, 37-38.

6 Aswath Damodaran, "Narrative and Numbers: The Value of Stories in Business, Columbia University Press," 2017, at 106-107.

7 With an illustrative 8% discount rate and 3% terminal growth rate, a change in the discount rate of only half of one percent will cause a swing of about 10% in the terminal value. Leverage created by debt amplifies discrepancies in enterprise value to much larger differences in equity value. For example, with $4 billion of debt, a range in experts' enterprise values of $10 billion to $11 billion (10% difference) results in equity values of $6 billion to $7 billion (16% difference).

8 These data are available at https://www.analysisgroup.com/Insights/ag-feature/a-closer-look-at-appraisal-outcomes/.

9 DFC was remanded on appeal and then apparently settled before the Court determined a revised fair value. The lower court gave equal weight to the deal price, a DCF valuation, and a comparable companies valuation. After correcting for an error in the lower court's DCF model, the latter two indicators are below the deal price. Given the language in the appeal opinion, I have coded the fair value as the deal price. DFC Global Corporation v. Muirfield Value Partners, L.P., 172 A.3d 349-351, 376 (Del. 2017).

10 The median is not affected by the Hannover Direct outlier.

11 A paired t-test also provides strong evidence against the hypothesis that the petitioner expert is closer to fair value than the respondent expert. For each of the 20 observations, I measure the valuation discrepancy as ln(P/F) + ln(R/F), where P is the petitioner valuation, R is the respondent valuation, and F is the Court's determination of fair value. A positive number indicates the amount by which the petitioner's optimism exceeded the respondent's pessimism. Using natural logs is appropriate given the skewed nature of the petitioner valuations. This results in an average valuation discrepancy of 44.9%, with standard error of 14.4% and t-stat of 3.1, which exceeds the threshold of 1.64 for significance at the 5% level in a one-sided test (1.96 for a two-sided test). Dropping Hannover Direct reduces the average valuation discrepancy to 31.8%, but increases the t-stat to 6.0 due to the reduction in variance.

12 Using the notation in the prior footnote, the calculation of the score for each case is (F – R)/(P – R).

13 It is interesting to note that the typical appraisal petitioner is not an existing buy-and-hold investor who may legitimately believe in an optimistic narrative for the company, but rather a hedge fund that only recently acquired shares, likely after the announcement of the merger. See Gaurav Jetley and Xinyu Ji, "Appraisal Arbitrage — Is There a Delaware Advantage?," Business Lawyer 71, (2015):427-457.

14 While market evidence can be a valuable reference point, there are arguments against viewing unaffected price or deal price (less synergies) as a floor on fair value. For example, market frictions that hinder the arbitrage activity that normally keeps prices in line with intrinsic value are most likely to apply to short sales, suggesting that over-valuation is more likely than under-valuation. See Edward Miller, "Risk, Uncertainty, and Divergence of Opinion," Journal of Finance 32(4), (1977):1151-1168. Similarly, the deal price can exceed fair value even absent synergies if the bidder has overpaid. Academic research provides evidence that overbidding is prevalent in the U.S. M&A market. See Eric De Bodt, Jean-Gabriel Cousin, and Richard Roll, "Empirical Evidence of Overbidding in M&A Contests," Journal of Financial and Quantitative Analysis 53(4), (2018): 1547-1579.

15 To be clear, the traditional definition of "reflect all information" means that there are no profitable trading opportunities based on this information. This requires that the prices respond to new information quickly, in the correct direction, and by the correct magnitude. There seems to be confusion in some appraisal litigation that semi-strong form efficiency requires a timely response in the right direction ("informational efficiency") but does not require the correct size ("fundamental efficiency"), and that "fundamental efficiency" is a stronger standard than garden-variety semi-strong form efficiency. Not so. If prices systematically responded by the wrong amount to news, there would exist trading opportunities to earn excess profits, and the market would not be semi-strong form efficient.

16 See, e.g., Lawrence Hamermesh and Michael Wachter, "The Fair Value of Cornfields in Delaware Appraisal Law," Journal of Corporation Law 31, (2015):119-166.

17 As a layperson, I do not offer a view on whether it is appropriately the respondent's burden to demonstrate that the market is efficient or the petitioner's burden to show it is not. On this point, the Delaware Chancery Court recently stated that "the standard of proof in an appraisal proceeding is a preponderance of the evidence ... A party is not required to prove its valuation conclusion, the related valuation inputs, or its underlying factual contentions by clear and convincing evidence or to exacting certainty ... 'Proof by a preponderance of the evidence means proof that something is more likely than not. It means that certain evidence, when compared to the evidence opposed to it, has the more convincing force and makes you believe that something is more likely true than not.'" In re: Appraisal of Columbia Pipeline Group Inc. (Del. Ch. August 12, 2019) at 28 (internal citations omitted). From this perspective, the academic finance literature supports semi-strong form efficiency as a default standard for stocks that trade freely on exchanges such as NYSE and Nasdaq. See J.B. Heaton, "Securities Litigation Should Not Be Based On Junk Science," Law360, July 23, 2019; J.B. Heaton, "Kill Cammer: Securities Litigation without Junk Science," SSRN Working Paper 3410446, July 17, 2019 (forthcoming in William & Mary Business Law Review).

18 Eugene Fama "Efficient Capital Markets: II," Journal of Finance 46(5), (1991):1575-1617.

19 For example, the trial court in Dell ruled out the petitioner's valuation of more than double the deal price but determined that a fair value 28% above deal price was within a "smaller valuation gap" that could exist within the sale process. In re: Appraisal of Dell (Del. Ch. May 31, 2016) at 84. The Delaware Supreme Court determined that a 28% valuation gap — implying $7 billion left on the table — was implausible with other bidders choosing to pass on raising their bid. Dell, Inc. v. Magnetar Global Event Driven Master Fund Ltd., 177 A.3d 36 (Del. 2017).