IN THE COURT OF CHANCERY OF THE STATE OF DELAWARE

HBK MASTER FUND L.P., and HBK MERGER STRATEGIES MASTER FUND L.P., Petitioners, v. PIVOTAL SOFTWARE, INC., Respondent.	)))))))))))	C.A. No. 2020-0165-KSJM

POST-TRIAL MEMORANDUM OPINION

Date Submitted: December 13, 2022
Date Decided: August 14, 2023
Date Corrected: March 12, 2024

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The petitioners are former Class A common stockholders of Pivotal Software, Inc., who exercised their appraisal rights in connection with a merger by which Pivotal's controlling stockholder, VMware, Inc., acquired Pivotal for $15 per share.

Relying on a comparable companies analysis and a comparable transactions analysis, the petitioners argue that the fair value of Pivotal stock at the time of the merger was $20 per share. Relying primarily on a discounted cash flow analysis ("DCF"), the respondent pegs Pivotal's fair value at $12.17 per share. To bolster this position, the respondent argues that the deal price of $15 per share provides a cap on fair value because the transaction was conditioned on *MFW* protections. The respondent further points to the unaffected stock price of $8.30 per share to support the argument that the deal price exceeded fair value.

In this post-trial decision, the court finds that the fair value of Pivotal's Class A common stock was $15.44 per share, and that the petitioners are entitled to this amount plus pre-judgment interest. The court reaches this conclusion by ascribing equal weight to adjusted versions of the comparable companies analysis advanced by the petitioners and the DCF analysis advanced by the respondent. The court rejects the parties' other valuation methodologies.

When conducting the comparable companies analysis, the court makes two adjustments to the petitioners' model. First, the court weighs the petitioners' multiplier to account more properly for Pivotal's services segment by including companies in the comparables sample that competed with that segment. Second, the court declines to adjust the result for an implicit minority discount. This yields a value of $14.75 per share.

When conducting its DCF analysis, the court makes two adjustments to the respondent's model. The respondent derives its fair value figure by averaging the results of two separate DCF models, which are identical except that one applies a size premium to the discount rate. The court rejects the respondent's use of a size premium, relying instead on a single DCF calculation without one. The court also rejects the respondent's 'convergence' approach to the terminal value calculation, which implemented an effective 0% perpetuity growth rate in the terminal period. Splitting the difference between the respondent's approach and the petitioners' proposed 5% perpetuity growth rate, the court applies a 2.5% perpetuity growth rate, which also falls in the range of what the respondent's financial adviser applied when rendering its fairness opinion. This yields a value of $16.13 per share.

The court then reaches the $15.44 fair value figure by averaging the $14.75 per share and $16.13 per share calculations.

The respondent's argument concerning the deal price raises an interesting question about deal primacy under Delaware law—namely, whether the appraisal statute requires deference to the deal price in controller squeeze-outs conditioned on *MFW* protections. The short answer is no. The slightly longer answer is that even as the court independently measures going concern value, companies remain incentivized to deploy strong procedural protections for minority stockholders, as those protections can help reduce exposure to liability in appraisal actions, and they did to a degree in this action.

I. FACTUAL BACKGROUND

The record comprises 1,532 joint trial exhibits, trial testimony from eight fact and two expert witnesses, deposition testimony from 20 fact and two expert witnesses, and 145 stipulations of fact in the pre-trial order.[1] These are the facts as the court finds them after trial.

A. Pivotal

Pivotal was a software and services company that provided Platform-as-a-Service ("PaaS") and cloud-based application development to enterprise customers.[2] CEO Robert Mee co-founded the company in April 2013 as a spin-off of assets held by two companies, VMware and EMC Corporation.[3] Before the merger at issue in this litigation, Pivotal had a dual-class stock structure. Class A stock carried one vote per share while Class B stock carried ten votes per share.[4] Dell Technologies, Inc. beneficially owned approximately 94.4% of the combined voting power of both classes of Pivotal's outstanding common

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[1] *See* C.A. No. 2020-0165-KSJM, Docket ("Dkt.") 155 (Joint Sched. of Evid.). This decision cites to: trial exhibits (by "JX" number); the trial transcript, Dkts. 182–186 (by "Trial Tr. at" page, line, and witness); the deposition transcripts of Karen Dykstra, Cynthia Gaylor, Patrick Gelsinger, Marcy Klevorn, Madelyn Lankton, Paul Maritz, Robert Mee, Stephanie Reiter, and Zane Rowe (by the deponent's last name and "Dep. Tr. at"); and stipulations of fact in the Pre-Trial Stipulation and Order, Dkt. 155 ("PTO").

[2] PTO ¶ 58.

[3] *Id.* ¶ 28.

[4] *Id.* ¶ 29.

stock.[5] Michael Dell controlled Dell Technologies as the Chairman, CEO, and beneficial owner of a majority of the total voting power of the outstanding shares.[6]

The Pivotal Board of Directors (the "Board") comprised eight directors—six "Group I" directors elected by Pivotal's Class B stockholders and two "Group II" directors elected by both classes of stock.[7] The Group I directors were Dell, Mee, Paul Maritz, Egon Durban, Zane Rowe, and William Green.[8] The Group II directors were Madelyn Lankton and Marcy Klevorn.[9]

Pivotal had two revenue streams: subscription revenue from its application development platform called Cloud Foundry and services revenue from its software-development services business called Pivotal Labs.[10] Cloud Foundry offered a "cloud-native platform suite" that helped customers in "building, deploying, and operating new cloud-native software applications" on a subscription basis.[11] Cloud Foundry allowed enterprises to run a set of common applications across a wide range of computers. Pivotal Labs provided software development experts to help customers "co-develop new applications and transform existing ones[,]" thus helping "streamlin[e] IT operations[.]"[12]

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[5] *Id.* ¶ 41.

[6] *Id.* ¶¶ 43–44.

[7] *Id.* ¶ 30.

[8] *Id.*

[9] *Id.*

[10] *Id.* ¶¶ 60–61.

[11] *Id.* ¶ 58.

[12] *Id.* ¶ 60.

Although Cloud Foundry was Pivotal's "core" offering and accounted for the "vast majority of [Pivotal's] revenue,"[13] the Pivotal Labs services revenue remained "critical" to growth because it "was used to support the subscription revenue and make customers successful on the platform."[14]

By early 2019, Pivotal faced challenges to its business model. For one, Pivotal's "high-touch" sales strategy made it difficult to serve a large set of customers.[15] Also, Cloud Foundry was highly "opinionated," meaning that it would guide users into its pattern for doing things and made it difficult to deviate from those patterns.[16] This approach was popular at first but, over time, "fewer and fewer customers . . . were very interested in a very opinionated product."[17]

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[13] Trial Tr. at 1082:15–1084:13, 1091:1–1092:5 (Mee) (describing Cloud Foundry "as the core of Pivotal"); JX-991 at 3, 9–10 (slides from Gaylor's presentation to the Board on July 19, 2019, describing Pivotal's lines of businesses and displaying the proportions of subscription revenues to total).

[14] Trial Tr. at 904:20–24, 953:5–17 (Gaylor).

[15] *Id.* at 494:21–495:2 (Gelsinger).

[16] *Id.* at 543:1–21 (Urquhart) (testifying that Cloud Foundry "ma[de] a lot of decisions on behalf of the user that aren't easily changed" about how to run a network, or how to "package[]" the software "to be delivered to servers").

[17] *Id.* at 545:7–13 (Urquhart).

Perhaps most significantly, a new "industry standard" called Kubernetes threatened to replace aspects of Pivotal's key "value proposition."[18] Kubernetes is an open-source platform originally designed by Google that allows for containerization of software.[19]

In layperson's terms, containers are "discrete management clusters of software that . . . very complex information systems would be able to access [] very efficiently."[20] Containerization is the process whereby a developer bundles the relevant application code together with its configuration files and libraries—supplemental code and data that the application needs to run on a given operating system or cloud. Stated another way, a containerized application allows a user to extract that application from its host operating system or cloud-based platform and "plug" it into any other one.[21] Containerization thus makes an application more universally available. In this way, Kubernetes is like a "universal power adapter."[22] Because Kubernetes is open source, "anybody is free to use it without paying"[23]—thus, Pivotal's enterprise customers could take code from Kubernetes and develop their own system for deploying software. Cloud Foundry was not built on or compatible with Kubernetes.[24]

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[18] *Id.* at 449:10–20, 454:3–17 (Gelsinger); *see also id.* at 371:11–13 (stating that Kubernetes gained "a lot of momentum" in the industry between 2018 and 2019); *id.* at 375:23–376:6 (Raghuram).

[19] *Id.* at 398:14–18 (Raghuram).

[20] *Id.* at 32:17–33:12 (Beach).

[21] *Id.* at 367:22–369:20 (Raghuram).

[22] *Id.*

[23] *Id.* at 365:12–24 (Raghuram); *see also id.* at 455:16–19 (Gelsinger).

[24] *Id.* at 374:15–375:1 (Raghuram); *see also id.* at 454:3–17 (Gelsinger).

B. VMware

VMware is an enterprise software company that specializes in virtualization and cloud computing technology.[25] VMware had a dual-class stock structure, and Dell Technologies beneficially owned approximately 97.5% of the combined voting power of both classes of VMware's outstanding common stock.[26] Dell was the Chairman of the VMware Board of Directors.[27] At relevant times, VMware's two key executives were CEO Patrick Gelsinger and COO Raghu Raghuram.[28]

VMware sells software to medium- to large-scale enterprises to manage infrastructure underlying their applications and devices.[29] VMware's software "abstracted" underlying hardware, effectively turning physical servers into more "virtual" servers.[30] Virtualization helps data centers reduce operating costs and manage their systems more efficiently.[31]

As early as 2016, VMware had developed what it called an "any, any, any" strategy—its platform would ideally permit customers to run any applications on any

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[25] PTO ¶ 37.

[26] *Id.* ¶ 42.

[27] *Id.* ¶ 43.

[28] Gelsinger Dep. Tr. at 17:23–25; Trial Tr. at 435:19–21 (Gelsinger) (stating that he was CEO of VMware for approximately eight years); *id.* at 343:6–11 (Raghuram).

[29] Trial Tr. at 347:8–15 (Raghuram); *see also id.* at 349:5–351:16 (Raghuram) (describing VMware's business strategy).

[30] *Id.* at 441:10–443:14 (Gelsinger).

[31] *See id.* at 441:10–24 (Gelsinger) (describing inefficiencies in "server sprawl" for data center operators "before VMware came into the market").

devices across any cloud infrastructure.[32] In line with its goals of flexibility and targeting developers, VMware decided to develop a "cloud-agnostic" platform that would allow "developers to build new applications as if they were on a cloud, without locking themselves into a particular cloud."[33] VMware wanted the new platform to be Kubernetes-compatible, because it viewed Kubernetes as "the de facto top layer of [modern] infrastructure[.]"[34] VMware also wanted the new platform to become an "integrated product" with the company's existing infrastructure.[35]

VMware and Pivotal had discussed a possible merger in early 2017.[36] Within VMware, this was referred to as "Project Peach."[37] At the time, Pivotal was evaluating whether to sell to VMware or another potential buyer, or to conduct an initial public offering. This strategy was referred to within Pivotal as "Project Flavor[,]" on which Morgan Stanley advised Pivotal respecting the M&A transaction portion.[38] Morgan Stanley's team included Managing Director Anthony Armstrong.[39] Morgan Stanley contacted several potentially interested parties in connection with Project Flavor.[40] Dell

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[32] *Id.* at 349:22–351:20 (Raghuram).

[33] *Id.* at 355:22–356:4 (Raghuram).

[34] *Id.* at 404:7–10 (Raghuram).

[35] *Id.* at 354:9–18 (Raghuram) ("There was nobody in the industry that was providing something that was a vendor agnostic development platform and infrastructure platform.").

[36] *Id.* at 718:12–719:3 (Armstrong).

[37] PTO ¶ 68.

[38] Trial Tr. at 718:12–719:3 (Armstrong).

[39] *Id.*

[40] *Id.* at 719:8–20 (Armstrong).

Technologies instructed Morgan Stanley that it "should call the other strategic buyers and tell them if they are at the right price [Dell Technologies] will support the deal."[41]

VMware was interested in acquiring Pivotal because it would allow VMware to "move up the stack."[42] VMware "was largely at the lowest levels of infrastructure right next to the hardware," whereas Pivotal's products were further up the stack "where people would be developing their applications on the Pivotal platform."[43] And Gelsinger and Raghuram believed that acquiring Pivotal would let VMware more readily target software developers, who were becoming increasingly influential to VMware's customer base.[44]

Ultimately, Pivotal and VMware did not proceed with a merger because they could not agree on valuation.[45] Nonetheless, management at VMware retained a "general belief that bringing [VMware and Pivotal] together was still the right answer."[46]

Following Project Peach, Pivotal began working toward an IPO of its Class A stock. Morgan Stanley and Goldman Sachs acted as lead underwriters in connection with

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[41] *Id.* at 857:6–15 (Armstrong).

[42] *Id.* at 454:24–455:7, 485:2–486:8 (Gelsinger).

[43] *Id.* at 445:4–12 (Gelsinger).

[44] *Id.* at 454:24–455:7, 485:2–487:7, 488:5–10 (Gelsinger); *id.* at 384:8–11, 396:7–14 (Raghuram); *see also id.* at 446:11–15 (Gelsinger).

[45] *Id.* at 1174:9–19 (Hathaway).

[46] *Id.* at 488:16–489:17 (Gelsinger).

Pivotal's IPO.[47] In April 2018, Pivotal offered its Class A stock at a price of $15 per share on the NYSE.[48]

Also following Project Peach, Pivotal and VMware decided to partner on developing a Kubernetes-based supplemental offering called Pivotal Cloud Software ("PKS").[49] Mee stated that Pivotal's long-term goal was to "converge" Cloud Foundry and PKS "into one offering."[50] After launching PKS, however, Pivotal management came to view the product as a disappointment.[51] Potential customers did not understand why Pivotal, known for Cloud Foundry, would provide a Kubernetes-based offering.[52] Although Mee believed that Kubernetes required some refinement before developers could use it—thus foreclosing developers from simply taking what they wanted from the open-source code—Pivotal's customer base did not necessarily share that view.[53] Members of Pivotal leadership also thought its technology was behind other cloud providers integrating Kubernetes into their offerings.[54]

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[47] PTO ¶¶ 72–73; JX-1361 at 31.

[48] PTO ¶ 73.

[49] *Id.* ¶¶ 64, 71. Pivotal referred to its Kubernetes-based offering as "PKS" rather than "PCS" to disambiguate the phrase "PKS" from "PCF," because otherwise, "PCS" and "PCF" would sound similar and lead to confusion. The use of the letter "K" also was a play on Google's container engine abbreviation, GKE. *See* Mee Dep. Tr. at 49:18–53:20.

[50] JX-337 at 1.

[51] Trial Tr. at 1082:15–1083:14 (Mee) (stating that PKS, although "strong[,]" "wasn't the same kind of platform that Cloud Foundry was and it wouldn't be for quite some time").

[52] *Id.* at 1127:24–1128:21 (Mee).

[53] *See id.*

[54] *See* Klevorn Dep. Tr. at 20:11–23.

Meanwhile, at a September 2018 offsite meeting attended by Mee, Gelsinger, Dell, and other representatives of Pivotal, VMware, and Dell Technologies, Pivotal learned that VMware had developed additional containerization offerings. Mee wrote to Dell, "the reality is that [Gelsinger] has way more stamina for this kind of knife fight than we do. . . . I'm desperately afraid that [Gelsinger] and his team are not going to put an authentic effort into selling PKS. . . . I think the one thing you can do is insist that [Gelsinger] get real about PKS and SELL IT." Dell responded, "Worth more discussion. I do agree with your last point about selling PKS."[55]

C. VMware And Pivotal Discuss A Strategic Transaction.

Pivotal and VMware resumed discussions about a possible merger in late December 2018. That month, Dell and Gelsinger had preliminary discussions with other members of the VMware Board.[56] The next month, Dell broached the topic with Maritz and Mee.[57]

On January 22, 2019, Mee met with Gelsinger, who expressed interest in a potential acquisition of Pivotal and indicated that VMware would begin conducting preliminary due diligence.[58] Contemporaneously, VMware was considering other strategic transactions, such as a purchase of a data security company or data protection assets from Dell Technologies. VMware termed this overarching project "Project Basket."[59]

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[55] JX-312 at 1; Trial Tr. at 1095:3–1098:9 (Mee).

[56] PTO ¶ 77.

[57] *Id.* ¶ 78.

[58] *Id.* ¶ 79.

[59] *See* Trial Tr. at 1201:2–8 (Hathaway).

During a February 1, 2019 meeting of the VMware Board, Raghuram discussed a strategy for developing a successful, Kubernetes-based platform. As Raghuram saw it, there were three options for VMware: it could build Kubernetes-based technology in-house; buy a company that had similar capabilities; or partner with another company to develop the technology.[60] Raghuram recommended the buy option by process of elimination—building the relevant technology would "take time" to "produce a product[,]"[61] and VMware's disappointment with PKS scared it away from a partnership.[62] Raghuram further recommended that VMware buy Pivotal, noting that it had strong "Platform IP[,]"[63] high "[c]ustomer [c]redibility[,]"[64] and "services to help developers acquire customer base."[65]

After the February 1, 2019 presentation, the VMware Board decided to pursue a potential transaction with Pivotal. VMware called this "Project Raven."[66] That day, the VMware Board formed a special committee comprised of Karen Dykstra (Chair), Michael Brown, and Paul Sagan (the "VMware Special Committee").[67] The VMware Board resolved not to act on any acquisition without the VMware Special Committee's

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[60] *Id.* at 358:13–360:3 (Raghuram); JX-474 at 12; PTO ¶ 80.

[61] Trial Tr. at 359:3–8 (Raghuram).

[62] *Id.* at 364:10–15 (Raghuram) (stating that the PKS partnership was "not working well").

[63] JX-474 at 13.

[64] *Id.*

[65] Trial Tr. at 364:2–9 (Raghuram).

[66] *See generally* JX-474.

[67] PTO ¶ 80; *see also* JX-473 at 1, 3–7.

approval.[68] Also on February 1, the VMware Special Committee held its first meeting, in which it retained Gibson, Dunn & Crutcher LLP and Lazard Frères & Co. LLC as legal and financial advisors, respectively.[69]

The Pivotal Board met on January 28, 2019.[70] At that meeting, neither Dell, Maritz, nor Mee informed the rest of the Board about discussions of the VMware merger.[71] In his deposition, Maritz stated that he did not bring up the potential transaction because he was not yet "convinced that there really was a high likelihood of something happening."[72] Mee, however, assumed the merger would happen. He testified that a "potential merger" with VMware was always "essentially in the background and discussed from very early days" at Pivotal.[73]

Pivotal management proceeded to explore a potential transaction with VMware, although the Pivotal Board had not yet discussed it. On February 7, 2019, VMware sent Pivotal a draft non-disclosure agreement, which Pivotal signed on March 7, 2019.[74] On March 8, 2019, Lazard sent Pivotal CFO Cynthia Gaylor a proposed timeline for a

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[68] JX-473 at 5; *see also* Trial Tr. at 642:15–18 (Dykstra). Rowe, who was CFO of VMware at the time, temporarily recused himself from the Board as a result. Rowe Dep. Tr. at 135:20–136:10; *see also* PTO ¶ 82.

[69] PTO ¶ 81.

[70] *See generally* JX-456.

[71] *See id.*

[72] Maritz Dep. Tr. at 139:18–140:2.

[73] Trial Tr. at 1103:8–17 (Mee).

[74] PTO ¶ 83.

transaction along with a list of initial diligence requests.[75] Among other things, VMware asked for Pivotal's "[m]ost recent long-range plan (FY20–22)" (the "Long-Range Plan").[76] VMware especially wanted access to Pivotal's Long-Range Plan because Project Peach had broken down in 2018 over the parties' disagreement on valuation.[77]

As diligence proceeded, Pivotal announced its earnings on March 14, 2019. In that announcement, Gaylor reported certain financial metrics for the fiscal year ending February 1, 2019 ("Fiscal Year 2019") and Q4 of the same, along with projections for "Fiscal Year 2020."[78] In particular:

- For Fiscal Year 2019, Pivotal reported approximate subscription revenue of $400.9 million and total revenue of $657.5 million, reflecting increases of 55% and 29% year-over-year, respectively.[79]
- For Fiscal Year 2019, Pivotal reported non-GAAP operating losses of approximately $71.3 million.[80]
- Forward guidance for the following Q1 of Fiscal Year 2020, which began on February 1, 2019: subscription revenues of $124.5 to $125.5 million; total revenue of $183 to $185 million, and non-GAAP operating losses of $13.5 to $12.5 million.[81]

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[75] *Id.* ¶ 92.

[76] Trial Tr. at 1188:17–1189:10 (Hathaway); PTO ¶ 95.

[77] VMware's then-Vice President of Investment Strategy, Philip Hathaway, attributed the failure of Project Peach back in 2017 to the parties' inability to "align on a long-range plan[.]" Trial Tr. at 1190:7–23 (Hathaway).

[78] PTO ¶ 84; *see also* JX-589 at 2 (Form 8-K filed March 14, 2019).

[79] *See* JX-589 at 4.

[80] *See id.* at 4, 11; *see also* PTO ¶ 84.

[81] *See* JX-589 at 5; *see also* PTO ¶ 85.

- Forward guidance for Fiscal Year 2020: subscription revenue of $542 to $547 million; total revenue of $798 to $806 million; and non-GAAP operating losses of $38 to $36 million.[82]

- Gaylor also disclosed that Pivotal finished Fiscal Year 2019 with $990 million in Remaining Performance Obligation ("RPO"), representing the sum of short- and long-term deferred revenue (i.e., advance payments on contracts) with backlog (unbilled portions of existing contracts).[83] Gaylor also stated that Pivotal expected RPO growth for Q1 of Fiscal Year 2020 in the range of the mid-teens.[84]

Pivotal management and the market viewed these results as disappointing. Many metrics fell short of what Pivotal had projected in its "Annual Plan"—a comprehensive annual financial and operational plan that Pivotal management regularly developed and presented to the Board.[85] Pivotal missed the previous year's Annual Plan projection of total revenue by 4%, or $26 million.[86]

The Company's disappointing revenue tracked its lower-than-expected Annual Contract Value ("ACV") figures.[87] ACV represents annualized software subscription revenue bookings, which Gaylor described as "the most important [internal] metric at the

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[82] *See* JX-589 at 5; *see also* PTO ¶ 85.

[83] PTO ¶ 84.

[84] *See* JX-588 at 6.

[85] Trial Tr. at 899:10–900:24 (Gaylor). Pivotal also prepared monthly updated forecasts using the Annual Plan. *See id.* at 900:20–24 (Gaylor).

[86] JX-632 at 11 (March 22, 2019 Board meeting presentation slide comparing projection of total revenue of $683 million in February 2018 with actual results of $657 million after February 2019).

[87] *Compare* JX-932 at 41, *with id.* at 42.

company[.]"[88] The Company's miss as of March 14, 2019, was not the first time the Company had missed ACV targets—it also missed in six prior quarters.[89] Pivotal management attributed the disappointing results to a mix of Kubernetes and increased competition from public cloud providers.[90]

Notwithstanding its financial misses, the next day, on March 15, the Pivotal Board met and formed a special committee to oversee the VMware acquisition (the "Pivotal Special Committee").[91]

The Pivotal Board appointed the two Group II directors, Klevorn and Lankton, to the Pivotal Special Committee, of which Lankton was Chair.[92] Klevorn and Lankton were independent but inexperienced. Klevorn, who has held various positions at Ford Motor Company, joined the Board in 2016 when Ford invested in Pivotal.[93] Lankton joined the Board in October 2018 after retiring as CIO at Travelers Insurance. Lankton had never previously served on a board of directors.[94]

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[88] Trial Tr. at 902:24–903:14 (Gaylor); *see also* PTO ¶ 67 (describing ACV as "a driver of Pivotal's internal forecasts"). At trial, Gaylor more specifically described ACV as "one of the most important metrics for the forecast and the business model" at Pivotal, and "determine[d] a lot of other metrics," including subscription revenue, calculated billings, and RPO. Trial Tr. at 902:24–903:14 (Gaylor).

[89] *See* JX-797 at 4; JX-932 at 41.

[90] *See* Trial Tr. at 1127:24–1129:4 (Mee).

[91] *See* JX-593.

[92] *See also* PTO ¶¶ 87–88.

[93] Trial Tr. at 867:16–868:1 (Klevorn); *see also* PTO ¶ 57 (describing Klevorn's various positions throughout the years, such as Executive Vice President, Chief Transformation Officer, and President of Mobility).

[94] Lankton Dep. Tr. at 6:22–7:14, 10:22–11:2, 60:7–10.

Through a March 15, 2019 resolution, the Pivotal Board gave the Pivotal Special Committee authority to recommend whether to pursue a potential transaction with VMware and conditioned the deal on the Pivotal Special Committee's approval.[95] The Pivotal Special Committee had its first meeting that day, in which it retained Latham & Watkins LLP as legal counsel and Morgan Stanley as financial advisor.[96]

On March 16, 2019, Morgan Stanley banker Sterling Wilson emailed Armstrong, the subject line of which was "Urgent read – spoke to [Robert Mee]."[97] Wilson told Armstrong that

> Rob[ert] [Mee is] getting pressure from [P]at [Gelsinger] and Michael [Dell] to move fast. . . . Gotta be fast. Gotta give stuff. Not standard process. This is a supervised process. One where [P]ivotal has great risk if [Dell] decides to go with [VMware], then [it] [d]oesn't [sic] happen . . . [P]ivotal will lose all disputes in [the] future. So [it] can't be typical m[&]a playbook with third party.[98]

The next day, Armstrong responded, "Yep[,] got it. Advice I am giving is with that in mind."[99] At trial, Armstrong stated that he had previously advised the Pivotal Special Committee to "resist giving" certain information to VMware "to try and force" VMware "to give us a proposal before we were more forthcoming."[100] Armstrong interpreted

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[95] *See* JX-593 at 4–6.

[96] PTO ¶ 90; *see also* Lankton Dep. Tr. at 55:25–56:8; 57:10–13.

[97] *See* JX-609 (March 16–17, 2019 email exchange between Wilson and Armstrong).

[98] *Id.*; *see also* Trial Tr. at 795:14–796:2 (Armstrong) (clarifying short-hands used in the March 16, 2019 email).

[99] JX-609.

[100] Trial Tr. at 732:8–733:7 (Armstrong).

Wilson's email to mean that Dell Technologies, Pivotal leadership, and VMware leadership each had to either "have VMware acquire Pivotal or find a way to cut Pivotal loose and go do its own thing" and there was "a decent amount of pressure" to get to an answer—merger or no merger—"sooner [rather] than later."[101] Armstrong stated that, although Dell and others wanted an expedited diligence process, their pressure did not cover substantive deal terms.[102] Armstrong did not know what Wilson meant by characterizing the deal as a "supervised process."[103]

On March 20, 2019, and in line with Wilson's email, the Pivotal Special Committee met and decided to provide diligence materials to VMware.[104] The next day, Pivotal opened a data room that the parties used to exchange diligence information.[105] Pivotal did not yet provide VMware with its Long-Range Plan because Pivotal had not yet updated its projections around the IPO.[106]

Around this time, the Pivotal Special Committee decided not to canvas the market for other potential bidders. Minutes from the committee's March 29, 2019 meeting show that the Pivotal Special Committee was "cognizant of the risks inherent in a wider sale process"—such as the risk that Dell could "prevent any alternative transaction from being

[101] *Id.* at 733:17–734:2 (Armstrong).

[102] *Id.* at 735:1–8 (Armstrong).

[103] *Id.* at 738:4–9 (Armstrong) (stating that the phrase "meant nothing to me").

[104] JX-620.

[105] PTO ¶ 94; Trial Tr. at 1191:4–1192:1 (Hathaway).

[106] PTO ¶ 95.

consummated."[107] On April 5, 2019, the Pivotal Special Committee considered the issue again, and decided against conducting a wider sale process. It reasoned that a potential leak would affect "customer and partner relationships[,]" "employee retention," and the "ongoing negotiations" with VMware.[108] The Pivotal Special Committee was also concerned that "[t]here weren't a lot of players that would be interested in acquiring Pivotal," so the likelihood of an alternative transaction was low.[109] Morgan Stanley believed there was "no interest" from prior conversations it had had with potential buyers during the Project Peach/Flavor process.[110]

One of the two Pivotal Special Committee members, Klevorn, was missing in action through much of this process.

- She missed the October 8, 2018 Board meeting. She later testified that her absence was likely due to separate duties at Ford.[111]
- She missed the January 28, 2019 Board meeting.[112] Klevorn testified that she was "probably traveling[.]"[113]
- She arrived late to the March 15, 2019 Board meeting. She could not recall why.[114]

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[107] JX-654; *see also* PTO ¶ 98.

[108] JX-690.

[109] Lankton Dep. Tr. at 52:10–22. Minutes from the Pivotal Special Committee's April 12, 2019 meeting reflect similar concerns. *See* JX-723.

[110] Trial Tr. at 774:9–15 (Armstrong).

[111] *Id.* at 992:11–993:20 (Klevorn); *see also* JX-318.

[112] *See* JX-456 at 1.

[113] Trial Tr. at 994:10–995:2 (Klevorn).

[114] *See* JX-593 at 1–2; Trial Tr. at 995:3–996:12 (Klevorn).

- She missed the March 22, 2019 Board meeting. She could not recall why.[115]
- She left early from the April 9, 2019 Board meeting due to a "prior engagement[.]"[116] At this meeting, Lankton provided an update to the rest of the Board on the merger.

So, through April 2019, Klevorn missed, was late for, or left early from each Pivotal Board and Special Committee meetings. Klevorn testified that being on the Pivotal Special Committee was "a lot of work and I don't know, to be honest, how I felt about it at the time."[117]

D. The Parties Temporarily Suspend Merger Discussions.

By the end of April, VMware decided to pause discussions with Pivotal. Earlier in April, members of VMware management—such as Hathaway—were concerned they had not gathered enough information to develop a "high-conviction business case" to present to the VMware Special Committee, which would have required reviewing Pivotal's Long-Range Plan.[118] VMware management was skeptical of Pivotal's stated outlook, particularly the fact that Pivotal's annual plan for Fiscal Year 2020 "suggest[ed] a fast recovery" from "a year of sales enablement issues" and disappointing ACV.[119] Dykstra also echoed these concerns at trial, stating that although VMware was interested in the deal,

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[115] *See* JX-632 at 1–6; Trial Tr. at 996:13–997:20 (Klevorn) (stating that she was "probably travel[ing]" or Ford's own "earnings or board meetings, which . . . I could not get out of").

[116] Trial Tr. at 997:21–998:20 (Klevorn); JX-707 at 1–9.

[117] Trial Tr. at 998:15–20 (Klevorn).

[118] *Id.* at 1195:14–1196:17 (Hathaway).

[119] *See* JX-652 at 7 (March 29, 2019 slide deck prepared by VMware employees working with Philip Hathaway addressing deal diligence).

the VMware Special Committee was "still waiting for due diligence materials" by early April 2019.[120] On April 9, 2019, the VMware Special Committee decided that "additional information would be required before" it could make an offer to Pivotal.[121]

From its initial diligence, VMware was also concerned that Pivotal lacked a clear plan for addressing the industry shift to Kubernetes.[122] Raghuram worried that Cloud Foundry "had to be fundamentally rewritten to [take] advantage of Kubernetes," a failure to do which would jeopardize the business.[123] VMware's then-COO of Customer Operations, Sanjay Poonen, for instance, asked Raghuram and others "[w]hy not just wait another year? Let them rebuild the bus to have car parts, [i.e.], [Cloud Foundry] on Kubernetes" and stated he was "seriously worr[ied] that [Project] Raven will bury us[.]"[124]

Gelsinger met with Mee on April 10, 2019.[125] It seems that he told Mee about VMware's hang-ups, because on April 12, 2019, Mee informed the Pivotal Special Committee that VMware was unlikely to make an offer.[126] On April 19, 2019, Morgan

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[120] Trial Tr. at 649:4–10 (Dykstra).

[121] JX-711 (Minutes of an April 9, 2019 Meeting of the VMware Special Committee).

[122] JX-624.

[123] Trial Tr. at 376:20–377:3 (Raghuram).

[124] JX-696 at 1; *see also* Trial Tr. at 460:15–464:5 (Gelsinger).

[125] PTO ¶ 103.

[126] *Id.* ¶ 104.

Stanley advised the Pivotal Special Committee to this effect as well.[127] Shortly thereafter, the special committees suspended formal discussions and diligence.[128]

Even though the parties had suspended diligence, both the VMware Special Committee and its management team remained interested in a transaction with Pivotal—just not one that would close imminently.[129] Although VMware did not yet have Pivotal's Long-Range Plan, VMware tried to create a model of Pivotal's valuation using publicly disclosed information.[130] By April 25, 2019, Hathaway and other members of VMware management had developed a "four to six week" timeline and roadmap for refining a "high-conviction business case" to present to the VMware Special Committee.[131]

Dell was also still interested in pursuing the deal. On May 8, 2019, he sent Gelsinger an email with the subject line "Raven will be very powerful[.]"[132] That email attached a report from KeyBanc Capital Markets, an investment bank, describing DockerCon 2019, a conference hosted by the container and PaaS company Docker.[133] Dell forwarded the same email to Mee on May 23, 2019.[134]

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[127] *See* JX-750.

[128] *See* Trial Tr. at 651:5–653:16 (Dykstra); JX-750.

[129] Trial Tr. at 649:4–652:6 (Dykstra); *id.* at 420:10–14 (Raghuram); *id.* at 505:23–506:14 (Gelsinger).

[130] *Id.* at 1197:9–1198:5 (Hathaway); *see also* JX-794 at 1–2.

[131] Trial Tr. at 1199:5–18 (Hathaway); *see also* JX-764.

[132] *See* JX-807 at 2–3; *see also* PTO ¶ 111.

[133] *See* JX-807 at 2–3.

[134] *See id.* at 1.

Gelsinger and Hathaway also fostered hopes of reengaging Pivotal by August 2019.[135] Gelsinger responded on May 8, 2019, to Dell's email, saying Pivotal "had a bad Q1" but was starting to "get it" regarding Kubernetes despite "internal turmoil" getting there.[136] Gelsinger believed that the acquisition "[si]mply need[ed] to get . . . done" despite "[t]oo much friction" between VMware and Pivotal's "field teams[,]" which caused both to be "less effective than desired."[137]

E. The Parties Resume Negotiations After Pivotal's Disappointing Earnings Report.

Meanwhile, Pivotal found itself yet again falling short of various financial targets. On May 22, 2019, Gaylor sent the Pivotal Board a "flash summary," which is a short-form summary of the Company's key financial metrics.[138] The flash summary stated that ACV and services bookings were "below plan" and "below the lower end of the range" discussed at a prior Board meeting in April.[139] Pivotal's ACV of $11.3 million in Q1 of Fiscal Year 2020 was 61% below its Annual Plan, representing year-over-year decline of 54%.[140]

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[135] Trial Tr. at 499:11–16 (Gelsinger); *see also id.* at 1202:1–23 (Hathaway).

[136] JX-813.

[137] *Id.*

[138] JX-804 at 1–2 (flash summary email dated May 22, 2019 from Gaylor to Pivotal Board); *see also* Trial Tr. at 942:22–943:1 (Gaylor) (describing a flash summary as "an up-to-the-minute or up-to-the-day or -week report that shows kind of where we're landing for the quarter").

[139] JX-804 at 1.

[140] JX-806.

The flash summary also stated that the low Q1 ACV would "compress full year subscription revenue[,]" and that "it may take multiple quarters to get back on track and closer to plan" to meet ACV targets.[141] Although ACV is "not publicly disclose[d,]" the flash summary said that the market would pick up on the disappointing performance by looking at Pivotal's balance sheet and RPO metrics.[142]

Dell and Mee texted about the Company's difficulties on June 1 and 3, 2019, and how those difficulties related to the prospective VMware transaction.[143] Dell told Mee that "the strategic alignment seems to be getting stronger which is good" and that he was "[p]ushing for faster progress" on the deal.[144]

Pivotal released its below-expectations financial results for Q1 of Fiscal Year 2020 on June 4, 2019.[145] Although Pivotal met or improved upon expectations for revenue, operating losses, and EPS, it fell short of expectations for deferred revenue and RPO.[146] Pivotal's RPO for Q1 of Fiscal Year 2020 was $880 million, which reflected 10% growth

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[141] JX-804 at 1.

[142] *Id.*

[143] *See* JX-842; JX-850.

[144] JX-850; *see also* Trial Tr. at 173:4–22 (Dell) (stating that his email communicated that "it was a good thing for the companies to do this, assuming that the independent special committees could come to an agreement"). At trial, Dell did not remember what he meant by "[p]ushing for faster progress." *See id.* at 174:10–14 (Dell).

[145] PTO ¶¶ 105–106, 110. Q1 of Fiscal Year 2020 refers to February 1 through May 3, 2019. *See id.* ¶ 32.

[146] *Id.* ¶ 106; Trial Tr. at 744:1–746:4 (Armstrong); JX-804 at 1–2; *see also* JX-899 at 4–6.

from Q1 of Fiscal Year 2019 rather than the "mid teens" growth the Company had forecasted.[147]

Mee attributed Pivotal's disappointing results to difficulties with "sales execution[,]" i.e., the Company's inability to close software deals, and "a complex technology landscape,"[148] or the market-wide shift toward Kubernetes.[149] Pivotal also internally reported fewer-than-expected new customers, services revenue, and bookings, with billings "down 23% [year over year.]"[150] To Pivotal management, the indicators signaled decelerating growth.[151]

Contemporaneously with the earnings announcement, Pivotal management provided the following revised guidance to the market for Fiscal Year 2020:

- For Q2 of Fiscal Year 2020: subscription revenue of $131 to $133 million; total revenue of $185 to $189 million; non-GAAP operating losses of $11 to $9 million; and RPO of $790 million. The projected RPO was "flat" compared to Q2 of Fiscal Year 2019—in other words, it reflected no growth.[152]

- For Fiscal Year 2020: subscription revenue between $530 and $538 million; total revenue between $756 and $767 million (down from $798 to $806 million); and non-GAAP operating losses between $49 and $44 million (up from $38 to $36 million).[153]

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[147] PTO ¶ 106.

[148] JX-871 at 8–9.

[149] Trial Tr. at 1126:21–1129:4 (Mee).

[150] JX-899 at 4–6; *see also* JX-806 at 1–2; JX-935 at 23.

[151] *See* Trial Tr. at 923:19–23 (Gaylor) (stating that "growth [wa]s decelerating" in this timeframe, which affected the financials); JX-932 at 23, 27–31.

[152] PTO ¶ 107; JX-867 at 5.

[153] PTO ¶ 108; JX-867 at 5.

This guidance (the "June Guidedown") lowered projections relative to what Pivotal had estimated—and publicly announced—in March 2019.[154] In March, Pivotal had projected subscription revenue between $542 and $547 million, total revenue of $798 to $806 million, and non-GAAP operating losses of $38 to $36 million for Fiscal Year 2020. The June Guidedown thus decreased Pivotal's forecasts for subscription revenue by about $4 to $17 million and total revenue by about $31 to $50 million.

Unsurprisingly, Pivotal's stock price declined significantly after the June Guidedown, closing down 41.26% the next day.[155] One analyst called it a "[t]rain [w]reck [q]uarter," noted that "it's clear . . . that this management team does not have a handle on the underlying issues," and "question[ed] the deeper impact of Kubernetes on the business."[156] VMware saw the revised earnings as a correction—Gelsinger stated that the revised earnings and guidance put Pivotal's valuation into "a range that seems more reasonable with our outlook for the business."[157] Pivotal, by contrast, viewed the stock price drop as—in Mee's words—an "overreaction."[158]

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[154] Trial Tr. at 747:18–748:2 (Armstrong); *see also id.* at 918:1–8 (Gaylor); *see also* JX-932 at 20 (June 25, 2019 Board meeting presentation slide saying "[o]utlook for Q2f, the rest of the year and forward trajectory lower and decelerating . . . lowered guidance for Q2 and the year").

[155] PTO ¶ 109.

[156] JX-935 at 24; *see also* JX-894 at 1 (June 6, 2019 email from Morgan Stanley to Gaylor stating, among other things, "investors question whether Pivotal is fundamentally losing to competitors in an intensifying competitive environment").

[157] Trial Tr. at 476:12–16 (Gelsinger); *see also* JX-890.

[158] Trial Tr. at 1133:7–13 (Mee).

F. The Parties Revisit The Merger.

VMware viewed the drop in Pivotal's stock price as an opportunity. At a June 13, 2019 meeting of the VMware Special Committee, Raghuram addressed Pivotal's Q1 performance and the market's "negative reaction[.]"[159] Raghuram told the VMware Special Committee that, in response to its disappointing performance, Pivotal had started to focus more on Kubernetes in its research & development plan, which was consistent with VMware's own long-term goals.[160]

Raghuram recommended that VMware resume discussions with Pivotal. VMware set a goal of having Project Raven and other Project Basket transactions wrapped up by VMware's August 2019 "VMworld"—its "annual user conference where [it] make[s] all of [its] strategic updates" to thousands of customers, developers, and partners.[161]

The VMware Special Committee met again on June 25, 2019. Gelsinger echoed Raghuram's recommendation, noting that a disruption of Kubernetes is a rare opportunity and that acquiring Pivotal would let VMware "achieve critical mass at the developer level."[162] The VMware Special Committee authorized management to continue due

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[159] *See* JX-911 at 2.

[160] *Id.*

[161] Trial Tr. at 658:6–11 (Dykstra).

[162] JX-937 at 1.

diligence with Pivotal and set a deadline for management to complete diligence and report back by July 25.[163]

On June 27, 2019, Dykstra called Lankton to express interest on behalf of VMware in restarting negotiations.[164] The parties reengaged.

G. Pivotal Updates Its Long-Range Plan Between June and July 2019.

Between June and July 2019, Pivotal revised its internal financial protections, both to account for its disappointing misses and to generate data for merger negotiations (the "Revised Outlook").

Gaylor and other members of the Financial Planning and Analysis ("FP&A") team presented the Revised Outlook during a Pivotal Board meeting on June 25, 2019. Gaylor remained cautiously optimistic about Pivotal's "solid topline momentum" in her presentation, but acknowledged the company's overall underperformance.[165] In particular, she projected total revenue of $773 million and subscription revenue of $541 million by end of Fiscal Year 2020, reflecting compound annual growth rates between 2017 and 2020 of 23% and 53%, respectively.[166] On the other hand, she projected total and subscription revenue growth of only 18% and 35% between Fiscal Years 2019 and 2020, respectively,

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[163] *Id.* at 2. The VMware Special Committee also instructed VMware management to confirm whether VMware was "still on target to . . . announc[e] [the merger] by VMworld." *See* Trial Tr. at 659:7–14 (Dykstra).

[164] PTO ¶ 111.

[165] JX-932 at 38–39.

[166] *See id.*

reflecting decreasing annual marginal growth.[167] Her presentation also stated that Pivotal's "growth relative to scale is lagging a bit[.]"[168]

Gaylor also lowered the Company's annual forecasts to account for lower ACV.[169] Management had slashed Pivotal's projected Fiscal Year 2020 ACV by 33%—from $240 million to $160 million—and would need $30 million in ACV during Q2 of Fiscal Year 2020 to meet the targets set out in June 2019.[170]

H. Pivotal And VMware Revisit Diligence And Finalize The Deal.

In July 2019, the deal acquired new urgency for VMware because IBM acquired Red Hat, Inc., a technology infrastructure company that developed a container-based cloud application platform called OpenShift.[171] IBM and Red Hat closed the $34 billion acquisition on July 9, 2019.[172] Concerned with how the Red Hat deal might affect VMware's competitive standing, on July 11, 2019, Gelsinger emailed Dell, "[w]e are not winning vs. RedHat. Much too much success for OpenShift. We need to get Raven done, we are clumsy in competing with them."[173] Dell responded, "[we] know [IBM is] going

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[167] *See id.*

[168] *See id.* at 39.

[169] Trial Tr. at 917:1–5 (Gaylor) (stating that the new forecast "brought down the outlook because without ACV, [Pivotal's] revenue [wa]s going to grow more slowly, if it doesn't start to decline").

[170] JX-991 at 18, 29.

[171] PTO ¶ 75.

[172] *Id.*

[173] JX-980 at 1.

to push Red Hat and Openshift hard, so as you said, we need to get Raven done and then do a full assault on the developer space."[174]

Diligence continued. On July 2, 2019, Lazard sent Morgan Stanley updated diligence requests, focused particularly on Pivotal's financials and forecasts.[175] Pivotal began responding to those requests on July 12. Pivotal provided VMware with a valuation prepared by Morgan Stanley, along with materials concerning Pivotal's updated financial performance and guidance revised in June, through access to a data room.[176] VMware and Pivotal held a series of diligence sessions on July 19, 2019.[177]

In a meeting on July 15, 2019, the Pivotal Special Committee considered, again, whether to canvas the market and, again, decided against it for several reasons.[178] The Pivotal Special Committee believed that there would be limited interest from third parties.[179] Lankton did not believe that Dell would support an alternative transaction.[180] And the committee worried that a market canvas would increase the likelihood of the

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[174] *Id.*

[175] PTO ¶ 112; JX-959; Trial Tr. at 761:17–762:6 (Armstrong).

[176] PTO ¶ 113.

[177] *Id.* ¶ 116.

[178] *See* JX-978.

[179] Trial Tr. at 1040:18–22 (Lankton).

[180] *Id.* at 1042:14–23 (Lankton).

merger discussions becoming public and "unsettl[ing]" customers or employees.[181] Morgan Stanley and Gaylor shared this concern.[182]

The VMware Special Committee reconvened on July 25, 2019, and received updates from management on Project Raven.[183] Gelsinger told the VMware Special Committee that management was nearly done with its "strategic" and "value" assessments, and he expected to finish the Pivotal deal on time—prior to VMworld.[184] John Gnuse from Lazard also presented. Lazard had updated the financial models it used for valuing Pivotal in response to Pivotal's revised public guidance, refining areas that VMware management believed were "overexuberant."[185] Gnuse did not believe any of the public disclosures from Q1 of Fiscal Year 2020 resulted in material changes, given VMware's relatively more conservative estimates than Pivotal or investors on Wall Street.[186] That day, the VMware Special Committee decided to make an offer to acquire Pivotal.[187]

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[181] *Id.* at 1040:18–1041:5 (Lankton).

[182] *See* JX-979 at 1 (July 15, 2019 email exchange between Gaylor and Armstrong agreeing that a market check would "take[] longer to do properly," and citing "leak and distraction risk").

[183] *See* JX-1005.

[184] *See id.* at 2.

[185] *See* Dykstra Dep. Tr. at 284:20–25.

[186] JX-1005 at 4.

[187] *See* JX-1012 at 2.

1. The Parties Negotiate Price.

The VMware Special Committee met on August 4, 2019.[188] After confirming that Pivotal's Flash for Q2 of Fiscal Year 2020 reflected Pivotal performing "in the range" of its Long-Range Plan,[189] the committee decided to make an initial offer of $13.75 per Class A share of Pivotal common stock.[190] The committee also decided to offer Dell Technologies an exchange of VMware stock at market price, which Dykstra believed would allow "a good premium for their shares."[191]

The Pivotal Special Committee met on July 31, 2019.[192] Klevorn joined the meeting late because she was busy with a meeting at Ford.[193] Morgan Stanley presented at this meeting, using a comparable companies analysis to value Pivotal, along with a trio of DCF analyses based on low, base, and high case scenarios.[194] For its comparable companies analysis, Morgan Stanley selected companies that worked across software infrastructure and services sectors to account for both parts of Pivotal's business.[195] The Pivotal Special

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[188] JX-1068.

[189] Trial Tr. at 666:8–14 (Dykstra).

[190] *Id.*; JX-1068.

[191] Trial Tr. at 664:13–16 (Dykstra); *see also* JX-1033 at 3.

[192] *See* JX-1040.

[193] *See* Trial Tr. at 1007:1–21 (Klevorn); *see also* JX-1042 at 1.

[194] JX-1041 at 15–25.

[195] *See id.* at 17.

Committee approved the use of the projections in the potential merger and in Morgan Stanley's fairness opinion.[196]

On August 4, 2019, Dykstra made the $13.75 per share offer to Lankton on behalf of the VMware Special Committee. Dykstra attached two conditions to the offer—first, it was subject to a majority-of-the-minority stockholder vote, and second, that the parties must finish the deal in two weeks so that it would be ready to announce by VMworld.[197]

The next day, the Pivotal Special Committee held a meeting to decide whether to counteroffer, accompanied by Morgan Stanley, Mee, and other members of Pivotal leadership.[198] Klevorn attended, reluctantly. A few days prior, Klevorn's assistant asked her if she could attend that meeting from 5:30 p.m. to 7:00 p.m. Klevorn responded, "[u]gh. Was planning to do a bunch of returns at [S]omerset. I thought it was at 2???"[199] After her assistant responded about the timing, Klevorn replied, "[l]ife ruiner. Ok."[200]

At that meeting, Morgan Stanley advised the Pivotal Special Committee that it had a choice: if Pivotal ultimately wanted above $16.50 per share, Pivotal should not respond with a counteroffer; but if it was willing to accept a lower price, it should counter.[201]

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[196] *See* JX-1040 at 1.

[197] Trial Tr. at 667:5–668:9 (Dykstra); *see also* JX-1065; PTO ¶ 120; JX-1068; *see also* JX-937 at 1 (VMware special committee meeting minutes dated June 25, 2019, discussing "the goal of announcing the transactions at VMworld").

[198] *See* JX-1071.

[199] JX-1051 at 1.

[200] *Id.*

[201] Trial Tr. at 767:15–768:5, 827:5–17 (Armstrong).

Morgan Stanley also presented a set of "Potential Advocacy Points" that the Pivotal Special Committee could use for a counteroffer.[202] Those points divided into two categories—"Helpful" and "Not Helpful[.]"[203] Morgan Stanley considered Pivotal's historical revenue multiples to be a "[h]elpful" factor, noting that Pivotal's stock has traded "above 6x more than 79% of the time[,]" which Pivotal could "approach" if "we execute."[204] On the other hand, Morgan Stanley considered the premium VMware offered to be unhelpful for further negotiation because it was "already . . . good[,]" and it viewed the relevant "[e]quity comparables" as "[t]oo nuanced and convoluted" to be helpful.[205]

Lankton was worried about saying no to VMware. She took several notes at the August 5 meeting illustrating her concerns. She worried about the adverse effects on Pivotal's relationship with VMware from backing out. For instance, one note read: "Pat [Gelsinger] . . . won't do Pivotal any favors if the deal doesn't happen."[206] By this, Lankton meant that, with or without Pivotal, Gelsinger and VMware would "develop the capability" to fill "the white space that he had in his product line" resulting in competition.[207] Another

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[202] *See* JX-1074.

[203] *See id.* at 2.

[204] *Id.* Armstrong at trial testified that it is "quite common" for market participants to "discuss and think of valuation of software companies with regard to revenue multiples." *See* Trial Tr. at 821:1–6 (Armstrong).

[205] JX-1074 at 2. Morgan Stanley also noted that the equity comparables furthermore failed to account for a control premium. *See id.*

[206] *See id.*

[207] *See* Lankton Dep. Tr. at 222:24–11; *see also* Trial Tr. at 825:23–826:14 (Armstrong) (stating that the Pivotal Special Committee discussed this concern). Another of Lankton's

note in this vein read: "Pat could say – see I told you they are unreasonable[;]" in other words, that Gelsinger would find excessive pushback "unreasonable."[208]

Lankton was also concerned about alienating Dell. Another note read "Paul Maritz – Michael Dell/Egon best outcome – they have to buy us. Michael [Dell] wants this deal done!"[209] Egon referred to Egon Durban, who, recall, was also on the Board.[210] Dell could not recall communicating this urgency to Lankton, but at trial stated that he was supportive of the deal and recognized the weight his name carried at Pivotal.[211]

Mee argued at the meeting in favor of counteroffering.[212] He believed that Dykstra and Lankton were productively negotiating, and that their "back-and-forth with a rhythm would be disrupted by not countering[,]" a position with which Lankton agreed.[213] In the end, the Pivotal Special Committee decided to counteroffer at $16.50 per share with the understanding that $16.50 would be a "ceiling" on the price.[214] Lankton presented the

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notes in this vein read "Michael – if Pivotal is on its own – can't get Pat to play." *See* JX-1072 at 2.

[208] JX-1072 at 2; Trial Tr. at 1071:8–1072:3 (Lankton).

[209] JX-1072 at 2 (emphasis in original).

[210] Trial Tr. at 134:2–8 (Dell).

[211] *Id.* at 133:2–9, 172:1–16 (Dell).

[212] *Id.* at 825:12–20 (Armstrong).

[213] *Id.* at 1147:12–1148:16 (Mee).

[214] Lankton Dep. Tr. at 210:20–25; JX-1071 at 1; *see also* Trial Tr. at 827:1–828:10 (Armstrong).

counteroffer to the VMware Special Committee the next day at $16.50 per share, and demanded a "go-shop" as "leverage" in price negotiations.[215]

The parties haggled further. The VMware Special Committee increased its offer to $14.25 per share but rejected the go-shop demand.[216] The Pivotal Special Committee countered with $15.75 and again insisted on the go-shop.[217]

During this period, Pivotal updated its Q2 Flash, which Armstrong characterized as Pivotal "meet[ing] or slight[ly] beat[ing]" guidance from June.[218] Although Gaylor and Mee were glad, Gaylor did not believe the results affected Pivotal's long-term outlook.[219] So, even though spirits rose off the heels of a disappointing quarter, Pivotal management did not adjust its negotiation strategy or price offer to VMware.

On August 14, 2019, the VMware Special Committee made what it termed a "best and final offer" of $15.00 per share.[220] The Pivotal Special Committee held a meeting to consider it; Klevorn was absent.[221] Morgan Stanley advised Lankton that Pivotal's Q2

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[215] Klevorn Dep. Tr. at 126:13–25; PTO ¶ 122; *see also* JX-1076.

[216] PTO ¶ 123.

[217] *Id.* ¶ 124; JX-1093.

[218] Trial Tr. at 763:13–17 (Armstrong); JX-1110 (Q2 Flash dated August 9, 2019).

[219] *See* Trial Tr. at 943:2–944:17 (Gaylor); *see also* JX-1055 at 2 (August 3, 2019 email from Gaylor to Mee stating "it is unlikely that we can raise guidance for q3 and the year"); JX-1091 (August 7, 2019 email from Gaylor to Latham and Watkins, Lankton, Klevorn, Morgan Stanley, and Cohen, stating that the updated forecast "likely doesn't change the outlook dramatically for FY20").

[220] PTO ¶ 129.

[221] *Id.* ¶ 131; *see also* JX-1142.

results would not have a material impact on its stock price.[222] Acting on behalf of the Pivotal Special Committee, Lankton agreed on August 14, 2019, to a tentative merger price of $15 per share of Class A Pivotal stock.[223]

2. VMware And Pivotal Finalize The Merger.

On August 14, 2019, Dell Technologies publicly disclosed on its VMware Schedule 13D that VMware and Pivotal were "proceeding to negotiate definitive agreements with respect to a transaction to acquire all of the outstanding shares of Class A common stock of Pivotal for cash at a per share price equal to $15.00."[224] During the following week, VMware and Pivotal engaged in confirmatory diligence and negotiated the deal documents.[225] On August 20, 2019, the Pivotal Special Committee decided to forego its demand for a go-shop.[226]

While the VMware Special Committee negotiated with Pivotal concerning the Class A stock, it was also negotiating with Dell Technologies concerning the Class B stock. On August 13, VMware offered Dell Technologies 0.055 VMware shares for each of its Pivotal Class B shares.[227] Based on then-current market prices, that ratio implied a cash value of $8.71 per Class B share. Dell Technologies agreed on August 21.[228]

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[222] Trial Tr. at 763:11–766:4 (Armstrong).

[223] JX-1138.

[224] JX-1158 at 6; PTO ¶ 133.

[225] PTO ¶¶ 134–135.

[226] *Id.* ¶ 135; JX-1208.

[227] PTO ¶ 128.

[228] *Id.* ¶ 136.

Both companies' special committees met shortly thereafter. On August 21, the VMware Special Committee held a meeting in which Lazard presented its fairness opinion approving $15 per share.[229] Upon the VMware Special Committee's recommendation, the VMware Board approved the Merger.[230]

The Pivotal Special Committee met on August 22. Morgan Stanley presented its analysis of the transaction and opined that $15 per share was fair to Pivotal's unaffiliated Class A stockholders.[231] Upon the Pivotal Special Committee's recommendation, the Board approved the merger the same day.[232] Shortly thereafter, Pivotal and VMware executed the Merger Agreement and announced the merger to the public.[233]

On September 4, 2019, Pivotal released its Q2 earnings report for Fiscal Year 2020.[234] Although it reported disappointing non-GAAP operating losses, its revenue results were otherwise in keeping with prior guidance from June. On September 4, 2019, Pivotal reported subscription revenue of $135 million, total revenue of $192.9 million, and non-GAAP operating losses of $4.5 million.[235] In its Form 10-Q filed the next day, Pivotal

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[229] JX-1215; JX-1216; *see also* JX-1223; JX-1225.

[230] PTO ¶ 137.

[231] JX-1239 at 1; *see also* JX-1238.

[232] PTO ¶ 138.

[233] *Id.* ¶ 139; JX-1252.

[234] PTO ¶ 140; *see also* JX-1300 (Form 8-K Filed September 4, 2019).

[235] *See* PTO ¶ 140; *see also* JX-1300 at 4.

reported RPO of $860 million.[236] Pivotal's prior guidance from June 2019 had predicted subscription revenue between $131 and $133 million; total revenue of $185 to $189 million; and non-GAAP operating losses of $11 to $9 million.[237] So, although non-GAAP operating losses were greater by about $4.5 to 6.5 million than expected, the Company's revenue results aligned with the June Guidedown.

Although Pivotal's September earnings figures showed it meeting many targets, by mid-October, the Company yet again readjusted its forecasts relative to the Annual Plan. On October 16, 2019, Pivotal management estimated in a Board presentation that total revenues for Fiscal Year 2020 would likely land between $766 and $782 million, approximately $60 million below the Annual Plan.[238]

On October 10, Pivotal publicly filed the fairness opinion presentations of the advisors to the Pivotal Special Committee, the VMware Special Committee, and the Dell Technologies Board prior to their approval of the Transaction, along with supplemental materials from the companies' financial advisers.[239] Those materials included Pivotal's, Dell Technologies', and VMware management's standalone projections for Pivotal, Pivotal management's pre-Q1 earnings projections, and VMware's projections for Pivotal as part of VMware.[240] The definitive proxy statement for the merger, filed on November

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[236] PTO ¶ 140. Pivotal did not hold an earnings call or provide updated guidance for Q3 of FY2020. *See id.*

[237] PTO ¶ 107.

[238] JX-1336 at 24.

[239] *See generally* JX-1331.

[240] *See* JX-1331 at 28–29, 45–47, 239, 250–51, 280, 317–18.

27, also disclosed Pivotal and Dell Technologies' management's standalone projections for Pivotal, as well as VMware's projections for Pivotal as part of VMware.[241]

Pivotal continued to show mixed results during Q3 of Fiscal Year 2020. On the one hand, Gaylor on November 18, 2019 sent the Pivotal Board a Q3 Flash indicating ACV of $31.8 million, which landed at 66% of the Annual Plan's forecast and reflected a year-over-year decrease of 6%.[242] On the other hand, Gaylor's Q3 Flash characterized the overall results as "relatively strong[,]" alluding to subscription revenue "on the high end of the forecast" while services revenue and net income "exceeded the forecast we shared at the October board meeting."[243] Still, by December 6, Pivotal reported subscription revenues and total revenues that were $5.8 million and $18.4 million below the Annual Plan, respectively, with operating losses $3 million above the Annual Plan.[244]

On December 27, 2019, 92.6% of Pivotal's unaffiliated stockholders voted to approve the merger.[245] It closed on December 30, 2019.[246] The merger price was $15 per share for the Class A stockholders and with an exchange of Pivotal Class B common stock

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[241] JX-1361 at 91–96; PTO ¶ 143.

[242] JX-1357 at 1.

[243] *Id.*

[244] *See* JX-1365 at 4, 31. Pivotal reported Q3 subscription revenues of $139.8 million, total revenue of $198.3 million, operating losses of $556,000, and RPO of $820 million. *See* JX-965 at 7.

[245] PTO ¶ 144; JX-1386; JX-1387.

[246] PTO ¶ 145.

held by Dell Technologies at a ratio of 0.0550 shares of VMware Class B stock per share of Pivotal Class B stock, a blended price of $11.71.[247]

I. This Litigation

The petitioners ("Petitioners") brought this appraisal action pursuant to 8 *Del. C.* § 262 on March 5, 2020.[248] The court held a five-day trial between July 6, 2022, and July 12, 2022.[249] The parties completed post-trial briefing on November 18, 2022, and the court heard post-trial oral argument on December 13, 2022.[250]

Parallel to this case, a class of former stockholders of Pivotal brought a breach of fiduciary duty class action against Dell, Dell Technologies, VMware, Mee, and Gaylor on June 4, 2020.[251] The parties to the class action agreed to terms of a settlement, which the court approved on October 4, 2022.[252]

II. LEGAL ANALYSIS

"An appraisal proceeding is a limited legislative remedy intended to provide shareholders dissenting from a merger on grounds of inadequacy of the offering price with a judicial determination of the intrinsic worth (fair value) of their shareholdings."[253]

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[247] PTO ¶ 139.

[248] *See* Dkt. 1 (Pet.).

[249] *See* Trial Tr.

[250] *See* Dkts. 203–204; Dkt. 210.

[251] *See* C.A. No. 2020-0440-KSJM, Dkt. 1 (Compl.).

[252] *See* C.A. No. 2020-0440-KSJM, Dkts. 246, 249.

[253] *In re Appraisal of Regal Ent. Gp.*, 2021 WL 1916364, at *16 (Del. Ch. May 13, 2021) (quoting *Cede & Co. v. Technicolor, Inc.*, 542 A.2d 1182, 1186 (Del. 1988)).

The appraisal statute requires that the court "determine the fair value of [the petitioners'] shares exclusive of any element of value arising from the accomplishment or expectation of the merger [or] consolidation[.]"[254] "To determine the fair value of a stockholder's proportionate interest in the corporation, the court must 'envisage the entire pre-merger company as a 'going concern,' as a standalone entity, and assess its value as such.'"[255] "The time for determining the value of a dissenter's shares is the date on which the merger closes."[256] When running the fair value analysis, therefore, the court must consider "the corporation's operative reality as of the date of the merger."[257] "The concept of the corporation's 'operative reality' is important because '[t]he underlying assumption in an appraisal valuation is that the dissenting shareholder would be willing to maintain their investment position had the merger not occurred.'"[258]

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[254] 8 *Del. C.* § 262(h).

[255] *Regal*, 2021 WL 1916364, at *17 (quoting *Dell, Inc. v. Magnetar Glob. Event Driven Master Fund Ltd*, 177 A.3d 1, 20 (Del. 2017) [hereinafter, "*Dell Appeal*"]).

[256] *Brigade Leveraged Cap. Structures Fund Ltd. v. Stillwater Mining Co.*, 240 A.3d 3, 17 (Del. 2020).

[257] *In re AOL Inc.*, 2018 WL 1037450, at *8 (Del. Ch. Feb. 23, 2018) (citing 8 *Del. C.* § 262) (internal quotation marks omitted); *see also Tri-Cont'l Corp. v. Battye*, 74 A.2d 71, 72 (1950) ("The basic concept of value under the appraisal statute is that the stockholder is entitled to be paid for that which has been taken from him, viz., his proportionate interest in a going concern."); *Dell Appeal*, at 20 ("The valuation should reflect the ''operative reality'' of the company as of the time of the merger") (quoting *M.G. Bancorporation, Inc. v. Le Beau*, 737 A.2d 513, 525 (Del. 1999) (quoting *Cede & Co. v. Technicolor, Inc.*, 684 A.2d 289, 298 (Del. 1996))).

[258] *In re Stillwater Mining Co.*, 2019 WL 3943851, at *19 (Del. Ch. Aug. 21, 2019) (quoting *Cede*, 684 A.2d at 298) (alteration in original).

The petitioner bears the initial burden of demonstrating statutory compliance. "Delaware cases uniformly place the burden of proof on the petitioner to demonstrate compliance with the requirements of the appraisal statute."[259]

After the petitioner proves statutory compliance, the statute places the "obligation to determine the fair value of the shares on the court."[260] "A party may seek to prove fair value using 'any techniques or methods which are generally considered acceptable in the financial community and otherwise admissible in court.'"[261] "Because of this statutory mandate, the allocation of the burden of proof in an appraisal proceeding differs from traditional adversary litigation."[262] "In an appraisal proceeding, 'both sides have the burden of proving their respective valuation positions[.]'"[263] "[N]o presumption, favorable or unfavorable, attaches to either side's valuation[.]"[264] "Each party also bears the burden

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[259] *In re Appraisal of Dell Inc*., 143 A.3d 20, 36 (Del. Ch. 2016) [hereinafter "*Dell Trial*"]; *see also* 8 *Del. C.* §262(g) ("At the hearing on such petition, the Court shall determine the persons who have complied with this section and who have become entitled to appraisal rights.").

[260] *BCIM Strategic Value Master Fund, L.P. v. HFF, Inc.*, 2022 WL 304840, at *15 (Del. Ch. Feb. 2, 2022) (citing *Gonsalves v. Straight Arrow Publ'rs, Inc.*, 701 A.2d 357, 360–61 (Del. 1997)).

[261] *Regal*, 2021 WL 1916364, at *17 (quoting *Weinberger v. UOP, Inc.*, 457 A.2d 701, 713 (Del. 1983)).

[262] *HFF*, 2022 WL 304840, at *15.

[263] *Id.* (quoting *Fir Tree Value Master Fund, LP v. Jarden Corp.*, 236 A.3d 313, 322 (Del. 2020) (alterations and internal quotation marks omitted)).

[264] *In re Panera Bread Co.*, 2020 WL 506684, at *18 (Del. Ch. Jan. 31, 2020) (alterations, citations, and internal quotation marks omitted).

of proving the constituent elements of its valuation position . . . , including the propriety of a particular method, modification, discount, or premium."[265]

"[T]he standard of proof in an appraisal proceeding is a preponderance of the evidence."[266] "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."[267]

This court has a significant amount of discretion in discharging its statutory mandate.[268] "In some cases, it may be that a single valuation metric is the most reliable evidence of fair value" such that "giving weight to another factor will do nothing but distort that best estimate."[269] "In other cases, it may be necessary to consider two or more factors."[270] "[I]n still others, the court might apportion weight among a variety of methodologies."[271] "The Court of Chancery may 'adopt any one expert's model,

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[265] *Stillwater*, 2019 WL 3943851, at *18 (internal quotation marks omitted).

[266] *Id.*

[267] *Agilent Techs., Inc. v. Kirkland*, 2010 WL 610725, at *13 (Del. Ch. Feb. 18, 2010); *see also Stillwater*, 2019 WL 3943851, at *18 (quoting same).

[268] *Regal*, 2021 WL 1916364, at *17 (citing *Le Beau*, 737 A.2d at 525–26).

[269] *Dell Appeal*, at 22 (alterations and internal quotation marks omitted).

[270] *Id.* (internal quotation marks omitted).

[271] *Id.*

methodology, and mathematical calculation, *in toto*, if that valuation is supported by credible evidence and withstands a critical judicial analysis on the record.'"[272]

The broad discretion afforded the court in these proceedings can seem perilous for a trial judge. As the high court has succinctly commented, "[a]ppraisals are odd."[273] Appraisal is a statutory construct, and yet, "[t]he statue does not define 'fair value,'" which is a "jurisprudential, rather than purely economic, construct."[274] The statute demands that the trial court take into account "all relevant factors,"[275] which the court must reduce to a single determination of fair value. "The statutory obligation to make a single determination of a corporation's value introduces an impression of false precision into appraisal jurisprudence."[276] In the end, "[t]here may be no perfect methodology for arriving at fair value for a given set of facts[.]"[277]

Fortunately, Delaware law does not demand a quixotic quest for perfection in the appraisal context. As the high court has assuaged, "[c]apitalism is rough and ready, and the purpose of an appraisal is not to make sure that the petitioners get the highest conceivable value that might have been procured had every domino fallen out of the

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[272] *Regal*, 2021 WL 1916364, at *17 (quoting *Le Beau*, 737 A.2d at 526).

[273] *Dell Appeal*, at 19.

[274] *In re Appraisal of Jarden Corp.*, 2019 WL 3244085, at *1 (Del. Ch. July 19, 2019) (internal quotation marks omitted).

[275] 8 *Del. C.* § 262(h).

[276] *Stillwater*, 2019 WL 3943851, at *20.

[277] *Dell Appeal*, at 22–23.

company's way[.]"[278] "Fair value does not equal best value."[279] This court's goal is far more modest: "explain its fair value in a manner that is grounded in the record before it"[280] and "accepted financial principles."[281]

With this modest goal in mind, the analysis turns to the parties' positions. The parties dispute both the procedural prerequisites for appraisal and the substantive value of Petitioners' shares.

First, Respondent argues that Petitioners failed to prove statutory compliance by failing to show, for one, ownership of Pivotal stock at the relevant times and, for another, that their shares were not voted in favor of the merger. Petitioners argue that they have proven all relevant standing requirements.

Substantively, Respondent argues that each share of Pivotal was worth $12.17 on December 30, 2019, a value it arrives at principally based on the expert report of Kenneth M. Lehn. Lehn uses a pair of DCFs to triangulate a per-share value on August 14, 2019, of $12.85. He then adjusts this figure using an events study to capture changes in the market between then and the valuation date of December 30, 2019, resulting in a final price of $12.17. Respondent also points to the ostensible reliability of the deal process and other market factors as a cross-check on this analysis. By contrast, Petitioners rely upon the

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[278] *DFC Glob. Corp. v. Muirfield Value P'rs*, 172 A.3d 346, 370 (Del. 2017).

[279] *Dell Appeal*, at 23 (cleaned up).

[280] *Jarden*, 236 A.3d at 325 (internal quotation marks omitted).

[281] *Dell Appeal*, at 22.

analysis of their expert, Murray Beach, who derives a price of $20 per share based on a cross check of comparable companies, comparable transaction, and DCF analyses.

This decision first addresses the question of statutory compliance before turning to the valuation analysis.

A. Statutory Compliance

Section 262(a) requires, among other things, that a petitioner hold the shares for which it seeks appraisal on the date it makes a demand for appraisal, continuously hold such shares through the effective date of the merger, and not vote such shares in favor of the merger nor consent to the merger in writing.[282]

Respondent disputes that Petitioners satisfied their evidentiary burden as to these requirements. It observes that Petitioners called no witnesses to testify to these facts. Respondent argues that Petitioners failed to submit any documentary evidence of their Pivotal stock ownership. Respondent further contends that Petitioners failed to present any evidence that Cede & Co.—the record holder—did not vote Pivotal's shares in favor of the merger.

Petitioners advance a mix of factual and legal arguments in response.

Factually, Petitioners argue that Respondent stipulated to the relevant facts in Paragraphs 21 through 25 of the Pre-Trial Order. But the paragraphs of the Pre-Trial Order upon which Petitioners rely do not prove the issue. Paragraphs 21 and 22 speak to

[282] *Merion Cap. LP v. BMC Software, Inc.*, 2015 WL 67586, at *6 (Del. Ch. Jan. 5, 2015) (discussing 8 *Del. C.* § 262(a)).

Petitioners' beneficial ownership status, but these paragraphs are limited to Petitioners' *assertions* that they beneficially owned Pivotal stock. Respondent did not confirm or deny the truth or falsity of these assertions by agreeing to this language. Paragraph 23 states that Pivotal received letters in which Petitioners identified themselves as beneficial owners of Pivotal stock.[283] Although Respondent has conceded that it received those letters, it has not stipulated that the contents of those letters are true. Paragraphs 24 and 25 describe Petitioners' prosecution of their appraisal claims. Paragraph 24 states: "Petitioners filed a Petition for Appraisal of Stock on March 5, 2020."[284] Paragraph 25 states: "Petitioners have not withdrawn their appraisal demand."[285] These paragraphs characterize Petitioners' prosecution of their claims, but they do not address Petitioners' ownership status at relevant times. Whether individually or taken together, these stipulations do not prove that Petitioners met the ownership or voting status requirements. Petitioners cannot rely on the Pre-Trial Order to satisfy their burden.

Petitioners next argue that the appraisal demands themselves, coupled with verifications to their appraisal petition, establish the requisite ownership. But the demand letters do not satisfy Petitioners' evidentiary burden. At most, they evince stock ownership at the time of the demand. The December 19 letters state that Cede & Co. is the nominee of The Depository Trust Company, and that The Depository Trust Company "is informed

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[283] PTO ¶ 23.

[284] *Id.* ¶ 24.

[285] *Id.* ¶ 25.

by its Participant, J.P[.] Morgan Securities LLC" that HBK Master Fund L.P. and HBK Merger Strategies Master Fund L.P. beneficially own 6,875,101 shares and 3,124,999 shares, respectively, on the date of the appraisal demand.[286] The Merger closed on December 30, 2019.

Petitioners also argue that Respondent's "Verified List" dated May 31, 2020, establish their voting record. The Verified List similarly falls short. It characterizes Petitioners as dissenting stockholders who "have demanded payment in connection with the Merger and with whom agreements as to the value of their shares have not been reached with Pivotal[.]"[287] The Verified List, however, also purported to reserve Respondent's right to challenge Petitioners' entitlement to appraisal rights.[288] As a result, it does not show whether Petitioners dissented or whether Respondent was aware of any such dissent. The result is that Petitioners may not rely on the Verified List.

Although Petitioners' factual arguments fail, one of their legal arguments saves the day: Respondent waived its challenge to Petitioners' standing by failing to assert the argument in its pre-trial submissions. The Pre-Trial Order, for instance, does not include the word 'standing.' Also in the Pre-Trial Order, Respondent states that it "refers the Court to its pre-trial brief for a more complete statement of the relief sought" and to "a more complete statement of the issues of fact that Respondent intends to establish at trial and the

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[286] *See* Dkt. 1, Ex. A at 2–3.

[287] Dkt. 4 (Verified List) ¶ 3.

[288] *Id.* ¶ 4.

statements of legal issues to be tried."[289] The Pre-Trial Order clarifies that Respondent seeks the following relief: (i) a judicial determination that Pivotal's Class A common stock was worth $12.17 on December 30, 2019; (ii) that there is "good cause" to award no interest on any appraisal award or at a rate less than the default rate of Section 262(h); (iii) an award of costs under Court of Chancery Rule 54(d); and (iv) "such other and further relief" in the court's discretion.[290] This list does not include standing.

Nor did Respondent preserve its standing argument in its pre-trial brief. That brief argues that (i) Lehn's DCF analysis is reliable evidence of Pivotal's fair value; (ii) that market indicators—such as deal price and market reaction to the deal—support this result; and (iii) that Beach's valuation is unreliable.[291] Like the Pre-Trial Order, Respondent's pre-trial brief does not once use the term 'standing,' nor does it raise the issue indirectly. Respondent's silence on this point effects a waiver.[292]

Petitioners also raise a separate argument—that by prepaying some value of Petitioners' stock under Section 262(h) of the Delaware General Corporation Law, Respondent has conceded that Petitioners have standing.[293] Given the text and purpose of that Section, however, this argument is not compelling. Section 262(h) does not, on its

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[289] PTO ¶¶ 151, 153.

[290] *Id.* ¶ 153.

[291] *See* Dkt. 160 (Resp't's Pre-Trial Br.) at 30–63.

[292] *See Emerald P'rs v. Berlin*, 726 A.2d 1215, 1224 (Del. 1999) ("Issues not briefed are deemed waived.").

[293] *See* Dkt. 203 ("Pet'rs' Post-Trial Reply Br.") at 70.

face, say anything about waiver.[294] It was adopted to allow "a surviving corporation seeking to lessen the significant amount of interest that can otherwise accrue in an appraisal action" by "prepay[ing]" the petitioner cash ahead of time.[295] "As the General Assembly explained, 'there is no requirement or inference that the amount so paid by the surviving corporation is equal to, greater than, or less than the fair value of the shares to be appraised.'"[296]

Here, Pivotal prepaid Petitioners $9.08 per share for exactly this purpose—it made the strategic decision to limit the potentially significant interest payments it might have to make after an adverse judgment. Petitioners do not explain how the Company's prepayment of money effects a waiver of various statutory standing objections. Petitioners cite no cases for support on this point, nor is this court aware of any. And allowing Section 262(h) to let appraisal petitioners work around their standing burden does not seem consistent with the overarching purpose of the amendment, which was to discourage appraisal arbitrage through economic incentives.

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[294] 8 *Del. C.* § 262(h) ("At any time before the entry of judgment in the proceedings, the surviving, resulting or converted entity may pay to each person entitled to appraisal an amount in cash, in which case interest shall accrue thereafter as provided herein only upon the sum of (1) the difference, if any, between the amount so paid and the fair value of the shares as determined by the Court, and (2) interest theretofore accrued, unless paid at that time.").

[295] *Panera*, 2020 WL 506684, at *43.

[296] *Id.* (quoting Del. H.B. 371, 148th Gen. Assem., 80 Del. Laws, ch. 265, §§ 8–11 (2016) (cleaned up)).

Respondent also argues that Petitioners purchased Pivotal shares "for purposes of bringing an appraisal action."[297] In other words, Respondent argues that Petitioners are engaged in appraisal arbitrage, which (as stated previously), aspects of Section 262 seek to discourage. Still, Respondent waived this argument by not raising it sooner.

Even were the court to entertain Respondent's appraisal arbitrage argument on the merits, Petitioners ably invoke *Transkaryotic*'s no-tracing rule.[298] As the court summarized in *Merion Capital LP v. BMC Software, Inc.*, a holder need only "show that it held a quantity of shares it had not voted in favor of the merger equal to or greater than the quantity of shares for which it sought appraisal."[299] That is, the stockholder need only (i) find the total amount of shares voted against the merger (which information is available on public exchanges); (ii) identify how many shares he has; and (iii) determine that (ii) is lower than (i). If so, he has met his burden.[300]

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[297] *See* Dkt. 198 ("Resp't's Post-Trial Opening Br.") at 41.

[298] Pet'rs' Post-Trial Reply Br. at 70 (citing *In re Transkaryotic Therapies, Inc.*, 2007 WL 1378345 (Del. Ch. May 2, 2007) (Chander, C.)).

[299] 2015 WL 67586, at *6 (discussing *Transkaryotic*, 2007 WL 1378345).

[300] In *Tranksaryotic*, the respondents argued that this rule makes bad policy for facilitating appraisal arbitrage. The court reasoned that, if appraisal arbitrage is "an evil[,]" the legislature "possesses the power to modify § 262" to alleviate the respondents' concern. *Transkaryotic*, 2007 WL 1378345, at *5. Other decisions of this court have challenged the reasoning behind the *Transkaryotic* rule. In *In re Appraisal of Dell Inc.*, the court stated that "the rise of appraisal arbitrage suggests the need for a more realistic assessment of the depository system that looks through Cede to the [broker-dealer or other representative of the beneficial holder]." 2015 WL 4313206, at *23 (Del. Ch. July 13, 2015). There, the Vice Chancellor urged a "more nuanced jurisprudence" that would use "records at the broker level" to "more flexibl[y]" assess "questions of ownership and the ability to exercise associated rights" as the "subject of proof." *Id.* at *24. The Vice Chancellor, however, recognized that this position is not the law. *See id.* at *9.

Here, as of December 19, 2019, Petitioners beneficially owned a combined 10,000,100 shares of Pivotal Class A stock and asserted appraisal rights for all shares.[301] The inquiry turns to whether the record holder, Cede & Co., "held a quantity of shares it had not voted in favor of the merger equal to or greater than the quantity of shares for which it sought appraisal[.]"[302] From the record before the court, there were 35,591,973 Class A shares not voted in favor of the merger.[303] Because Petitioners' approximately ten million shares are fewer than the approximately 36 million shares outstanding, the record holder held an amount "greater than the quantity of shares for which it sought appraisal[.]"[304] Therefore, under *Transkaryotic*, Petitioners have met their burden of proof regarding the voting record.

To summarize, most of Petitioners' factual arguments fall short, as does its legal argument concerning prepayment. Luckily for Petitioners, Respondent waived the standing argument by failing to preserve it in its pre-trial briefing. Furthermore, Petitioners have satisfied their burden of proof on voting under *Transkaryotic*. Petitioners have therefore met their burden on standing.

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[301] *See* Dkt. 1, Ex. A at 2–3.

[302] *BMC Software*, 2015 WL 67586, at *6.

[303] JX-1386 at 2. Out of 105,538,574 shares, 69,946,601 were voted in favor of the merger. *See id.* The court therefore arrives at 35,591,973 through subtraction.

[304] *BMC Software*, 2015 WL 67586, at *6.

B. Fair Value

The parties presented a total of five valuation methods. Respondent argues that the merger was the result of an objectively reliable process, such that the fair value is less than the deal price of $15 per share. Respondent points to a separate market-based indicator, the unaffected stock price of $8.30 per share, as a cross-check on its argument that the fair value of the Company per share is lower than the deal price. Relying on its expert's DCF analysis, Respondent contends that the fair value is $12.17 per share, or $2.83 below the deal price.

Petitioners dispute that the market-based metrics on which Respondent relies are acceptable valuation methodologies in a controller squeeze-out. They likewise dispute Respondent's DCF, stating that it is unduly speculative, rooted in unreliable projections, unreasonably based on contemporaneous analyst opinions, and wholesale inapposite for a company like Pivotal.[305] Petitioners urge the court to base fair value on revenue multiples derived from comparable companies and precedent transactions. This approach generated a fair value of $20 per share, or $5 above the deal price.

Although the Delaware Supreme Court has expressly declined to adopt a presumption in favor of any one valuation methodology over another,[306] recent decisions of Delaware courts suggest a pecking order of methodologies for determining fair value.

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[305] *See* Dkt. 199 ("Pet'rs' Post-Trial Opening Br.") at 69–70 (arguing that "[a] DCF is [n]ot [a]ppropriate"); Pet'rs' Post-Trial Reply Br. at 45–56.

[306] *See, e.g.*, *DFC*, 172 A.3d at 388; *Dell Appeal*, at 21–22; *Jarden*, 236 A.3d at 324; *AOL*, 2018 WL 1037450, at *1 ("[N]o presumption in favor of transaction price obtains."); *Panera*, 2020 WL 506684, at *18–19.

"In the aftermath of *Dell* and *DFC*, . . . the fair value analysis should 'begin with the market evidence.'"[307] Among the market-based indicators, the deal price (minus synergies) approach is the "first among equals."[308] "[A] more subjective valuation technique, like DCF methodology or comparable company analysis, 'is necessarily a second-best method' when 'market-based indicators are available.'"[309]

The structure of this decision follows this hierarchy ascribed to valuation methodologies by the Delaware Supreme Court. The court first evaluates whether the deal price is necessarily a cap on fair value. After concluding that it is not, the court addresses Respondent's argument based on the unaffected stock price of $8.30. Respondent relies on the $8.30 figure in a limited way—as context for its DCF analysis. The court gives it equally short shift, concluding that informational inefficiencies and the controller dynamic render the unaffected trading price no more than a point of reference. The court next turns to Respondent's DCF analysis. With adjustments, that analysis results in a fair value of $16.13 per share. The court last addresses Petitioners' comparable companies and comparable transactions analyses, concluding that the latter is unreliable but that the former is reliable with some adjustments. With adjustments, that analysis results in a fair value of $14.75 per share. Ascribing equal weight to the DCF and comparable companies analysis, the court calculates a fair value of $15.44 per share.

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[307] *Regal*, 2021 WL 1916364, at *19 (quoting *Jarden*, 2019 WL 3244085, at *2).

[308] *Regal*, 2021 WL 1916364, at *44.

[309] *Id.* at *19 (quoting *Panera*, 2020 WL 506684, at *40).

1. Deal Price

Respondent advances deal price as a valuation metric. Respondent does not use deal price to set a precise fair value but argues that it supplies a cap on fair value because the transaction was conditioned on *MFW* protections.[310] Petitioners argue that deal price cannot be given presumptive weight in an appraisal of a controller squeeze-out, even where the transaction is subject to *MFW*.

There is no presumption in favor of deal price.[311] Nonetheless, when the "transaction price represents an unhindered, informed, and competitive market valuation, the trial judge must give particular and serious consideration to transaction price as evidence of fair value."[312] Thus, although not dispositive, deal price gets "considerable weight" "absent deficiencies in the deal process."[313]

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[310] Resp't's Post-Trial Opening Br. at 41–65.

[311] *See, e.g.*, *DFC*, 172 A.3d at 388; *Dell Appeal*, at 22 ("This Court has relied on the statutory requirement that the Court of Chancery consider 'all relevant factors' to reject requests for the adoption of a presumption that the deal price reflects fair value if certain preconditions are met, such as when the merger is the product of arm's-length negotiation and a robust, non-conflicted market check, and where bidders had full information and few, if any, barriers to bid for the deal." (quoting 8 *Del. C.* § 262(h))); *Golden Telecom, Inc. v. Glob. GT LP*, 11 A.3d 214, 218 (Del. 2010) ("Requiring the Court of Chancery to defer—conclusively or presumptively—to the merger price, even in the face of a pristine, unchallenged transactional process, would contravene the unambiguous language of the statute and the reasoned holdings of our precedent."); *Stillwater*, 2019 WL 3943851, at *21 ("There is no presumption that the deal price reflects fair value.").

[312] *AOL*, 2018 WL 1037450, at *1.

[313] *Verition P'rs Master Fund Ltd. v. Aruba Networks, Inc.*, 210 A.3d 128, 137 (Del. 2019) [hereinafter, "*Aruba Appeal*"].

"The first step in using the deal price as a valuation indicator is to determine whether the sale process that led to the deal provided a sufficiently effective means of price discovery such that the court can regard the deal price as placing a ceiling on fair value."[314] "A deal price that results from a sufficiently effective sale process likely establishes an upper bound for fair value because 'it is widely assumed that the sale price in many M & A deals includes a portion of the buyer's expected synergy gains, which is part of the premium the winning buyer must pay to prevail and obtain control.'"[315] Because "[t]he appraisal statute requires that the court exclude any changes in value arising from the accomplishment or expectation of the merger from the fair value determination," fair value must exclude any synergies extracted by the buyer in the sale process.[316]

"There is no checklist or set of minimum characteristics for giving weight to the deal price."[317] Indeed, the high court has doubted its "ability to craft, on a general basis, the precise pre-conditions that would be necessary to invoke a presumption" in favor of deal price,[318] suggesting that the high court views the analysis as an "invariably fact specific" inquiry.[319] Still, the fact patterns of recent cases are helpful because they reflect certain "objective indicia" of reliability weighing in favor of deferring to a merger price.[320]

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[314] *HFF, Inc.*, 2022 WL 304840, at *16.

[315] *Id.* (quoting *DFC*, 172 A.3d at 371).

[316] *HFF*, at *16.

[317] *Panera*, 2020 WL 506684, at *19.

[318] *DFC*, 172 A.3d at 366.

[319] *Stillwater*, 2019 WL 3943851, at *22.

[320] *See Dell Appeal*, at 28.

"If sufficient indicia are present, then the court 'must determine whether they outweigh weaknesses in the sale process, or whether those weaknesses undermine the persuasiveness of the deal price.'"[321]

The non-exhaustive list of objective criteria include: first, whether the buyer "was an unaffiliated third party"; second, whether the "seller's board labored under any conflicts of interest"; third, "the existence of robust public information" about a company's value; fourth, "whether the bidder conducted diligence to obtain nonpublic information about the company's value"; fifth, "whether the parties engaged in negotiations over the price"; and sixth, "whether the merger agreement was sufficiently open to permit bidders to emerge during the post-signing phase."[322]

As Petitioners rightly observe, this non-exhaustive list of objective criteria does not map neatly onto a controller squeeze-out. That is because the central justification for basing fair value on deal price under Delaware law is that the process is subject to competitive market forces.[323] The Delaware Supreme Court decisions adopting deal price as a valuation metric involved a third-party deal subject to some "unhindered, informed,

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[321] *Regal*, 2021 WL 1916364, at *27 (quoting *Panera*, 2020 WL 506684, at *19).

[322] *Regal*, 2021 WL 1916364, at *28–29 (internal quotation marks omitted).

[323] *See DFC*, 172 A.3d at 350 (noting that the fact that a financial bidder may desire a certain rate of return does not mean that the price it is willing to pay is not a "meaningful indication of fair value" especially where "the financial buyer was subjected to a competitive bidding process"); *id.* at 351 (remanding the court's decision and holding that the trial judge "may conclude that his findings regarding the competitive process leading to the transaction, when considered in light of other relevant factors . . . suggest that the deal price was the most reliable indication of fair value").

and competitive market" valuation.[324] Unsurprisingly, no appraisal decision of a Delaware court has given weight to deal price when determining fair value in the context of a controller squeeze-out, which lack the competitive dynamics that render deal price reliable.[325]

Respondent seeks to break new ground, arguing that deal price should be given deference as a valuation metric in appraisals of controller squeeze-outs that were subject to *MFW* protections. In *MFW*, the Delaware Supreme Court held that where a controller squeeze-out is "conditioned *ab initio*" on procedural features designed to "replicate an

[324] *AOL*, 2018 WL 1037450, at *1; *see also DFC,* 172 A.3d at 349 ("Although there is no presumption in favor of the deal price, under the conditions found by the Court of Chancery, economic principles suggest that the best evidence of fair value was the deal price, as it resulted from an open process, informed by robust public information, and easy access to deeper, non-public information, in which many parties with an incentive to make a profit had a chance to bid."); *Dell Appeal*, at 28–30 (rejecting the trial court's finding of an unreliable deal process because its architects "choreographed the sale process to involve competition[,]" the independent negotiating committee persuaded the buyer to "raise its bid six times[,]" the company's bankers "canvassed the interest of sixty-seven parties," and "this was not a buyout led by a controlling stockholder."); *Aruba Appeal* at 136–40 (finding a deal price reliable where the company had "approached other logical strategic buyers[,]" the buyer "had signed a confidentiality agreement, done exclusive due diligence, [and] gotten access to material nonpublic information," and stating that "the unaffected market price and that price as adjusted upward by a competitive bidding process leading to a sale of the entire company was likely to be strong evidence of fair value").

[325] *See Kahn v. Lynch Commc'ns Sys., Inc.*, 638 A.2d 1110, 1116–17 (Del. 1994) (describing the "policy rationale for the exclusive application of the entire fairness standard to interested merger transactions" in fiduciary duty suits to be that "'no court could be certain whether the transaction terms fully approximate what truly independent parties would have achieved in an arm's length negotiation.'" (quoting *Citron v. E.I. Du Pont de Nemours & Co.*, 583 A.2d 490, 502 (Del. Ch. 1990)); *see also In re Ezcorp Inc. Consulting Agreement Deriv. Litig.*, 2016 WL 301245, at *11 (Del. Ch. Jan. 25, 2016) ("A controlling stockholder occupies a uniquely advantageous position for extracting differential benefits from the corporation at the expense of minority stockholders.").

arm's-length merger,"[326] the transaction is reviewed under the business judgment standard and not the entire fairness standard.[327] More broadly, *MFW* protects controllers that "self-disable before the start of substantive economic negotiations" and requires both sides of the deal to "bargain under the pressures exerted on both of them by these protections."[328]

There are sound policy reasons for allowing the procedural protections of *MFW* to restore the business judgment rule in controller squeeze-outs. Then-Chancellor Strine articulated the policy bases for adopting the rule of *MFW* when announcing that rule;[329] this decision could hardly improve on that discussion. It suffices to say that, when articulating the policy reasons for adopting the rule of *MFW*, the court identified appraisal as a safety valve to protect minority stockholders from any mischief that might result from applying the business judgment rule to controller squeeze-outs.[330] Were this court to rely on *MFW* to determine whether to grant deal price presumptive weight in the appraisal

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[326] *Kahn v. M & F Worldwide Corp.*, 88 A.3d 635, 644 (Del. 2014) ("[W]here the controller irrevocably and publicly disables itself from using its control to dictate the outcome of the negotiations and the shareholder vote, the controlled merger then acquires the shareholder-protective characteristics of third-party, arm's-length mergers, which are reviewed under the business judgment standard.").

[327] *Id.* at 639–40.

[328] *Flood v. Synutra Int'l, Inc.*, 195 A.3d 754, 763 (Del. 2018).

[329] *In re MFW S'holder Litig.*, 67 A.3d 496, 528–36 (Del. Ch. 2013).

[330] *See, e.g.*, *id.* at 503 (observing that it is "especially the case" that applying entire fairness review to a transaction subject to the *MFW* protections "promises more cost than benefit to investors . . . because stockholder who vote no, and do not wish to accept the merger consideration in a going private transaction despite the other stockholders' decision to support the merger, will typically have the right to seek appraisal"); *id.* at 535 (noting that "any minority stockholder who voted no on a going private merger where appraisal is available, which is frequently the case, may also exercise her appraisal rights").

context, then there would be little daylight between *MFW* and appraisal. In that scenario, for a deal subject to *MFW* protections, appraisal would not prove much of a safety valve.[331]

This conclusion is consistent with the Delaware Supreme Court's statements in *In re Tesla Motors, Inc. Stockholder Litigation.*[332] There, the high court held for the defendants in a merger that the court presumed was a controller transaction and subject to entire fairness review. Although the high court affirmed the trial court's finding that the deal was entirely fair, it emphasized the "unitary" nature of the entire fairness analysis—that findings of fair process "may seep into" findings of fair price and vice versa.[333] Relevant here, the high court quoted pre-*Dell* precedent stating that a "fair price analysis . . . 'may fall within the range of fairness for purposes of the entire fairness test *even though the point calculation demanded by the appraisal statute yields an award in*

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[331] *See also* Charles R. Korsmo, Minor Myers, *Appraisal Arbitrage And The Future Of Public Company M&A*, 92 Wash. U. L. Rev. 1551, 1608 (2015) (formulating a safe harbor allowing deal price to dictate appraisal value but arguing that because the *MFW* standard "would result in something far too permissive; we are not inclined to expand the safe harbor far beyond a genuine auction for control of the company"); *see also id.* at 1608–09 ("In our view, for example, the power vested in an independent board committee or a majority of the minority shareholders to 'say no' to a transaction would not be sufficient. These mechanisms set up, at best, a Hobson's choice for existing shareholders, and it is precisely in these scenarios where appraisal is useful."); *cf.* Lawrence A. Hamermesh, Jack B. Jacobs, Leo E. Strine, Jr., *Optimizing The World's Leading Corporate Law: A 20-Year Retrospective And Look Ahead* 26 (Fac. Scholarship at Penn Carey L., Working Paper No. 2724, 2021), https://scholarship.law.upenn.edu/faculty_scholarship/2724 (encouraging the court to limit *MFW* to fiduciary duty actions challenging squeeze-out mergers because it was "tailored specifically to the problem created by the *Lynch* line of cases, namely that those cases created poor incentives in the going[-]private merger context for transactional planners and encouraged wasteful litigation yielding no benefit for investors or society").

[332] 298 A.3d 667 (Del. 2023).

[333] *Id.* at 702; *see also id.* at 700, 718, 733 (emphasizing the unitary nature of the analysis).

excess of the merger price.'"[334] The court emphasized that the fair price aspect is "not in itself a remedial calculation[,]" but that it "typically applies recognized valuation standards" and is an "equivalent economic inquir[y]" to "fair value[.]"[335] These statements would not make sense were the calculation demanded by the appraisal statute the same calculation demanded by the fair price analysis in a controller squeeze-out. For this statement to work, the high court must not have intended to give deference to deal price in the controller squeeze-out context.

Accordingly, this decision foregoes the *MFW* analysis urged by Respondent. Surely, deal price is relevant. And ultimately, *MFW* protections might in fact operate as intended to secure a deal price that is consistent with fair value. But the former should not presumptively supply the latter in the context of a controller squeeze-out. The court looks to other methods of determining fair value.

2. The Unaffected Stock Price

Respondent argues that the unaffected stock price was $8.30, $6.70 below deal price and roughly $4 below the value derived from Respondent's primary valuation methodology—the DCF analysis. Petitioners argue that the unaffected stock price is an unreliable metric because several factors undermine the efficiency of the market in which Pivotal stock traded.

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[334] *Id.* at 717 (emphasis added) (quoting *In re Orchard Enters., Inc. S'holder Litig.*, 88 A.3d 1, 30 (Del. Ch. 2014)).

[335] *Id.* (internal quotation marks omitted).

Perhaps given the disparity between the unaffected stock price and Respondent's DCF analysis, Respondent does not proffer the unaffected stock price as a standalone valuation metric.[336] Rather, Respondent offers it for context only. This decision follows suit, looking to the unaffected stock price as a context clue but not an independent determinant of fair value.

As a context clue, the unaffected stock price is not terribly informative because Respondent has not proven that the market for Pivotal stock was efficient at relevant times. The absence of certain material information from the market and the presence of a controller is sufficient to foreclose reliance on the unaffected stock price.

Delaware courts recognize that a stock's unaffected trading price "can be a proxy for fair value"[337] where the market is efficient. Where stock trades efficiently, the price "reflects the judgments of many stockholders about the company's future prospects, based on public filings, industry information, and research conducted by equity analysts."[338]

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[336] *See* Resp't's Post-Trial Opening Br. at 62–63. Lehn calculated an adjusted unaffected price of $7.86 on December 30, 2019, based on this figure. *See* JX-1446 ("Lehn Opening Rep."), Ex. M.

[337] *Jarden*, 2019 WL 3244085, at *27; *DFC*, 172 A.3d at 373 ("When . . . the company had no conflicts related to the transaction, a deep base of public shareholders, and highly active trading, the price at which its shares trade is informative of fair value, and that value reflects the judgment of many stockholder about the company's future prospects, based on public filings, industry information, and research conducted by equity analysts."); *see Dell Appeal*, at 25 (same); *Regal*, 2021 WL 1916364, at *24.

[338] *DFC*, 172 A.2d at 373; *see also Regal*, 2021 WL 1916364, at *24 ("Whether the trading price should be used as a valuation indicator turns on whether the market exhibits sufficient evidence of informational efficiency.").

"[T]he question of efficiency is a matter of degree[,]"[339] and several factors contribute to the analysis. A market is said to be "efficient" if information concerning the security is reflected in the security's price.[340] A market is "semi-strong efficient" if all public information is fully reflected in the securities price and the release of new public information is quickly reflected in the security price.[341] In a semi-strong efficient market, "the unaffected market price is not assumed to factor in nonpublic information."[342] So, the Delaware Supreme Court has "cautioned against reliance on a stock price that did not account for material, nonpublic information," which is especially salient where a trial court finds that "certain information had not been factored into that stock price."[343]

"The question in an appraisal proceeding is whether the trading market for the security to be valued is 'informationally efficient enough, and fundamental-value efficient enough, to warrant considering the trading price as a valuation indicator whether determining fair value.' As an initial cut at this question, the Delaware Supreme Court has looked to an array of factors, many of which are associated with public company status."[344]

The high court has observed that "[a] market is more likely efficient, or semi-strong efficient, if it has many stockholders; no controlling stockholder; highly active trading; and

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[339] *Regal*, 2021 WL 1916364, at *27.

[340] Lehn Opening Rep., App'x C ¶ 1.

[341] Trial Tr. at 1266:22–1267:4 (Lehn); *see also* Lehn Opening Rep., App'x C ¶¶ 1–3.

[342] *Aruba Appeal*, at 140; *id.* at 138 n.53 (noting different between strong and semi-strong versions of the efficient capital markets hypothesis).

[343] *Tesla*, 298 A.3d at 732.

[344] *Regal*, 2021 WL 1916364, at *25 (quoting *Stillwater*, 2019 WL 3943851, at *52).

if information about the company is widely available and easily disseminated to the market."[345] This court has identified the following indicators of market efficiency: public information; stock exchange listing; active trading; analyst coverage; bid-ask spread; and market capitalization.[346] The court may also consider whether a deal takes place at "trough" pricing—where an external factor artificially "depress[es] the Company's stock price[,]" unrecognized by the trading public, of which the acquiror takes advantage by buying the company on the cheap.[347]

Lehn testified that the market for Pivotal Class A stock was semi-strong efficient based on a series of standard tests of market efficiency for Pivotal stock.[348] Lehn observes several factors that are compelling. For instance, Pivotal stock traded on a public market with substantial trading volume, it had extensive analyst coverage and market makers trading in its stock, and—based on Lehn's event studies—its stock price has sometimes reacted in a statistically significant manner to the announcement of earnings and other public information.[349]

Nonetheless, two significant factors undermine the reliability of the stock price on August 14, 2019. The first is that the market price did not factor in all material information,

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[345] *Dell Appeal*, at 25 (internal quotation marks omitted).

[346] *Regal*, 2021 WL 1916364, at *25 (citations omitted).

[347] *Dell Appeal*, at 30 (internal quotation marks omitted); *see also Regal*, 2021 WL 1916364, at *26; *DFC*, 172 A.2d at 372–73 (rejecting the trial court's analysis that a company's stock traded in a trough).

[348] Trial Tr. at 1266:16–1267:10 (Lehn); Lehn Opening Rep., App'x C ¶¶ 8, 10, 20–22.

[349] Lehn Opening Rep., App'x C ¶¶ 8–11, 13; *id.*, App'x C-1.

such as Pivotal's Q2 Flash results as of August 14, 2019. As a result, public disclosures as of that date did not reflect Pivotal's operative reality.

The June 2019 Guidedown reported low expectations on key metrics such as deferred revenue and RPO. Thereafter, Pivotal prepared Q2 Flash results showing the Company beating subscription guidance by 1%, RPO by 9%, and non-GAAP earnings per share of $0.00 rather than negative $0.03 per share.[350] By comparison, the Company had missed its RPO projections in the prior quarter by somewhere between 5% and 10%, a miss that Gaylor had described as one of several drivers of the Company's Q1 shortcomings in Pivotal's June 4, 2019 earnings call.[351] Because certain material "information about the company" was not "widely available and . . . disseminated to the market," it is hard to conclude that the market for Pivotal Class A stock was a reliable metric on August 14, 2019, the last trading day before the merger was announced.[352]

When a company's unaffected stock price fails to incorporate material, non-public information, the court sometimes relies upon deal price instead.[353] For instance, the court in *Aruba* rejected a stock price valuation in favor of a deal-price-minus-synergies framework, reasoning that the parties to the deal had conducted diligence under confidentiality with "a much sharper incentive to engage in price discovery than an

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[350] *See* JX-1199 at 1–2.

[351] JX-861 at 5.

[352] *Dell Appeal*, at 25 (internal quotation marks omitted). With that starting point being tainted, it is hard to see how to back out a non-speculative value as of the closing date of December 31, 2019, that excludes the announcement of the merger.

[353] *See, e.g.*, *Aruba Appeal*, at 133–34.

ordinary trader[.]"[354] So, although the *Aruba* court critiqued the unaffected stock price as an inaccurate reflection of fair value, it had another market mechanism to rely on—the deal price.[355] Here, however, the record presents an unusual circumstance: the market did not price in material information that the parties to the deal had, and the deal price is unreliable because of the controller dynamic. To the extent the court might attempt to rely upon contemporaneous, market actors for price discovery, it is caught between a rock and a hard place.

Additionally, the presence of a controlling stockholder provides reason to be skeptical of arguments touting market efficiency.[356] Delaware case law has held that the presence of a controller is relevant to the efficiency analysis.[357] One group of commentators has explained the several ways in which a controlled company's stock

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[354] *Id.* at 140.

[355] *See Tesla*, 298 A.3d at 731 (stating that "[t]he issue in *Aruba* was that [the buyer] had access to nonpublic information that the market did not factor in, thus giving [the buyer] an advantage").

[356] *See Jarden*, 2019 WL 3244085, at *27 (stating that a stock market was efficient where a company "had no controlling shareholder[,]" a "94% public float[,]" and other factors weighed in favor of efficiency); *Regal*, 2021 WL 1916364, at *26 ("The Delaware Supreme Court has expressed support for relying on the trading price when a company is widely traded and has 'no controlling stockholder.'" (quoting *Dell Appeal*, at 25)); *DFC*, 172 A.3d at 352 (stating that a company's stock price is efficient partially because it "never had a controlling stockholder").

[357] Several cases simply allude to the absence of a controlling stockholder as a factor weighing in favor of stock market efficiency, but do not elaborate on why. *See Jarden*, 2019 WL 3244085, at *27; *Dell Appeal*, at 25; *DFC*, 172 A.3d at 352. In *Regal*, the court has expressed concern that a controller engaging in "block sales" can create "an overhang that capped the price of [the company's] stock." *Regal*, 2021 WL 1916364, at *26. The court thus was concerned with a controller's potential manipulation of the stock price, but it did not dwell extensively on the policy rationale beyond that.

market cannot price in all sources of going concern value. As they reason, the "market for corporate control is . . . absent [from controlled companies] because the controller can veto any transaction that it disfavors."[358] So, the usual pressure that the market for control exerts on management is absent. Also, market participants "value the firm based on the plans of the controller[,]" so the price will fall where the market believes that "the controller will under-manage the firm or divert resources to its own use in a way that evades judicial oversight[.]"[359] A controlling stockholder's presence can thus send signals to the markets to discount certain aspects of the company's business from the trading price.

Moreover, disregarding the controlling stockholder from an efficiency analysis would "engender uniquely detrimental incentives."[360] If an opportunistic or malfeasant controller announces a bad squeeze-out that markets predict will harm the minority stockholders (rightfully), traders will bid down the stock price. In that scenario, it does not make sense to let the controller point to the minority stock price drop as a reflection of fair appraisal value. Of course, the court would have to conduct market tests to back out an unaffected stock price figure, which might correct the controller's artificial depression. Still, allowing controllers to taint the starting point of the analysis appears to muddy waters and leave the act of correction to the vagaries that can accompany judicial discretion.

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[358] Lawrence A. Hamermesh & Michael L. Wachter, *Rationalizing Appraisal Standards in Compulsory Buyouts*, 50 Bos. Coll. L. Rev. 1021, 1035 (2009).

[359] *Id.*

[360] *Id.*

Lehn testified that there is no academic support among financial economists for the view that a controller's presence makes a stock market "inherently inefficient" and unlikely to "react to value-relevant information."[361] As far as information access is concerned, Lehn has a point—Pivotal's earnings calls, regular financial reporting, and the like are not unreliable simply because VMware controlled the company. Nonetheless, as stated above, Delaware's market efficiency analysis is not exclusively concerned with the stock market's information access. It also addresses the dynamics and incentives of corporate control. The result is that the presence of a controlling stockholder should weigh against a finding of efficiency.

In any event, "efficiency is a matter of degree."[362] The market for Pivotal stock lacked access to material information on the relevant date Respondent advances. That is enough to undercut the reliability of the stock price. The presence of a controlling stockholder raises additional cause for doubt. In this context, it is hard to make much of the $8.30 trading price.

3. DCF Analysis

Respondent urges the court to adopt Lehn's DCF-based analysis, which generates a fair value of $12.17 per share.[363] To get to that number, Lehn conducts two DCF analyses using different discount rates. In one model, he calculates the discount rate using a "low-end" weighted average cost of capital ("WACC") of 7.69%. In the other, he uses a "high-

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[361] Lehn Opening Rep. ¶ 60 n.76.

[362] *Regal*, 2021 WL 1916364, at *27.

[363] *See* Resp't's Post-Trial Opening Br. at 65–78.

end" WACC of 8.97%, which is equal to the low-end WACC plus a "size premium" of 1.28%.[364] Aside from the discount rate, all inputs into Lehn's two DCF analyses are the same. Lehn calculates prices per share of $13.83 and $11.87, respectively, and posits that the midpoint of $12.85 is a fair value.[365] He then adjusts the midpoint value of $12.85 to account for "changes in the value of the market and peer company indexes" between August 14, 2019, the last day before news of the merger reached the market, and December 30, 2019, the appraisal date.[366]

Petitioners do not dispute Lehn's selected discount rates or his approach of averaging two parallel DCF analyses that use different discount rates, although the court independently questions inputs in the second DCF model. Petitioners instead attack Lehn's free cash flow projections and terminal value on the grounds that the management projections from which Lehn derived these inputs are unreliable.[367] Although Petitioners' own expert, Beach, also conducted a DCF analysis as a cross-check to his comparable companies analysis discussed below, Petitioners do not argue that Beach's DCF is a reliable reflection of fair value.

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[364] *See* Lehn Opening Rep., Exs. S-1, S-2.

[365] Lehn Opening Rep. ¶ 84; *id.*, Exs. S-1, S-2.

[366] *See* Lehn Opening Rep. ¶ 85; *id.*, Ex. T.

[367] *See* Pet'rs' Post-Trial Opening Br. at 69–70; Pet'rs' Post-Trial Reply Br. at 45–56. Petitioners also challenge Lehn for merely seeking to corroborate his opinion that the merger price reflected fair value, showing that he performed the analysis "with bias." *See* Pet'rs' Post-Trial Reply Br. at 46–47. The court does not find this argument persuasive, as it merely shows that Respondent's expert had a motive to produce a result favoring Respondent. That much is apparent from the adversarial nature of litigation.

"The DCF method is a technique that is generally accepted in the financial community."[368] A DCF analysis requires three key inputs: (i) a projection of future cash flows over a discrete forecast period; (ii) a discount rate used to calculate present value; and (iii) a terminal value, or the expected value of the firm beyond the forecast period.[369]

"[T]he reliability of a DCF analysis depends on the reliability of the inputs to the model."[370] "Although widely considered the best tool for valuing companies when there is no credible market information and no market check, DCF valuations involve many inputs—all subject to disagreement by well-compensated and highly credentialed experts—and even slight differences in these inputs can produce large valuation gaps."[371]

The court's first task is to assess the reliability of the financial projections that Lehn used to derive future cash flows and terminal value. The court concludes that the financial projections are conservative, such that they are useful for a DCF only if the model adjusts

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[368] *Stillwater*, 2019 WL 3943851, at *60.

[369] *In re Radiology Assocs., Inc. Litig.*, 611 A.2d 485, 490 (Del. Ch. 1991) ("[A]n estimation of net cash flows that the firm will generate and when, over some period; a terminal or residual value equal to the future value, as of the end of the projection period, of the firm's cash flows beyond the projection period; and finally[,] a cost of capital with which to discount to a present value both the projected net cash flows and the estimated terminal or residual value." (internal quotation marks omitted)); *Ramcell, Inc. v. Alltel Corp.*, 2022 WL 16549259, at *10–11 (Del. Ch. Oct. 31, 2022); *Kruse v. Synapse Wireless, Inc.*, 2020 WL 3969386, at *12 (Del. Ch. July 14, 2020); *see also* Trial Tr. at 1331:20–1332:6 (Lehn) (explaining that he used these three factors in his DCF analysis); Lehn Opening Rep. ¶ 66 (same).

[370] *In re U.S. Cellular Operating Co.*, 2005 WL 43994, at *10 (Del. Ch. Jan. 6, 2005); *see also Deane v. Maginn*, 2022 WL 16557974, at *23 (Del. Ch. Nov. 1, 2022) ("An informative DCF valuation requires reliable projections." (internal quotation marks omitted)).

[371] *Dell Appeal*, at 37–38; *see also AOL*, 2018 WL 1037450, at *11.

for their conservative skew. In adopting a modified version of Lehn's DCF model to determine fair value, the court drops Lehn's second DCF based on the high-end WACC, which applies a size premium, and rejects a portion of Lehn's methodology for calculating the terminal value.

a. Free Cash Flows

"Delaware law clearly prefers [discounted cash flow] valuations based on contemporaneously prepared management projections because management ordinarily has the best first-hand knowledge of a company's operations."[372] "Under Delaware appraisal law, when management projections are made in the ordinary course of business, they are generally deemed reliable."[373]

Delaware courts have identified numerous factors as relevant concerning the reliability of management projections. Management projections lack "sufficient indicia of reliability" where, for example,

- They were prepared "outside of the ordinary course of business."[374]
- They were prepared "by a management team that never before had created long-term projections."[375]

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[372] *Doft & Co. v. Travelocity.com Inc.*, 2004 WL 1152338, at *5 (Del. Ch. May 20, 2004).

[373] *Huff Fund Inv. P'ship v. CKx, Inc.*, 2013 WL 5878807, at *9 (Del. Ch. Nov. 1, 2013) (alterations and internal quotation marks omitted).

[374] *LongPath Cap., LLC v. Ramtron Int'l Corp.*, 2015 WL 4540443, at *10 (Del. Ch. June 30, 2015).

[375] *Id.*

- They were prepared "by a management team with a motive to alter the projections, such as to protect their jobs."[376]

- They were prepared "when the possibility of litigation, including an appraisal action, was likely and probably affected the neutrality of the projections."[377]

- They were prepared using "speculative" or "arbitrary" assumptions or assumptions that suggest a "dramatic turnaround in a company despite no underlying changes that would justify such an improvement of business."[378]

- They reflect "results that are hoped for" as opposed to "the expected cash flows of the company."[379]

- There was no process by which the board "reviewed and discussed" the projections with management.[380]

Courts also consider the distinction between "bottom-up" and "top-down" processes for preparing projections.[381] Bottom-up forecasting "start[s] with detailed information drawn from business units, then aggregate[s] it to create a company-wide forecast."[382] By contrast, top-down forecasting "relies on broad assumptions about the company's

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[376] *Id.*

[377] *Id.*

[378] *Id.* at *13–14, 16 (considering each of these factors).

[379] *In re PetSmart, Inc.*, 2017 WL 2303599, at *32 (Del. Ch. May 26, 2017) (internal quotation marks omitted).

[380] *Regal*, 2021 WL 1916364, at *22.

[381] *Id.* at *21 (internal quotation marks omitted).

[382] *Id.*

performance and industry trends."[383] "Projections prepared using a bottom-up process generally are more reliable than projections prepared using a top-down process."[384]

As the basis for his DCF analysis, Lehn used the base case projections Morgan Stanley presented to the Pivotal Special Committee on August 22, 2019 (the "August 22 Base Projections").[385] As Lehn explained, his typical "practice [is] to believe that the management of the company you're attempting to value has more knowledge about the firm than outside valuation experts[.]"[386] Also, all three companies involved in the merger—Pivotal, VMware, and Dell Technologies—developed financial projections for Pivotal on a standalone basis. For each year in the projection period, the August 22 Base Projections were higher in terms of both revenue and EBITDA than either the Dell Technologies or VMware standalone cases. The fact that Lehn would have reached a lower valuation had he instead used the VMware or Dell Technologies standalone cases bolstered his confidence in relying on the August 22 Base Projections.[387]

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[383] *Id.*

[384] *Id.* (internal quotation marks omitted); *see also PetSmart*, 2017 WL 2303599, at *34 n.386 ("[M]anagement's projections were top down rather than bottom up projections, which is contrary to best practices." (internal quotation marks omitted)).

[385] Lehn Opening Rep. ¶¶ 67–68; *compare* JX-1242 at 25, *with* Lehn Opening Rep., Exs. S-1, S-2.

[386] Trial Tr. at 1336:11–19 (Lehn); *see also* Lehn Opening Rep. ¶ 68 ("I [] used the Pivotal Base Case in my DCF analysis because it was prepared by Pivotal management contemporaneous to the announcement of the Merger and reflected management's view of Pivotal's business at the time." (internal quotation marks omitted)).

[387] Lehn Opening Rep. ¶ 68, *id.*, Ex. N.

The August 22 Base Projections primarily came from an earlier DCF model Pivotal prepared sometime in July 2019 in connection with Pivotal's tax planning (the "Tax Model").[388] Aspects of the Tax Model's genesis, original purpose, and construction are mysterious, making the reliability assessment difficult. Reconstructing these facts requires a brief detour through Pivotal's creation of the Revised Outlook. The court attempts to piece together the critical details below.

i. Management Develops Three-Year Projections Based On Sensitivities Analyses.

The starting period is April 2019, when Pivotal management began preparing a set of three-year revenue projections after the Board approved the Annual Plan.[389] This was consistent with Pivotal's prior practice of keeping three-year projections of certain performance metrics on hand and updating them on a rolling basis.[390] The three-year projections created in April or May 2019 established low, base, and high case revenue estimates for Fiscal Years 2020 through 2022.[391]

To calculate each of the low, base, and high cases, Pivotal undertook sensitivities analyses. In other words, management modeled low, base, and high scenarios for total revenue over a three-year timeframe by analyzing the effects that various market factors

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[388] *See* JX-1010.

[389] PTO ¶ 99; JX-720; Trial Tr. at 927:6–930:16 (Gaylor).

[390] *See* Trial Tr. at 921:23–922:13 (Gaylor).

[391] *See* JX-720 at 15–17; PTO ¶ 99.

have on revenue metrics like ACV.[392] These factors included subscription renewal rates from existing customers (low case of 75%, base case of approximately 82%, and a high case of 90%), Pivotal's ability to generate synergies from PKS development as opposed to cannibalization of existing offerings, and the amount of market competition Pivotal might face over the three-year period.[393]

Based on these sensitivities, management projected the following estimates of total revenue for low, base, and high case scenarios for Fiscal Years 2020 through 2022:[394]

	FY2020	**FY2021**	**FY2022**
Low Case	$833	$1,058	$1,218
Base Case	$840	$1,114	$1,498
High Case	$846	$1,154	$1,590

Along with total revenue projections, management calculated other metrics, such as year-over-year revenue growth rates, subscription revenue totals and growth rates, gross margins, free cash flow, R&D as a percentage of revenue, and various ACV projections.[395]

It is unclear from the record how management canvassed the qualitative factors in their sensitivities analyses to produce quantitative revenue projections. Because, however, these projections were prepared by an experienced management team operating in the ordinary course of business, they have some indicia of reliability.

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[392] *See* JX-720 at 5–6; *id.* at 11 (stating that the company's "[r]evenue outlook" is "driven by ACV and renewals").

[393] *See id.* at 5.

[394] The data is taken from *id.* at 11. All numbers are in millions USD.

[395] *Id.* at 10–17.

By June 2019, Pivotal's Q1 earnings would prove disappointing, due to underwhelming ACV results. Accordingly, Pivotal's Financial Planning and Analysis ("FP&A") team—which reported to Gaylor as CFO—lowered the company's annual forecast. In Gaylor's words, the new, more pessimistic annual forecast "brought down the outlook because without ACV, [Pivotal's] revenue [wa]s going to grow more slowly, if it doesn't start to decline."[396]

Also in June, the FP&A team created the Revised Outlook, in which it lowered Pivotal's three-year projections for fiscal years 2020 through 2022. Pivotal management conducted revised sensitivities analyses that accounted for lower ACV and revenue growth rates.[397] Management also created operating income projections for Fiscal Years 2020 through 2022.[398]

Gaylor presented the Revised Outlook at a Pivotal Board meeting on June 25, 2019.[399] The sole document in the record evidencing the Revised Outlook is Gaylor's slide deck from that meeting. Her slides do not explicitly state the total revenue projections for Fiscal Years 2020 through 2022, but they do provide total revenue growth rates for the same period broken out into low, base, and high case projections (along with "plan"

[396] Trial Tr. at 917:1–5 (Gaylor).

[397] JX-964 at 1, 27; Trial Tr. at 750:8–17 (Armstrong) (stating that, given the "change in the[] business," management "believed that their current LRP . . . was no longer viable").

[398] JX-932 at 43.

[399] The Board meeting minutes for that day are four pages long, and merely state that Gaylor "discussed financial models, trends, and the outlook for FY20." *See* JX-931 at 2.

estimates).[400] The court can discern total revenue projections from the Revised Outlook by applying these growth rates to Pivotal's Fiscal Year 2019 actual revenue results of $657 million.[401] That exercise reveals the following:

	FY2020	FY2021	FY2022
Low Case	$756	$847	$940
Base Case	$776	$916	$1,071
High Case	$789	$955	$1,174

Like the April projections, neither the record nor the parties have explained the precise link between the qualitative sensitivities analyses and the quantitative projections in the Revised Outlook. Once again, however, these projections were prepared by an experienced management team operating in the ordinary course of business, so they have some indicia of reliability.

ii. Morgan Stanley Develops An Initial Set Of Ten-Year Free Cash Flow Projections Based On The Three-Year Forecasts.

On July 7, 2019, Gaylor gave the slide deck from her June 25 presentation to Morgan Stanley to help them construct various DCF models.[402] Morgan Stanley took several weeks to "understand the assumptions that are driving the model[,]"[403] and used

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[400] JX-932; JX-964.

[401] *See* JX-932 at 38, 42. The total revenue growth rates are as follows: for fiscal year 2020—15% (low), 18% (base), 20% (high); for fiscal year 2021—12% (low), 18% (base), and 21% (high); for fiscal year 2022—11% (low), 17% (base), and 23% (high). *See id.* at 42.

[402] *See* JX-964.

[403] Trial Tr. at 752:23–753:5 (Armstrong).

the Revised Outlook to prepare an initial set of extrapolated projections through Fiscal Year 2029.

On July 25, 2019, Morgan Stanley emailed Gaylor its forecasts for review, in advance of a call that same day.[404] Because Pivotal management had provided data for Fiscal Years 2020–22 only, Morgan Stanley conducted extrapolations for Fiscal Years 2023–29. Altogether, Morgan Stanley projected street, low, base, and high cases for revenue, EBITDA, taxes, stock-based compensation, net working capital, and capital expenditures through Fiscal Year 2029.[405]

With its own (admittedly lawyerly) math, the court can trace Morgan Stanley's footsteps in calculating free cash flow projections from these figures. In line with established valuation practice, it seems Morgan Stanley calculated free cash flows for each year by determining EBITDA, subtracting taxes, stock-based compensation, and capital expenditures, and adding back changes in net working capital.[406]

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[404] JX-998 (July 25, 2019 email from Armstrong to Gaylor attaching a "draft valuation deck" and saying "[s]peak in 15 mins").

[405] *Id.* at 24–26.

[406] *See id.* at 23–26; *see also* Charles H. Meyer, *Accounting and Finance for Lawyers* 373 (2d ed. 2002) (stating that one can compute unlevered free cash flows as "(i) the projected net income after tax, plus (ii) the noncash charges deducted in computing net income (*e.g.*, deferred taxes and depreciation expense), less (iii) the projected capital expenditures necessary to produce the projected net income, less (iv) the projected increase in the net working capital necessitated by the business (other than cash and short-term investments)"). Cash flow is unlevered when it does not serve as a security interest for debt.

Although the court cannot reconstruct every aspect of Morgan Stanley's July 25 projections, the bottom line seems to be that the most critical variables in constructing free cash flow derived from underlying revenue growth assumptions. The result was:[407]

	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29
Revenue	$773	$912	$1,067	$1,229	$1,392	$1,551	$1,700	$1,831	$1,938	$2,015
EBITDA	$(23)	$10	$70	$125	$192	$271	$358	$453	$550	$645
Taxes	-	-	-	$(1)	$(13)	$(29)	$(48)	$(68)	$(90)	$(112)
Stock-Based Compensation	$(85)	$(89)	$(93)	$(107)	$(121)	$(135)	$(148)	$(159)	$(169)	$(175)
Change in Net Working Capital	$12	$8	$3	$3	$2	$2	$1	$1	-	-
Capital Expenditures	$(11)	$(13)	$(15)	$(16)	$(18)	$(19)	$(20)	$(20)	$(20)	$(20)
Free Cash Flow	$(107)	$(84)	$(35)	$3	$42	$89	$144	$205	$271	$337

iii. Morgan Stanley Uses Pivotal's "Tax Model" To Revise Its Ten-Year Free Cash Flow Projections.

Enter the Tax Model. After Gaylor and Armstrong spoke on July 25 to review Morgan Stanley's figures, Gaylor forwarded the Tax Model to Morgan Stanley. Gaylor had the Tax Model on hand in connection with a tax-related analysis in either June or early July.[408]

The Tax Model comprised two DCF valuations based on the ten-year period of Fiscal Years 2020–29. One DCF was for a "minimum viable product" (or "MVP") case,

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[407] JX-998 at 25.

[408] *See* Trial Tr. at 965:9–13 (Gaylor) ("Q. So the long-term projections that you sent to Morgan Stanley appear to be from that tax analysis done in late June or early July; is that fair? A. Looks that way.").

and the other was for a "high case."[409] No one who testified at trial recalled who, exactly, prepared the Tax Model.[410]

When forwarding the Tax Model, Gaylor suggested that Morgan Stanley use the revenue figures only. She wrote in her July 25 email to Armstrong, Wilson, and others at Morgan Stanley not to "focus on the dcf itself all that much" because there was "an error in the original model" and that the model was "mainly focused on topline growth[.]"[411] To aid in their forecasting, she said they "may want to look at the level of investment in the various acv scenarios" and "tweak a bit[,]" noting that it "likely results in more fcf" because "you wouldn't need to invest as much in s&m[.]"[412]

As for the Tax Model's "topline," the MVP case aligned with the base (and not the low) case in the Revised Outlook and the high case aligned with the high case in the Revised Outlook. For Fiscal Years 2020–22, the MVP case projected annual revenue of $773, $908.5, and $1,062.9 million, respectively—approximately what is implied by the

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[409] *See* JX-1010 at 2–3.

[410] Stephanie Reiter, Pivotal's Vice President of FP&A at relevant times, stated in her deposition that Jason Hurst, a "corporate development leader" at Pivotal, was responsible for keeping ten-year projections for purposes of tracking goodwill and other accounting goals. *See* Reiter Dep. Tr. at 102:11–106:20. Although the Company thus kept some form of ten-year forecast, it is not clear what the Company did to generate the Tax Model. *See also* Trial Tr. at 959:12–19 (Gaylor) (expressing uncertainty over who at Pivotal prepared the Tax Model, though noting that it was likely someone from Pivotal's tax and accounting team).

[411] JX-1010 at 1.

[412] *Id.* "fcf" here seems to refer to "free cash flow," and "S&M" seems to refer to "selling and marketing."

Revised Outlook's base case revenue growth rates.[413] For fiscal years 2020–22, the high case projected annual revenue of $773.2, $955.4, and $1,170.6 million, respectively—approximately what is implied by the Revised Outlook's high case revenue growth rates.[414]

Although the Fiscal Year 2020–22 portions of the Tax Model appear to have been lifted clean from the Revised Outlook, the revenue projections for Fiscal Years 2023–29 seem to be extrapolations based on the Revised Outlook figures for 2022 (the "MVP Extrapolations"). Pivotal management did not prepare outyear extrapolations in the ordinary course of business. As Gaylor testified at trial, the extrapolations for Fiscal Years 2023–29 were "not something [Pivotal management] update[s] regularly."[415]

Morgan Stanley used the MVP Extrapolations to create a slide deck for a Pivotal Special Committee meeting on July 31, 2019.[416] This slide deck presented case comparisons for revenue, EBITDA, and EBITDA margin between Fiscal Years 2019–29 for street, low, base, and high cases.[417] Morgan Stanley also included a set of DCFs, the

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[413] *Compare id.* at 2, *with* JX-932 at 42 (projecting base case revenue growth rates that the court analyzed earlier).

[414] The Revised Outlook predicted high case growth rates of 20%, 21%, and 23% for fiscal years 2020–22. Starting with the $657.5 million actual revenue figure from fiscal year 2019, the implied total revenue figures from the Revised Outlook should be $789, $954.69, and $1,174.27 million. It seems whoever created the Tax Model started with a base case projection for Fiscal Year 2020 (approximately $773 million), which lowers the rest of the high case projections slightly. Why this choice was made is unclear.

[415] Trial Tr. at 959:12–960:7 (Gaylor).

[416] JX-1041 (revised slide deck dated July 31, 2019) at 23–25; JX-1037 at 1 (email from Morgan Stanley to Gaylor and others attaching same); Trial Tr. at 940:4–12 (Gaylor).

[417] JX-1041 at 13–14.

base case for which drew upon the MVP Extrapolations for revenue, changes in net working capital, and capital expenditures in calculating free cash flow.[418]

iv. The Pivotal Special Committee Approves Morgan Stanley's Revised Projections.

At the July 31 meeting, the Pivotal Special Committee approved Morgan Stanley's projections—which were based on the MVP Extrapolations—for its financial analysis and fairness opinion.[419]

With the Pivotal Special Committee's blessings, Morgan Stanley transplanted its forecasts into the August 22 Base Extrapolations, which consisted of identical factors and inputs—revenue, EBITDA, taxes, stock-based compensation, change in net working capital, and capital expenditures.[420] The only additional factor in their final calculations was stock-based compensation, which followed the Revised Outlook through 2022 and decreased by approximately 2.5% year-over-year thereafter.[421] Morgan Stanley's final estimates of base case free cash flows for each year were greater than the MVP free cash flow estimates in the Tax Model.[422]

Somewhat consistently with the Tax Model, the EBITDA margins that Morgan Stanley presented on July 31 diminish marginally between Fiscal Years 2019 and 2029, cumulating in a high case of 25.9%, a base case of 25.6%, a street case of 25.3%, and a

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[418] *See* JX-1037 at 25; JX-1041 at 24.

[419] JX-1040 at 1.

[420] *Compare* JX-1010 at 2, *with* JX-1242 at 25; *see also* JX-1361 at 5.

[421] *See* JX-1242 at 25.

[422] *Compare* JX-1010 at 2, *with* JX-1037 at 25, and JX-1041 at 24.

low case of 23.8%.[423] Although not stated outright, it seems Morgan Stanley computed these EBITDA margins in part by tinkering with the Tax Model, which predicted Pivotal arriving at an approximate operating-profit-to-revenue margin of 25% for its terminal period. From there, Morgan Stanley seems to have backed out the slightly higher free cash flow projections than the MVP scenario of the Tax Model. Again, this is the court's best guess.

Lehn adopted the free cash flows from Morgan Stanley's August 22 Base Projections, with two minor changes. For one, Morgan Stanley had deducted stock-based compensation ("SBC") from free cash flow after calculating Earnings Before Interest and Taxation ("EBIT") and taxes.[424] Lehn, by contrast, did not deduct SBC after calculating EBIT, but factored SBC into his EBIT calculation "as is more common," in his view.[425] For another, Lehn multiplied Morgan Stanley's free cash flow projections for fiscal year 2020 by 0.46, a "stub" factor accounting for the fact that Fiscal Year 2020 was about halfway over by his August 2019 valuation date.[426] This has the effect of increasing the total valuation, as Pivotal's free cash flow projections through the end of Fiscal Year 2020 were negative.[427]

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[423] *See* JX-1041 at 13; JX-1037 at 15 (same).

[424] *Id.* at 46 n.87.

[425] *Id.*

[426] *See* Lehn Opening Rep., Ex. S-1 n.13, Ex. S-2 n.13.

[427] *See id.*, Ex. S-1 (projecting unlevered free cash flows of -$74 million for Fiscal Year 2020).

Petitioners do not challenge these modifications. Lehn's modifications to the August 22 Base Projections do not affect the court's reliability assessment of Lehn's model.

v. The August 22 Base Projections Are Conservative But Reliable.

Petitioners levy several challenges at Lehn's choice of free cash flows. Some succeed; others do not.

Petitioners first argue that the August 22 Base Projections are unreliable because they rely on the Tax Model and MVP Extrapolations, which were not created in the ordinary course of business.[428] Petitioners are correct on this point. Pivotal did not regularly update the Tax Model or its forecasts through 2029.[429] The fact that management was not in the habit of forecasting that far our undermines, to a degree, the assumptions that go into relying on management's contemporaneously prepared projections for free cash flows.[430]

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[428] Pet'rs' Post-Trial Reply Br. at 49–52.

[429] *See* Trial Tr. at 959:15–960:7 (Gaylor) (describing the tax IP model as "not something we update regularly"); *id.* at 939:2–9 (Gaylor) ("It looks like at this point in time we were likely doing IP tax analysis. And so we put together some materials related to that."); *see also* JX-1010 at 1. Reiter in her deposition described a process in which Pivotal's FP&A team created ten-year forecasts for accounting purposes, but the record indicates that those are separate from the Tax Model in question. *See* Reiter Dep. Tr. at 102:13–105:14.

[430] *PetSmart*, 2017 WL 2303599, at *33 (finding that management's five-year projections were not reliable for a DCF analysis where management's regular practice was to create annual budgets instead, because "[t]hese budgets were nothing like the five-year projections management was directed to prepare when the Board decided to explore a sale of the Company"); *Regal*, 2021 WL 1916364, at *22 (stating that management's lack of experience preparing the "five-year projections" used in a DCF model weighed against

Petitioners next argue that Morgan Stanley's free cash flow forecasts skew conservative and are insufficiently rigorous.[431] They base this argument primarily on contemporaneous communications. Namely, on July 1, 2019, Gaylor emailed Pivotal Vice President of FP&A, Stephanie Reiter, stating "the tax model *is super conservative vs a model of what we are more likely to do* – thinking through that and timing for updating the [long-term] model[.]"[432] Reiter disagreed, responding "[t]he tax model is equal to the mid case of the [long-term] model for the years in which we forecast – so LTM mid case for F[Y]20–FY22 is the same as the tax model."[433] In other words, Reiter characterized the Tax Model's MVP scenario as a base case, or mid case, analysis.

Gaylor pushed back, replying that she "know[s] [the MVP] is consistent" with the Revised Outlook, but that "the sensitivities we did for the board [were] not super rigorous."[434] So, Gaylor "worr[ied] it is too conservative if we do better in [the second half of the year] to be the new 3yr outlook[.]"[435] Gaylor did not clarify what part of the sensitivities analyses was non-rigorous. Reiter stated in response that the latest ACV outlook from June 2019 would "only depress the mid case at this point" and that the "high

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their reliability because management "only prepared an annual operating budget" on a regular basis).

[431] Pet'rs' Post-Trial Reply Br. at 49–53.

[432] JX-958 at 1–2 (emphasis added).

[433] *See id.* at 1.

[434] *Id.*

[435] *Id.* (internal quotation marks omitted).

case is super bullish" which would "capture any incremental upside vs. mid case if we surprised ourselves and outperformed."[436]

At trial, Gaylor testified that Reiter's point "makes sense" due to the Revised Outlook from June. She explained that "by the time we were at this point in the year, . . . the model was coming down. That three-year sensitivity was coming down because the business wasn't doing as well."[437] She said that the MVP scenario was developed to be a conservative estimate "in the beginning of the year, in like, the February, March time frame."[438] On cross-examination, however, counsel refreshed her recollection that the MVP scenario in the Tax Model was prepared in June or July—after Pivotal had issued the Revised Outlook.[439]

In other words, the tax professional at Pivotal who prepared the MVP model appears to have prepared it as a conservative estimate even after Pivotal revised its sensitivities analyses with the Revised Outlook. Although Gaylor's confusion on this point appears to have been genuine, it is hard to credit her testimony given that it arose in the context of litigation and given the lack of additional detail in the record on the who/what/where/when of the Tax Model.

There are additional factors that raise questions concerning the reliability of the MVP Extrapolations, and thus, the August 22 Base Projections and Lehn's model. For

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[436] JX-1532 at 1.

[437] Trial Tr. at 960:8–23 (Gaylor).

[438] *Id.* at 959:20–960:7 (Gaylor).

[439] *Id.* at 965:9–13 (Gaylor).

one, management developed them with a top-down methodology rather than a bottom-up one.[440] The imprecision of a top-down approach can threaten the reliability of the forecasts used.[441] The risks of a top-down approach are magnified where, as here, the court is left to speculate about the process used to create the relevant forecasts.

And although it is true, as Respondent argues, that Pivotal management, the Pivotal Special Committee, and the Board reviewed, approved, or adopted the August 22 Base Projections, it is hard to conclude that the Pivotal Special Committee served as a reliable check for errors in data. Lankton had no experience with DCF modeling.[442] Klevorn was effectively absent from the process.[443] And, there is some evidence that the Pivotal Special Committee, Pivotal management, and Morgan Stanley responded to perceived pressure from Dell to solidify the deal.[444] These facts undermine the likelihood that anyone reviewed Morgan Stanley's model for accuracy.

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[440] *See* Gaylor Dep. Tr. at 433:17–434:3 ("Q. Were the out years of the 10-year tax plan just extrapolated from that year's corporate plan of record? . . . A. I don't—I don't remember exactly how the extrapolation was done, but there wasn't a bottoms-up—you know, based on the three-year LRP, that would have then informed some of the trajectories in the, you know, out years. But the out years would have been more tops down than bottoms up.").

[441] *See, e.g.*, *PetSmart*, 2017 WL 2303599, at *34 n.386.

[442] Trial Tr. at 1039:22–24 (Lankton).

[443] *See, e.g.*, JX-1126 (August 13, 2019 email from Klevorn to Lankton stating, "I am really sorry I have been so out of pocket these last few weeks."); Trial Tr. at 998:15–999:11 (Klevorn) (stating that being on the Pivotal Special Committee "was a lot of work and I don't know, to be honest, how I felt about it at the time").

[444] *See, e.g.*, JX-1072 at 2 (Lankton's note to self from August 5, 2019 Pivotal Special Committee meeting stating "Michael [Dell] wants this deal done!", that the CEO of VMware had said it "won't do Pivotal any favors if the deal doesn't happen[,]" and

In the end, although the record does not inspire a huge amount of confidence in the August 22 Base Projections, they are not a death knell to Lehn's DCF. Petitioners do not criticize specific data points in the Tax Model or August 22 Base Projections. They argue that the Revised Outlook (and thus the MVP scenario) was unduly pessimistic in light of Pivotal's Q2 Flash. And this has some intuitive appeal. Yet, although it is true that the Q2 Flash spoke of "solid momentum" going into the second half of fiscal year 2020, it is not apparent that that momentum would continue indefinitely.[445] So, it still seems reasonable to use the Revised Outlook as the groundwork for a set of free cash flow projections over a ten-year timeframe as Morgan Stanley and Lehn did.

Additional factors weigh in favor of relying on the management-prepared data here. Swapping out Morgan Stanley's original July revenue forecasts for the MVP Extrapolations had the effect of increasing—rather than decreasing—the free cash flow projections Morgan Stanley independently considered to be genuine base case projections. And, as Lehn noted, the August 22 Base Projections were higher in terms of both revenue

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referencing a "moral obligation"); Trial Tr. at 1106:7–15 (Mee) (stating that, as early as January 2019, Mee believed that the deal was "likely" to happen because when "the largest shareholder of both [companies] and the CEO of the acquiring company are very positive about doing [the deal] that it's probably going to happen"); JX-609 (March 16–17, 2019 email exchange between Wilson and Armstrong in which Wilson told Armstrong that Dell and Gelsinger were pressuring Mee to "move fast" on the deal, that the deal is "a supervised process" where Pivotal would suffer risks if Dell "decides to go with" VMware but the deal "[d]oesn't happen[,]" and that it "can't be [a] typical m[&]a playbook with third party").

[445] *See* JX-1056 at 1.

and EBITDA than either the Dell Technologies or VMware standalone cases, which bolsters the court's confidence in relying on the August 22 Base Projections.[446]

Moreover, were the court to totally disregard management's projections, it would be left with a Stealers Wheel stuck-in-the-middle problem: The only alternative data set in the record to support free cash flow estimates are Beach's forecasts created for this litigation. And those are entirely speculative.

To calculate free cash flow, Beach first takes management estimates for Fiscal Year 2020 from Pivotal's October 16, 2019 Board meeting.[447] He then assumes that Pivotal would proceed into a "rapid growth period" in Fiscal Years 2021–23, the magnitude of which he estimates based solely on an industry analyst's forecast for the PaaS market.[448] The results are annual revenue growth rates of 21.1%, 19.6%, and 15.6% for 2021, 2022, and 2023, respectively. Then, he assumes constant annual revenue growth of 15.6% between Fiscal Years 2023 and 2025, which decreases gradually to 8% in Fiscal Year 2029.[449] Beach considers these growth rates to be "reasonable and conservative" in light of "anticipated long-term demand and adoption of the hybrid and multi cloud technologies[.]"[450]

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[446] Lehn Opening Rep. ¶ 69; *id.*, Ex. N.

[447] JX-1445 ("Beach Opening Rep.") ¶ 153 (citing JX-1336 at 34).

[448] Beach Opening Rep. ¶ 153.

[449] *Id.*; *see also id.*, Ex. 14 (presenting discounted cash flow analysis).

[450] Beach Opening Rep. ¶ 153.

Beach's projections seem to reflect hindsight bias and to be anchored in overly optimistic assumptions about Pivotal's performance. The record does not support a finding that Pivotal was poised to experience a short-term period of high growth.[451] Notwithstanding the difficulties Pivotal experienced, it is perhaps reasonable to assume that Pivotal would follow general PaaS market trends within a year of the merger. But beyond that, it is unduly speculative to attribute high growth to Pivotal simply because the industry will probably grow. This assumption ignores the long-run challenge to Pivotal's business model that Kubernetes presented. And it ignores the development of even newer technology in an industry famous for rapid changes.

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[451] Petitioners raise a related objection to both Lehn's DCF and the use of a DCF method generally on this point: That Pivotal's high growth potential means any DCF would undervalue it. This argument is unpersuasive, for a few reasons.

To portray Pivotal as high growth, Petitioners point to Pivotal's Q2 Flash updated RPO projections to argue that its prior June Guidedown was unnecessary. *See* Pet'rs' Opening Br. at 90–98. But a company does not become high growth simply because it missed its projected earnings on one occasion and later learned it was on track later.

In reality, Pivotal's growth was on the decline between Fiscal Years 2017 and 2019. Pivotal was a relatively mature company by August 14, 2019. Although formed in 2013, it was the result of an asset spin-off from assets created as early as 1989. PTO ¶ 28. Further, the record shows that it faced significant challenges in the market when Kubernetes rose to preeminence. *See, e.g.*, Trial Tr. at 344:14–18, 375:8–377:3 (Raghuram). Petitioners point to figures from Gaylor's July 19, 2019 Board presentation, reflecting that Pivotal's constant annual growth rate for subscription and total revenue between Fiscal Years 2017 and 2020 were approximately 53% and 23%, respectively. JX-991 at 9; *see also* Pet'rs' Post-Trial Reply Br. at 43–44 (citing *id.*). But the same charts that Petitioners cite show declining annual growth rates, consistent with a maturing company. JX-991 at 9. The long-term trend was toward declining revenue both in total terms and subscriptions, not explosive growth.

Essentially, Petitioners urge the court to view a mature, multi-billion-dollar company as a high-growth tech startup—a view that the record does not support. Petitioners' challenge to the DCF model on this basis fails.

Under the circumstances, the court could disregard the DCF method wholesale because the free cash flow inputs do appear relatively conservative. A superior alternative, in the court's view, is to use Lehn's free cash flows as a starting point for a DCF, but to adjust other aspects of the DCF model as necessary to account for the conservative skew. The court proceeds through the rest of Lehn's model with that understanding in mind.

b. Discount Rate

The next step is to determine a discount rate. As stated earlier, Lehn runs two parallel DCF analyses—one based on a 'low-end' WACC of 7.69% and the other based on a 'high-end' WACC of 8.97%.

Typically, an analyst uses the WACC as a discount rate.[452] Because Pivotal had no debt at relevant times, the WACC is equal to its cost of equity.[453] Lehn calculates Pivotal's cost of equity under the Capital Asset Pricing Model ("CAPM"), which "measures company risk by measuring the correlation of its stock price to market changes, known as beta."[454] Expressed formulaically, CAPM equals the risk-free rate ("commonly estimated as the yield on a U.S. Treasury Security") plus Pivotal's beta multiplied by an equity market risk premium.[455] Lehn arrives at 7.69%, which serves as his low-end WACC. The court

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[452] *See* Lehn Opening Rep. ¶ 69.

[453] *See id.*; JX-900 at 14 (Form 10-Q dated June 6, 2019 describing Pivotal's revolving credit facility and stating that "as of May 3, 2019, no amounts were outstanding"); JX-1305 at 14 (Form 10-Q dated September 5, 2019 stating same).

[454] Tim Koller, Marc Goedhart & David Wessels, *Valuation: Measuring and Managing the Value of Companies* 272 (6th ed. 2015).

[455] *See* Lehn Opening Rep. ¶ 70.

need not dwell on this part of his analysis. CAPM is one of the two most common methods for calculating the cost of equity,[456] and Petitioners do not challenge Lehn's calculation here.

To create his high-end WACC, however, Lehn adds a "size premium" to the WACC. A size premium, sometimes called a "small cap premium[,]" is based on the "rationale . . . that a small business faces greater overall risk than a larger, more diversified one."[457] As two analysts explain:

> In the long run, higher returns are related with higher risk. . . . To reflect the putative additional risk of smaller companies adequately, the cost of equity derived from the CAPM is 'adjusted' with a size premium and perhaps a unique risk premium. In theory, the smaller a company's market capitalization, the higher the size premium.[458]

Lehn calculates a size premium of 1.28% based on cross-reference to a well-recognized data source on size premiums for companies of various market capitalizations.[459]

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[456] Koller et al., *supra* at 273.

[457] *In re Cellular Telephone P'ship Litig.*, 2022 WL 698112, at *53 (Del. Ch. Mar. 9, 2022); *see also* Lehn Opening Rep. ¶¶ 73–75 (applying a size premium because "some academic research has found that actual realized stock returns for small capitalization companies are larger than predicted by the CAPM").

[458] Edmund H. Mantell & Edward Shea, *Development and Application of Business Valuation Methods by the Delaware Courts*, 17 Hastings Bus. L.J. 335, 357 (2021).

[459] *See* Lehn Opening Rep. ¶¶ 73 & n.100.

The "theory of size premium adjustment is not free from controversy"[460] and "[t]he academic world is . . . divided on this question."[461] Historically, many valuation professionals have applied size premiums using published studies supplied by Ibbotson or Duff & Phelps.[462] But Delaware courts have a mixed track record on the issue. As Lehn notes, some Delaware cases deploy size premiums in measuring CAPM.[463] At least one decision has expressed skepticism, however, noting that "[t]o judges, the company specific risk premium often seems like the device experts employ to bring their final results into line with their clients' objections, when other valuation inputs fail to do the trick."[464]

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[460] Mantell & Shea, *supra* at 357; *see also Ramcell*, 2022 WL 16549259, at *22 (quoting *Dunmire v. Farmers & Merchants Bancorp of W. Penn., Inc.*, 2016 WL 6651411, at *12 n.139 (Del. Ch. Nov. 10, 2016)); Beach Opening Rep. ¶¶ 168–69.

[461] Beach Opening Rep. ¶ 168.

[462] *Id.*

[463] *See* Lehn Opening Rep. ¶ 73 n.99 (citing *Reis v. Hazelett Strip-Casting Corp.*, 28 A.3d 442, 475 (Del. Ch. 2011); *Del. Open MRI Radiology Assocs., P.A. v. Kessler*, 898 A.2d 290 (Del. Ch. 2006); *In re Orchard Enters., Inc.*, 2012 WL 2923305, at *18 (Del. Ch. July 18, 2012); *Gearreald v. Just Care, Inc.*, 2012 WL 1569818, at *10 (Del. Ch. Apr. 30, 2012)).

[464] *Kessler*, 898 A.2d at 339, 339 n.129 (adopting a size premium in calculating a discount rate because in the court's then-current experience, "most testimonial experts and investment bankers using CAPM tend to accept the size factor as relevant" even though the size premium question is a subject of "great debate"); *see also In re AT&T Mobility Operations Hldgs. Appraisal Litig.*, 2013 WL 3865099, at *4 (Del. Ch. June 24, 2013) (declining to adopt a size premium because the small company being valued "operated as part of a larger entity"); *ONTI, Inc. v. Integra Bank*, 751 A.2d 904, 920 n.71, 921–22 (Del. Ch. 1999) (adopting a size premium, but observing that there is academic dispute on the subject and adjusting the expert-proposed estimates to account for potential "data snooping" used to measure it); *Cellular Telephone*, 2022 WL 698112, at *54 (applying a size premium, but noting that question "in this case presents a close question"); *but see Orchard*, 2012 WL 2923305, at *21–22 (adopting a size premium in a CAPM calculation for a company whose market capitalization fell between $1–76 million); *Just Care, Inc.*,

In a convincing piece published in 2015, Professor Aswath Damodaran called into question the empirical data that was used as the basis for applying a size premium. He describes its continuing use as a matter of "inertia," and recommends that valuation experts adopt an "innovative better practice."[465] Namely, he recommends that, to the extent a company is exposed to greater risks due to size, a valuation expert could account for that with lower reinvestment and expected growth outlooks.[466]

Damodaran's observations, coupled with this court's previously expressed concerns, counsel in favor of a cautious approach to size premia. Applying a size premium might be appropriate in certain scenarios, but the proponent of a size premium bears the burden of proving the factual bases for applying one.[467] In this case, Respondent did not

2012 WL 1569818, at *10 (adding an equity size premium to a CAPM model to "account for the higher rate of return demanded by investors to compensate for the greater risk associated with small company equity"); *Merion Cap., L.P. v. 3M Cogent, Inc.*, 2013 WL 3793896, at *19–20 (Del. Ch. July 8, 2013) (applying a size premium based on research that found a "statistical relationship between market capitalization and equity size premium"); *see also In re Emerging Commc'ns, Inc. S'holders Litig.*, 2004 WL 1305745, at *20 (Del. Ch. May 3, 2004) (describing size premiums, or small-company premiums, as addressing "the incremental risk, not fully captured by beta, that typically accompanies a small sized firm").

[465] Aswath Damodaran, *The Small Cap Premium: Where is the beef?*, Musings on Markets (Apr. 11, 2015), https://aswathdamodaran.blogspot.com/2015/04/the-small-cap-premium-factfiction-and.html) [hereinafter "*Small Cap Premium*"]; *see also* Beach Opening Rep. ¶ 168 n.249 (citing same).

[466] *See Small Cap Premium*.

[467] *See HFF*, 2022 WL 304840, at *15 ("In an appraisal proceeding, 'both sides have the burden of proving their respective valuation positions[.]'" (quoting *Jarden*, 236 A.3d at 322)); *see also Stillwater*, 2019 WL 3943851, at *18 (discussing the allocation of burden of proof).

make such a showing, and the use of conservative free cash flow estimates appears to address any idiosyncratic growth-related risks not captured by beta.

Accordingly, rather than following Lehn's bifurcated approach of running parallel DCFs, the court conducts a single DCF analysis using Lehn's low-end WACC of 7.69% as a discount rate.

c. Terminal Value

The final component of a DCF is terminal value—"the value beyond the discrete forecast period."[468] Put differently, "[t]he terminal value is the present value of all the company's future cash flows beginning after the projection period."[469]

The experts dispute whether Pivotal will grow in the terminal period. The non-technical summary is that Beach believes Pivotal will experience high growth, whereas Lehn believes it will experience none. Beach's position is overly optimistic. Lehn's position is overly pessimistic. The court endorses a middle ground.

Beach advocates for a non-convergence approach to the Gordon Growth Model, which requires calculating free cash flows in the terminal period at a positive perpetuity growth rate ("PGR").[470] "A perpetual growth model assumes cash flows to grow at a

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[468] Lehn Opening Rep. ¶ 77.

[469] *Ramcell*, 2022 WL 16549259, at *24.

[470] *See* Beach Opening Rep. ¶ 175; JX-1448 (Beach Rebuttal Rep.) ¶¶ 89, 89 n.122; *see also Cede & Co. v. JRC Acq. Corp.*, 2004 WL 286963, at *4 (Del. Ch. Feb. 10, 2004) (describing the perpetuity growth model); *Glob. GT LP v. Golden Telecom*, 993 A.2d 497, 511 (Del. Ch. 2010) ("[A] terminal value is calculated to predict the company's cash flow into perpetuity.").

constant rate in perpetuity."[471] This court has stated the elements of the Gordon Growth Model as

$$TV = {}^{FCFt+1}/_{WACC - g}$$

where "TV = Terminal value, $FCFt_{+1}$ = Free cash flow in the first year after the explicit forecast period, $WACC$ = Weighted average cost of capital, and g = Expected growth rate of free cash flow into perpetuity."[472]

One issue with using a perpetual growth model is determining an appropriate PGR (or 'g' in the above-quoted formula). "Conventional valuation wisdom holds that the perpetuity growth rate generally should fall somewhere between the rate of inflation and the projected growth rate of the nominal gross domestic product ('GDP')."[473] According to Beach, U.S. government estimates for the U.S. economy foresee 3.9% long-run nominal GDP growth and long-run inflation of 2%.[474] Presumably relying on similar data, Morgan

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[471] *Ramcell*, 2022 WL 16549259, at *24.

[472] *3M Cogent*, 2013 WL 3793896, at *21.

[473] *Cellular Telephone*, 2022 WL 698112, at *40; *see also Golden Telecom*, 993 A.2d at 511 ("A viable company should grow at least at the rate of inflation and . . . the rate of inflation is the floor for a terminal value estimate for a solidly profitable company that does not have an identifiable risk of insolvency.").

[474] Beach Opening Rep. ¶¶ 176–77 (citing Federal Open Market Committee, Minutes of the Federal Open Market Committee (Sept. 17–18, 2019), available at https://www.federalreserve.gov/monetarypolicy/fomcminutes20190918.htm (accessed Feb. 9, 2022)). Beach calculates long-term nominal GDP by combining the Federal Reserve's long-run target inflation rate of 2% and the reported long-run real GDP growth of 1.9%. *See* Beach Opening Rep. ¶ 176 n.256. The court sees no reason to challenge Beach's estimate.

Stanley ran DCFs based on PGRs of 2.5%, 3%, and 3.5% for each of the street, low, base, and high case models it prepared (resulting in 12 total share price estimates).[475]

Nonetheless, Beach recommends a PGR of 5%—above the upper bound of U.S. growth forecasts. Beach justifies this choice by assuming that Pivotal's software sales will drive growth at a higher rate than the rest of the U.S. economy.[476] He assumes that software development and engineering are "some of the economy's fastest growing areas" and that "data management is in high demand" because other sectors of the economy will be reliant on software for "processing huge amounts of data and the application of predictive analytics in forming new applications, strategies, and services."[477] So, Beach reasons that the typical use of nominal GDP growth as a cap is inapplicable here.[478]

In the other corner, Lehn expects zero growth. Lehn testified that "there comes a point where you're confined to returns equal to your cost of capital" in order to capture "economic reality[,]" "even for really well-managed companies[.]"[479] In Lehn's view, "a

[475] *See* JX-1242 at 23–26.

[476] Beach Opening Rep. ¶ 177; *see also* Trial Tr. at 210:21–211:11 (Beach).

[477] Beach Opening Rep. ¶ 177.

[478] Beach also adjusts his growth forecasts by assuming a "plowback ratio" of 2.9%, which is the nominal growth rate of 5% minus an approximate inflation rate of 2.1%. *See* Beach Opening Rep. ¶ 184. This ratio accounts for the rate at which additional net investment is necessary to sustain growth during the terminal period. Lehn also uses a plowback concept by adjusting his terminal value calculation for changes in R&D expenses. *See* Lehn Opening Rep. ¶ 79. The court declines to adopt a plowback ratio. Trying to ascertain a plowback ratio a decade from the valuation date appears speculative at best, at least under these facts, given the highly changing nature of the industry in which Pivotal operates.

[479] Trial Tr. at 1346:6–1347:5 (Lehn).

sound DCF has to . . . reflect that reality" as a matter of course.[480] With this key assumption, Lehn calculates terminal value in two steps.[481] First, he calculates Pivotal's terminal year net operating profit after tax, subject to certain adjustments ("NOPAT").[482] Second, he divides NOPAT by the discount rate.[483] In his low-end WACC model, the result is approximately $4.87 billion.[484] Because this figure is reached in Fiscal Year 2029 dollars, Lehn discounts it by its WACC and arrives at a present value of approximately $2.51 billion.

Neither expert's view is entirely persuasive. The difficulty with Beach's industry-centric approach is banal: it is simply hard to know where the software industry, or the PaaS market specifically, will be at the end of the decade. Although in some contexts, the court has adopted PGRs that track industry growth rates rather than GDP,[485] here, Beach's assumptions seem to import a high dose of speculation into an already speculative inquiry.

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[480] *See id.* at 1346:22–1347:5 (Lehn); *see also id.* at 1332:10–19 (Lehn) (stating that he "assumed that beyond the forecast period, Pivotal would generate returns on new investment that was equal to its cost of capital, which means that growth beyond the forecast period would be value neutral").

[481] Lehn Opening Rep. ¶ 78.

[482] *Id.*

[483] *Id.*

[484] *Id.*, Exs. S-1, S-2. Lehn also makes adjustments to his NOPAT estimate by accounting for net R&D expenses and changes in net working capital. *See* Lehn Opening Rep., Ex. R.

[485] *See, e.g.*, *Ramcell*, 2022 WL 16549259, at *25 (rejecting an expert's use of a "generic growth rate" for perpetuity growth rates based in part on the expert's failure to "look at industry growth rates").

Indeed, Beach himself admits that the speculative element is unavoidable, as it informs his misgivings about the DCF method generally.[486]

On the other hand, Lehn's zero-growth assumption is misplaced under these facts. Lehn provides no basis in the record to suppose that Pivotal will have reached a steady state at the *outset* of the terminal period instead of doing so at some point *during* the terminal period. Although Lehn believes his zero-growth approach reflects economic reality generally, he departs from Morgan Stanley's contemporaneous view that Pivotal's PGR would fall somewhere between 2.5% and 3.5%.[487] Lehn might be right to suppose that there is "a limit to the number of things" management "can do that create value for investors" after a certain period.[488] Nonetheless, Pivotal's investment bank and management seem to have endorsed a different view. This contemporaneous assessment weighs greater here, as Morgan Stanley and Pivotal management are more familiar with Pivotal's long-term prospects than Lehn is.

Also, the revenue projection Lehn uses to kickstart his NOPAT calculations start with $2.315 billion in revenue for Fiscal Year 2029—taken directly from the August 22 Base Projections and thus the MVP Extrapolations.[489] By relying on this figure as the sole

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[486] Beach Opening Rep. ¶¶ 75, 150.

[487] *See* JX-1242 at 23–26 (providing low, base, street, and high case valuations of Pivotal based on PGRS of 2.5%, 3%, and 3.5% as of August 22, 2019).

[488] *See* Trial Tr. at 1346:22–1347:5 (Lehn).

[489] *Compare* Lehn Opening Rep., Exs. R, S-1, S-2, *with* JX-1010 at 2 (Lehn's free cash flow projections reflecting the same Fiscal Year 2029 projected revenue as the MVP Extrapolations).

source of value in the terminal period, Lehn already imports the conservative skew of the MVP Extrapolations into the terminal value. By contrast, calculating terminal value with an above-zero growth rate can potentially correct for a conservative skew in the Fiscal Year 2029 free cash flow projection. Accordingly, rather than using Lehn's adjusted NOPAT / WACC formulation of terminal value, the court uses the Gordon Growth Model and perpetual growth.

The next task is determining an appropriate PGR. The court adopts the low end of Morgan Stanley's PGR from their August 22 valuation—2.5%. This figure falls between the forecasted low end of inflation (2%) and nominal GDP growth (3.9%) that Beach supplied, avoiding the industry-specific risks of Beach's formulation. And using a relatively lower end seems to reflect accurately Pivotal's status as a maturing company that would be unlikely to sustain high growth during the terminal period. At the same time, however, using a figure above zero avoids the overly pessimistic view of Lehn's model. The middle road between Beach's 5% and Lehn's 0% PGR is the most reliable figure.

d. Lehn's Market Adjustment

Finally, the court addresses Lehn's market adjustment to the DCF analyses. Lehn first uses his dual-DCF method to calculate Pivotal's stock price on August 14, 2019, which he argues is $12.85. Then, he accounts for "market and industry factors" between August 14 and December 30, 2019, generating a final price of $12.17.[490]

[490] *See* Trial Tr. at 1360:16–1361:14 (Lehn).

The court declines to adopt a similar market adjustment. The market indices upon which Lehn relied reflected market growth between August and December 2019—in other words, the market did better in December than it had in August.[491] But Lehn's analysis has Pivotal's stock price declining. Although Lehn stated that his model is "well-accepted" and "objective[,]" he did not explain how increasing market indicators lead to a decreased price.[492] Respondent has thus not met its burden of showing the market adjustment to be reliable. The court therefore disregards this part of Lehn's analysis.

That said, the court still needs a mechanism to bridge the gap between the August 14 valuation date that it implicitly adopted and the closing date of December 30, because fair value must be determined as of the date of closing. One solution is to adjust the weight of the "stub" factor Lehn applies to the free cash flow projections for Fiscal Year 2020. As stated earlier, Lehn multiplies Morgan Stanley's free cash flow forecast for Fiscal Year 2020 by 46% because there were only five and a half months remaining in that Fiscal Year. By the same logic, one can multiply the Fiscal Year 2020 free cash flow by 8.33% because only one month remained in Fiscal Year 2020 as of December 30, 2019 (it ended on January 31, 2020).[493] By adjusting the stub factor accordingly, the court thus more readily approximates a valuation as of December 30, 2019.

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[491] *Id.* at 1448:19–1449:11 (Lehn).

[492] *Id.* at 1450:22–1451:11 (Lehn).

[493] *See* JX-1365 at 9 (Form 10-Q dated December 6, 2019).

This solution is not ideal. Indeed, were there a rival set of reliable projections treating the valuation date as ground zero, the court would use that instead. But in the absence of superior data, this approach does the trick.

e. DCF Valuation Summarized

Summarizing the inputs, the sum of the free cash flows for Fiscal Years 2020 through 2029 discounted at 7.69% is $868.13 million.

Next is calculating the terminal value. The free cash flow forecast initiating the terminal period is $339.57 million. The WACC is 7.69%. The PGR is 2.5%. By the court's calculations, this results in a fair value of $6,706.34 million in dollars at the end of Fiscal Year 2029. After a steep discount,[494] the result is a present value of $3,327.41. This creates a tentative enterprise value of approximately $4,195.54 million. Following Lehn, to compute total equity value, the court also adds back current assets—$809 million in cash, $275.6 million in proceeds from the stock option sale, and $51.3 million in net operating losses, while subtracting out a minority interest of $0.7 million.[495] The sum is $5,330.74 million. Divided by 330.4 million shares, the price per share is $16.13.

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[494] Following suit with Lehn, the court applies the same discount factor in the terminal period that the court uses for free cash flow in Fiscal Year 2029. *See* Lehn Opening Rep., Ex. S-1. This approach makes sense because the terminal value is measured in Fiscal Year 2029 dollars. Rather than using the midpoint convention for the terminal value portion, however, the court uses a year-end convention because the valuation occurs at the end of Fiscal Year 2029, right before the terminal period starts.

[495] *See id.*

f. Petitioners' High Terminal Value Argument

Petitioners bring a separate objection to bear on Lehn's DCF. They argue that Lehn wrongly derives 73% of the total enterprise value from the terminal value, which reflects cash flows over ten years into the future.[496] The terminal values of Lehn's DCF models are approximately 75% and 72% of the cash flow for each of his low- and high-end WACC models, respectively.[497] Here, the court's terminal value constitutes 62% of its overall DCF valuation. That figure rises to approximately 79% when excluding current assets like cash and net operating losses (and thus valuing Pivotal exclusively as a function of its future cash flows).

This court has, at times, refused to rely on DCF models that are "so heavily dependent on the determination of [the company's] terminal value" that the "entire exercise" becomes speculative.[498] Similarly, the court has considered a terminal value

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[496] Pet'rs' Post-Trial Reply Br. at 47.

[497] For the low-end WACC model, the court gets to this figure by dividing Lehn's present value of the terminal value, $2,509, by the free cash flow value of $3,351.

[498] *Gray v. Cytokine Pharmascis., Inc.*, 2002 WL 853549, at *9 (Del. Ch. Apr. 25, 2002). It is worth noting that *Gray* contains some distinguishing features. In *Gray*, the court disregarded an expert's DCF with a terminal value between 75% and 85% of the total valuation because it "amount[ed] to little more than a special case" of an expert's parallel comparable companies analysis. *See id.* The court there also disregarded the expert report at issue because it disregarded more accurate projections drafted by management. *See id.* at *8. By contrast, here, Lehn uses his DCF analysis to urge against a comparables analysis and in favor of management-drafted projections. Nonetheless, the point from *Gray* remains that a DCF model's reliance on terminal value can be grounds to render it a speculative analysis.

"representing over 70% of [the company's] estimated total present value" to be a "red flag."[499]

Respondent counters that, on other occasions, the court has adopted DCF models deriving the vast majority of their value from the terminal value.[500] Respondent points to the following cases:

- *Kruse v. Synapse Wireless, Inc.*, where the court adopted a DCF model bearing a terminal value of 100% of the enterprise value in a five-year model;[501]
- *In re Jarden Corporation*, where the court adopted a DCF model bearing a terminal value of 77% of the of the enterprise value in a five-year model;[502]
- *Crescent/Mach I Partnership, L.P. v. Turner*, where the court adopted a DCF model bearing a terminal value of approximately 75% of the enterprise value in a five-year model;[503]
- *In re PNB Holding Co. Shareholders Litig.*, where the court conducted a DCF calculation bearing a terminal value of approximately 75% of the enterprise value in a five-year model.[504]

To Petitioners' credit, Respondent's cases are distinguishable insofar as they involve DCF analyses conducted over five- rather than ten-year timeframes. Common sense indicates that a terminal value after ten years is inherently more speculative than after

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499 *Gholl v. Emachines, Inc.*, 2004 WL 2847865, at *13 (Del. Ch. Nov. 24, 2004).

500 Dkt. 204 ("Resp't's Post-Trial Reply Br.") at 9–10.

501 2020 WL 3969386, at *18–19.

502 2019 WL 4464636, at *4 (Del. Ch. Sept. 16, 2019) (reargument decision presenting DCF with terminal value of $12,928 million and total enterprise value of $1,613 million). The court adopted this DCF as a cross-check on an unaffected stock market valuation. *See Jarden*, 2019 WL 3244085, at *3.

503 2007 WL 1342263, at *10–11, 14–15 (Del. Ch. May 2, 2007).

504 2006 WL 2403999, at *31 (Del. Ch. Aug. 18, 2006).

five years.[505] But Respondent is correct to dispel the notion that a high terminal value is a barrier to the use of a DCF, both here and in general. It is also not damning that Lehn's or the court's model derive a substantial portion of Pivotal's overall worth from cash flows over five years in the future—that much seems to be an occupational hazard of the ten-year DCF method endorsed by both experts, Morgan Stanley, and Pivotal management.

Put simply, courts should continue to scrutinize DCFs with high terminal values, although the inquiry is not dispositive. Here, the high percentage is not a cause for concern. Because the free cash flow projections likely understate present value, it stands to reason that an accurate valuation would compensate through adjustments in the terminal period. And the court has addressed the aspects of Lehn's terminal value that appear speculative. In sum, Petitioners' instincts are not misplaced, but they are accounted for under the circumstances.

4. Comparable Companies Analysis

Petitioners request that the court adopt Beach's analysis of fair value based on revenue multiples for comparable publicly traded companies. Respondent argues that Beach's analysis is unreliable in several ways, stating that Beach fails to compare Pivotal to genuinely comparable companies.

A comparable companies analysis is a "standard valuation technique whereby financial ratios of public companies similar to the one being valued are applied to a subject

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[505] *Cf.* Aswath Damodaran, *The Dark Side of Valuation* 331 (3d Ed. 2018).

company."[506] The approach looks to relative valuation and assumes that the same or equivalent assets have equal or equivalent value.[507]

This court has "discretion to view [a] comparable companies analysis as providing relevant insights into [a company's] value based on inferences from how the market valued companies in the same industry, facing most of the same risks."[508] "This methodology is appropriate only where the guideline companies selected are truly comparable. . . . The selected companies need not be a perfect match but, to be reliable, the methodology must employ 'a good sample of actual comparables.'"[509]

A comparable companies analysis has upsides and downsides. The upsides are that "revenue multiples are available even for the most troubled firms and for very young firms[,]" revenue multiples are "difficult to manipulate[,]" and they are "not as volatile as earnings multiples, and hence are less likely to be affected by year-to-year swings in a firm's fortunes."[510] Their primary downside is that they can "lull" an analyst into "assigning high values to firms that are . . . losing significant amounts of money[.]"[511] And

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[506] *In re BGC P'rs, Inc. Deriv. Litig.*, 2022 WL 3581641, at *32 (Del. Ch. Aug. 19, 2022).

[507] Beach Opening Rep. ¶ 120.

[508] *DFC*, 172 A.2d at 387.

[509] *Maginn*, 2022 WL 16557974, at *24 (quoting *Orchard*, 2012 WL 2923305, at *10).

[510] Aswath Damodaran, *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset* 543 (3d ed. 2012).

[511] *Id.* at 542.

the analyst must assure herself that the comparable companies she uses to derive a revenue multiple are meaningfully similar to the company being valued.[512]

Beach's comparable companies analysis involves five steps. These are: (a) selecting the appropriate type of revenue multiplier and deriving that data for the target company; (b) identifying a set of genuinely comparable companies; (c) calculating total enterprise value; (d) adding back current assets like cash and stock option proceeds to convert the total enterprise value figure into total equity value; and (e) addressing the propriety of adding a control premium to adjust for a minority discount. Each component is discussed in turn.

a. Revenue Multiplier

There are two standard types of revenue multipliers: price-to-sales ratio and value-to-sales ratio.[513] A price-to-sales ratio divides the market value of a company's equity by revenue.[514] A value-to-sales ratio divides a company's total enterprise value by revenue, where total enterprise value (or "TEV") is the sum of the company's market capitalization and its net debt (the market value of its debt minus cash and other current assets).[515] Using a price-to-sales ratio "across firms in a sector with different degrees of leverage" can lead to a "misleading conclusion" because focusing on the market price of equity does not

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[512] *See Borruso v. Commc'ns Telesys. Intern.*, 753 A.2d 451, 455–56 (Del. Ch. 1999).

[513] Damodaran, *supra* at 543.

[514] *Id.*

[515] *Id.*; *see also* Beach Opening Rep. ¶ 122; *see also Enterprise Value*, Corporate Finance Institute, available at https://corporatefinanceinstitute.com/resources/valuation/what-is-enterprise-value-ev/ (May 3, 2023) (defining enterprise value).

account for variations in debt between companies.[516] By contrast, a value-to-sales ratio is "more robust" than the price-to-sales ratio because "it is internally consistent."[517]

Beach uses a value-to-sales ratio.[518] He relies on Last Twelve Month ("LTM") and Next Twelve Month ("NTM") revenues to create a pair of multipliers—one backward-looking, and the other forward-looking.[519] He uses NTM revenue because forward-looking estimates "provide good insight into a company's future cash flows[;]" nonetheless, he cautions that they "are subject to greater uncertainty than historically reported metrics."[520] So, Beach also considers LTM revenue to remove "the effects of any discrepancies in revenue estimates between market analysts, management, and the broader market."[521]

Although Respondent objects to many aspects of Beach's model, Respondent does not challenge Beach's use of a value-to-sales ratio, and rightly so.[522] Pivotal lacks debt, but that does not mean its peers do too. Focusing on the relationship between total enterprise value and sales prevents an upward skew in the revenue multiples that could otherwise result were the court to compare Pivotal to highly leveraged peers. It was also appropriate for Beach to use both LTM and NTM revenue estimates. Heading off the

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[516] Damodaran, *supra* at 543.

[517] *Id.*

[518] Beach Opening Rep. ¶ 122.

[519] *Id.* ¶¶ 122, 127–28.

[520] *Id.* ¶ 122.

[521] *Id.*

[522] *See generally* Resp't's Post-Trial Opening Br. at 79–84; Resp't's Post-Trial Reply Br. at 19–39.

inherent risk in using a DCF based on ten years of performance, Beach's revenue multiplier relies in total on two years' worth of information. Half of that data derives from real-world practice. The other half is based on projections over a single year.

To calculate Pivotal's revenue multiplier, Beach takes Pivotal's reported LTM revenue as of December 30, 2019, as $746.2 million.[523] But he also uses an alternative measure of LTM revenue to cross-check that figure by taking one third of the revenue Pivotal earned in Q4 2019, adding the midpoint of management's latest full-year forecast for Fiscal Year 2020, and subtracting one third of the implied revenue for Q4 of Fiscal Year 2020 from that forecast.[524] At trial, he stated that he did so to get "as close to the trailing 12 months as of the date of the valuation as I could" to account for growth.[525] Respondent does not challenge this choice and it was reasonable.

To derive his NTM revenue estimate, Beach does not rely on Pivotal's projections. He instead draws data from Capital IQ, an information services company that provides market data.[526] Capital IQ calculates the mean estimate of Pivotal's revenue growth from a range of analysts, which in this case projects $867.6 million.[527] Respondent does not challenge Beach's choice to rely on market data and it too was reasonable. The court was able to rely indirectly on Pivotal's revenue forecasts in the DCF model by adjusting the

[523] Beach Opening Rep. ¶ 146.

[524] *Id.* ¶¶ 131 & n.207.

[525] Trial Tr. at 183:11–184:5 (Beach).

[526] *See* Beach Opening Rep. ¶ 122 n.193.

[527] *See id.* ¶¶ 122, 129 & n.193.

model to account for a potentially bearish forecast, but the comparable companies framework does not allow for similar adjustments. By using four estimates, rather than two, Beach appropriately provides a cross-check on each.

b. Comparable Companies

As stated earlier, "[t]he selected companies need not be a perfect match but, to be reliable, the methodology must employ 'a good sample of actual comparables.'"[528] So, for instance, the court must be confident that its analysis does not generate a "wide range of values" that "implicitly violates the law of one price[,] which holds that similar assets should sell for a similar price."[529] "The burden of establishing that the companies used in the analysis are sufficiently comparable rests upon the party advancing the comparables method."[530]

To create his sample set, Beach first collects the companies that Morgan Stanley, Lazard, and Moelis each provided for their own comparable companies analysis between Pivotal's IPO in 2018 through the merger date in 2019.[531] Beach then makes several revisions to the sample set.

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[528] *Maginn*, 2022 WL 16557974, at *24 (quoting *Orchard*, 2012 WL 2923305, at *10).

[529] *Gholl*, 2004 WL 2847865, at *6; *see also JRC Acq.*, 2004 WL 286963, at *3 n. 28 (finding that a "wide divergence in transaction multiples is troubling because it violates the law of one price, which holds that in a well-informed and efficient market, similar assets should sell for similar prices, adjusting for scale" (citing Bradford Cornell, *Corporation Valuation: Tools For Effective Appraisal And Decision Making* 56–57 (1993))).

[530] *Maginn*, 2022 WL 16557974, at *24.

[531] Beach Opening Rep. ¶ 124; *see also id.*, Ex. 4.

Beach first excludes and adds several companies from the set based on the nature of their business. Beach excludes IT service companies that Morgan Stanley had included as part of its analysis,[532] because in his view, Pivotal was more a software company than a services company.[533] He also excludes companies such as Dropbox, Pegasystems, and Box, which "do not primarily serve enterprise customers" and are "too narrowly focused" on particular "end-user functions[,]" or are otherwise "not engaged in creating cloud or multi-cloud platforms or providing application development."[534] He further adds other companies that he thought were comparable to Pivotal.[535]

Beach next culls his set to firms with NTM revenue growth estimates between 10% and 25% to exclude certain companies that either dramatically over- or under-performed relative to Pivotal.[536] The median revenue estimate of 16.7%, which is close to Pivotal's expected 16.3% NTM revenue growth that market analysts calculated,[537] requires that he exclude Citrix Systems, FireEye, Atlassian, MongoDB, and Twilio from the overall sample.[538]

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[532] *See* Beach Opening Rep. ¶ 125; *see also id.*, Ex. 5.

[533] Beach Opening Rep. ¶ 125; Trial Tr. at 105:24–107:19 (Beach).

[534] Beach Opening Rep. ¶ 126.

[535] *Id.*; *see also* Trial Tr. at 111:13–112:10 (Beach).

[536] Beach Opening Rep. ¶ 128. Beach came up with 10% as a lower bound because it is "approximately 5% less than analysts' NTM growth estimates for Pivotal of 16%" and came up with 25% as "approximately 5% more than Gartner's projected PaaS market growth for calendar year 2020 of 21%." *See id.*

[537] *Id.*

[538] *See id.*, Ex. 7 (summarizing growth rates of each relative to Pivotal's).

Beach produces a final set of eight companies (Cloudera, Talend, Appian, Nutanix, New Relix, Domo, Splunk, and VMWare). Beach computes a median NTM revenue multiple of 4.9x and a median LTM revenue multiple of 5.8x.[539]

Respondent attacks Beach's set of comparable companies on three grounds. First, Respondent argues that Beach wrongly excluded services companies from his list of comparables, arguing that this decision wrongly displaces real-world evidence that market participants considered Pivotal's services business relevant to its overall valuation.[540] Second, Respondent observes that several companies in Beach's set have much greater or smaller market capitalization relative to Pivotal, thus suggesting they are not genuinely peer companies.[541] Last, Respondent points to the wide disparity of multiples Beach discovered, ranging from lows of 3.6x (LTM) and 3.1x (NTM) to highs of 10.7x (LTM) and 8.6x (NTM). Respondent argues that this undermines the law of one price.[542]

Respondent's first critique warrants adjustment to Beach's set of comparables, because Respondent is correct to criticize the categorical exclusion of services companies from the comparables set. It is true that Pivotal's software business was its primary offering, and that Pivotal focused more on software such that services declined over time as a percentage of overall revenue.[543] Still, the services business was not nominal.

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[539] Beach Opening Rep. ¶ 128.

[540] *Id.* ¶ 44.

[541] Resp't's Post-Trial Opening Br. at 80–81 (addressing Splunk Inc., VMware, and Domo).

[542] *Id.* at 81–82.

[543] *See* JX-964 at 13; *see also* Pet'rs' Post-Trial Opening Br. at 78 (citing same).

According to Pivotal's 10-Q for Q2 of Fiscal Year 2020, as of August 2, 2019, services accounted for approximately 30% of revenue.[544] An accurate sample set would give some deference to this significant, albeit declining, portion of Pivotal's revenue to adjust Pivotal's change in focus.

To balance these considerations, the court brings the services companies identified as comparables by Morgan Stanley into the comparables set. Unlike Morgan Stanley, however, the court uses a weighted revenue multiplier. A portion accounts for Pivotal's software business, and a portion accounts for services. The court weighs Pivotal's software and services segments 75% and 25%, respectively—three quarters of the multiplier value derives from a survey of comparable software companies, while one quarter derives from the comparable services companies from Morgan Stanley's valuation. This choice accounts for Pivotal's segment breakdown in August 2019—before it consummated the merger—and for the fact that software was growing as a percentage of overall revenue. Although an imperfect tool, this weighting is the fairest possible account for Pivotal's growth path.

Respondent's second critique has some appeal but does not warrant an adjustment. Respondent argues that wide disparity in market capitalization is a barrier to comparability. Respondent observes that the market capitalization of several companies is either far bigger

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[544] *See* JX-1305 at 4 (reflecting quarterly subscription revenue of $134,990,000 and services revenue of $58,006,000 for a total of $192,996,000). Although this is quarterly rather than annual data, it shows a reliable, contemporaneous breakdown of Pivotal's business before it signed the merger agreement on August 14, 2019.

than Pivotal's or far smaller: Splunk had a market capitalization of $22 billion, VMware had a market capitalization of $67 billion, and Domo had a market capitalization of approximately $600 million.[545] Pivotal's was $1.6 billion.[546]

There is no bright-line rule addressing the role relative market capitalization plays in creating a list of comparable companies. This court has considered size differences between companies to be a meaningful but not dispositive consideration when selecting comparables.[547] In *Jarden*, for example, the court stated that "[t]he notion that a company with a very large market capitalization is not a true peer of a company with a relatively smaller market capitalization has a certain lay appeal[,]" but ultimately decided it was not a "determinant of market multiples[.]"[548] In this case, it is appropriate to include Domo, VMware, and Splunk in the sample because these companies are all established players in the cloud infrastructure software space, much like Pivotal. Their inclusion therefore seems

[545] Trial Tr. at 251:7–18, 266:3–6, 267:2–9 (Beach).

[546] *Id.* at 251:3–6 (Beach).

[547] *See, e.g.*, *Reis*, 28 A.3d at 477 (rejecting a comparable companies approach where the sample companies were "much bigger" than the valuation target, "enjoy better access to capital," "have deeper management teams[,]" and "have achieved consistent growth" compared to the valuation target's "erratic" earnings over the same period); *Gray*, 2002 WL 853549, at *9 (rejecting a comparable companies approach where the expert referred to companies that were "much larger than [the company at issue] both in terms of revenue and market capitalization").

[548] *Jarden*, 2019 WL 3244085, at *34 (internal quotation marks omitted).

wise not only because they are at comparable levels of maturity with Pivotal, but because including these large players more holistically accounts for market-wide growth trends.[549]

Respondent's third critique, that the wide dispersion of revenue multipliers runs afoul of the law of one price, likewise does not move the needle. This is a valid objection to Beach's initial set of companies, but the court's weighted multiples approach appears to mitigate the concern. Although there is still some dispersion in revenue multipliers among the software companies after the weighted multiplies are applied, the overall set falls within a tighter range.[550] Further, the court adopts Beach's approach of using the *median* revenue multiplier from the data set, rather than relying on a mean.[551] These steps account for outliers and draw the total sample into the realm of reliability.

The refined comparable companies set, based on Beach's set for the software companies and Morgan Stanley's for the services companies,[552] is therefore as follows:

Company	**Segment**	**TEV / NTM Revenue Multiple**	**TEV / LTM Revenue Multiple**
Cloudera	Software	3.6	4.1
Talend	Software	4.3	5.1
Appian	Software	8	9.3

[549] Beach emphasized at trial, and the court agrees, that the comparables approach is strongest when it creates a holistic scan of the market in which the company participates. *See* Trial Tr. at 341:10–19 (Beach) ("Q. Why didn't you just pick Appian as a comp and use their multiples and be done with it? What would that have done to your valuation, by the way? A. . . . [I]t's the entire set that represents what I think is a good representation of the market and the drivers around the market that Pivotal is in.").

[550] *See Maginn*, 2022 WL 16557974, at *25–26 (using a comparable companies analysis where revenue multipliers ranged from a low of 0.39x to a high of 11.28x).

[551] Trial Tr. at 112:11–23 (Beach).

[552] *See* Beach Opening Rep., Exs. 5–6.

Nutanix	Software	3.8	4.5
New Relic	Software	5.6	6.5
Domo	Software	3.1	3.6
Splunk	Software	8.6	10.7
VMware	Software	6.1	6.9
Accenture	Services	2.8	3
Cognizant Technology	Services	1.9	1.9
Atos SE	Services	0.9	0.8
Infosys	Services	3.1	3.3
Wipro	Services	1.9	2
Genpact	Services	2.4	2.7

Based on the above chart, the court derives the following revenue multiple medians:

Segment	**Unweighted TEV / NTM Revenue**	**Weighted TEV / NTM Revenue**	**Unweighted TEV / LTM Revenue**	**Weighted TEV / LTM Revenue**
Software	4.95	3.7125	5.8	4.35
Services	2.15	0.5375	2.35	0.5875

The combined, weighted revenue multiples are 4.25 and 4.94 (both rounded slightly) for NTM and LTM revenue, respectively.

c. Total Enterprise Value

Putting it all together, the court applies the TEV / NTM revenue multiplier to Beach's NTM analyst consensus revenue estimate of $867.6 million. It derives a total enterprise value of $3,687,300,000. Applying the same to his alternative NTM revenue projection of $930 million results in a total enterprise value of $3,952,500,000. The court applies the TEV / LTM revenue multiplier to Beach's LTM analyst consensus revenue estimate of $746,200,000. The total enterprise value is $3,684,362,500. Applying the

same to his alternative LTM revenue accounting of $765,000,000 results in a total enterprise value of $3,777,187,500.

d. Converting Total Enterprise Value To Price Per Share

Beach's comparable companies analysis, modifications and all, generates an estimate of Pivotal's total enterprise value. As stated earlier, total enterprise value measures a company's equity plus debt minus current assets like cash and cash equivalents.[553] But Section 262 does not demand an estimate of total enterprise value; the court's mandate is to determine the fair value of Petitioners' *pro rata* equity stake in Pivotal as a going concern. In other words, one needs to add back current assets to the total enterprise value to determine the company's total equity value (of which Petitioners are entitled to their *pro rata* share). Accordingly, Beach added net cash of $821.9 million and proceeds from exercising options of $275.6 million to each of his projections.[554] Because Pivotal had no debt, these maneuvers back out total equity value. The court does the same.

Beach's next step is to take the midpoint of the two NTM equity value figures and the two LTM equity value figures he generates—which, following his numbers, result in stock price values of $16.80 and $16.65, respectively.[555] Instead, the court takes the average of its four weighted total equity value figures, yielding $4,872,837,500. The court then divides this figure by 330.4 million, the number of fully diluted shares outstanding. The result is $14.75 per share.

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[553] *See* Damodaran, *supra* at 543.

[554] Beach Opening Rep. ¶ 129; *see also* Trial Tr. at 190:8–23 (Beach).

[555] Beach Opening Rep. ¶¶ 132–33.

e. The Minority Discount

Petitioners ask the court to adopt Beach's approach of layering an additional premium on top of the comparable companies valuation because "minority shares in a corporation trade at a discount for lack of control."[556] In other words, Beach's comparable companies approach calculates a minority interest, not a control block, because the revenue multiplier is based in part on stock market prices of comparable companies (which, according to some Delaware precedent, reflect purely 'minority' interests). To adjust for this, Beach calculates a control premium by reference to change-of-control transactions in the software industry.[557]

Respondent argues that accounting for a minority discount inflates the valuation by awarding deal synergies.[558] Lehn challenges Beach's use of a control premium, stating that there is no "academic consensus that there is always a minority discount."[559] At trial, he further testified that the existence of a minority discount "depends on the facts and circumstances of the company," that "there are cases where minority shareholders are net beneficiaries of a controlling shareholder," and that Beach's approach is "simply inappropriate."[560]

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[556] Pet'rs' Post-Trial Opening Br. at 87–89; *see also* Beach Opening Rep. ¶¶ 136–38.

[557] Beach Opening Rep. ¶ 137; *id.*, Ex. 9.

[558] Resp't's Post-Trial Opening Br. at 82–84; Resp't's Post-Trial Reply Br. at 30–33.

[559] Trial Tr. at 1367:16–1368:2 (Lehn).

[560] *Id.* at 1367:16–1368:11 (Lehn).

In essence, the parties dispute the concept of an implied minority discount as a component of going concern value for any company. Regrettably, Delaware law on the topic is opaque. But attempting to make sense of such a mess is the plight of the trial judge. Hence, the following college try.

The concept of the implicit minority discount appears to trace back to *Cavalier Oil*. There, a minority stockholder sought appraisal after a cash-out merger of a closely held corporation. The respondent argued that the stockholder's *pro rata* share should have been reduced by a "minority discount"—a discount for the fact that the petitioner owned only a "de minimis" interest, which the respondent reasoned was worth less than its proportionate equity stake in the company.[561] The Supreme Court rejected this argument, stating that "[t]he application of a discount to a minority shareholder is contrary to the requirement that the company be viewed as a going concern."[562] The court thus reasoned that a stockholder's status as a minority interest holder should not weigh against it in the fair value analysis.

The *Cavalier Oil* court refused to discount the value of a minority stockholder's shares based on a respondent's control-related theory. But later courts invoked *Cavalier Oil* to justify *adding* control premia to valuations based on trading value for stock. The adapted theory is that stock markets trade only for minority interests, so the stock price is

[561] *Cavalier Oil*, 564 A.2d at 1144.

[562] *Id.* at 1145 (internal quotation marks omitted).

implicitly "discounted" relative to the value a controller would derive from owning the company.[563]

This notion of an implicit minority discount has also arisen when using a comparable companies valuation.[564] The minority discount appears because the court's multiplier typically uses publicly traded stock information as a benchmark—for instance, stock-price-to-revenue, stock-price-to-EBITDA, or stock-price-to-earnings ratios. Based loosely on *Cavalier Oil*, the theory goes that each company's stock price in the comparables dataset only refers to the price of a minority stake in that company, rather than the price of a control block. So, when one uses a stock-price-to-revenue metric, one is really considering the ratio of a *minority interest* to revenue.[565] Therefore, after deploying the multiplier, one must add a control premium to right the ship to find inherent value.

Several aspects of this implicit minority discount concept appear questionable. In the first instance, it is not apparent that implicit minority discounts, if they exist, are in fact ever-present across companies. It seems preferable to leave the issue of whether a

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[563] *See Jarden*, 2019 WL 3244085, at *31 (explaining the theory).

[564] *See, e.g.*, *Hodas v. Spectrum Tech., Inc.*, 1992 WL 364682 (Del. Ch. Dec. 8, 1992); *Kleinwort Benson Ltd. v. Silgan Corp.*, 1995 WL 376911, at *3 (Del. Ch. June 15, 1995); *Rapid-Am. Corp. v. Harris*, 603 A.2d 796, 806 (Del. 1992); *Borruso*, 753 A.2d at 457–59.

[565] *Doft*, 2004 WL 1152338, at *10 ("Delaware law recognizes that there is an inherent minority trading discount in a comparable company analysis because 'the [valuation] method depends on comparisons to market multiples derived from trading information for minority blocks of the comparable companies.'" (quoting *Agranoff v. Miller*, 791 A.2d 880, 892 (Del. Ch. 2001))); *see also Borruso*, 753 A.2d at 457–58 (stating that "the comparable company method produces a minority valuation of the shares subject to appraisal" and adjusting the court's comparables analysis to "eliminate the implicit minority discount").

particular stock market trades only in "minority" interests to a case-by-case assessment of the record and each company's stock market, rather than attaching what is effectively a rebuttable presumption that a company's stock price requires adjustment.

Also, the idea that all stock trades at a discount seems to clash with the semi-strong efficient market hypothesis, which otherwise posits that a fully informed, efficient market will accurately reflect value. On these and related bases, commentators have critiqued the concept for years, also accusing the courts of misinterpreting *Cavalier Oil* and of lacking a basis in finance theory.[566]

Two recent cases cast doubt on the wisdom of applying an implicit minority discount. In *Jarden*, the trial court gave "substantial weight" to a company's unaffected stock market price, which traded in an efficient market.[567] Although the petitioner asked for a control premium to balance out the minority discount, the court declined to do so. The court reasoned that the company's management was "well known to stockholders and well known to the market. But for the Merger, they were not going anywhere as the

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[566] *See, e.g.*, Lawrence A. Hamermesh & Michael L. Wachter, *The Short And Puzzling Life Of The "Implicit Minority Discount" In Delaware Appraisal Law*, 156 U. Pa. L. Rev. 1, 16–24 (2007) (tracing the origin and development of the concept and critiquing its conceptual basis); William J. Carney & Mark Heimendinger, *Appraising The Nonexistent: The Delaware Courts' Struggle With Control Premiums*, 152 U. Pa. L. Rev. 845, 879 (2003) ("Modern financial theory . . . do[es] not support the current use of control premiums in appraisal proceedings.").

[567] *See Jarden*, 2019 WL 3244085, at *31.

Company was not for sale."[568] The court viewed any "agency costs" arising from being a minority stockholder as "embedded in" the company's operative reality already.[569]

Although the *Jarden* court did not announce a categorical rule, its analysis reflects a high degree of skepticism for the implicit minority discount theory. The court looked at the minority discount as a price for the inherent agency costs that result by virtue of every corporation's separation of ownership and control. But the *Jarden* trial court also reasoned that a fully informed market could value such agency costs without the need for judicial add-ons. *Jarden*'s approach thus reflects a faithful adherence to the efficient markets hypothesis, and in its wake, it is hard to imagine why the court should add a minority discount to the stock price of a non-controlled company.

The Delaware Supreme Court's decision in *Aruba* also advances an indirect conceptual challenge to the control premiums used to buffer out implicit minority discounts. There, the trial court found both the deal price and a separate thirty-day trading price metric to be reliable. The trial court opted for the trading price metric over a deal-price-minus-synergies figure.[570] Among other things, the trial court was chary of its synergies estimate, in part because the acquired company's representatives "bargained less effectively than they might have" but the court had "no way to gauge the marginal impact

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[568] *Id.*

[569] *Id.*

[570] *Verition P'rs Master Fund Ltd. v. Aruba Networks, Inc.*, 2018 WL 922139, at *53–55 (Del. Ch. Feb. 15, 2018).

of their ineffectiveness[.]"[571] The trial court prepared a rough estimate of synergies, but was concerned that the estimate failed to include agency cost reductions resulting from the merger.[572] Reasoning that a separate deduction of agency costs would open a can of worms relating to measurement issues, the trial court opted for what it deemed a more "straightforward and reliable" metric—the unaffected trading price.[573]

The high court reversed on appeal, holding instead that a deal-price-minus-synergies framework was appropriate because the deal process was reliable. In relevant part, the high court admonished the trial court for distinguishing agency cost reductions resulting from combined control from synergies. The high court stated that:

> Synergies do not just involve the benefits when, for example, two symbiotic product lines can be sold together. They also classically involve cost reductions that arise because, for example, a strategic buyer believes it can produce the same or greater profits with fewer employees—in English terms, rendering some of the existing employees redundant. Private equity firms often expect to improve performance and squeeze costs too, including by reducing agency costs. Here, the Court of Chancery's belief that it had to deduct for agency costs ignores the reality that [the buyer's] synergies case likely

[571] *Id.* at *45.

[572] *Id.* at *54 (stating that a "difficulty" with the court's "deal-price-less-synergies figure" was that it "continues to incorporate an element of value resulting from the merger. When an acquirer purchases a widely traded firm, the premium that an acquirer is willing to pay for the entire firm anticipates incremental value both from synergies and from the reduced agency costs that result from unitary (or controlling) ownership. Like synergies, the value created by reduced agency costs results from the transaction and is not part of the going concern value of the firm." (citations omitted)).

[573] *Id.*

> already priced any agency cost reductions it may have expected.[574]

In other words, the high court synonymized agency cost reductions with the benefits of control. And control, in turn, was a type of synergy—already baked into the trial court's analysis without requiring a separate discount for agency costs. In that context, the high court said that the trial court should have simply deducted synergies from deal price and ignored the agency cost deduction, which would "double count[]" part of the synergies.[575]

This aspect of the *Aruba* decision did not address implicit minority discounts. Nor did it address comparable companies analyses. Nonetheless, it treated control premia as a type of merger synergy. Control premia do resemble synergies—an acquiror may reduce costs, issue dividends, and replace management with people who will carry out its agenda. Such are the benefits of buying an entire company. If control premia are a category of synergies, however, then adding a control premium in an appraisal proceeding unwittingly incorporates synergies into the court's valuation. Quantifying a control premium necessarily contemplates third-party sale value, rather than going concern value. And the court may not consider third-party sale value under the appraisal statute.[576]

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[574] *Aruba Appeal*, at 134 (citations and internal quotation marks omitted).

[575] *Id.* at 139; *see also id.* at 134 (stating that "there was no reasonable basis to infer that [the acquired company] was cheating itself out of extra agency cost reductions by using only the cost reductions that were anticipated in commercial reality").

[576] 8 *Del. C.* § 262(h) ("[T]he Court shall determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger."); *see also Union Ill. 1995 Inv. Ltd. P'ship v. Union Fin. Gp., Ltd.*, 847 A.2d 340, 343 (Del. Ch. 2004) (interpreting Section 262(h) to "exclude[] synergies in accordance with the mandate of Delaware jurisprudence that the subject company in an appraisal proceeding be valued as a going concern").

Taken together, *Jarden* and *Aruba* implicitly (i) reject the notion that markets generally discount value for lack of control; and (ii) state that control premia are synergies, so even if there is an inherent discount, the control differential should not get priced into going concern value. *Jarden* rejects the implicit minority discount's omnipresence as a distortion of stock market realities. And *Aruba* implicitly rejects it as a backdoor inclusion of synergies. Both cases avoided far-sweeping statements to this effect. But adopting a control premium simply because a comparables analysis uses stock market indices appears inconsistent with the letter and spirit of each decision.

To be sure, a minority discount may still be a useful tool in some circumstances. Where the court uses a *controlled* company's stock price as a basis for its valuation, for instance, controller overhang might get priced into the minority share value and require an upward adjustment. This is not surprising because controllers can create inefficiencies in market prices that threaten their reliability (as discussed earlier). But that version of a minority discount—about which Lehn testified—is not the implicit minority discount that courts have believed accompanies every company's stock price.

The above analysis is enough to reject Beach's inclusion of a control premium here. But even were the court to keep the implicit minority discount practice alive, there are measurement-related issues with Beach's estimate. Control premia vary widely, and there is no hard-and-fast rule for selecting a high or low premium.[577] Beach turns to a set of ten

[577] *See, e.g.*, *Harris v. Rapid-Am. Corp.*, 1992 WL 69614, at *3–4 (Del. Ch. Apr. 6, 1992) (adding a 44% control premium to account for a minority discount adjustment); *Hodas v. Spectrum Tech., Inc.*, 1992 WL 364682, at *2 (Del. Ch. Dec. 8, 1992) (adopting a 30%

precedent transactions of companies that he believes are comparable to Pivotal. For each transaction, he compares the deal price per share with the stock price one day, one week, and one month before the deal to determine a set of premia. He ascertains median premia of 17.81% (one day before the deal), 20.67% (one week before the deal), and 25.29% (one month before the deal), and chooses 18% as a "conservative" estimate.[578] Beach justifies this addition by observing that strategic transactions for public companies force acquirors to "pay a premium over the public stock price to entice investors to accept its offer and to reflect the value of full control."[579]

Even accepting that the transactions Beach considered involve genuinely comparable companies to Pivotal, Beach's control premium ignores other synergies that are likely included within the deal premia he sampled.[580] Beach testified that from his review, there "wasn't a lot of synergies" based on the analysts' reports and proxy statements he surveyed for these deals.[581]

The difficulty with Beach's testimony is that it is effectively a gut-check. The median gap between stock price and deal price could be explained by a great many things,

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minority discount adjustment); *Doft & Co. v. Travelocity.com Inc.*, 2004 WL 5366732, at *10 (Del. Ch. May 20, 2004) (using a "30% adjustment"); *Silgan*, 1995 WL 376911, at *4 (adopting a 12.5% minority discount adjustment).

[578] Trial Tr. at 188:4–21 (Beach); *see also* Beach Opening Rep. ¶ 136; *id.*, Ex. 9.

[579] Beach Opening Rep. ¶ 136.

[580] *See Andalaro v. PFPC Worldwide, Inc.*, 2005 WL 2045640, at *18 (Del. Ch. Aug. 19, 2005) (stating that, in using comparable precedent transactions to determine a control premium, the court must exclude "any portion of the average premia from [the expert's] sample to account for the sharing of synergies by the buyer with the seller").

[581] Trial Tr. at 191:22–192:7 (Beach).

all of which require scrutinizing the circumstances surrounding each transaction. Beach may have a good sense for where synergies arise. But the litigation context of his testimony undermines his credibility on this point. Absent additional evidence in the record that the ten deals he sampled in fact ignored synergies, the court cannot rely on this part of Beach's analysis.

Furthermore, Beach errs by applying the control premium at the *end* of his comparable companies analysis, after accounting for non-stock assets.[582] Beach's revenue multiple is based on comparable companies' total enterprise value rather than stock value alone. This metric factors in the value of each comparable company's debt in addition to equity. By waiting until the end to multiply his total enterprise value figure by 18%, Beach artificially magnifies the effect of the minority discount.

The court declines to adopt Beach's control premium.

5. Comparable Transactions Analysis

Petitioners also urge the court to rely upon Beach's analysis of comparable transactions for fair value. Beach's comparable transactions analysis relies on data from ten other transactions in the software space, landing at price estimates between \$23.15 and \$21.94 per share based on NTM-derived equity values and LTM-derived equity values, respectively.[583] Petitioners favor this analysis for largely the same reasons they urge the

[582] *See* Beach Opening Rep. ¶¶ 134–36.

[583] *Id.* ¶¶ 148–49.

court to adopt Beach's comparable companies analysis.[584] Respondent likewise opposes this analysis for the same reasons it objected to his comparable companies analysis.[585]

"A comparable transactions analysis is an accepted valuation tool in Delaware appraisal cases. The analysis involves identifying similar transactions, quantifying those transactions through financial metrics, and then applying the metrics to the company at issue to ascertain a value."[586] "As with the comparable companies analysis, the utility of the comparable transactions methodology is directly linked to the similarity between the company the court is valuing and the companies used for comparison."[587]

Beach surveys 14 transactions, but only includes ten in his sample.[588] The companies in his sample are (i) Callidus Software, a cloud-based sales, marketing, learning, and customer experience company; (ii) Ultimate Software Group, a cloud-based human capital management solutions company; (iii) Broadsoft, a software and services company that assists telecommunications services provides deliver cloud-based "uniform communications" to enterprise customers; (iv) Athenahealth, a network-based medical record, revenue cycle, patient engagement, care coordination, and population health services company that works with hospital and ambulatory clients; (v) Barracuda Networks, a cybersecurity and data protection company; (vi) Apptio, a cloud-based

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[584] Pet'rs' Post-Trial Opening Br. at 70–71.

[585] Resp't's Post-Trial Opening Br. at 84–85.

[586] *Highlands Cap., Ltd. v. AXA Fin., Inc.*, 939 A.2d 34, 54 (Del. Ch. 2017).

[587] *3M Cogent*, 2013 WL 3793896, at *7 (alterations and internal quotation marks omitted).

[588] Beach Opening Rep., Ex. 12.

platform with a suite of SaaS applications for a broad spectrum of industries; (vii) ICE Mortgage Technology, a cloud-based platform provider for the mortgage finance industry; (viii) Red Hat, an open-source software solutions company that works with a range of customers; (ix) Imperva, a cybersecurity and data protection company; and (x) Carbon Black, a cloud-native endpoint protection company offering technology that uses SaaS toward cybersecurity ends.[589]

Only about half of the above-listed companies are comparable to Pivotal. Critically, many of them focus on either a particular customer niche or technology. Broadsoft targets telecommunications, Athenahealth focuses on healthcare, Barracuda and Imperva focus on cybersecurity, Ultimate Software Group targets human resources, and ICE Mortgage Technology provides a platform for the mortgage finance industry.

Pivotal, by contrast, was a generalist company; it targeted enterprises as customers, regardless of their industry.[590] For obvious reasons, the composition of a company's customers influences its revenue forecasts, growth potential, and susceptibility to industry-specific shocks. Industry- or segment-specific companies do not appear sufficiently comparable to Pivotal.

After culling the dissimilar firms, the court is left with a sample of four companies: Callidus, Apptio, Red Hat, and Carbon Black. This list fails for reliability for two reasons. The first is that it is too short—a sample of four transactions is unlikely to represent

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[589] *Id.*

[590] *See, e.g.*, PTO ¶ 28.

industry standards effectively, even assuming comparability. The second is that generating a revenue multiple from these four companies over-weighs Pivotal's software business relative to its services business, as discussed previously. Petitioners have therefore failed to meet their burden that Beach's comparable transactions analysis is reliable.

III. CONCLUSION

The court's DCF produces a value of $16.13. The court's comparable companies analysis produces a value of $14.75. To derive fair value, the court weighs each valuation evenly. The result is a per-share fair value of Pivotal Class A stock of $15.44 as of December 30, 2019.

A final word on interest. As discussed previously, Respondent prepaid a portion of the appraisal value to Petitioners in accordance with Section 262(h). Because the court has awarded an amount greater than Respondent's prepayment, Petitioners are entitled to interest on the "difference . . . between the amount so paid and the fair value of the shares as determined by the Court[.]"[591]

In the Pre-Trial Order, Respondent requests a determination that "good cause exists to award no interest on any appraisal award, or alternatively, to award interest at a rate less than the default rate specified in 8 *Del. C.* § 262(h) or otherwise on different terms than the default terms specified in 8 *Del. C.* § 262(h)."[592] Respondent does not seem to advance any good cause argument in its pre-trial or post-trial briefing, nor did it raise the issue at

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[591] 8 *Del. C.* § 262(h).

[592] PTO ¶ 153.

post-trial oral argument. The argument is therefore waived. Pre-judgment interest is set at the statutory rate as applicable.

Respondent shall prepare a form of order implementing this decision within ten days, providing Petitioners at least five days to review the form.