

## RISK-SEEKING GOVERNANCE

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*Venture capitalists (“VCs”) are increasingly abandoning their traditional role as monitors of their portfolio companies. They are giving startup founders more equity and control and promising not to replace them with outside executives. At the same time, startups are taking unprecedented risks—defying regulators, scaling in unsustainable ways, and racking up billion-dollar losses. These trends raise doubts about the dominant model of VC behavior, which claims that VCs actively monitor startups to reduce the risk of moral hazard and adverse selection. We propose a new model in which VCs use their role in corporate governance to persuade risk-averse founders to pursue high-risk strategies. VCs are motivated to take risks because most of the gains in venture funds come from the exponential growth of one or two outlier companies. By contrast, founders are reluctant to gamble because they bear firm-specific risk that cannot be diversified. To compensate founders for their risk exposure, VCs offer an implicit bargain in which the founders agree to pursue high-risk strategies and in exchange the VCs provide them private benefits. VCs can promise to give founders early liquidity when their startup grows, job security when it struggles, and a soft landing if it fails. In our model, VCs who develop a founder-friendly reputation have a competitive advantage in ex-ante pricing but are more exposed to poor performance ex post due to suboptimal monitoring. Stakeholders who are not party to the VC-founder bargain—and society at large—are forced to bear uncompensated risk.*

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## INTRODUCTION

Venture capitalists (“VCs”) are the financiers of innovation. They raise capital from institutional investors and invest it in a portfolio of startups. They help those companies grow, and then they exit their investments through an acquisition or initial public offering (IPO). Venture-backed startups represent less than one-quarter of one percent of new businesses.<sup>1</sup> But they have an outsized influence on the economy. From 1995 to 2018, they accounted for 47% of IPOs.<sup>2</sup> And some of them grow to become giants, like Amazon, Apple, Facebook, Google, and Microsoft.<sup>3</sup> The shape of technological progress depends in large part on which startups VCs choose to fund and how they govern them.

Economists and corporate law scholars have long sought to understand VC behavior. Starting in the 1990’s, a group of scholars developed what has become the standard account.<sup>4</sup> We call their work collectively “the monitor model.” These scholars explain the distinctive patterns of venture investing as responses to adverse selection and moral hazard. Before they invest, VCs have less information about a startup’s prospects than its founders have.<sup>5</sup> After they invest, VCs are exposed to the risk that the founders will operate the company for their private benefit.<sup>6</sup>

According to the monitor model, VCs solve these problems by providing startup founders and employees with high-powered equity incentives, staging their investments over multiple rounds, and purchasing preferred stock.<sup>7</sup> Most importantly, VCs take seats on their portfolio companies’ boards and

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<sup>1</sup> See Manju Puri & Rebecca Zarutskie, *On the Lifecycle Dynamics of Venture-Capital- and Non-Venture-Capital-Financed Firms*, 67 J. FIN. 2247, 2248 (2012) (finding that 0.11% of companies founded between 1981 and 2005 raised venture capital).

<sup>2</sup> Josh Lerner & Ramana Nanda, *Venture Capital’s Role in Financing Innovation: What We Know and How Much We Still Need to Learn*, 34 J. ECON. PERSP. 237, 240 (2020).

<sup>3</sup> *Id.* at 237.

<sup>4</sup> See PAUL A. GOMPERS & JOSH LERNER, *THE VENTURE CAPITAL CYCLE* 157-271 (2d ed. 2006); Ronald J. Gilson, *Engineering a Venture Capital Market: Lessons from the American Experience*, 55 STAN. L. REV. 1067, 1078-87 (2003); William A. Sahlman, *The Structure and Governance of Venture-Capital Organizations*, 27 J. FIN. ECON. 473, 506-14 (1990).

<sup>5</sup> See Gilson, *supra* note 4, at 1080 (explaining that the structure of venture investing “responds to adverse selection problems”); Sahlman, *supra* note 4, at 513 (explaining that VCs’ active role in their portfolio companies ensures that “the adverse-selection issue is effectively mitigated.”).

<sup>6</sup> See Gilson, *supra* note 4, at 1077 (“[T]he entrepreneur’s interests will sharply diverge from those of the venture capital investors, especially with respect to the risk level and duration of the investment.”); Sahlman, *supra* note 4, at 506 (“Even with the same information, [VCs and founders] are likely to disagree on certain issues, including if and when to abandon a venture and how and when to cash in on investments.”).

<sup>7</sup> See *infra* Part I.A.

take an active role in corporate governance.<sup>8</sup> VCs monitor founders to ensure they are focused on growing their companies instead of extracting private benefits. As startups grow, VCs have traditionally pushed to replace the founders with outside executives.<sup>9</sup> Scholars view VCs' active engagement in corporate governance and monitoring of the portfolio companies' management as one of the primary ways that VCs create value.<sup>10</sup>

But there are growing doubts about whether VCs are actually serving as monitors. Founders today are more likely to control their companies' boards and own larger shares of their companies' equity than in earlier decades.<sup>11</sup> Founders are also holding onto CEO positions for longer, which suggests that VCs have become less willing to replace them.<sup>12</sup> Some prominent venture firms have announced a policy of not removing founders at all.<sup>13</sup> More venture-backed startups are going public with share structures that give founders disproportionate voting power.<sup>14</sup> Most strikingly, some of the scholars who developed the monitor model are now expressing concern about a decline in active governance.<sup>15</sup> And at the same time, there have been

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<sup>8</sup> See Gilson, *supra* note 4, at 1082-83; Sahlman, *supra* note 4, at 508-09.

<sup>9</sup> See Thomas Hellmann & Manju Puri, *Venture Capital and the Professionalization of Start-Up Firms: Empirical Evidence*, 57 J. FIN. 169, 182 (2002) (finding that a business is "more than twice as likely to have a turnover event" if it has raised venture capital); see also SEBASTIAN MALLABY, *THE POWER LAW* 66-67 (2022) (describing the early history of VCs' replacing startups' CEOs with professional managers).

<sup>10</sup> Due to selection effects, it is difficult to quantify how much value VCs add through active governance, but several studies provide suggestive results and identify different channels through which VC engagement adds value. See Michael Ewens & Matt Marx, *Founder Replacement and Startup Performance*, 31 REV. FIN. STUD. 1532, 1532 (2018) (finding "causal evidence that venture capitalists (VCs) improve the performance of their portfolio companies by replacing founders"); Hellmann & Puri, *supra* note 9, at 169 (showing that VC engagement in governance causes startup firms to professionalize various aspects of hiring and compensation of management); Michael Gorman & William A. Sahlman, *What Do Venture Capitalists Do?*, 4 J. BUS. VENTURING 231, 231 (1989) (providing survey evidence showing that VCs "spend about half their time monitoring" portfolio companies). For a broader overview of the finance literature on how VC's add value and challenges in measuring the value of active governance see Marco Da Rin et al., *A Survey of Venture Capital Research*, in HANDBOOK OF THE ECONOMICS OF FINANCE 573, 595-97 (2013).

<sup>11</sup> See Michael Ewens & Joan Farre-Mensa, *Private or Public Equity? The Evolving Entrepreneurial Finance Landscape*, 14 ANN. REV. FIN. ECON. 271, 286 (2022).

<sup>12</sup> *Id.*

<sup>13</sup> See MALLABY, *supra* note 9, at 208 ("Founders Fund explicitly ruled out . . . bringing in an outside CEO" to replace a founder).

<sup>14</sup> See Dhruv Aggarwal et al., *The Rise of Dual-Class Stock IPOs*, 144 J. FIN. ECON. 122, 143 (2022) (finding that the percentage of venture-backed IPOs with dual-class share structures has risen from below 10% in the 1990s and 2000s to around 30% more recently).

<sup>15</sup> Lerner & Nanda, *supra* note 2, at 238.

a series of high-profile scandals—Uber, WeWork, FTX—in which VCs proved unable or unwilling to prevent founder misbehavior.<sup>16</sup>

VCS' retreat from active governance is hard to explain under the monitor model. Increasing competition in the venture industry may partially explain these trends, but we doubt it is the full story.<sup>17</sup> If VC governance creates value for startups—as research has long suggested—all startup shareholders, including founders, should benefit at the right price.<sup>18</sup>

In this Article, we propose a novel account of VC behavior, which we call the “risk-seeking model.” We are motivated by a fact that is universally acknowledged but not fully appreciated: the returns to venture investing follow a power law.<sup>19</sup> The success of a venture fund depends on one or two “home runs”—portfolio companies that grow 10x or more.<sup>20</sup> The most successful venture funds generate even more skewed returns, with a higher percentage of failures but one or two “grand slams”—companies that grow 30x or more.<sup>21</sup> Generating outlier returns is not only a feature of deal selection, but also a goal of corporate governance. After supplying capital, VCs need to motivate founders to implement the high-risk, high-reward strategies that can increase the company's potential for rapid, exponential growth.

Founders may be reluctant to take on so much risk. Founders typically invest a large percentage of their human and financial capital into their startups and consequently are unable to diversify firm-specific risk. By contrast, VCs and the large institutions that invest in venture funds can diversify away idiosyncratic risk associated with any specific portfolio company. VCs try to reduce the divergence in risk preference by finding risk-tolerant founders. But many otherwise promising founders would not want to gamble their

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<sup>16</sup> See *infra* Part I.C.

<sup>17</sup> Lerner & Nanda, *supra* note 2, at 251 (considering increasing competition as a possible explanation for the decline in active governance).

<sup>18</sup> See *id.* at 252.

<sup>19</sup> See Gilson, *supra* note 4, at 1076 (observing that there is a “wide variation in returns” in venture investing, with “some investments return many multiples of the original investment”); SCOTT KUPOR, *THE SECRETS OF SAND HILL ROAD* 37-40 (2019) (explaining why VCs focus on hitting home runs); MALLABY, *supra* note 9, at 6-9 (describing the distribution of venture returns); PETER THIEL & BLAKE MASTERS, *ZERO TO ONE* 83-90 (2014) (discussing the significance of the power law for venture investing); Sahlman, *supra* note 4, at 483-84 (presenting data that show the skewed distribution of venture returns).

<sup>20</sup> See Chris Dixon, *Performance Data and the ‘Babe Ruth’ Effect in Venture Capital*, ANDREESSEN HOROWITZ (June 8, 2015), <https://a16z.com/2015/06/08/performance-data-and-the-babe-ruth-effect-in-venture-capital>.

<sup>21</sup> See *id.* The carried interest component of fund compensation provides an additional reason for VC firms to encourage portfolio companies to pursue risky strategies. VCs only collect carried interest if their fund generates returns greater than committed capital. See *infra* Part I.D.

financial future on the high-risk strategies. As one VC puts it, “I sell jet fuel, and some people don’t want to build a jet.”<sup>22</sup>

In the risk-seeking model, VCs address the divergence in risk preference by striking an implicit bargain with founders. The founders agree to pursue the high-risk strategies that the VCs think will increase the chance of a home run. In exchange, the VCs agree to let the founders extract private benefits from the business. To develop this intuition, we model a hypothetical financing contract between a founder and a VC staged over two rounds of investment. We start with a basic incomplete contracting setup. The parties bargain over cash flow rights and residual control—for example, the right to replace the founder with an outside executive—but they cannot specify actions up front.<sup>23</sup> We extend the analysis by including the cost to the founder of bearing risk associated with uncertain payouts.

Our model offers a new explanation for some of the distinctive patterns of venture investing. For example, like the monitor model, our model predicts that VCs will purchase preferred stock, which carries a liquidation preference that guarantees an outsize percentage of the returns in an underwhelming exit.<sup>24</sup> But our explanation for the choice of preferred stock is different. According to the monitor model, the VCs’ liquidation preference reduces adverse selection at the time of investment by requiring founders to agree to bear more of the cost of poor performance.<sup>25</sup> Founders with more confidence in their skills and work ethic are more likely to accept those terms. We explain VCs’ use of preferred stock as a tool to encourage founders to take risks. The VCs’ liquidation preference reduces the founders’ payout in an underwhelming exit and increases their percentage of the returns in a home run. It effectively turns the founders’ common stock into a non-linear financial claim, akin to a stock option, that rewards founders who pursue high-risk strategies.<sup>26</sup>

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<sup>22</sup> Erin Griffith, *More Start-Ups Have an Unfamiliar Message for Venture Capitalists: Get Lost*, N.Y. TIMES (Jan. 11, 2019), <https://www.nytimes.com/2019/01/11/technology/start-ups-rejecting-venture-capital.html> (quoting Josh Kopelman, a VC at First Round Capital).

<sup>23</sup> Our approach is similar to other incomplete contracting models in finance. See Philippe Aghion & Patrick Bolton, *An Incomplete Contracts Approach to Financial Contracting*, 59 REV. ECON. STUD. 473, 473-74 (1992) (noting that future corporate actions cannot be included in the initial contract).

<sup>24</sup> Various hybrid arrangements with a similar payout structure (e.g., the VC receives a mix of debt and equity) would also work. The key issue for the model is that the VC is entitled to a higher percentage of payouts in bad outcomes, giving the VC a concave financial claim and the founder a convex claim.

<sup>25</sup> See Sahlman, *supra* note 4, at 510-11.

<sup>26</sup> The VC’s liquidation preference is functionally the exercise price for the founder’s option. The value of a stock option increases with volatility and consequently the executive compensation literature suggests that options can be awarded to corporate executives to encourage greater risk taking. See *infra* notes 114-115 and accompanying text.

Our model can account for observed behavior that the monitor model does not address. We show how risk-bearing also has implications for the price that VCs are willing to pay to invest. Under the standard account, VCs compete on price. But raising the price of equity amplifies inefficient risk sharing. It reduces the percentage of equity held by the VC and thereby lowers the VC's expected payout and increases the founder's expected (but still highly uncertain) payout. If we ignore the cost of risk, a price change would be a simple wealth transfer in which the expected cost to the VC would equal the founder's expected gain. When we account for risk, however, we see that a price change also transfers risk away from the most efficient risk bearer (the VC, investing on behalf of diversified institutions) to a less efficient one (the undiversified founder).

Because risk-bearing limits VCs' ability to compete on price, our model predicts that VCs will try to compete on non-price dimensions. In particular, the VC could promise to protect the founder's private benefits. This protection could be formal. For example, the VC might not bargain for board seats or other control rights sufficient to replace the founder with an outside executive. Or it could be informal. The VC could cultivate a founder-friendly reputation. In our analysis, VCs with founder-friendly reputations gain a competitive advantage in ex ante pricing when contracting with a risk-averse founder. At the same time, VCs run a greater risk of poor ex post performance due to suboptimal monitoring.

Critically, our model does not require VCs to behave irrationally or founders to underappreciate the benefits of monitoring. Even when the potential benefit of monitoring exceeds the founder's private benefits, we find that risk-bearing concerns can lead to a founder-friendly financing arrangement in which the VCs limit their ability to replace the founders. The choice between founder-friendly and monitoring relationships depends on the extent of the founders' risk-aversion relative to the potential financial gains from monitoring.

Our model explains why we see startups increasingly pursuing high-risk strategies. Many startups are accelerating growth through "blitzscaling"—taking shortcuts like hiring candidates without vetting them, bringing unfinished products to market, and neglecting compliance and other long-term risks.<sup>27</sup> Other startups are expanding their operations with underwater unit economics, relying on VCs to subsidize their losses.<sup>28</sup> Some startups are attempting even riskier strategies, such as regulatory entrepreneurship—selling an illegal product in the hope that widespread consumer adoption will lead to

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<sup>27</sup> See Tim Sullivan, *Blitzscaling*, HARV. BUS. REV. (Apr. 2016), <https://hbr.org/2016/04/blitzscaling>; REID HOFFMAN & CHRIS YEH, *BLITZSCALING* 23-37 (2018) (explaining the concept of blitzscaling).

<sup>28</sup> See *infra* Part III.A.2.



a change in the law<sup>29</sup>—or venture predation—using predatory pricing to drive competitors out of the market.<sup>30</sup> Each of these strategies is highly risky, but can increase the chance of a home run.

Our model also explains the rise of founder-friendly behavior. VCs are increasingly letting founders sell large portions of their equity in private secondary sales before their companies are sold or go public—a trend that suggests founders are eager to diversify risks.<sup>31</sup> In some cases, VCs have acquiesced to founders' brazen self-dealing.<sup>32</sup> VCs almost never sue founders, and they almost never publicly criticize founders even when they decide to pass on investing.<sup>33</sup> When startups fail, VCs seek to arrange a “soft landing”—a face-saving acqui-hire or a new job for the founders.<sup>34</sup> More generally, VCs are increasingly promoting themselves as founder-friendly, which is hard to reconcile with their role as monitors.

What does all this mean for corporate law? We think the rise of risk-seeking governance shows that Delaware courts have little power to shape behavior in Silicon Valley. The monitor model suggests that VCs behave roughly as corporate law envisions that directors should behave—they monitor managers, police self-dealing, and create incentives for performance. The risk-seeking model explains that VCs behave more subversively—they skip monitoring, indulge self-dealing, and push managers to take risks. VCs and founders both get what they want out of the implicit bargain. But other shareholders, and society more generally, may be stuck bearing un-bargained for risks.

The Article proceeds in four Parts. Part I explains the monitor model. Part II explains the risk-seeking model. Part III describes the high-risk strategies that startups are pursuing and the founder-friendly concessions that VCs are offering. Part IV considers the implications of risk-seeking governance for corporate law.

## I. THE MONITOR MODEL

In this Part, we explain and then critique the monitor model—the economic analysis of VC behavior that has dominated corporate law scholarship

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<sup>29</sup> See Elizabeth Pollman & Jordan M. Barry, *Regulatory Entrepreneurship*, 90 S. CAL. L. REV. 383, 392-410 (2017).

<sup>30</sup> See Matthew T. Wansley & Samuel N. Weinstein, *Venture Predation*, 48 J. CORP. L. (forthcoming 2023) (manuscript at 32-49).

<sup>31</sup> See *infra* Part III.B.1.

<sup>32</sup> See *infra* Part III.B.2.

<sup>33</sup> See *infra* Part III.B.3.

<sup>34</sup> See Elizabeth Pollman, *Startup Failure 27-28* (2023) (unpublished manuscript) (on file with authors).



for the last thirty years. William Sahlman developed the core idea of VCs as monitors in 1990.<sup>35</sup> Over the next decade, Paul Gompers, Josh Lerner, and other economists extended the analysis to other aspects of venture contracts and startup governance.<sup>36</sup> In 2003, Ron Gilson introduced these ideas to legal scholars.<sup>37</sup> We call this literature “the monitor model.”

Our goal is to build on the monitor model, not to demolish it. We think the model generates valuable insights about VC behavior. We will argue, however, that it does not account for how risk-bearing shapes the interactions between VCs and founders and that it cannot explain recent developments in the venture industry.

### *A. Challenges of Venture Investing*

The monitor model aims to explain the distinctive patterns of VC behavior—the standard features of the contracts they sign and the role they play in the governance of their portfolio companies. A VC’s job is to generate returns for their funds’ limited partners (“LPs”)—typically large institutional investors such as pension funds, mutual funds, and university endowments. VCs are paid fees because of their skill in selecting the right startups for their portfolios and helping those companies grow. The monitor model’s basic insight is that VCs must structure their investments to overcome adverse selection and moral hazard.

Startups cannot be valued like established businesses.<sup>38</sup> They lack predictable cash flows. Most are unprofitable, and many do not even generate revenue. They sell novel products, like 3-D printing or synthetic organisms. They develop experimental technologies, like cultured meat or fusion energy. Some startups face uncertainty about the size and structure of their target market, like the markets for cryptocurrency or virtual reality headsets. Other startups face uncertainty about the regulation they will face, like the regulation of consumer genetic testing or commercial drones. The startups’ founders may themselves be a source of uncertainty.<sup>39</sup> Many founders have never run a company, and some lack management experience altogether.

At the time that VCs invest in a startup, they know less about the company’s product, technology, or market than the startup’s founders know. They also know less about the founders’ entrepreneurial skills and work eth-

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<sup>35</sup> See Sahlman, *supra* note 4, at 506-14.

<sup>36</sup> See GOMPERS & LERNER, *supra* note 4, at 157-271.

<sup>37</sup> See Gilson, *supra* note 4, at 1078-87.

<sup>38</sup> See Sahlman, *supra* note 4, at 511-12 (explaining that when VCs value startups, they use discount rates as high as 40-60%).

<sup>39</sup> See Gilson, *supra* note 4, at 1077.

ic. These information asymmetries create an adverse selection problem.<sup>40</sup> If VCs cannot effectively distinguish between high-quality startups and low-quality startups, they will offer them similar terms. In theory, this would lead the founders of high-quality startups to seek financing elsewhere and the founders of low-quality startups to rush in.

Once VCs decide to invest, they face a moral hazard problem. As Michael Jensen and William Meckling explained, all firms must manage incentive misalignments between principals and agents.<sup>41</sup> In the context of a venture-backed startup, the principals are the VCs and the agents are the founders. The moral hazard problem arises when the founders pursue their own private benefits instead of investor returns. The founders might exert too little effort, or they might squander the VCs' money on perks. The potential for interest misalignment is heightened in startups because VCs and founders typically hold different classes of stock and have different time horizons and liquidity needs.<sup>42</sup>

### B. *Monitoring as a Solution*

How do VCs overcome these adverse selection and moral hazard problems? The answer, according to Gilson, is “very high power incentives . . . coupled with very intense monitoring.”<sup>43</sup> VCs structure their investments in a way that provides founders with strong incentives and lets the VCs monitor the founders' performance. The key elements of this structure are equity incentives, staged financing, preferred stock, and active governance.

#### 1. *Equity Incentives*

VCs create high-powered incentives for startup founders and employees by letting them keep a large equity stake in their company. Founders take below-market salaries but retain a significant percentage of their company's shares. Key startup employees are compensated with stock options. According to the monitor model, equity aligns the founders' and VCs' interests by tying the founders' net worth to the value of the company.<sup>44</sup> The incentive

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<sup>40</sup> Gilson, *supra* note 4, at 1080; Sahlman, *supra* note 4, at 512-13. Adverse selection follows the general logic of Akerlof's market for lemons. *See generally* George A. Akerlof, *The Market for “Lemons”: Quality Uncertainty and the Market Mechanism*, 84 Q.J. ECON. 488 (1970). For an analysis of how VC contracts address adverse selection concerns, *see* Wouter Dessein, *Information and Control in Ventures and Alliances*, 60 J. FIN. 2513 (2005).

<sup>41</sup> *See* Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305, 312-30 (1976).

<sup>42</sup> *See* Gilson, *supra* note 4, at 1077; Sahlman, *supra* note 4, at 506.

<sup>43</sup> Gilson, *supra* note 4, at 1078.

<sup>44</sup> *See id.* at 1083; Sahlman, *supra* note 4, at 508.

alignment reduces moral hazard. Founders are less likely to slack off or to squander the VCs' money on perks if they expect to profit more by spending it on growing the business.

Equity compensation also serves to sort founders, which reduces adverse selection.<sup>45</sup> Founders who are more confident in their business plan, entrepreneurial skills, and work ethic are more likely to accept performance-based compensation. Similar reasoning applies to startup employees who receive stock options. Employees who believe in the startup's business plan and who are willing to work hard to grow the company will place more value on those options.

## 2. *Staged Financing*

VCs stage their investments. They do not fund a startup's business plan in full at the outset. Instead, they only provide enough capital to ensure a "runway" for the next 12–24 months.<sup>46</sup> A successful startup may go through several stages—seed round, Series A, Series B, etc.—before an acquisition or IPO. VCs are not obligated to reinvest at the next stage, but they typically have the right to reinvest and maintain their pro rata share of the company.<sup>47</sup> Staged financing is typically coupled with syndication—multiple VC firms co-invest in each round.<sup>48</sup> The VC firm that invests the largest share "leads" the round, and the other VC firms that invest are said to "follow."

Staged financing is critical to the monitor model. The VCs' power to cut off funding by not reinvesting in the startup's next round—and not vouching for the startup in conversations with other prospective investors—reduces moral hazard.<sup>49</sup> At the time of investment, VCs and founders agree on a set of milestones that the startup will aim to achieve before the next round. Staged financing ensures that founders have a strong incentive to achieve those milestones. The VCs' credible threat to discontinue funding ex post also gives founders an incentive to make more realistic projections ex ante. That reduces the information asymmetry between the founders and VCs at the time of investment.<sup>50</sup> Staged financing, like equity compensation, also reduces adverse selection by sorting. Founders with more confidence in their

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<sup>45</sup> See Gilson, *supra* note 4, 1080; Sahlman, *supra* note 4, at 512-13.

<sup>46</sup> See Xuan Tian, *The Causes and Consequences of Venture Capital Stage Financing*, 101 J. FIN. ECON. 132, 139 (2011) (reporting a median gap of 14 months between rounds of financing).

<sup>47</sup> See NAT'L VENTURE CAPITAL ASS'N, MODEL TERM SHEET 10 (2020), <https://nvca.org/recommends/nvca-2020-term-sheet-2/>.

<sup>48</sup> See Tian, *supra* note 46, at 139 (finding 4.9 syndication partners in an average round of VC financing); Gilson, *supra* note 4, at 1073.

<sup>49</sup> See Tian, *supra* note 46, at 132 ("VC staging is a way to mitigate agency problems [by retaining] the option to abandon the entrepreneur's project if it fails to meet stage targets").

<sup>50</sup> See *id.* at 133 (staging investment gives the VC an opportunity to learn about the quality of a startup and reduces asymmetric information between the VC and founder).

business plan, entrepreneurial skills, and work ethic are more willing to accept the pressure of a short runway.

### 3. Preferred Stock

VCs exchange their capital for preferred stock.<sup>51</sup> The preferred stock carries a “liquidation preference,” which gives its holders priority over common shareholders when the company is sold or liquidated. The liquidation preference is typically set to 1x, which means the preferred shareholders receive their initial investment back in full before common shareholders receive a penny.<sup>52</sup> As a result, if a startup is sold at a low price, VCs receive a disproportionate share of the proceeds.

The preferred stock used in venture investing comes in two kinds: convertible preferred and participating preferred. The difference between them matters when a startup is sold for more than the aggregate amount that VCs have invested in the business. In that case, a VC holding convertible preferred shares may choose to convert its equity to common – giving up its liquidation preference in order to receive the same payout per share as firm’s founders.<sup>53</sup> By contrast, VCs who hold participating preferred shares receive *both* the cash they would receive if they had converted to common *and* the payout from their liquidation preference.<sup>54</sup> In other words, participating preferred gets to double dip.

The monitor model explains VC’s use of preferred stock—like equity compensation and staged financing—as a means to reduce adverse selection.<sup>55</sup> Sahlman writes that “the convertible preferred security shifts some of the costs of poor performance to the entrepreneurial team.”<sup>56</sup> This selects for better founders because “[i]t would be foolish for entrepreneurs to accept such contract terms if they were not truly confident of their abilities and deeply committed to the venture.”<sup>57</sup>

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<sup>51</sup> See Steven N. Kaplan & Per Strömberg, *Financial Contracting Theory Meets the Real World: An Empirical Analysis of Venture Capital Contracts*, 70 REV. ECON. STUD. 281, 289 (2003) (finding that, in a sample of 213 VC investments, 79.8% of contracts used convertible preferred stock).

<sup>52</sup> See Sahlman, *supra* note 4, at 504.

<sup>53</sup> Conversion is typically at a one-to-one ratio, but the VCs’ preferred stock may include an anti-dilution right that adjusts the conversion ratio if the company sells equity at a lower price in the future. See Kaplan & Strömberg, *supra* note 51, at 291-92.

<sup>54</sup> See *id.* at 286.

<sup>55</sup> There are also tax advantages to investing with convertible preferred stock. See Ronald J. Gilson & David M. Schizer, *Understanding Venture Capital Structure: A Tax Explanation for Convertible Preferred Stock*, 116 HARV. L. REV. 874, 889-901 (2003).

<sup>56</sup> Sahlman, *supra* note 4, at 510.

<sup>57</sup> *Id.*

Some of the scholars who developed the monitor model have expressed concern that the combination of founders' and employees' equity compensation and VCs' preferred stock could encourage founders to take excessive risks.<sup>58</sup> The value of startup employees' stock options—like all options—increase with volatility.<sup>59</sup> Startup founders' common stock also has an option-like character because it only pays out after the VC's liquidation preference is fully satisfied. Sahlman expresses concern that “[a]n entrepreneur’s compensation package can be viewed as a contingent claim, whose value increases with volatility.”<sup>60</sup> Gilson likewise worries that the “option-like characteristics of the portfolio company’s compensation structure can lead the entrepreneur to increase the risk associated with the portfolio company’s future returns.”<sup>61</sup> How can VCs prevent excessive risk-taking? The answer, according to these scholars, is that VCs take an active role in monitoring their portfolio companies.<sup>62</sup>

#### 4. Active Governance

VCs monitor the performance of founders by serving on their portfolio companies' boards of directors. The VC firm that leads a round usually obtains the right to appoint a director.<sup>63</sup> VC firms that follow may get an observer seat or information rights. The VCs and the founders may also agree on outside parties to serve as independent directors.<sup>64</sup> In an initial fundraising round, founders often retain control of the majority of shares and board seats.<sup>65</sup> As the startup grows and raises more rounds, though, the founders'

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<sup>58</sup> The limited record of fiduciary litigation between common shareholders and VCs holding preferred stock—coupled with nonrandom selection of which fiduciary disputes are litigated—underscores this concern. See *infra* Part IV.A.

<sup>59</sup> This follows directly from the Black-Scholes option pricing model. See generally Fischer Black & Myron Scholes, *The Pricing of Options and Corporate Liabilities*, 81 J. POL. ECON. 637 (1973).

<sup>60</sup> Sahlman, *supra* note 4, at 508.

<sup>61</sup> Gilson, *supra* note 4, at 1084.

<sup>62</sup> See Sahlman, *supra* note 4, at 508 (arguing that “the venture capitalists’ active role in the management of the venture,” combined with vesting, “helps to mitigate the incentive to increase risk”); Gilson, *supra* note 4, at 1084 (“[T]he intensity of the performance incentives created by the compensation structure gives rise to a corresponding incentive for the venture capital fund to monitor the portfolio company’s performance.”).

<sup>63</sup> See NAT’L VENTURE CAPITAL ASS’N, *supra* note 47, at 14.

<sup>64</sup> See Brian J. Broughman, *The Role of Independent Directors in Startup Firms*, 2010 UTAH L. REV. 461, 492 (2010) (describing the appointment process for independent directors).

<sup>65</sup> Michael Ewens & Nadya Malenko, *Board Dynamics over the Startup Life Cycle* 41 (Nat’l Bureau of Econ. Research, Working Paper No. 27769, 2020) (showing that founders have almost a 50% chance of controlling the board following the first round of VC financing).

shares will be diluted and the board will be expanded.<sup>66</sup> In most startups, the VCs eventually gain control.<sup>67</sup> In addition to board seats, VCs often bargain for “protective provisions”—contractual rights to veto certain decisions. For example, VCs may obtain a blocking right—the right to veto an acquisition below a certain dollar value.<sup>68</sup>

The VCs’ presence on their portfolio companies’ boards reduces information asymmetry. At board meetings, founders and other managers are expected to present updates on the company’s finances, strategy, and progress towards milestones. The directors approve important decisions, such as large equity grants to new hires, significant commercial deals, and changes to the business plan. Through board service, VCs learn about the founders’ entrepreneurial skills, the startup’s technology, and the prospects of the business.

VCs also use board service to reduce moral hazard. If the founders are not exerting enough effort or are extracting perks, the VCs can detect it by reviewing the company’s financial statements and asking follow-up questions at board meetings. More generally, the VCs can use board meetings to reorient founders towards the business strategy that they prefer.

Active governance and staged financing reinforce each other. Founders are more likely to follow the VCs’ suggestions at board meetings because they know they need the VCs’ money or vouching in the next round. And VCs can use the implied threat of discontinuing funding to demand course corrections at board meetings rather than waiting till the startup has run out of cash. Once VCs gain control of the board, they obtain the right to replace the founders with outside executives.<sup>69</sup> The VCs’ power to replace founders keeps them aligned with the VCs’ agenda.

VCs contribute their own skills and experience to their portfolio companies. Many VCs have more business experience than the founders who sit across from them at board tables. At board meetings, VCs can give their advice to founders, which has added credibility because the VCs have skin in the game.<sup>70</sup> VCs also can use their professional network to help their portfolio companies find prospective employees, business partners, suppliers, and

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<sup>66</sup> VCs, however, may not always agree with each other. See Elizabeth Pollman, *Startup Governance*, 168 U. PA. L. REV. 155, 191-93 (2019) (discussing horizontal agency conflicts among VCs); Robert Bartlett, *Venture Capital, Agency Costs, and the False Dichotomy of the Corporation*, 54 UCLA L. REV. 37, 71-80 (2006) (same).

<sup>67</sup> See Ewens & Malenko, *supra* note 65, at 41.

<sup>68</sup> See Gordon Smith, *The Exit Structure of Venture Capital*, 53 UCLA L. REV. 315, 346-47 (2005).

<sup>69</sup> See Brian J. Broughman, *Investor Opportunism and Governance in Venture Capital*, in *VENTURE CAPITAL: INVESTMENT STRATEGIES, STRUCTURES AND POLICIES* 354-357 (Douglas Cumming ed., 2010).

<sup>70</sup> See Paul A. Gompers et al., *How Do Venture Capitalists Make Decisions?*, 135 J. FIN. ECON. 169, 185 (2020) (reporting the responses of VCs to survey questions on the guidance they provided to their portfolio companies).

customers.<sup>71</sup> They can take the lead in connecting the company with new investors or potential acquirors. The monitor model explains that, in addition to price, VCs compete with each other by developing reputations and networks that can attract founders looking to raise capital.<sup>72</sup>

### C. Growing Doubts

The basic structure of venture investing—equity incentives, staged financing, and preferred stock—remains the same today as it was when Sahlman was writing in 1990. But five recent trends have raised doubts about whether VCs are serving as monitors: (1) VCs are receiving smaller shares of equity and obtaining control in later rounds; (2) VCs are replacing founders less often; (3) VCs are giving founders disproportionate voting power more often; (4) VCs are spending less time and energy on active governance; and, (5) there has been a spate of oversight scandals in which VCs failed to prevent founder misconduct.

First, founders are retaining control of their companies for longer than they have in earlier decades. From 2002 to 2017, the share of post-Series A startup boards controlled by VCs fell from 37.3% to 10.1%.<sup>73</sup> Founders are also retaining a larger share of their companies' equity for longer. From 2002 to 2019, the average equity stake that startups sold to outside investors in their Series A rounds fell from 46% to 30%.<sup>74</sup> When VCs have fewer board seats and fewer votes, they have less leverage over the founders they are supposed to be monitoring.

Second, founders are now less likely to be replaced after VCs invest.<sup>75</sup> Indeed, VCs are increasingly distancing themselves from that practice. For example, Founders Fund, the VC firm led by Peter Thiel, has announced a policy of not replacing founders.<sup>76</sup> Andreessen Horowitz, one of the most successful VC firms of the last decade, has made protecting founder CEOs

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<sup>71</sup> See *id.* (reporting the responses of VCs to survey questions on the connections they facilitated for managers of their portfolio companies).

<sup>72</sup> See Sahlman, *supra* note 4, at 500.

<sup>73</sup> Ewens & Farre-Mensa, *supra* note 11, at 283.

<sup>74</sup> *Id.*

<sup>75</sup> Michael Ewens has gathered evidence (on file with the authors), based on a large sample of venture-backed startups, showing that founders are less likely to be replaced within the first four years after the initial round of venture finance as compared to earlier periods. Among firms that received their first round of VC funding between 2004 to 2014, approximately 15% had replaced the founder with an outside CEO within four years after initial financing. A study from the mid-1990s finds a much higher rate of founder-CEO replacement. See Michael T. Hannan et. al., *Inertia and Change in the Early Years: Employment Relations in Young, High Technology Firms*, 5 INDUS. & CORP. CHANGE 503, 526 fig.1 (1996) (showing that 40% of founder-CEOs are replaced within the first 40 months).

<sup>76</sup> MALLABY, *supra* note 9, at 208.



central to its investment strategy.<sup>77</sup> This trend is concerning because there is evidence that founder “replacement increases the likelihood of achieving a high-quality liquidity event such as an IPO or an attractive acquisition.”<sup>78</sup> The trend is also difficult to square with the monitor model. When VC firms commit not to replace founders, they sacrifice a powerful deterrent to founder misbehavior.

Third, an increasing number of venture-backed startups are adopting dual-class share structures. The term “dual-class” can be confusing in the context of a startup because almost all startups have multiple classes of shares—common shares for the founders, employees, and angel investors, and a separate class of preferred shares for each round of outside investors (e.g., Series A Preferred, Series B Preferred, etc.). A startup is said to have a dual-class structure if one or more shareholders—typically the founders—hold shares with disproportionate voting power.<sup>79</sup> In some cases, the founders of a startup with a dual-class structure will obtain outright control of the company.<sup>80</sup> A recent empirical study found that the percentage of venture-backed IPOs with dual-class structures was generally below 10% in the 1990s and 2000s, but has risen to around 30% in recent years.<sup>81</sup> VCs’ increasing willingness to agree to dual-class structures suggests that they are placing less value on the mechanisms of control that they have traditionally used to monitor founders.

Fourth, there is anecdotal evidence that VCs are retreating from active governance. Perhaps the most compelling evidence of this trend is that two of the scholars who developed the monitor model, Josh Lerner and Ramana Nanda, have expressed concern about the “relaxation in recent years of the intense emphasis on corporate governance by venture capital firms.”<sup>82</sup> Some VCs share their concern. Bill Gurley, a partner at the VC firm Benchmark, claims that “Silicon Valley board rooms have mostly become [mimes clapping hands].”<sup>83</sup> Some VC firms that specialize in late-stage “growth” investing, such as DST, an early investor in Facebook, have decided not to take

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<sup>77</sup> See Ben Horowitz, *Why We Prefer Founding CEOs*, ANDREESEN HOROWITZ (April 28, 2010), <https://a16z.com/2010/04/28/why-we-prefer-founding-ceos/>.

<sup>78</sup> Ewens & Marx, *supra* note 10, at 1535.

<sup>79</sup> Aggarwal et al., *supra* note 14, at 123. Although the founders are the most frequent beneficiary of dual-class structures, in some cases other parties—including VCs—are awarded high vote stock as well. *See id.* at 129.

<sup>80</sup> *See id.*

<sup>81</sup> *Id.* at 143.

<sup>82</sup> Lerner & Nanda, *supra* note 2.

<sup>83</sup> Matthew Lynley, *Very Famous VC Bill Gurley Says Startup Boardrooms Are Now Just Filled with \*Clapping Hand Noise\**, TECHCRUNCH (Feb. 14, 2018, 5:06 PM), <https://techcrunch.com/2018/02/14/very-famous-vc-bill-gurley-says-startup-boardrooms-are-now-just-filled-with-clapping-hand-noise/>.

board seats at all.<sup>84</sup> The decline in active governance is flatly incompatible with VCs serving as monitors.

Fifth, there have been a growing number of scandals at startups in which the VCs were unable or unwilling to prevent founder or employee misconduct. At WeWork, the board acquiesced to egregious misbehavior by founder Adam Neumann, including lavish perks, nepotism, and self-dealing transactions.<sup>85</sup> Uber's VC directors tolerated a variety of scandals involving founder Travis Kalanick—spying on regulators, harassing journalists, ignoring credible complaints of sexual harassment.<sup>86</sup> The VCs who backed FTX—including Silicon Valley's most prestigious firm, Sequoia—did not even take board seats, which kept them in the dark as the company stole billions from its customers.<sup>87</sup> As Elizabeth Pollman asks, “[i]f VCs are strong monitors, why are examples of oversight failures in startups so plentiful and varied?”<sup>88</sup>

The most prominent explanation for these trends is increased competition among VCs.<sup>89</sup> Over the past decade, the flow of funds pouring into venture capital has become a flood. As a consequence, the theory goes, VCs are vying to attract founders by cutting back on monitoring and offering more founder-friendly terms. Some VCs find the greater competition theory compelling. Gurley, the Benchmark partner, believes that VCs are focusing less on governance because they are afraid of “losing the next big one.”<sup>90</sup> Some leading scholars agree. Jesse Fried and Jeff Gordon argue that the rise of dual-class share structures in companies like WeWork shows that the VC market is experiencing a “governance bubble” in which VCs are too willing to relinquish control rights to founders.<sup>91</sup>

We are sympathetic to the increased competition theory, but we doubt it tells the full story. As Lerner and Nanda ask, “[i]f the intensive governance provided by venture capitalists is socially beneficial—as generations of academic analyses would suggest—why would groups choose to abandon it?”<sup>92</sup>

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<sup>84</sup> MALLABY, *supra* note 9, at 275.

<sup>85</sup> See Maureen Farrell & Eliot Brown, *The Money Men Who Enabled Adam Neumann and the WeWork Debacle*, WALL ST. J. (Dec. 14, 2019, 12:00 AM), <https://www.wsj.com/articles/the-money-men-who-enabled-adam-neumann-and-the-wework-debacle-11576299616>.

<sup>86</sup> See MIKE ISAAC, SUPER PUMPED 129-131, 213-27, 242-54 (2019).

<sup>87</sup> See Berber Jin, *Sequoia Capital Apologizes to Its Fund Investors for FTX Loss*, WALL ST. J. (Nov. 22, 2022, 6:08 PM), <https://www.wsj.com/articles/sequoia-capital-apologizes-to-limited-partners-for-ftx-investment-11669144914>.

<sup>88</sup> Pollman, *supra* note 66, at 200.

<sup>89</sup> See Lerner & Nanda, *supra* note 2, at 251.

<sup>90</sup> Lynley, *supra* note 83.

<sup>91</sup> Jesse M. Fried & Jeffrey N. Gordon, *The Valuation and Governance Bubbles of Silicon Valley*, BLUE SKY BLOG (Oct. 10, 2019), <https://clsbluesky.law.columbia.edu/2019/10/10/the-valuation-and-governance-bubbles-of-silicon-valley/>.

<sup>92</sup> Lerner & Nanda, *supra* note 2, at 252.

Even founders should benefit from active governance at the right price.<sup>93</sup> Lerner and Nanda wonder, why would VC firms not “compete instead by offering entrepreneurs progressively higher valuations . . . [rather than] by abandoning governance provisions?”<sup>94</sup> We think this is a question that the monitor model cannot answer.

Other explanations for the decline in active governance blame structural and technological changes. For example, the rise of cloud computing services such as Amazon Web Services has dramatically cut the cost of building a software startup by making it cheaper to rent server time.<sup>95</sup> Michael Ewens and his collaborators argue that this shift has led VCs to adopt a “spray and pray” approach to investing—making smaller investments in a larger number of startups.<sup>96</sup> On their account, VCs treat investments like real options and try to learn which startups have home run potential before deciding whether to make a larger investment and devote time and effort to governance.

There have also been structural changes at the other end of the venture lifecycle. Startups are staying private longer, and late-stage startups present particularly acute challenges for active governance.<sup>97</sup> As more VCs and growth investors join a startup’s cap table, horizontal conflicts among investors can undermine their ability to effectively monitor a startup’s management team.<sup>98</sup> Pollman argues that these conflicts can help explain monitoring failures in late-stage startups.<sup>99</sup>

These theories are not mutually exclusive.<sup>100</sup> Founders’ increasing control and equity share, the growing reluctance to replace founders, the rise in dual-class share structures, the decline in active governance, and the numerous recent monitoring failures may be overdetermined. But we think these trends

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<sup>93</sup> It is possible that founders underappreciate the value that active VC governance adds. *See id.*

<sup>94</sup> *Id.*

<sup>95</sup> *See* Michael Ewens et al., *Cost of Experimentation and the Evolution of Venture Capital*, 128 J. FIN. ECON. 422, 423 (2018)

<sup>96</sup> *See id.*

<sup>97</sup> *See* Pollman, *supra* note 66, at 209.

<sup>98</sup> *See id.* at 159.

<sup>99</sup> *See id.* at 201-205; *see also* Anat Alon-Beck, *Alternative Venture Capital: The New Unicorn Investors*, 87 TENN. L. REV. 983, 1040 (2020) (arguing that some late-stage investors, such as mutual funds, may have little appetite for monitoring).

<sup>100</sup> Some writers also criticize the agency cost premise that underlies the monitor model. Investor oversight introduces its own costs. *See generally* Zohar Goshen & Richard Squire, *Principal Costs: A New Theory for Corporate Law and Governance*, 117 COLUM. L. REV. 767 (2017). Moreover, VCs may make mistakes in their exercise of control and there may be economic value in providing a founder with discretion to pursue her idiosyncratic vision. *See generally* Zohar Goshen & Assaf Hamdani, *Corporate Control and Idiosyncratic Vision*, 125 YALE L. J. 560 (2016). These arguments are sometimes used to justify dual-class IPO structures as being in shareholder interest.

point to a deeper problem with the monitor model—its inattention to risk-bearing.

#### D. Risk-Bearing Critique

We think the monitor model gets risk backwards. It is the *VCs* who want their portfolio companies to take more risks, and it is the *founders* who are more reluctant to take them. Our argument builds on four uncontroversial facts about risk-bearing in startups: (1) the VC business model requires rapid, exponential growth; (2) VCs are compensated with carried interest, which encourages risk-taking; (3) LPs' risks are diversified; and, (4) founders bear undiversified risk concentrated in their startup.

The most important fact about venture investing is that the returns follow a power law.<sup>101</sup> Chris Dixon, a partner at Andreessen Horowitz, has shared data from one prominent LP that has invested in a large number of venture funds. His data show that about 6% of the investments generate about 60% of the returns.<sup>102</sup> Successful venture funds are more likely to include “home runs”—investments that return more than 10x. The most successful VC funds are more likely to include “grand slams”—investments that return more than 30x. In Dixon's data, the best investment in a successful VC fund returns about 20x, and the best investment in one of the most successful funds returns about 70x.<sup>103</sup> Critically, the most successful funds have more strikeouts—investments that lose money—than other funds.<sup>104</sup>

VCs understand that their success depends almost entirely on one or two companies in their portfolio generating outlier returns. In the words of Peter Thiel, “every single company in a good venture portfolio must have the potential to succeed at vast scale.”<sup>105</sup> In the words of Scott Kupor, Dixon's colleague at Andreessen Horowitz, “[i]n VC, all we really care about is the at bats per home run.”<sup>106</sup> To increase the chance of hitting a home run, VCs aim to assemble a portfolio of high-risk, high-reward bets. If a VC bets on twenty high-risk startups, and nineteen fail, but the last one returns 60x, the fund has been a smashing success. In fact, VC funds with more idiosyncratic risk earn systematically higher returns—i.e., positive alpha—than predicted by asset

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<sup>101</sup> See Gilson, *supra* note 4, at 1076; KUPOR, *supra* note 19, at 37-40; MALLABY, *supra* note 9, at 6-9; THIEL & MASTERS, *supra* note 19, at 83-90; Sahlman, *supra* note 4, at 483-84.

<sup>102</sup> Dixon, *supra* note 20.

<sup>103</sup> *Id.*

<sup>104</sup> *Id.*

<sup>105</sup> THIEL & MASTERS, *supra* note 19, at 87.

<sup>106</sup> KUPOR, *supra* note 19, at 39.

pricing models.<sup>107</sup> VCs have no choice but to seek out risk. As Kupor says, “you can’t de-risk your way to a winning venture fund.”<sup>108</sup>

The structure of VC compensation amplifies their incentives to take risks. In a typical venture fund, the VC is entitled to (i) a management fee and (ii) carried interest. The management fee is an annual payment, usually calculated as a percentage (typically 2%) of the fund's committed capital.<sup>109</sup> Carried interest is a performance-based incentive, typically 20% of the fund's profits.<sup>110</sup> Carried interest has an asymmetric structure: VCs share profits with their funds' LPs, but they do not share losses. This asymmetry effectively turns carried interest into an option claim that increases in value as portfolio companies take more risks.<sup>111</sup>

LPs and VCs have another reason to embrace risk: they are diversified. As large institutional investors, LPs divide their investments across many asset classes. Venture bets generally represent only a small share of their assets under management. VCs are not quite as diversified as LPs because their compensation comes exclusively from venture investments. Therefore, they are exposed to shocks that affect the venture industry as a whole. But within the venture asset class, their risks are diversified across the firms in their portfolio. VCs can tolerate many failed investments as long as their portfolio includes one or two home runs.

By contrast, founders must bear concentrated, idiosyncratic risk. The equity stake that they own in their startup represents a large bet on one highly risky enterprise. For many founders, the paper value of this bet makes up much of their net worth. If they could liquidate their startup equity and invest the proceeds in a diverse basket of investments, the founders could dramatically reduce their risk exposure.

We argue that the bargain between VCs and founders is shaped by their divergent attitudes towards risk. VCs, and the LPs they represent, are diversified and relatively undeterred by risk.<sup>112</sup> Founders are undiversified and motivated to reduce risk. If this were the only concern, the parties might solve the

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<sup>107</sup> See Michael Ewens et al., *The Price of Diversifiable Risk in Venture Capital and Private Equity*, 26.8 REV. FIN. STUD. 1853, 1855 (2013) (finding “the quartile of VC funds with the greatest idiosyncratic risk has an alpha of 2.55% per quarter, whereas the lowest quartile has a per quarter alpha of -1.6%”).

<sup>108</sup> KUPOR, *supra* note 19, at 39.

<sup>109</sup> See ANDREW METRICK & AYAKO YASUDA, *VENTURE CAPITAL & THE FINANCE OF INNOVATION* 25-27 (3<sup>rd</sup> ed. 2021).

<sup>110</sup> *Id.* at 27-30

<sup>111</sup> See Axel Buchner & Niklas Wagner, *Rewarding Risk-Taking or Skill? The Case of Private Equity Fund Managers*, 80 J. BANK. & FIN. 14, 14-15 (2017).

<sup>112</sup> Our primary claim here is only that VCs' portfolio investments are relatively more diversified than founders' equity stakes are. VCs are less diversified than LPs because VCs invest exclusively in early-stage technology companies and LPs invest across a larger set of asset classes.

risk-bearing problem by transferring the entire firm to the VC. The VC would take on all of the risk associated with the startup and could hire an outside manager to run the business, while the original founder would be relieved of risk in exchange for an immediate payout.

While this “solution” might be optimal from a risk-bearing perspective, it is impractical for a variety of reasons: (i) a founder’s strategic vision and ongoing involvement may be critical to the success of the venture; (ii) asymmetric information may make it impossible for the parties to agree on an immediate sale; and (iii) finally, the founder may enjoy running the business and be reluctant to sell. Whatever the reason, a founder’s active management appears to be a critical ingredient for most successful startups. Given this, the question becomes how VCs encourage founder-managers to take big risks. Financing arrangements that fail to address risk exposure will be less attractive to founders *ex ante* and less effective at encouraging them to take risks *ex post*.

Before we develop our competing model, it is worth pausing to speculate on why existing scholarship does not more specifically account for risk-bearing. Classic economic theory on moral hazard includes the cost of risk-bearing that can arise whenever the agent is compensated with contingent payments.<sup>113</sup> The broader agency cost literature does not ignore risk.

For example, in the executive compensation literature, it is recognized that public company CEOs bear idiosyncratic risk.<sup>114</sup> Like startup founders, public company CEOs have a large percentage of their equity portfolios tied to a single firm and face legal obstacles to shorting their own company’s stock or otherwise diversifying this exposure. A risk-averse public company CEO may cause her firm to engage in various risk substitution strategies, including diversifying acquisitions, which are designed to lower her exposure to firm-specific risks. To address this concern, the executive compensation literature suggests that executives of publicly traded firms be compensated with stock options rather than restricted stock to encourage risk taking.<sup>115</sup>

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<sup>113</sup> See generally Bengt Holmstrom, *Moral Hazard and Observability*, 10 BELL J. ECON. 74 (1979).

<sup>114</sup> See generally Wayne R. Guay, *The Sensitivity of CEO Wealth to Equity Risk: An Analysis of the Magnitude and Determinants*, 53 J. FIN. ECON. 43 (1999); Stephen Bryan et al., *CEO Stock-Based Compensation: An Empirical Analysis of Incentive-Intensity, Relative Mix, and Economic Determinants*, 73 J. Bus. 661 (2000); Todd A. Gormley & David A. Matsa, *Playing It Safe? Managerial Preferences, Risk, and Agency Conflicts*, 122 J. FIN. ECON. 431 (2016).

<sup>115</sup> See Bryan et al., *supra* note 114, at 663 (arguing that “restricted stock, due to its linear payoffs, is relatively inefficient in inducing risk-averse CEOs to accept risky, value-increasing investment projects” whereas “stock option awards ... likely provide a more efficient incentive mechanism for the CEOs of high-growth firms”).

In the context of venture capital, scholars understand that returns follow a power law and that the parties bear risk.<sup>116</sup> So why does the literature not focus more on risk-bearing? We suspect that scholars have operated under the assumption that VCs can solve this problem by deciding to fund only especially risk tolerant founders. In fact, Sahlman suggests that founders attract investment by signaling their risk tolerance to VCs. He writes: “[E]ntrepreneurs typically hold undiversified portfolios. Much of their wealth is invested in the securities of the company they manage. The entrepreneur’s willingness to bear diversifiable risk also conveys useful information to the venture capitalists.”<sup>117</sup>

We agree that VCs prefer founders to have a high risk tolerance. But we still think VCs need to deal with risk-averse founders. If VCs limited their investments to startups with highly risk-tolerant founders, they would artificially restrict the pool of entrepreneurs. As long as there are risk-averse entrepreneurs founding businesses with home run potential, there is value in finding a corporate governance system that can encourage them to take the risks necessary to develop the business. In addition, most startups have more than one founder. In many promising startups, at least some members of the founding team will be risk-averse.

The trend of startups staying private longer is increasing the importance of risk-bearing. In earlier decades, when startups grew large enough that the founders’ equity stakes were worth tens or hundreds of millions, they usually would file for an IPO. Now that the venture market includes over 1200 “unicorns”—private venture-backed companies valued over \$1 billion—there are more founders bearing concentrated risk at an unprecedented scale.<sup>118</sup> As a matter of common sense, we think that most people worth tens or hundreds of millions on paper would like to convert at least some of that to cash. Even unusually risk-tolerant founders are not as risk tolerant as diversified VCs and LPs. For these reasons, VCs need to be able to persuade founders to accept risk they would prefer not to take.

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<sup>116</sup> See e.g., Robert E. Hall & Susan E. Woodward, *The Burden of the Nondiversifiable Risk of Entrepreneurship*, 100 AM. ECON. REV. 1163 (2010). For some context, Gilson notes that staged financing shifts risk from the VC to the founder and then observes: “Absent an unrealistic assumption about investor risk aversion, merely shifting exogenous uncertainty from the investor to the entrepreneur does not create value.” Gilson, *supra* note 4, at 1079. Then in a footnote, he adds: “Indeed, the more realistic assumption is that the entrepreneur is risk averse with respect to the success of the portfolio company since, unlike the venture capital fund, she will not hold a diversified portfolio of financial or human capital.” *Id.* at 1079 n.38.

<sup>117</sup> Sahlman, *supra* note 4, at 511.

<sup>118</sup> See *The Complete List of Unicorn Companies*, CB INSIGHTS, <https://www.cbinsights.com/research-unicorn-companies> (last visited Jan. 31, 2023).



## II. THE RISK-SEEKING MODEL: THEORY

In this Part, we show how VCs persuade founders to pursue high-risk strategies by offering them “founder-friendly” governance. We model the choice between a monitor VC and founder-friendly VC for a startup negotiating two rounds of venture finance. We start by describing the model setup, key assumptions, and timeline for a financing agreement between a VC firm and a founder. Next, we use a hypothetical to illustrate our core intuition and main results for ex post incentives, ex ante pricing, and secondary sales. Then we discuss the model’s implications and predictions.

### *A. Model Setup*

Consider the following financial contracting problem. A risk-averse Founder is initially the sole equity owner of a Startup. To continue operations, Startup needs external financing  $K > 0$ , which can be raised from a VC firm (for short, the VC).<sup>119</sup> Financing will be staged over multiple rounds. For simplicity’s sake, we model two rounds of investment, with half of the funds ( $K/2$ ) provided in each stage. We call these rounds the “Series A” and “Series B” for convenience, but our argument holds across the startup lifecycle. Each round of investment is separately negotiated and priced. Competition among investors gives the Founder bargaining power in pricing each round of financing. Assume the number of entrepreneurs with worthwhile projects is limited, but there are many investors competing to finance their businesses.<sup>120</sup>

The Founder can choose between two types of VCs:

- (i) a **monitor** VC that negotiates for control rights (i.e., board seats) so it can replace the Founder or make other governance changes that will improve the value of Startup, or
- (ii) a **founder-friendly** VC that does not have control to make unilateral governance changes and instead pledges to protect the Founder’s private benefits.

To offer founder-friendly financing, a VC needs to cultivate a reputation for protecting founder interests. The need for a reputational commitment arises because even if a VC does not control a startup’s board, it may have de facto

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<sup>119</sup> The founder has no initial wealth and thus she must seek external financing to continue the business.

<sup>120</sup> This is a standard assumption in the financial contracting literature. *See, e.g.*, Aghion & Bolton, *supra* note 23, at 475. While each financing contract must promise sufficient expected returns to the VC to justify investment, competition between VCs will ensure that surplus expected returns go to the founder.

control through its ability to withhold follow-on financing.<sup>121</sup> That de facto control could be used as leverage to replace a founder or otherwise act as a monitor. Because of this, we focus on the type of VC rather than formal contract rights. For our purposes, a “founder-friendly VC” is a VC firm that has developed a reputation that makes its pledge to protect founder interests credible, while a monitor VC lacks that reputation.<sup>122</sup>

Reputation is important to our analysis not only to distinguish VC type, but also because many of the protections that a VC might offer to encourage founders to take risks are implicit. For example, a VC might promise to let a founder cash out part of their equity in a secondary sale connection with the next financing round, to keep them on as CEO even if they stumble, or to provide them with a soft landing if the startup fails. None of these promises can easily be reduced to contract.

For reputation to create a credible commitment, a VC’s “type” and potential violations of the implicit bargain must be observable to founders or their lawyers.<sup>123</sup> Founders must believe that a VC that fails to honor the implicit deal (e.g., by replacing a founder) will damage their founder-friendly reputation. Moreover, the long-term cost to the VC of losing a founder-friendly reputation needs to outweigh the short-term gains to the VC from defection. Of course, whether these assumptions are true is an empirical question. Current research supports the general importance of reputation for VC firms.<sup>124</sup> VCs certainly act like reputation matters, as Founders Fund’s promise to never replace a founder illustrates.<sup>125</sup> For purposes of the model,

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<sup>121</sup> Without substantial changes to VC contracting practices, we doubt that formal legal protections—fiduciary duties, board seats, and contract rights—can prevent a VC from exercising de facto control.

<sup>122</sup> In reality, of course, monitoring and founder friendly may be thought of as endpoints on a spectrum measuring the extent of each VC’s reputational commitment rather than discrete types. For purposes of the model, however, we focus on the endpoints.

<sup>123</sup> One challenge for reputation in the VC setting is that many founders are one shot players while VCs are repeat player. This problem, however, can be overcome provided there is some communication between the one-shot founders such that norm violators are quickly identified. *See, e.g.,* David M. Kreps, *Culture and Economic Theory*, in PERSPECTIVES ON POSITIVE POLITICAL ECONOMY 90, 119 (James E. Alt & Kenneth A. Shepsle eds., 1990) (“[O]thers can see what the firm ... did and decide whether to enter into similar transactions”). Applying Kreps’s model to the VC setting, the reputation of a given VC firm would have meaning even if most Founders interacting with the VC are not playing a long-term game and are unable to directly sanction VC. The potential for VC reputation is also aided by lawyers and other repeat players that serve as advisors to startup founders. *See generally* Mark C. Suchman & Mia L. Cahill, *The Hired Gun as Facilitator: Lawyers and the Suppression of Business Disputes in Silicon Valley*, 21 L. & SOC. INQUIRY 679 (1996).

<sup>124</sup> *See generally* David S. Hsu, *What Do Entrepreneurs Pay for Venture Capital Affiliation?*, 59 J. FIN. 1805 (2004) (finding that founders give up more equity to obtain financing from a high-reputation VC).

<sup>125</sup> *See* MALLABY, *supra* note 9, at 208.

we assume founders can distinguish between a monitor VC and a founder-friendly VC.

The parties also bargain over valuation and type of equity purchased by the VC. For ease of analysis, we limit the VC's choice to either common stock or participating preferred stock and assume the same type of equity is issued in both rounds of funding.<sup>126</sup>

Startup is a risky business. The value of the firm depends on the future state of nature and on the Founder's choice to pursue a low- or high-risk business strategy. Both the Founder's choice of strategy and the state of nature are determined after investment, and they are both sufficiently complex and hard to describe—a standard assumption in the incomplete contracting literature—that neither can be contracted over ex ante.<sup>127</sup> The Founder serves as Startup's initial manager. Between the Series A and the Series B, we assume the Founder's role as manager is critical to the success of the firm.<sup>128</sup> The monitor VC can, however, choose to replace the Founder in connection with the Series B. As a consequence, the Founder has discretion to pursue either the high- or low-risk strategy, but she becomes vulnerable thereafter.

The state of nature is exogenous and revealed to the parties in two separate stages [*i* and *j*]. The initial state of nature [*i* ∈ {0, 1}] is revealed after the Series A, and the final state of nature [*j* ∈ {0, 1}] is revealed after the Series B. Let  $\pi_i \in (0, 1)$  represent the probability that *i*=1 and  $\pi_j \in (0, 1)$  the probability that *j*=1. Each state of nature is positively correlated with the value of Startup. Let  $V_{i,j,s}$  represent the value of Startup for initial state of nature *i*, final state of nature *j*, and business strategy *s* ∈ {*l*, *h*}, where “*l*” means Startup pursued the low-risk strategy and “*h*” the high-risk strategy. The expected value of Startup can now be expressed as the weighted sum of its value (*V*) in each state. If Startup pursues a low-risk strategy, this is given by:

$$(1-\pi_i)(1-\pi_j)V_{0,0,l} + (1-\pi_i)\pi_jV_{0,1,l} + \pi_i(1-\pi_j)V_{1,0,l} + \pi_i\pi_jV_{1,1,l} \quad (1)$$

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<sup>126</sup> We focus on participating preferred, rather than convertible preferred because the former gives the VC a concave payout over the full range of exit outcomes (& leaves the founder with a convex payout over the full range). Convertible preferred, by contrast, depends on the distribution of potential exit outcomes relative to the conversion threshold. See *infra* Part II.C. for more on this distinction.

<sup>127</sup> Incomplete contracting may arise because of bounded rationality, transaction costs, or unobservable information. And, even if it were possible to anticipate and describe the desired choice of strategy, verifying compliance or non-compliance to a court ex post may be impractical.

<sup>128</sup> Consistent with this framework, investor control rights are used to monitor the founder after she selects the choice of strategy and cannot be used to directly control choice of strategy. The founder's strategic vision/guidance is sufficiently critical to the firm's initial success that she cannot be replaced from the management role until the Series B. This account is consistent with standard practice in venture capital, where the founder is rarely replaced from the CEO position at the seed stage of investment.

And if Startup pursues a high-risk strategy, this is given by

$$(1-\pi_i)(1-\pi_j)V_{0,0,b} + (1-\pi_i)\pi_j V_{0,t,b} + \pi_i(1-\pi_j)V_{1,0,b} + \pi_i\pi_j V_{1,t,b} \quad (2)$$

To capture the risk associated with the choice of business strategy we require that:  $V_{i,0,b} < V_{i,0,l} < V_{i,t,l} < V_{i,t,b}$  holds for all  $i \in \{0, 1\}$  and  $V_{0,j,s} < V_{1,j,s}$  holds for all  $j \in \{0, 1\}$  and  $s \in \{l, b\}$ . Since much of the value in VC is in the right-tail, we focus our analysis on the case where the expected value in equation (2) is greater than in equation (1).

We assume that the Founder cannot diversify away idiosyncratic risk associated with the performance of Startup. The Founder has no initial wealth and both her human capital and financial returns are closely linked to the performance of Startup. We operationalize this with a concave utility function, where Founder receives decreasing marginal utility from wealth. The VC, by contrast, can diversify its exposure.<sup>129</sup> The Founder will demand a risk premium to compensate for her exposure to idiosyncratic risk associated with Startup.

Finally, we follow the standard agency cost literature in assuming the Founder also receives non-pecuniary private benefits ( $\beta > 0$ ) from Startup. These may include the joy of being her own boss and pursuing her private vision for startup.<sup>130</sup> Putting this together, we can express the Founder's objective function in three components:

$$[Expected \$ value] - [Risk Premium] + [Private Benefits] \quad (3)$$

where *Risk Premium* represents the amount of money the Founder would be willing to give up to remove uncertainty in her expected financial payout.<sup>131</sup>

In venture-backed startups, important governance changes—replacing the founder or pivoting to a new business strategy—often occur in connection with a new round of financing.<sup>132</sup> Consistent with this, in our model the monitor VC can make governance changes in connection with the Series B and will make any changes that increase the value of Startup.

When the initial state of nature equals zero [ $i=0$ ], the Founder's management is suboptimal, and a monitor VC will engage in governance changes

<sup>129</sup> Admittedly, the VCs themselves are less clearly diversified than the LPs that invest in their funds. See Ewens et al., *supra* note 107, at 1855.

<sup>130</sup> See generally Goshen & Hamdani, *supra* note 100.

<sup>131</sup> Eq. (3) is denominated in dollars. The Risk Premium can be calculated from the Founder's utility function by finding a certainty equivalent dollar amount that would yield the same expected utility as the Founder's uncertain payout based on variation in  $V$ .

<sup>132</sup> See generally Noam Wasserman, *Founder-CEO Succession and the Paradox of Entrepreneurial Success*, 14 *ORG. SCI.* 149 (2003).

that increase the economic value of Startup ( $V$ ) by a multiplier  $\alpha > 1$ . These governance changes come at the expense of the Founder's private benefits, causing the Founder to lose  $\beta$ .<sup>133</sup> On the other hand, when the initial state of nature is positive [ $i=1$ ], there is no benefit to making governance changes, and the monitor VC will not replace the Founder or make other changes.

A founder-friendly VC, however, lacks control necessary to impose governance changes and is also constrained by reputation. Instead of monitoring, a founder-friendly VC can facilitate a secondary sale of founder stock in connection with the Series B.<sup>134</sup>

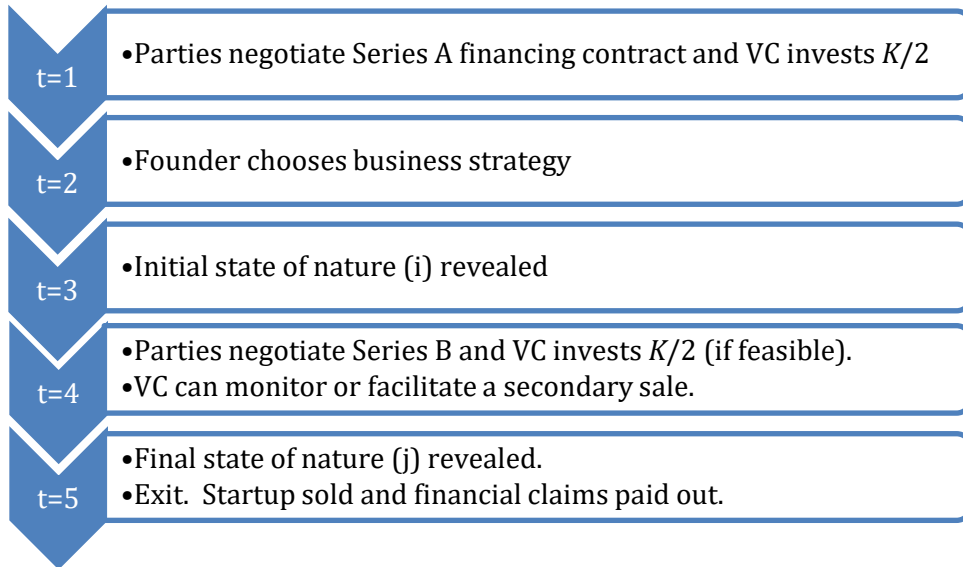
The model follows the timeline below. At time  $t=1$ , the parties negotiate and sign the Series A financing contract and the VC invests  $K/2$ . At time  $t=2$ , the Founder, serving as Startup's management, chooses to have Startup pursue either a low-risk or high-risk business strategy. At time  $t=3$ , uncertainty regarding the initial state of nature ( $i$ ) and its impact on the expected value of Startup ( $V$ ) is resolved and observed by all parties. At time  $t=4$ , the parties negotiate the Series B financing based on revised expectations. At this point, a monitor VC can engage in governance that increases the value of Startup, while a founder-friendly VC could arrange a secondary sale of the Founder's stock. Finally, at time  $t=5$ , the final state of nature [ $j$ ] is revealed and the Startup is sold for  $V_{i,j,s}$ . The VC exits, and all financial claims are paid. This timeline is summarized in Figure 1:

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<sup>133</sup> Most obviously, the VC might replace the founder with an outside manager, but even if the founder is not replaced, a VC may compel changes in business strategy that are inconsistent with the Founder's vision for the firm. In either case, we assume this causes the Founder to lose the full value of her private benefits.

<sup>134</sup> A secondary sale is generally inconsistent with monitoring as it may amplify concerns related to adverse selection and reduce the agent's incentive for effort (moral hazard).

FIGURE 1: EVENT TIMELINE



### B. Results

We divide our main results into two parts—(1) ex post incentives and (ii) ex ante pricing—and illustrate with a hypothetical. The hypothetical used below is just one example and we might get different results if the fact pattern were changed. Nonetheless, we believe working through a specific example makes it easier to extrapolate and generalize. We have also posted an interactive spreadsheet, where any of the variables used in the hypothetical can be adjusted to see how it would impact the predicted financing arrangement.<sup>135</sup> We save computations and technical details for the Appendix.

Suppose Startup needs \$20M in total financing, split into two investments of \$10M. There is a 50% chance that the initial state of nature will be positive [ $\pi_i = 0.5$ ], and a 50% chance the final state of nature will be positive [ $\pi_j = 0.5$ ]. Without monitoring, if Startup pursues a low-risk strategy the firm will be worth either  $V_{0,0,l} = \$12M$ ;  $V_{0,1,l} = \$25M$ ;  $V_{1,0,l} = \$20M$ ; or  $V_{1,1,l} = \$75M$  depending on the state of nature. If Startup instead pursues a high-risk strategy the firm will be worth either  $V_{0,0,b} = 0$ ;  $V_{0,1,b} = \$50M$ ;  $V_{1,0,b} = 0$ ; and  $V_{1,1,b} = \$150M$ . Table 1 links each valuation to the corresponding state of nature, and shows that the expected value of Startup when it pursues the low-risk strategy is \$33M, compared to \$50M for the high-risk strategy. If Startup

<sup>135</sup> Spreadsheet currently available upon request ([brian.j.broughman@vanderbilt.edu](mailto:brian.j.broughman@vanderbilt.edu)) [replace with URL link when available].

took financing from a monitor VC, the value of Startup is multiplied by  $\alpha=1.1$  when the initial state of nature is not positive [ $i=0$ ].

To complete the hypothetical, we set Founder's private benefits ( $\beta$ ) to \$2M. Table 1 shows that when  $\alpha=1.1$ , monitoring increases the expected value of Startup to \$33.9M if the Founder pursued a low-risk strategy and to \$51.2M for the high-risk strategy. We use the following expected utility function:  $U(\$x \text{ million}) = \sqrt{x}$  to account for the Founder's risk premium.

**TABLE 1: VALUE OF STARTUP**

Choice of Strategy & Initial State of Nature ( $\pi_i=.5$ )	Final State of Nature ( $\pi_j=.5$ )		Expected Value
	j=0	j=1	
<b>Panel A: Without Monitoring</b>			
<i>Low-Risk Strategy</i>			
i=0	\$12M	\$25M	
i=1	\$20M	\$75M	
Expected Value	\$16M	\$50M	<b>\$33M</b>
<i>High-Risk Strategy</i>			
i=0	0	\$50M	
i=1	0	\$150M	
Expected Value	0	\$100M	<b>\$50M</b>
<b>Panel B: With Monitoring</b>			
<i>Low-Risk Strategy</i>			
i=0	$\$12M * \alpha$	$\$25M * \alpha$	
i=1	\$20M	\$75M	
Expected Value ( $\alpha = 1.1$ )	\$16.6M	\$51.25M	<b>\$33.92M</b>
<i>High-Risk Strategy</i>			
i=0	$0 * \alpha$	$\$50M * \alpha$	
i=1	0	\$150M	
Expected Value ( $\alpha = 1.1$ )	0	\$102.5M	<b>\$51.25M</b>



1. *Ex Post Incentives*

First, we explore how the equity purchased by the VC—common or participating preferred stock—impacts the Founder’s choice of strategy.

Consider first the incentives that would be created if the VC were to purchase common stock. In that case, both the VC and the Founder would hold common stock. In general, when a principal and agent hold the same financial claim, we expect their interests to be aligned, but here the Founder is left bearing risk that the VC can diversify away. An all-common capital structure discourages a risk-averse Founder from pursuing the high-risk strategy. This is because the all-common structure gives her a linear financial claim, while her expected utility from wealth is nonlinear (concave), with decreasing marginal utility from larger payouts.

We confirm this intuition by comparing the Founder’s expected utility from pursuing the low-risk strategy to the high-risk strategy. Pursuit of the low-risk strategy reduces the Founder’s expected return and causes her to experience greater dilution in the Series B financing.<sup>136</sup> Nonetheless, we find that if the VC purchases common stock, the Founder can expect a higher utility by pursuing the low-risk strategy.<sup>137</sup> Given the shape of the Founder’s utility function, the certainty of getting some payout when  $j=0$  outweighs the potential upside from the high-risk strategy. The same reasoning applies regardless if Startup accepted financing from a monitor VC or a founder-friendly VC.<sup>138</sup>

Alternatively, if the VC purchases participating preferred stock with a 1x liquidation preference, the resulting capital structure can improve incentive alignment. In our hypothetical, after two rounds of financing the VC would be entitled to receive \$20M (the total amount invested over two rounds) because of its liquidation preference before the Founder’s common stock receives any payout. The Founder would then receive some fraction of exit proceeds greater than \$20M depending on the price of each round, and the VC would receive the remainder through its participation right.

Preferred stock changes the Founder’s expected utility analysis and leads to the opposite result—the Founder can expect a higher utility by pursuing the high-risk strategy.<sup>139</sup> The VC’s liquidation preference is driving the change in incentives. It prevents the Founder from receiving any meaningful payout unless the firm is sold for a large amount, which in turn encourages the Founder to choose riskier strategies.

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<sup>136</sup> Recall the expected value of Startup is only \$33M if founder pursues the low-risk strategy compared to \$50M for the high-risk strategy. The Series B investor anticipates these values and demands more equity if the Founder chooses a low-risk strategy.

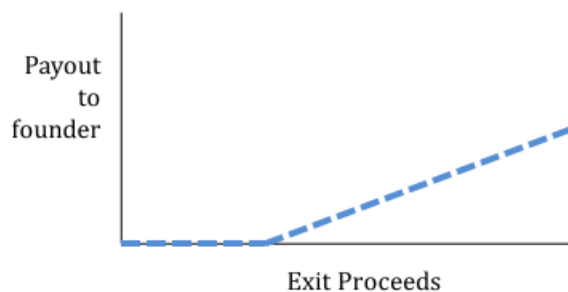
<sup>137</sup> This holds regardless how the Series A is priced. For supporting calculations, see *infra* Appendix.

<sup>138</sup> See *infra* Appendix.

<sup>139</sup> See *infra* Appendix.

Because of the VC's liquidation preference, the Founder is left with a non-linear (convex) financial claim, where she is entitled to a larger fraction of the firm as its exit valuation increases. We illustrate this in Figure 2 with an exit diagram that graphs the payout to the Founder over total exit proceeds.<sup>140</sup> The Founder receives nothing unless the exit value is greater than the liquidation preference. The result is hockey-stick shaped payout diagram, the same as for a call option. And similar to the holder of a call option, the Founder has an incentive to magnify risk taking. Convexity corrects incentive misalignment due to risk-aversion.<sup>141</sup>

**FIGURE 2: FOUNDER PAYOUT WHEN VC HOLDS PARTICIPATING PREFERRED**



To be sure, preferred stock is not the only way that the VC can encourage the Founder to take risks. The VC's willingness to provide follow-on financing may be in part contingent on observing the Founder pursuing a high-risk strategy. And as we discuss in more detail below, a VC can also make other private benefits, such as a secondary sale or a soft landing, contingent on the Founder pursuing a high-risk strategy, effectively creating an implicit reward to incentivize risk taking.

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<sup>140</sup> The payout diagram illustrated in Figure 2 is convex because a line segment between any two points on the Founder's payout function lies on or above the payout line.

<sup>141</sup> For purposes of incentive alignment, the contract would ideally create a level of convexity in founder payouts that exactly offsets the concavity in the founder's utility function. Such arrangement would cause the Founder to evaluate uncertainty in the value of Startup as if she were risk neutral. In the world of theory, one might imagine financing contracts tailored to fit each founder's specific level of risk-aversion. We do not claim that VC preferred stock accomplishes this level of founder-specific tailoring. Moreover, the mix of economic rights created by preferred stock is merely one way to create a convex founder payout. For example, the VC could purchase a mix of debt and equity or grant the founders stock options instead of stock. Even so, it is worth drawing attention to VC's use of preferred stock as a strategy to encourage founders to take bigger risks, as it highlights an independent explanation for why VCs use preferred stock.

While the VC's participating preferred stock can encourage risk taking, it does nothing to compensate the Founder for bearing risk in the first place. Indeed, this arrangement magnifies the risk that falls on the Founder by decreasing her payout in bad states of nature and increasing it in good ones. Thus, a second problem emerges—ex ante participation—does the Founder want to sign this contract? To explore this, we next consider ex ante price competition.

## 2. Ex Ante Pricing

We solve for the best price that a monitor VC and a founder-friendly VC can offer conditional on type of equity. The parties understand the type of equity impacts choice of strategy and will factor it into the pricing of participating preferred and common stock. Because we assume there are many VCs trying to finance a small number of startups, the Founder will receive the surplus and the VC will receive an expected payout equal to its investment. We assume the discount rate is zero.

Continuing the hypothetical above, we first solve for the price of equity in the Series B conditional on the initial state of nature. Knowing how the Series B will be priced for each  $i \in \{0, 1\}$ , we can then determine how much equity the VC will need to receive in the Series A. Since the hypothetical does not specify how many shares are outstanding, the term “price” may be a little confusing. For our purposes, “price” is the amount of money needed to buy a given percentage of the firm's equity. Our goal is to see how price competition between different types of VCs impacts the Founder's expected welfare.

We start with the pricing of participating preferred. A founder-friendly VC will set its Series B ownership fraction ( $\delta_2$ ) so that the Series B investment has expected value equal to the amount invested (\$10M). We can define  $\delta_2$  conditional on the initial state of nature, so that:<sup>142</sup>

$$\begin{aligned} \text{When } i=0 \rightarrow & \quad 10 = (.5)(10 + \delta_2 * 30), \\ & \quad \delta_2 = 33.3\% \\ \text{When } i=1 \rightarrow & \quad 10 = (.5)(10 + \delta_2 * 130) \\ & \quad \delta_2 = 7.7\% \end{aligned}$$

Since  $\pi_i=0.5$  and  $\pi_j=0.5$ , we can now price the Series A investment. VC needs to set its Series A ownership fraction ( $\delta_1$ ) so that:

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<sup>142</sup> The analysis here builds on the result shown in the prior section that preferred stock will cause the Founder to pursue a high-risk strategy. Thus, we only consider the high-risk payoffs in pricing preferred stock. Consequently, when  $i=0$  the value of the firm is either 0 or \$50M. We assume a 1x liquidation preference for all examples using participating preferred stock. So, of the \$50M exit value when  $i=0$  and  $j=1$ , only \$30M is left after paying the liquidation preference.

$$10 = (.25)(10 + \delta_1 * 20) + (.25)(10 + \delta_1 * 120) \tag{4}$$

$$\delta_1 = 14.3\%$$

In the Series A, a founder-friendly VC purchasing participating preferred stock needs to receive 14.3% of the residual in exchange for its \$10M investment, and the Founder is left with 85.7%. In other words, the price of a 1% ownership claim is \$700,000.<sup>143</sup>

We repeat this analysis for participating preferred investment from a monitor VC. The only change is a slight increase in the post-money valuation. In the Series A, a monitor VC needs to receive 13.8% of the residual, leaving the Founder with 86.2%. That suggests that a monitor VC would pay \$725,000 for a 1% ownership claim.<sup>144</sup>

For the sake of completeness, we also solve for ex ante prices if the VC were to purchase common stock instead. Here, the VC will offer a much lower valuation, anticipating that the Founder is no longer incentivized to pursue the high-risk strategy. For common stock, a monitor VC would pay \$239,000 and a founder friendly VC would pay \$230,000 to buy a 1% ownership claim.<sup>145</sup>

**TABLE 3: EXPECTED FINANCIAL PAYOUT TO THE FOUNDER**

Type of VC	Equity	Price for a 1% claim in the Series A.	Expected Payout to the Founder
Monitor	Part. Preferred	\$725,000	\$31.25M
F-Friendly	Part. Preferred	\$700,000	\$30M
Monitor	Common	\$239,000	\$13.9M
F-Friendly	Common	\$230,000	\$13M

We compare the expected financial payout to the Founder from each of the financing contracts described above.<sup>146</sup> Results are shown in Table 3. Because of competition among VCs, the Founder captures the economic sur-

<sup>143</sup> For terminology more common to VC practitioners, we could alternatively express in this as the implied “post-money valuation.” The post-money valuation of Startup equals [amount invested]/[ownership fraction]. Here the VC is investing \$10M for a 14.3% ownership fraction. So, post-money valuation = \$10M/.14285 = \$70M. Post money valuations involving preferred stock tends to overstate firm value. *See* Will Gornall & Ilya A. Strebulaev, *Squaring Venture Capital Valuations with Reality*, 135 J. FIN. ECON. 120, 121 (2020).

<sup>144</sup> Eq. (4) becomes  $10 = (.25)(10 + \delta_1 * 25) + (.25)(10 + \delta_1 * 120)$ . Solving for  $\delta_1$ , we find  $\delta_1 = 13.79\%$ . Consequently, post-money valuation equals  $\$10M / .138 = \$72.5M$ .

<sup>145</sup> Because the Series B will be priced to return exactly \$10M, the Series A post-money valuation will equal the final expected value under a low-risk strategy minus \$10M for both the monitor VC (33.9-10) and the founder friendly VC (33-10). Thus, a founder friendly VC will require for 43.5% (=10/23) and a monitor VC will require 41.8% (=10/23.9).

<sup>146</sup> This is equal to the average of the Founder’s payout in each state of nature.

plus created by monitoring. A monitor VC is able to invest at a higher valuation and consequently the Founder is able to hold onto a larger percentage of the firm’s equity and receive a larger expected payout. If the Founder were risk-neutral and solely concerned about financial returns, this would be the end of the story. This price analysis, however, does not address the other components of the Founder’s objective function. In particular, it does not account for the Founder’s private benefits or the cost of bearing risk. To complete the picture, we address these issues and the impact of secondary sales in the next section.

3. *Secondary Sales and the Risk Premium*

We start by examining the Founder’s full objective function [eq. (3)] for each of the financing contracts described above. We first calculate the Founder’s expected welfare without secondary sales and then repeat the analysis with a secondary sale of common stock to the founder-friendly VC in connection with the Series B financing.

Table 4 compares the Founder’s expected welfare from each financing arrangement. To determine the Risk Premium, we find the Founder’s expected utility from the set of uncertain payouts associated with each state of nature. We use this amount to calculate a certain (i.e., fixed) payout that would create the same utility.<sup>147</sup> The first four rows of Table 4 assume no secondary sales.

**TABLE 4: EXPECTED BENEFITS TO RISK-AVERSE FOUNDER (WITH AND WITHOUT SECONDARY SALE)**

VC Equity	Type of VC	Founder’s Objective Function			Total
		Exp. \$ Value	Risk Premium	Private Benefits	
<b><i>Without a Secondary Sale</i></b>					
Part. Preferred	Monitor	\$31.25M	\$17.54M	\$1M	<b>\$14.70M</b>
Part. Preferred	F-Friendly	\$30M	\$17.25M	\$2M	<b>\$14.74M</b>
Common	Monitor	\$13.9M	\$2.12M	\$1M	<b>\$12.77M</b>
Common	F-Friendly	\$13M	\$2.29M	\$2M	<b>\$12.71M</b>
<b><i>With a Secondary Sale</i></b>					
Part. Preferred	F-Friendly + \$2M secondary sale	\$30M	\$14.79M	\$2M	<b>\$17.20M</b>

On the question of capital structure, notice that the risk savings associated with common stock are insufficient to offset the lower expected financial payout [Table 4]. Consistent with actual VC financing—which is almost ex-

<sup>147</sup> For calculation of the risk premium, see *infra* Appendix.

clusively preferred stock—we focus our remaining analysis on the various preferred stock financing arrangements.

The first two rows of Table 4 highlight the tradeoff between a monitor VC and founder-friendly VC. The monitor VC increases the Founder’s expected financial returns (\$31.25M vs \$30M), but this increase is uncertain and consequently it also comes with a higher risk premium (\$17.54M vs \$17.25M). Monitoring also creates tension with the Founder’s private benefits. Even without a secondary sale, the Founder prefers (slightly) the deal offered by the founder-friendly VC [Table 4].

A secondary sale can create a much larger reduction in risk bearing. Secondary sales typically happen in connection with a follow-on round of financing and require the cooperation of the company’s existing VCs. Some of the investors participating in a follow-on round of financing purchase a portion of the common stock held by the founders or other employees in addition to buying preferred stock from the startup.

In our model, a secondary sale is simply a way to give the Founder a cash payment at time  $t=4$  in exchange for a reduction in the Founder’s ownership percentage at exit.<sup>148</sup> To illustrate with our hypothetical, assume a founder-friendly VC will offer to pay \$2M for a share of the Founder’s common stock when Startup is performing well. This offer is made when the initial state of nature is positive [ $i=1$ ]. Assuming the secondary sale transaction occurs at a fair price, it will increase the VC’s share of residual returns by 3.07% and decrease founder’s share by the same amount.<sup>149</sup>

We can now recalculate the impact on the Founder’s objective function. When  $i=0$ , there is no secondary sale and the Founder’s payouts are unchanged. When  $i=1$ , the Founder will receive a \$2M payout through the secondary sale and consequently we add \$2M to the Founder’s payout. Let  $\pi_{i,j}$  represent the probability associated with each state of nature [ $i, j$ ]. For a preferred stock financing from a founder-friendly VC, we compare the Founder’s expected financial payout without a secondary sale:

$$(\pi_{0,0}) * 0 + (\pi_{0,1}) * (\$17.14M) + (\pi_{1,0}) * (0) + (\pi_{1,1}) * (\$102.86M) = \$30M \quad (5)$$

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<sup>148</sup> A related benefit could be created by increasing the cash portion of a founder’s employment compensation. In a new study, Michael Ewens and collaborators find evidence, consistent with our theory. See Michael Ewens et al., *Founder-CEO Compensation and Selection into Venture Capital-Backed Entrepreneurship*, SOCARXIV (Jan. 2023), <https://osf.io/preprints/socarxiv/rku3m>. (finding that “founder-CEOs’ cash compensation increases substantially after product development”).

<sup>149</sup> From above we know that  $V_{1,0,b} = 0$ ;  $V_{1,1,b} = \$150M$  and  $\pi_j = 0.5$ . Moreover, the VC will be entitled to received \$20M as liquidation preference before anything is paid to common. There is a 50% chance that \$130M will be distributed to common and a 50% common receives nothing. Consequently, the secondary sale will be priced so that  $\$2M = (.5) * (x * \$130M)$ . We find  $x = 4/130 = 3.07\%$ .

to what the Founder could expect with a \$2M secondary sale:

$$(\pi_{0,0}) * 0 + (\pi_{0,1}) * (\$17.14M) + (\pi_{1,0}) * (\$2M) + (\pi_{1,1}) * (\$2M + \$98.86M) = \$30M \quad (6)$$

Notice that the Founder's expected financial payout (\$30M) remains unchanged whether a secondary sale is included or not. But now rather than receiving \$0 when  $[i,j]=[1,0]$  and \$102.9M when  $[i,j]=[1,1]$ , the Founder can expect to receive \$2M when  $[i,j]=[1,0]$  and \$100.9M when  $[i,j]=[1,1]$ . This recalibration—shifting \$2M of the Founder's expected payout depending on the final state of nature (j)—significantly reduces the Founder's risk exposure.

The secondary sale causes the Founder's risk premium to fall from \$17.25M without a secondary sale to \$14.79M with it.<sup>150</sup> The secondary sale essentially takes the risk associated with the final state of nature (j) and shifts a portion of it back to the VC. Since the VC, unlike the Founder, is able to diversify its portfolio, the secondary sale moves risk to the party that can most easily bear it and reduces total risk bearing costs. If a VC can develop a reputation for facilitating secondary sales, a Founder will be more likely to accept their financing offer and may even be willing to sell at a lower price to the VC ex ante. Consistent with this, Table 4 shows that the founder-friendly contract with a \$2M secondary sale creates the largest expected benefit for the Founder.

The prospect of a secondary sale can also be seen as an inducement for a founder to take risk in the first place. As part of the implicit bargain, a VC can suggest that a secondary sale will only be supported if the Founder pursues the high-risk strategy.<sup>151</sup> At time  $t=4$  when negotiating the Series B, the VC will have already observed whether the Founder pursued the high-risk strategy at  $t=2$  or not. The VC can thus create an implicit reward for Founders who pursue a high-risk strategy by offering to purchase some of the Founder's common stock directly in the Series B. To the extent VCs develop a reputation for such behavior, it can encourage risky behavior ex post and compensate founder's for bearing risk ex ante.

Thus far we have assumed that there are a large number of both founder-friendly VCs and monitor VCs and that competition between VCs lets the Founder capture all of the economic surplus. Moreover, we implicitly assume that all founder-friendly VCs are the same. Facilitation of secondary sales is a strategy some founder-friendly VCs may use to try to distinguish themselves from the pack. If a VC can develop a particularly strong reputation for supporting secondary sales, the VC may be able to capture some of the econom-

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<sup>150</sup> See *infra* Appendix.

<sup>151</sup> By assumption the parties cannot directly contract over the choice of strategy, so, for purposes of our model, secondary sales cannot be included in the formal ex ante agreement.

ic surplus by investing at lower valuations and have a competitive edge in landing the best deals.

One setting where we predict secondary sales to be particularly likely is for later stage companies that have already received an exit offer from an acquirer.<sup>152</sup> A risk-averse founder may be especially inclined to sell the firm in order to take risk off the table, even if the founder believes the offer price is below the fair value of the firm. To prevent this result, a founder-friendly VC might offer continuation financing with a large secondary component to offset the founder's ongoing risk exposure. A monitor VC, by contrast, would not need to resort to a secondary sale since it could use the control rights it holds for monitoring purposes to block the acquisition directly.

This begs the question, however, of whether a monitor VC would ever have an incentive to facilitate a secondary sale. As described above, secondary sales do not compromise the VC's financial returns. This masks undesirable incentives that could arise. In particular, a secondary sale could increase adverse selection. A founder who believes her firm is overvalued may be especially eager to sell her shares prior to exit. Moreover, a secondary sale reduces the Founder's skin in the game and may thereby reduce her effort, amplifying moral hazard.

While we do not model effort or adverse selection directly, we could extend the analysis so that the use of secondary sales lowers Startup's expected value ( $V$ ). Even if secondary sales were to lower firm value, a founder-friendly VC might still be willing to facilitate such transactions as it would give the founder-friendly VC a reputational benefit in ex ante pricing and deal selection for future startups. Indeed, this is the same reason why a founder-friendly VC does not engage in monitoring that could increase the value of Startup. By contrast, a monitor VC would have little reason to compromise firm value and thus its own returns.

Secondary sales are only one of many tactics that a founder-friendly VC can use to reward founders who pursue high-risk strategies. They could also arrange a soft landing or a new job through a connection in the VC's network. The common thread running through these founder-friendly tactics is that they each reduce the founders' risk bearing.

### *C. Discussion*

Our analysis emphasizes that a founder-friendly VC will try to compete on non-price dimensions to make its offer more attractive to a risk-averse founder. By contrast, a monitor VC competes by raising price. Price competition shifts risk away from the party that can bear it most efficiently (the VC) and onto a risk-averse founder. This is a general feature of financial contracting in venture capital, where one side of the contract can diversify risk but

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<sup>152</sup> See Matthew T. Wansley, *Beach Money Exits*, 45 J. CORP. L. 151, 166-75 (2019).



the other cannot. For every extra dollar of expected value that the VC gives up by offering a higher valuation, the founder only expects to gain a fraction of that dollar, with the remaining portion lost to the risk premium. To the extent that the parties anticipate this issue, the highest priced contract may not always be selected. Indeed, there is evidence that founders are willing to take lower valuations to work with more reputable VCs.<sup>153</sup>

We do not mean to suggest that a founder-friendly VC will *always* win out over a monitor VC or even that preferred stock will always win out over common. This is just one hypothetical and if the fact pattern were changed, we might get different results. Indeed, we designed the hypothetical so that it is a close call between a founder-friendly VC and a monitor VC. Nonetheless, seeing the outcome here makes it easier to extrapolate from the hypothetical and explore some general results.

First, on the choice of equity, neither preferred nor common is inherently better for all scenarios. If the founder were even more risk-averse, she might prefer the common stock financing. The general tradeoff is that, with a risk-averse founder, preferred stock improves incentive alignment between the founder and the VC, but at cost of increased risk bearing by the founder. While this result might suggest that the VC will sometimes purchase preferred stock and other times purchase common, we think a more realistic account is that the VC will always try to purchase preferred stock and extremely risk-averse founders simply will not accept the VC's offer. The literature provides a variety of reasons why VCs use preferred stock, and we doubt these will all be pushed aside to accommodate an especially risk-averse entrepreneur. Such entrepreneurs may instead bootstrap (i.e., self-fund) their business, raise money from friends, family, or angel investors, or decide not to found a business after all.<sup>154</sup>

Second, the risk-seeking model offers valuable insights applicable to both participating and convertible preferred.<sup>155</sup> Our analysis primarily focuses on participating preferred as it provides the founder with a convex payout scheme over the full range of outcomes, and thus encourages the founder to take risks regardless the distribution of valuation outcomes (i.e.  $V$ ). Conversely, convertible preferred induces more complex incentives, contingent on the distribution of firm valuation  $[V]$ . Specifically, if the risk is situated around a venture capitalist's conversion threshold, founders may find them-

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<sup>153</sup> See generally Hsu, *supra* note 124.

<sup>154</sup> The cost to society of nascent entrepreneurs deterred by risk is potentially very large.

<sup>155</sup> The relative frequency of participating preferred as opposed to convertible preferred has fluctuated over time. See Ewens & Farre-Mensa, *supra* note 11, at 283 (showing that use of participating preferred has dropped since 2008). We doubt that the choice of whether to include a participation right is a primary driver of risk seeking governance. In our view, the incentive to bear risk is primarily addressed through implicit terms of the contract and through the existence of a liquidation preference, which applies to both participating and convertible preferred.

selves shouldering an uneven share of the risk, bearing more of the potential losses compared to the potential gains.<sup>156</sup> The conversion threshold introduces a local area of non-convexity in the founder's payout, making it plausible that a capital structure featuring convertible preferred could discourage risk-taking.

However, in most real-world instances, we think this exaggerates the contrast between participating and convertible preferred. Both include a liquidation preference, offering no payout to the founder unless the company is sold profitably — a condition most startups struggle to meet.<sup>157</sup> For both participating and convertible preferred the founder's portion of the residual is maximized when the company achieves a 'home run' exit.<sup>158</sup> This highlights the similar behavior of these two types of preferred stocks in relation to the power law. Nevertheless, we recognize the presence of some disparities. To facilitate a comparison between convertible and participating preferred, the interactive spreadsheet includes both. Any of the variables used in the hypothetical—including the type of preferred stock—can be adjusted to see how it would impact the predicted financing arrangement.<sup>159</sup>

Third, our analysis highlights the tradeoff between founder-friendly and monitor VCs. We predict a startup is more likely to accept financing from a founder-friendly VC over a monitor VC when:

1. founder risk-aversion increases<sup>160</sup>;
2. volatility in the startup's potential valuation ( $V$ ) increases (i.e., the startup has a homerun or bust profile);
3.  $\beta$  increases (i.e., founder private benefits are larger); and
4.  $\alpha$  decreases (i.e., the potential benefit of monitoring is smaller);

Each of the above parameters can be adjusted in the interactive spreadsheet. Some assumptions of the model also increase the likelihood of financing from a founder-friendly VC. These include (i) the founder is essential to the

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<sup>156</sup> For a discussion of the incentive problem around the conversion threshold, see generally Sarath Sanga & Eric L. Talley, *Don't Go Chasing Waterfalls: Fiduciary Duties in Venture Capital Backed Startups* (European Corporate Governance Institute Law Working Paper No. 634/2022), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3721814](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3721814).

<sup>157</sup> See Hall and Woodward supra note \_\_\_ at \_\_\_ (finding that approximately three quarters of founders receive nothing at exit).

<sup>158</sup> At the tails of the distribution — either an exit for a very high price or for a loss — participating preferred and convertible preferred are functionally the same. The primary distinction is for intermediate exits that fall slightly below (or above) the conversion threshold.

<sup>159</sup> The interactive spreadsheet is available at \_\_\_\_.

<sup>160</sup> For purposes of the model, this is captured by the extent of concavity in the founder's utility function. The hypothetical assumes the following utility function:  $U(\$x \text{ million}) = \sqrt[2]{x}$ . If this were changed, however to:  $U(\$x \text{ million}) = \sqrt[3]{x}$  -- we would predict increased likelihood of financing from a founder friendly VC.

startup's financial success, (ii) VC reputation and conduct towards founders is clearly observable to third parties, and (iii) there is extensive competition among VCs.<sup>161</sup>

Finally, risk-seeking governance is not simply about catering to founders, but rather about encouraging founders to take risks and reducing the cost of bearing risk. To illustrate, if a founder were risk neutral but cared deeply about private benefits, a VC might still have an incentive to engage in some form of founder-friendly conduct. For example, a VC may wish to limit its ability to replace a founder and may try to give the founder some autonomy in how she manages the firm. Other forms of founder-friendly conduct are more directly linked to the cost of bearing risk. For example, the use of secondary sales to discourage an early acquisition appears to be directly linked to risk-bearing and is not just about protecting a founder's private benefits. Indeed, an early M&A exit may strip the founder of her managerial position and force her to give up some autonomy,<sup>162</sup> suggesting that founders that want to exit early are motivated more by risk bearing concerns than private benefits.<sup>163</sup> We hope that future empirical research can differentiate between different factors that push VCs to move away from monitoring and towards founder-friendly conduct.

It is important to note that risk-seeking governance is not driven by founders behaving irrationally or failing to appreciate the benefit of VC governance. Rather, it is driven by the inability of the traditional VC financing contract to simultaneously (i) protect the founder's private benefits, (ii) incentivize the founder to take big risks and (iii) shield the founder from the cost of bearing undiversified firm-specific risk. Risk-seeking governance is rising because it can achieve each of these goals.<sup>164</sup>

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<sup>161</sup> If a VC knew it were the only bidder for a Startup firm and a Founder did not have attractive outside opportunities, the VC would not have to worry about competing against a founder friendly offer, and without competition between investors there would be less reason for a VC to waste effort cultivating a founder friendly reputation.

<sup>162</sup> See Brian J. Broughman & Jesse M. Fried, *Do Founders Control Start-up Firms that Go Public?*, 10 HARV. BUS. L. REV. 49 (2020).

<sup>163</sup> Protection of private benefits and risk bearing costs are conceptually distinct. We include both in our analysis to remain in dialogue with the agency cost literature (which focuses on private benefits) and because founder friendly VC behavior often addresses both (e.g., helping a founder launch her next firm lowers ex ante risk and protects private benefits). The model of risk seeking governance, however, would remain internally consistent even if  $\beta=0$ .

<sup>164</sup> Our argument contributes to the literature on secondary markets for startup equity. See generally Darian M. Ibrahim, *The New Exit in Venture Capital*, 65 VAND. L. REV. 1 (2012); Elizabeth Pollman, *Information Issues on Wall Street 2.0*, 161 U. PA. L. REV. 179 (2012). We show how secondary cash outs for founders might indirectly improve governance by reducing their demand for private benefits and increasing their willingness to accept monitoring.

### III. THE RISK SEEKING MODEL: PRACTICE

The risk-seeking model explains startup governance as an implicit bargain in which founders agree to pursue high-risk strategies and VCs agree to let founders extract private benefits from the business. In this Part, we provide examples on both sides of the implicit bargain. First, we describe some of the high-risk strategies that startups have pursued. Second, we describe some of the founder-friendly tactics that VCs have adopted.

#### A. High-Risk Strategies

In our model, we call a business strategy “high-risk” if it increases the volatility of expected returns relative to alternative strategies. When we observe a strategy in the wild, though, we cannot know what alternative strategies were available. To overcome this problem, we rely on proxies for atypical risk. We look for strategies that increase short-term losses, break with best practices in management, or increase the likelihood of a legal penalty.

We also cannot directly observe the advice that VCs give in private meetings. But we can find indirect evidence in plain view. We can rely on VCs’ own public statements promoting strategies that they claim to recommend to their portfolio companies in private. And we can infer a strategy when many venture-backed startups exhibit the same pattern of behavior. We consider four strategies—blitzscaling, growing underwater, regulatory entrepreneurship, and venture predation.

##### 1. Blitzscaling

Blitzscaling is accelerating the growth of a startup by “prioritizing speed over efficiency in the face of uncertainty.”<sup>165</sup> Reid Hoffman—the former COO of PayPal, a co-founder of LinkedIn, and a partner at the VC firm Greylock—coined the term.<sup>166</sup> Hoffman explains: “Before blitzkrieg emerged as a military tactic, armies didn’t advance beyond their supply lines, which limited their speed. The theory of the blitzkrieg was that if you carried only what you absolutely needed, you could move very, very fast, surprise your enemies, and win.”<sup>167</sup> He continues: “Blitzscaling adopts a similar perspective. If a start-up determines that it needs to move very fast, it will take on far more risk than a company going through the normal, rational process of scaling up.”<sup>168</sup>

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<sup>165</sup> Hoffman & Yeh, *supra* note 27, at 27.

<sup>166</sup> See Sullivan, *supra* note 27.

<sup>167</sup> *Id.*

<sup>168</sup> *Id.*

Hoffman argues that founders need to “follow a new set of rules that fly in the face of what is taught in business schools.”<sup>169</sup> They should expedite hiring by scrutinizing candidates less carefully.<sup>170</sup> They should beat their rivals to market by launching “embarrassing” products.<sup>171</sup> They should “let fires burn”—that is, neglect long-term risks until they threaten the company’s survival.<sup>172</sup> Hoffman’s advice is worth studying because it reflects the conventional wisdom in Silicon Valley.<sup>173</sup> Each of his suggestions provides a shortcut to the rapid growth that VCs demand if the founders can stomach the risk.

Consider Hoffman’s advice on hiring. The process of recruiting, interviewing, vetting, and evaluating candidates takes time and effort. Hoffman advises startups to skip some of those steps. He claims that, “[a]s part of blitzscaling at Uber, managers would ask a newly hired engineer, ‘Who are the three best engineers you’ve worked with in your previous job?’ And then they’d send those engineers offer letters. No interview. No reference checking. Just an offer letter.”<sup>174</sup> Skipping these steps undoubtedly helps teams grow faster. But it can also increase the risk of incompetent, negligent, or criminal employee behavior. It may not be a coincidence that Uber became infamous for sexual harassment.<sup>175</sup>

Some founders would be reluctant to take Hoffman’s advice to cut corners on hiring. After all, they have to work with new hires or deal with complaints from other employees who work with them. But VCs can push founders to overcome their reluctance by setting aggressive milestones. Parker Conrad, the CEO of the scandal-plagued insurance startup Zenefits, experienced this pressure.<sup>176</sup> He recalls telling Lars Dalgaard, the Andreessen Horowitz VC on his board, that Zenefits “planned to hire 20 sales reps by the end of 2014.”<sup>177</sup> Dalgaard replied that the target should be five times

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<sup>169</sup> Hoffman & Yeh, *supra* note 27, at 198.

<sup>170</sup> *See id.* at 129-30.

<sup>171</sup> *See id.* at 206-11.

<sup>172</sup> *See id.* at 211-15.

<sup>173</sup> A recent study provides academic support for Blitzscaling in venture capital. See Pehr-Johan Norbäck, Lars Persson, & Joacim Tåg, *Risky Business: Venture Capital, Pivoting and Scaling* (February 13, 2023). IFN Working Paper No. 1444, Available at SSRN: <https://ssrn.com/abstract=4280389> (arguing that exit costs and the presence of an active VC market encourage venture-backed startups to pursuing riskier scaling strategies than an independent startup might).

<sup>174</sup> Sullivan, *supra* note 27.

<sup>175</sup> *See* ISAAC, *supra* note 86, at 213-27 (describing how Uber mishandled sexual harassment complaints).

<sup>176</sup> *See* William Alden, *How Zenefits Crashed Back Down To Earth*, BUZZFEED NEWS (Feb. 18, 2016, 9:01 PM), <https://www.buzzfeednews.com/article/williamalden/how-high-flying-zenefits-fell-to-earth>.

<sup>177</sup> *Id.*

higher.<sup>178</sup> Then he added: “You guys gotta get your heads out of your asses, start focusing on going big here.”<sup>179</sup>

Hoffman recommends a similarly aggressive approach to launching new products. He starts with the now familiar advice that startups should go to market with a “minimum viable product” (“MVP”)—a product with just enough features to attract customers who can provide feedback.<sup>180</sup> The management theorists who developed the idea of an MVP saw it as a strategy for *reducing* risk.<sup>181</sup> They recommended that startups should introduce new products quickly so that they could receive customer feedback earlier in the development process and use that feedback to refine the product. An iterative development process, they argued, would make it less likely that startups would waste time and money perfecting a product only to have consumers reject it.

Hoffman goes beyond the idea of the MVP. He says that startups should be embarrassed by their initial product.<sup>182</sup> He tells founders they need to throw out the idea that “it’s better to build your product right the first time, so you only have to build it once.”<sup>183</sup> Instead, he writes: “[t]o prioritize speed, you might invest less in security, write code that isn’t scalable, and wait for things to start breaking before you build [quality assurance] tools and processes.”<sup>184</sup> To be sure, Hoffman cautions that “embarrassed” does not mean “ashamed or indicted.”<sup>185</sup> But short of committing a moral outrage or a crime, speed should win out over product quality.

For a social network startup like LinkedIn, Hoffman’s advice might be sensible. Some software products, though, create more serious privacy or cybersecurity risks. And, as Hoffman himself seems to acknowledge, launching embarrassing products can be more dangerous for startups that sell atoms, not bits.<sup>186</sup> Beneath all the fraud, Theranos is a story about a startup that tried to bring a product to market before it worked.

Hoffman’s most audacious advice to blitzscaling startups is to “let fires burn.”<sup>187</sup> In other words, they should neglect long-term risks that do not

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<sup>178</sup> *Id.*

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

<sup>180</sup> See Hoffman & Yeh, *supra* note 27, at 207.

<sup>181</sup> See Steve Blank, *Why the Lean Start-Up Changes Everything*, HARV. BUS. REV. (May 2013), <https://hbr.org/2013/05/why-the-lean-start-up-changes-everything> (explaining the idea of an iterative development process).

<sup>182</sup> See Hoffman & Yeh, *supra* note 27, at 206-11.

<sup>183</sup> *Id.* at 215.

<sup>184</sup> *Id.*

<sup>185</sup> *Id.* at 208.

<sup>186</sup> See *id.* at 286-87 (acknowledging the need for tighter risk management in synthetic biology).

<sup>187</sup> *Id.* at 211.

threaten the company's short-term survival. He tells founders to set priorities by asking: "Which fire is going to damage or kill your business the soonest?"<sup>188</sup>

Hoffman offers his experience at PayPal as an example of successful risk management while blitzscaling. He says that, when PayPal first started processing payments, he and his colleagues recognized that it was important to prevent credit card fraud and illegal transactions.<sup>189</sup> But they did not have a solution to either problem, so they let the fires burn. On fraud, they decided to "eat the costs" to spare their customers.<sup>190</sup> On illegal transactions, they "deferred working on the problem" on the ground that their transaction volume was too low for the risk to be significant and "committed to building the necessary expertise" to address it later.<sup>191</sup>

Hoffman argues that PayPal's willingness to temporarily disregard these risks gave the company a competitive advantage. He writes: "All the banking people knew the rules—you had to protect against fraud first. That prevented them from trying anything that looked remotely like PayPal. Our ignorance allowed us to build something fast."<sup>192</sup>

In a sense, Hoffman's advice is hard to dispute. All startups, like all businesses, need to set priorities for risk management. But the pressure that startups face to hit milestones can lead to letting the wrong fires burn. One fire that many startups let burn is regulatory compliance. For example, Zenefits knowingly let its salespeople act as insurance brokers without licenses, until regulators in Washington state—where the unlicensed sale of insurance is a felony—launched an investigation.<sup>193</sup> In some cases, even "sales reps who had failed a broker license exam once or more were allowed to continue working the phones."<sup>194</sup>

FTX let fires burn rampant. The Sequoia-backed startup kept sloppy records and lacked basic financial controls. It did not segregate its customer assets from its own and failed to maintain enough liquidity for customer withdrawals.<sup>195</sup> According to the SEC, at FTX, "[a]ssets and liabilities of all forms were generally treated as interchangeable."<sup>196</sup> The company also failed to

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<sup>188</sup> *Id.* at 212.

<sup>189</sup> *See id.* at 289-90.

<sup>190</sup> *Id.* at 290.

<sup>191</sup> *Id.*

<sup>192</sup> Sullivan, *supra* note 27.

<sup>193</sup> *See* William Alden, *Startup Zenefits Under Scrutiny for Flouting Insurance Laws*, BUZZFEED NEWS (Nov. 25, 2015, 11:39 AM), <https://www.buzzfeednews.com/article/williamalden/zenefits-under-scrutiny-for-flouting-insurance-laws>.

<sup>194</sup> *Id.*

<sup>195</sup> Complaint at 15, SEC v. Bankman-Fried, No. 22-cv-10501 (S.D.N.Y. Dec. 13, 2022).

<sup>196</sup> *Id.* at 16.

manage the conflicts of interest between the exchange and its affiliated hedge fund, Alameda.<sup>197</sup> Sam Bankman-Fried himself later admitted on television: “I wasn’t spending any time or effort trying to manage risk on FTX.”<sup>198</sup>

For many startups, blitzscaling may be responsible and savvy. But there is a reason why, in Hoffman’s words, it breaks with “accepted best practices” in management.<sup>199</sup> It is a highly risky strategy, which is precisely why VCs like Hoffman recommend it.

## 2. *Underwater Expansion*

Blitzscaling is a risky strategy for *how* to scale a business. Underwater expansion is a risky strategy for *when* to scale a business.

One measure of a business’s financial position is its unit profitability—the difference between the revenue it receives from selling a marginal unit and the marginal cost it incurs to produce that unit. When marginal costs exceed marginal revenues, the business’s unit economics are underwater. Unit profitability does not measure the business’s overall profitability. A business typically achieves positive unit economics long before it generates enough volume to offset the fixed costs of starting up the business. Still, reaching the breakeven point in unit economics is an important milestone. For most businesses, it means it is time to scale. Some venture-backed startups, though, are not waiting to achieve positive unit economics before they scale. They are expanding underwater.

To see how venture capital enables underwater expansion, suppose you were an entrepreneur who had to rely on debt finance alone. Imagine, for example, that you financed your business with a bank loan. You would need to pay interest on that loan in the short term and pay back the principal in the long term. You would need the business to generate cash flows to make those payments, which would affect how you price your product. Although you might briefly offer discounts to get customers in the door, you would aim to reach unit profitability as soon as possible. Your strategy would be “nail it then scale it.”<sup>200</sup>

Expanding before you reached unit profitability would be too risky. Each additional good you sold would push your business deeper into a financial hole and increase the probability that you would never be able to dig out. You would not want to tell your bank: “[W]e lose a little money on every

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<sup>197</sup> See Patricia Kowsmann et al., *Troubles at Sam Bankman-Fried’s Alameda Began Well Before Crypto Crash*, WALL ST. J. (Dec. 31, 2022, 8:00 AM), <https://www.wsj.com/articles/alameda-sam-bankman-fried-ftx-crypto-crash-11672434101>.

<sup>198</sup> Complaint at 18, SEC v. Bankman-Fried, No. 22-cv-10501.

<sup>199</sup> Hoffman & Yeh, *supra* note 27, at 198.

<sup>200</sup> The name for this strategy comes from an influential book aimed at startup founders. See generally PAUL AHLSTROM & NATHAN R. FURR, NAIL IT THEN SCALE IT (2011).



customer, but we make it up on volume.”<sup>201</sup> Even if you wanted to expand underwater, your lenders would never agree to finance it. In fact, you probably would have agreed to covenants that effectively prohibited it when you signed the loan agreement in the first place.

Now suppose instead that you financed the business with equity rather than debt. You might bootstrap the business or raise money from friends, family, or angel investors. You would no longer need to make interest payments. Your investors would participate in the upside, so they might tolerate more risk and demand fewer covenants to constrain your decisionmaking. They might also tolerate a longer path to profitability. With equity financing, it might make sense to prioritize rapid scaling over short-run profitability. You might be able to run a business with underwater unit economics for a little while to grow your customer base. But you and your investors would still be reluctant to run massive losses. As in the debt financing scenario, the greater the losses you run, the more profitable the business would need to eventually become to offset those losses and greater the risk that you ran out of cash along the way.

Now consider the impact of venture finance. From the founder’s perspective, the basic logic of unit economics does not change. Each additional good sold at a loss still increases the level of profitability that the startup will ultimately need to achieve to offset those early losses and increases the risk that the startup will run out of cash in the short term. “Nail it then scale it” is still the sensible approach.

From the VC’s perspective, though, these risks are less important and may in fact be desirable. VCs only hit a home run if the company becomes extremely profitable—or, more precisely, if acquirors or public investors come to believe that the company will eventually become extremely profitable. For VCs, the fact that the startup has dug itself into a financial hole that it can only dig out of by becoming extremely profitable can be a feature, not a bug. The early losses align the founders’ interests with the VCs’ by making modest profitability less attractive.<sup>202</sup> Therefore, VCs have an incentive to encourage startups to pursue underwater expansion.

The risk that the startup will run out of cash in the interim is also a plus from the VCs’ perspective because it makes the founders more beholden to them. A startup that achieves unit profitability does not need to raise as much outside capital to fund expansion because it can use its internal cash flows. Once a startup is profitable, the incentive effects of staged financing no longer matter. The VCs’ credible threat not to reinvest or not to vouch for the startup to other investors is no longer a source of leverage over the

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<sup>201</sup> Sam Altman, *Unit Economics*, SAM ALTMAN BLOG (Sept. 21, 2015, 2:22 PM), <https://blog.samaltman.com/unit-economics>.

<sup>202</sup> In a sense, the interest alignment created by early losses parallels the interest alignment created by the VCs’ liquidation preference.

founder. The VCs' power becomes limited to their contract rights. By contrast, if the startup is not profitable and needs to raise more capital, the VCs hold the cards.

For many software startups, underwater expansions only require wading in ankle-deep water. The marginal cost of adding a new user can be near zero. For startups that face higher marginal costs, though, underwater expansions are highly risky yet tempting. Amazon's success at scaling with very low and sometimes negative margins created a model to emulate. Startups developing platforms with network effects—where adding more users increases the value of the platform to existing users—may have good reason to expect that their unit economics will improve at scale.<sup>203</sup> But other venture-backed startups seem to be spending hundreds of millions or billions of dollars of capital on underwater expansions in the hope that they will eventually figure out how to make a profit.

Sam Altman, the CEO of OpenAI and the former President of the startup incubator Y Combinator, wrote an influential essay criticizing this trend.<sup>204</sup> He argued that many startups

struggle to explain how their unit economics are ever going to make sense. It usually requires an explanation on the order of infinite retention (“yes, our sales and marketing costs are really high and our annual profit margins per user are thin, but we’re going to keep the customer forever”), a massive reduction in costs (“we’re going to replace all our human labor with robots”), a claim that eventually the company can stop buying users (“we acquire users for more than they’re worth for now just to get the flywheel spinning”), or something even less plausible.<sup>205</sup>

Altman may be right that VCs are pouring too much capital into money-losing businesses. Our point, though, is just that underwater expansion is the kind of strategy that only a VC could love. Expand rapidly through heavy losses in the hope that, once the unit economics turn positive, the business will be large enough to be a home run.

### 3. *Regulatory Entrepreneurship*

Some startups have combined blitzscaling's cavalier attitude towards regulatory risk with underwater expansion's willingness to sustain losses. One strategy that draws on both concepts is regulatory entrepreneurship—“pursuing a line of business in which changing the law is a significant part of the business plan.”<sup>206</sup> The difference between regulatory entrepreneurship

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<sup>203</sup> See Jean-Charles Rochet & Jean Tirole, *Platform Competition in Two-Sided Markets*, 1 J. EUR. ECON. ASS'N. 990, 995 (2003) (explaining how network effects work for platform companies).

<sup>204</sup> See Altman, *supra* note 201.

<sup>205</sup> *Id.*

<sup>206</sup> Pollman & Barry, *supra* note 29, at 383.

and letting fires burn is that regulatory entrepreneurs do not just neglect the risk of regulatory penalties—they deliberately sell a product that they know is illegal or arguably illegal.

Venture-backed regulatory entrepreneurs have followed a similar pattern. They started by selling their product without seeking a change in law first. Airbnb flouted rules on short-term rentals.<sup>207</sup> FanDuel and DraftKings disregarded laws against gambling.<sup>208</sup> Uber defied local taxi regulations.<sup>209</sup> In some cases, they offered contentious arguments for why the law did not apply to them. But they did not wait for regulators or legislators to respond to their arguments and decide whether their product was legal. Instead, the arguments served as a kind of public relations cover for their ongoing lawbreaking.

Once the regulatory entrepreneurs entered the market, they tried to grow their user base as quickly as possible.<sup>210</sup> In some cases, they facilitated consumer adoption of their product with below cost pricing.<sup>211</sup> The imperative to add new users was as much political as financial. Even if they lost money on a new user, they might come out ahead by gaining a supporter. Their goal was to grow “too big to ban.”<sup>212</sup> When regulators tried to crack down, the companies asked their users to send an email or sign a petition to show their support.<sup>213</sup>

Faced with public pressure, many state and local governments either amended the relevant laws or created new legal categories to legalize the product or service.<sup>214</sup> In some cases, regulatory entrepreneurship succeeded tremendously. At the close of their first day as public companies, Uber was worth about \$76 billion<sup>215</sup> and Airbnb about \$101 billion.<sup>216</sup>

Of course, there is nothing new about businesses lobbying for favorable legislation and regulation. What makes the regulatory entrepreneurs distinc-

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<sup>207</sup> *See id.* at 389.

<sup>208</sup> *See id.* at 402-03.

<sup>209</sup> *See id.* at 387-89.

<sup>210</sup> *See id.* at 400-03.

<sup>211</sup> *See id.* at 401-02.

<sup>212</sup> *See id.* at 400-03.

<sup>213</sup> *See id.* at 403-06.

<sup>214</sup> *See id.* at 388 (Uber); *id.* at 389 (Airbnb); *id.* at 403 (FanDuel and DraftKings).

<sup>215</sup> Corrie Driebusch & Maureen Farrell, *Uber's High-Profile IPO Upsets with Weak Debut*, WALL ST. J. (May 10, 2019, 6:54 PM), <https://www.wsj.com/articles/uber-stumbles-in-trading-debut-11557503554>.

<sup>216</sup> Preetika Rana et al., *Airbnb's Stock Price More Than Doubles in Market Debut*, WALL ST. J. (Dec. 10, 2020, 4:32 PM), <https://www.wsj.com/articles/airbnb-shares-more-than-double-in-market-debut-11607625899>.

tive is their “ask for forgiveness, not permission” approach.<sup>217</sup> One benefit of the that approach is speed. If the regulatory entrepreneurs had waited for regulatory approval or new legislation, they would have burned time and cash. Another benefit is that giving customers a taste of the forbidden product, especially at a subsidized price, makes it more likely that the law will be changed.

Whether regulatory entrepreneurship is socially desirable is a contested issue.<sup>218</sup> Our brief is just that regulatory entrepreneurship is highly risky. Every regulatory entrepreneur runs the risk that a regulator will succeed in enforcing the law and kicking the business out of their jurisdiction or shutting it down entirely. That is what happened to Aereo, a venture-backed startup that sold consumers antennas that they could use to watch broadcast television on internet-connected devices.<sup>219</sup> In June 2014, the Supreme Court held that Aereo’s business model violated the copyright laws.<sup>220</sup> By November 2014, Aereo was bankrupt.<sup>221</sup>

For founders, the risks of regulatory entrepreneurship could be personal. They issue the orders directing their employees to break the laws. From the VCs’ perspective, though, regulatory entrepreneurship can look promising. Regulatory entrepreneurs can grow their business rapidly when their competitors think entering the (illegal) market is too risky. If the competitors enter the market only after the law has changed, they may struggle to dislodge the regulatory entrepreneur. Airbnb and Uber show that regulatory entrepreneurship can work—at least in the sense of generating attractive returns for VCs.

#### 4. *Venture Predation*

Venture predation is a strategy in which startups use venture capital to fund predatory pricing. The strategy has three steps.<sup>222</sup> First, VCs inject a massive amount of capital into a startup—the venture predator. Second, the venture predator prices its goods or services below cost and drives its rivals out of the market. Third, once the venture predator dominates the market, the VCs exit their investment by selling their shares to investors who anticipate that the company will recoup its losses.

The most prominent venture predator is Uber. The company ran multi-billion dollar losses for years as it waged a price war against the taxi compa-

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<sup>217</sup> See Pollman & Barry, *supra* note 29, at 382-97 (distinguishing regulatory entrepreneurship from other kinds of corporate political activity).

<sup>218</sup> The best defense of regulatory entrepreneurship is that it can create political will to counter the effects of regulatory capture. See *id.* at 437-42.

<sup>219</sup> See *id.* at 422-23.

<sup>220</sup> See *ABC v. Aereo, Inc.*, 573 U.S. 431, 451 (2014).

<sup>221</sup> Emily Steel, *Aereo Concedes Defeat and Files for Bankruptcy*, N.Y. TIMES (Nov. 21, 2014), <https://www.nytimes.com/2014/11/22/business/aereo-files-for-bankruptcy.html>.

<sup>222</sup> See Wansley & Weinstein, *supra* note 30, at 24.

nies and then other ridehailing companies like Lyft.<sup>223</sup> Other venture predators have followed the same playbook. WeWork used venture predation to drive competing co-working sites out of business, only to have its own business unravel when it filed for an IPO.<sup>224</sup> Bird used venture predation in a failed attempt to clear the electric scooter market.<sup>225</sup> A group of instant grocery startups may be waging venture predation campaigns right now.<sup>226</sup>

Venture predation is a form of underwater expansion. A venture predator attracts customers easily because of its below cost pricing. What distinguishes venture predation from other underwater expansions is that the venture predator deliberately targets its rivals. It does not just price below its own costs. It prices below its rivals' prices.

Like regulatory entrepreneurship, venture predation requires law breaking. Predatory pricing violates the antitrust laws.<sup>227</sup> But also like regulatory entrepreneurs, venture predators can avoid the legal consequences. The reason is that the Supreme Court has set a nearly insurmountable burden for plaintiffs in predatory pricing cases. A plaintiff must prove that the predator had a "dangerous probability" of recouping the cost of predation.<sup>228</sup> Even if a plaintiff were to prevail, the VCs would likely have already exited. VCs can ignore this risk as long as they expect that the investors to whom they sell their shares will not discount their shares' value because of it.

Still, venture predation is highly risky. Like all underwater expansions, it requires racking up losses. These losses can be massive if the venture predator faces competition from other venture-backed startups, as Uber learned in its long war with Lyft. If the venture predator fails to dominate the market, the losses are in vain. Even if the predator does chase out its rivals, its VCs might fail to persuade investors that it can recoup its costs. Companies that achieve a large market share through predatory pricing are vulnerable to competition from new entrants.<sup>229</sup>

Despite these risks, venture predation has proven successful for some VCs. Benchmark generated a \$5.8 billion return on Uber—one of the largest grand slams in venture history.<sup>230</sup> Benchmark also made hundreds of millions on WeWork—not bad for a company that had to withdraw from an IPO.<sup>231</sup> Accel and Sequoia may not have been so lucky with Bird.<sup>232</sup> But venture pre-

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<sup>223</sup> *See id.* at 32-38.

<sup>224</sup> *See id.* at 41-45.

<sup>225</sup> *See id.* at 45-49.

<sup>226</sup> *See id.* at 52.

<sup>227</sup> *See id.* at 11-23 (explaining the law of predatory pricing).

<sup>228</sup> *Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 224 (1993).

<sup>229</sup> *See Wansley & Weinstein, supra* note 30, at 12-13.

<sup>230</sup> *See id.* at 38.

<sup>231</sup> *See id.* at 42-43.

<sup>232</sup> *See id.* at 49.

dition, like other high-risk strategies, only needs to pay off occasionally for VCs to be tempted to try it.

### B. *Founder-Friendliness*

When founders pursue high-risk strategies, VCs reward them with private benefits. Just as the VCs cannot use a contract to commit founders to take risks, the founders cannot use a contract to commit VCs to providing the private benefits. Instead, the founders must trust that the VCs will uphold their side of the implicit bargain. Therefore, VCs cultivate a founder-friendly reputation, which makes their commitments to prospective founders credible.

#### 1. *Secondary Sales*

As the risk-seeking model suggests, the most important benefit that VCs can offer founders is the opportunity to cash out part of their equity in a secondary sale. A typical secondary sale happens in connection with a new round of funding.<sup>233</sup> Most investors in the round will buy newly issued preferred shares, but some investors will buy part of the founders' common shares instead. The secondary buyers could be the startup's pre-existing VCs or outside investors willing to take common shares to get a piece of a hot startup. The common shares will typically be priced lower than preferred shares sold in the same round because they lack the preferred shares' liquidation preference and the other special rights.

Founders need the VCs' cooperation to sell their shares. Startups have at least three good reasons to limit secondary sales of their stock. First, regulation restricts the resale of private company securities.<sup>234</sup> Secondary sales must fit into narrow exemptions, which require, among other things, that the buyer be an accredited investor or a financial institution.<sup>235</sup> Startups want reassurance that a resale fits within an exemption before allowing it to proceed. Second, if a startup accumulates a certain number of shareholders, it be-

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<sup>233</sup> Some startups, particularly late-stage startups, have larger liquidity programs in which non-founder employees can also sell some of their shares. See David F. Larcker et al., *Cashing It In: Private-Company Exchanges and Employee Stock Sales Prior to IPO* 2-3 (Stan. Univ. Grad. Sch. of Bus. Research Paper No. 18-45, 2018), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3247877](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3247877). A founder secondary sale can be hashed out in a private board meeting and kept secret from other employees.

<sup>234</sup> See 17 C.F.R. §§ 230.502(d), 230.701(g) (restricting the resale of securities sold under the rules typically used for the sale of startup equity).

<sup>235</sup> See 17 C.F.R. §§ 230.144, 230.144A (providing safe harbors for the resale of private company securities to accredited investors and qualified institutional buyers under certain conditions).

comes involuntarily subject to public company regulations.<sup>236</sup> No startup wants to go public unexpectedly, so each startup needs to track its shareholder numbers. Third, most private companies are careful about who they let onto their cap table. Shareholders have the right to seek information about a company through a book and records action or to bring a lawsuit against directors for breaching their fiduciary duty. A shareholder who is hostile to management can become a nuisance.

For these reasons, many startups encumber their shares with right of first refusal in favor of the company.<sup>237</sup> If the VCs control the board, this contractual barrier effectively gives them a veto over secondary sales. Even if the VCs have not yet gained control, founders usually still need the VCs to introduce them to secondary buyers. Therefore, the VCs' ability to facilitate a secondary sale is a powerful source of leverage over founders.

Secondary sales have grown tremendously. The concept of a secondary sale is not a recent innovation. Marc Benioff, the co-founder of Salesforce, sold some of his shares before taking the company public in 2004.<sup>238</sup> Two co-founders of Groupon sold \$300 million and \$133 million respectively in secondary sales before its IPO in 2011, and the founder of Zynga sold \$109 million before his company's IPO the same year.<sup>239</sup> But these sales were considered rare at the time, and they happened when the companies' IPOs were within sight.<sup>240</sup> In recent years, founders have been cashing out large sums of money at earlier stages. According to a partner at one Silicon Valley law firm, "[h]alf of Series A and B deals now have some secondary component for founders."<sup>241</sup>

In some cases, founder secondary sales have become controversial because they happened around the time of misconduct. For example, in 2015, Zenefits founder Parker Conrad sold \$10 million in shares, months before it was revealed that he had created a software program to help his employees skip training mandated by regulation.<sup>242</sup> In 2018, Travis Kalanick sold \$1.4

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<sup>236</sup> See 15 U.S.C. § 78l(g)(1)(A) (providing that issuers must register their securities once they possess \$10 million in assets and 2,000 record shareholders or 500 record shareholders who are not accredited investors).

<sup>237</sup> Larcker et al., *supra* note 233, at 3.

<sup>238</sup> Shayndi Raice & Justin Scheck, *For Zynga CEO, Cash Came Early*, WALL ST. J. (Dec. 16, 2011, 12:01 AM), <https://www.wsj.com/articles/SB10001424052970204844504577100713531520358>.

<sup>239</sup> *Id.*

<sup>240</sup> See *id.* (quoting a VC saying that, "while he's seeing more entrepreneurs take out money before an IPO, he has rarely seen founders cash out hundreds of millions of dollars").

<sup>241</sup> Berber Jin, *Startup Founders Use Record-High Valuations to Cash Out Earlier*, INFO. (Sept. 13, 2021, 6:01 AM), <https://www.theinformation.com/articles/startup-founders-use-record-high-valuations-to-cash-out-earlier>.

<sup>242</sup> William Alden, *Zenefits Co-Founder Sold Stock Months Before Scandal*, BUZZFEED NEWS (May 9, 2016, 1:15 PM), <https://www.buzzfeednews.com/article/williamalden/zenefits-co>.

billion of his Uber shares after his misconduct led the company to lose billions and he was ousted as CEO.<sup>243</sup> In the years leading up to WeWork's aborted IPO, Adam Neumann cashed \$700 million out of the company through secondary sales and debt.<sup>244</sup>

The most colorful example, though, may be the cybersecurity unicorn Tanium, co-founded by the father-and-son team of David and Orion Hindawi. In 2017, Tanium's board agreed to \$100 million in secondary sales for employees, with half of the proceeds going to David Hindawi.<sup>245</sup> The sale came months after it was reported that Tanium had exposed the private network of a hospital<sup>246</sup> and nine senior executives had left because of Orion's behavior, which included "frequently call[ing] workers stupid or fat" and "spread[ing] rumors about a junior staffer's sexual promiscuity and a former executive's drug abuse."<sup>247</sup> The Tanium cash out was particularly galling because the younger Hindawi kept a running record—dubbed Orion's List—of when employees would be eligible to receive shares, so he could try to fire them first.<sup>248</sup>

The pervasiveness of founder secondary sales, especially at early stages, is strong evidence against the monitor model. When founders cash out a large chunk of their shares, they have less skin in the game. The high-powered equity incentives for performance diminish, and the risk of moral hazard increases. If founders expect to receive secondary sales, their willingness to accept equity instead of salary becomes a weaker signal of their confidence in their skills and work ethic, and the risk of adverse selection increases.

The risk-seeking model predicts that founder secondary sales should be widespread. At the time that the VCs invest, they can make an informal

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founder-sold-stock-months-before-scandal. Note, however, that in this case it is not clear that the board knew about the cheating before the secondary sale was approved. *See id.*

<sup>243</sup> Deirdre Bosa & Anita Balakrishnan, *Travis Kalanick Is Walking Away with \$1.4 Billion as Uber's Deal with SoftBank Closes Thursday*, CNBC (Jan. 18, 2018, 6:56 PM), <https://www.cnbc.com/2018/01/18/uber-ex-ceo-travis-kalanick-will-officially-be-a-billionaire-thursday.html>.

<sup>244</sup> Eliot Brown et al., *WeWork Co-Founder Has Cashed Out at Least \$700 Million Via Sales, Loans*, WALL ST. J. (July 18, 2019, 5:15 PM), <https://www.wsj.com/articles/wework-co-founder-has-cashed-out-at-least-700-million-from-the-company-11563481395>.

<sup>245</sup> Cat Zakrzewski, *Tanium Lets Staff, Chairman Cash Out for \$100 Million*, WALL ST. J. (May 25, 2017, 3:47 PM), <https://www.wsj.com/articles/tanium-lets-staff-chairman-cash-out-for-100-million-1495706400>.

<sup>246</sup> Rolfe Winkler, *Cybersecurity Startup Tanium Exposed California Hospital's Network in Demos Without Permission*, WALL ST. J. (Apr. 19, 2017, 10:11 PM), <https://www.wsj.com/articles/cybersecurity-startup-tanium-exposed-california-hospitals-network-in-demos-without-permission-1492624287>.

<sup>247</sup> Lizette Chapman & Sarah McBride, *Tanium's Family Empire Is in Crisis*, BLOOMBERG (Apr. 13, 2017, 7:00 AM), <https://www.bloomberg.com/news/articles/2017-04-13/tanium-s-family-empire-is-in-crisis>.

<sup>248</sup> *See id.*



promise with the founders that they will agree to a secondary sale at the next round if the founders hit the milestones to which they have agreed. Then the founders can reasonably expect that, if they hit the milestones, not only will their equity be worth more, but they will also be able to cash some of it out. In effect, a promise of future secondary sales turns the founders' desire to diversify away some of their firm-specific risk into an incentive to cooperate with the VCs—even though that means pursuing high-risk strategies.

To be sure, the founders are still bearing some risk. The company may fail to hit its milestones. There might not be willing secondary buyers. The VCs' promise may turn out to not be credible. But VCs can reduce these risks by developing a founder-friendly reputation. For example, they could develop a reputation for agreeing to secondary sales in cases in which the founders missed the milestones despite their best efforts and the company still has upside potential. The bottom line is that founders who raise capital from VCs with a reputation for agreeing to secondary sales are bearing *relatively* less risk than they would if they knew that they could not cash out their shares until an acquisition or IPO. The availability of secondary sales makes entrepreneurship more attractive to founders with a wider range of risk preferences.

## 2. *Self-Dealing*

VCs can also let founders who pursue high-risk strategies indulge in some self-dealing. We want to be clear: we are not claiming that VCs encourage self-dealing. After all, when founders self-deal, they are spending time or money on something other than growing the business and the value of the VCs' equity stake. Nor are we claiming that VCs expressly authorize self-dealing when they can avoid doing so. Instead, we think that VCs are willing to *tolerate* self-dealing, especially when a startup is flush with cash.

WeWork is perhaps the most egregious example.<sup>249</sup> Adam Neumann spent company money on a sauna and ice bath for his personal office.<sup>250</sup> He had the company buy a “top of the line” Gulfstream and used it for personal trips.<sup>251</sup> Neumann was shameless about nepotism. WeWork hired his wife, his brother-in-law, and his wife's brother-in-law.<sup>252</sup> Some of Neumann's self-dealing was approved by WeWork's directors. The company agreed to pay him \$5.9 million in stock in exchange for the trademark for the word

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<sup>249</sup> For an analysis of the many corporate governance failures at WeWork, see Donald Langevoort & Hillary A. Sale, *Corporate Adolescence: Why Did “We” Not Work?*, 99 TEX. L. REV. 1347, 1350-57 (2021). For more on the conflicts of interest, see *id.* at 1367-74.

<sup>250</sup> Farrell & Brown, *supra* note 85.

<sup>251</sup> *Id.*

<sup>252</sup> See Eliot Brown, *WeWork's Long List of Potential Conflicts Adds to Questions Ahead of IPO*, WALL ST. J. (Sept. 6, 2019, 6:26 PM), <https://www.wsj.com/articles/weworks-long-list-of-potential-conflicts-adds-to-questions-ahead-of-ipo-11567808023>.

“We.”<sup>253</sup> It also allowed him to invest \$13 million of WeWork’s money into a company developing “artificial-wave pools.”<sup>254</sup> The product was, of course, unrelated to WeWork’s business, but Neumann was a “passionate surfer.”<sup>255</sup>

Neumann’s self-dealing was facilitated by WeWork’s dual-class share structure, which gave him control of the company.<sup>256</sup> Before gaining control, Neumann tried to buy an equity stake in a building that leased to WeWork.<sup>257</sup> The board raised concerns about a potential conflict of interest, so WeWork bought the stake instead.<sup>258</sup> But after Neumann gained control, he succeeded in pushing through similar deals. WeWork’s own documents stated that the company had “paid more than \$12 million in rent to buildings ‘partially owned by officers’ of WeWork between 2016 and 2017, and future payments total more than \$110 million over the life of the leases.”<sup>259</sup> It is easy to see why some scholars blame dual-class share structures for enabling founder misbehavior. But the broader pattern of self-dealing at WeWork suggests that the dual-class structure was a symptom rather than the cause. WeWork was growing exponentially, and the VCs wanted to please the founder who was delivering that growth.

WeWork was exceptional in that the self-dealing became public. WeWork was required to disclose its related-party transactions in its S-1.<sup>260</sup> Those disclosures raised questions about WeWork’s governance that invited further investigation. But most self-dealing at venture-backed startups will never become public. Even when VCs uncover self-dealing that they are not willing to tolerate, they would still rather keep it quiet than jeopardize their founder-friendly reputation by disclosing it.

### 3. *No Litigation or Public Criticism*

The VC community has developed norms that protect founders from the downside of failure and encourage risk-taking. VCs almost never sue founders, and they rarely criticize founders in public.

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<sup>253</sup> *See id.*

<sup>254</sup> Charles Duhigg, *How Venture Capitalists Are Deforming Capitalism*, NEW YORKER (Nov. 23, 2020), <https://www.newyorker.com/magazine/2020/11/30/how-venture-capitalists-are-deforming-capitalism>.

<sup>255</sup> *Id.*

<sup>256</sup> *See* Eliot Brown, *WeWork’s CEO Makes Millions as Landlord to WeWork*, WALL ST. J., (Jan. 16, 2019, 10:01 PM), <https://www.wsj.com/articles/weworks-ceo-makes-millions-as-landlord-to-wework-11547640000>.

<sup>257</sup> *Id.*

<sup>258</sup> *Id.*

<sup>259</sup> *Id.*

<sup>260</sup> *See* We Co., Registration Statement (Form S-1) 99-102 (Aug. 14, 2019), <https://sec.report/Document/0001193125-19-220499/>.

The no litigation norm is well-established. VCs who break it pay a price. Empirical research has shown that VCs who sue founders “invest in a smaller number of deals, raise smaller funds, and syndicate with a smaller number of VCs.”<sup>261</sup> Benchmark’s lawsuit to oust Travis Kalanick as CEO of Uber is the exception that proves the rule. The case for litigation was strong. Benchmark’s equity stake in Uber was worth several billion dollars, and Kalanick’s mismanagement was destroying its value. When Benchmark filed its lawsuit, it issued a public statement noting that the firm had never sued a founder before.<sup>262</sup> The CEO of CB Insights, a leading source for VC data, said “that litigation between founders and venture capitalists had never been seen ‘at this scale or in as public a way.’”<sup>263</sup>

Benchmark faced backlash for the lawsuit. An investor explained: “Any entrepreneur would naturally feel nervous about working with Benchmark, at least for the time being . . . Because in the back of their mind (mine included) will always be the question of, ‘What will happen if things get that bad?’”<sup>264</sup> A founder said that he “empathized a lot with Travis” and would not raise money from Benchmark.<sup>265</sup> A VC put it more bluntly: “I wouldn’t take @bgurley money to start a McDonalds franchise at this point.”<sup>266</sup>

There is a similar norm against VCs criticizing founders in public.<sup>267</sup> What is most remarkable about the norm is that it is not limited to VCs’ own portfolio companies. VCs are discouraged from criticizing the founders of startups that they vetted and chose not to fund. The risk-seeking model explains why the norm persists. VCs are attempting to persuade the founders of their portfolio companies to take great risks. If they can reduce the reputational cost that the founders incur for taking those risks, founders are more likely to agree. In a sense, founder-friendliness is both a means by which VCs compete and a culture that has developed to make risk-taking more palatable.

#### 4. *Soft Landings*

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<sup>261</sup> Vladimir A. Atanasov et al., *Does Reputation Limit Opportunistic Behavior in the VC Industry? Evidence from Litigation Against VCs*, 67 J. FIN. 2215, 2218 (2012).

<sup>262</sup> Katie Benner, *For Uber, A Quiet Investor Becomes a Sudden Thorn*, N.Y. TIMES (Aug. 17, 2017), <https://www.nytimes.com/2017/08/17/technology/uber-travis-kalanick-benchmark.html>.

<sup>263</sup> *Id.*

<sup>264</sup> Theodore Schleifer, *Some Startup Founders Are ‘Nervous’ about Dealing with Benchmark after It Sued Uber*, RECODE (Aug. 11, 2017, 1:23 PM), <https://www.vox.com/2017/8/11/16130148/benchmark-uber-startup-founder-backlash-lawsuit>.

<sup>265</sup> *Id.*

<sup>266</sup> *Id.*

<sup>267</sup> See Nellie Bowles, *Want to Do Business in Silicon Valley? Better Act Nice*, N.Y. TIMES (Sept. 20, 2019), <https://www.nytimes.com/2019/09/10/style/oh-behave.html>.

When founders pursue a high-risk strategy, and the strategy fails, VCs can offer a “soft landing.” An example of a soft-landing is an acqui-hire transaction.<sup>268</sup> The startup ends its life as an independent company, and the founders and some of its employees are offered employment with the acquiror. The deal could be structured as an M&A sale, as an asset purchase, or even just a payment in consideration for a covenant not to sue.<sup>269</sup> The VCs do not receive a return on their investment. But the founders get to save face and declare victory.

If an acqui-hire is not feasible, the VCs can use their extensive networks to help the founders find a new job elsewhere.<sup>270</sup> If the founders are interested in becoming serial entrepreneurs, the VCs can invest in their next startup or introduce them to other investors.

A VC who can credibly promise a soft landing will be more likely to persuade the founders to pursue high-risk strategies. When the VCs keep their promise, they leave the founders feeling warm towards them or dependent on them. Either way, the founders are less likely to damage the VCs’ reputation for founder-friendliness, even though the VCs talked them into risky strategies that may have cost them dearly.

#### IV. IMPLICATIONS FOR CORPORATE LAW

The monitor model suggests that VCs are exemplary directors. They monitor managers, police self-dealing, and create incentives for performance. The risk-seeking model explains that VCs behave quite differently. They skip monitoring, indulge self-dealing, and push managers to take risks. In this Part, we show how the risk-seeking model can be a useful guide to explain the observed behavior of VCs in the rare startup disputes that land in court. But we caution that, if the risk-seeking model is right, corporate law has little impact on the most important decisions in startup governance.

We start with the observation that the business judgment rule generally protects director risk-taking. The Delaware courts are loath to intervene in questions of business strategy. A plaintiff usually needs to ground a complaint about director risk-taking in a theory of disloyalty.<sup>271</sup> That practical necessity creates at least two hurdles to a successful claim. First, as the power law illustrates, many examples of startups pursuing high risk strategies are

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<sup>268</sup> See Pollman, *supra* note 34, at 27. For more on acqui-hires, see generally John F. Coyle & Gregg D. Polsky, *Acqui-Hiring*, 63 DUKE L.J. 281 (2013).

<sup>269</sup> See Pollman, *supra* note 34, at 27-28.

<sup>270</sup> See *id.* at 35.

<sup>271</sup> Almost all Delaware corporations, startups included, waive director liability for money damages for breaches of duty of care. See DEL. CODE ANN. tit. 8, § 102(b)(7). A plaintiff suing to enjoin director action on the basis of the duty of care must prove that the directors acted with gross negligence. See *Smith v. Van Gorkom*, 488 A.2d 858, 873 (Del. 1985).

consistent with maximizing the financial value of common stock, even though they also impose risk on common shareholders. Second, even when a VC director's motivation to pursue a high-risk strategy is driven by considerations other than maximizing the value of common stock, plaintiffs may struggle to show that the VC directors breached the duty of loyalty. There is just too much uncertainty about the likely costs and benefits of particular business strategies to show that directors would not have pursued them but for their conflicting incentives. And a plaintiff would rarely have enough information about the strategic decisions the board made and the options it considered to even know when to sue.

A startup board's decision to let a founder extract private benefits is also in theory disloyal. But again, in most circumstances, the parties with the relevant information—the VC directors and the founders themselves—are party to the implicit bargain. It would be difficult for an outsider plaintiff to show that the directors were doing something other than approving benefits that would motivate and retain talented managers.

There is, however, one kind of startup board decision that can be worth suing over—a decision about an exit. When a potential acquisition offer or an IPO is on the table, the choices that the board faces are more concrete and quantifiable. A plaintiff can determine the expected payouts of different exit options for different shareholders. If the expected payouts diverge in a way that could affect the directors' decisions, the plaintiff may have a plausible claim for breach of the duty of loyalty. And sure enough, the Delaware courts have shown a willingness to intervene in disputes about startup exits.

#### A. Trados

*In re Trados*, the most important Delaware case on the fiduciary duties of startup directors, illustrates how VC risk-seeking can influence exit decisions. Trados was a translation software startup.<sup>272</sup> Jochen Hummel founded the company in Germany in 1984.<sup>273</sup> By the late 1990s, Trados had become the leading player in the desktop translation software market and was generating over \$11 million in annual revenue.<sup>274</sup> But Trados's executives had grander ambitions. They wanted to expand into the larger enterprise translation software market and position the company for an IPO.<sup>275</sup> To fund the expansion, Trados turned to venture finance. In 2000, Trados raised its first round of venture capital from the venture arm of Wachovia.<sup>276</sup>

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<sup>272</sup> *In re Trados Inc. S'holder Litig.*, 73 A.3d 17, 21 (Del. Ch. 2013).

<sup>273</sup> Hummel's co-founder left the company and was not involved in the litigation. *See id.*

<sup>274</sup> *Id.*

<sup>275</sup> *Id.*

<sup>276</sup> *Id.*

Over the next two years, Trados saw its revenues grow and raised more venture capital.<sup>277</sup> The board decided that it could accelerate the company's growth through an acquisition.<sup>278</sup> In 2002, Trados acquired Uniscape, another venture-backed startup that had developed its own enterprise translation software.<sup>279</sup> Uniscape had raised several rounds from VCs, including \$13 million from Sequoia.<sup>280</sup> The acquisition was structured as a stock-for-stock merger, so the Uniscape shareholders received Trados stock, and some of Uniscape directors joined Trados's board.<sup>281</sup> The deal was promising for Trados, but it was disappointing for Uniscape shareholders. Sequoia, for example, had to mark down its Uniscape investment to \$3.8 million.<sup>282</sup>

In 2003, Trados's revenues continued to grow, but the VCs were starting to get impatient.<sup>283</sup> The chance that Trados would become a home run was diminishing. When Trados's CEO missed budget targets in 2004, the board replaced him.<sup>284</sup> The directors explored the possibility of an immediate acquisition, but decided instead to bring in an outsider to serve as CEO.<sup>285</sup> Sameer Gandhi, a Sequoia VC who joined Trados's board from Uniscape, reported back to his partners: "We have recruited a hard-nosed CEO whose task is to grow this company profitably or sell it."<sup>286</sup> He added that Trados had retained an investment banker to explore acquisitions and predicted that the company would be "sold within the next 18 months (perhaps sooner)."<sup>287</sup>

The new CEO, Joseph Campbell, proved to be a competent manager. In the fourth quarter of 2004, Trados generated a "record" profit of \$1.1 million.<sup>288</sup> Campbell pitched the board on a strategy to expand the company into the adjacent content management software market, which he said would require \$4 million in new capital.<sup>289</sup> The VCs on the board showed little interest in his plan.<sup>290</sup> Their reluctance was understandable. Campbell had delivered modest profits, but he had not given the VCs reason to believe that Trados had home run potential. From their perspective, funding Campbell's plan

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<sup>277</sup> *Id.* at 22-23.

<sup>278</sup> *Id.*

<sup>279</sup> *Id.*

<sup>280</sup> *Id.* at 23.

<sup>281</sup> *Id.*

<sup>282</sup> *Id.*

<sup>283</sup> *Id.* at 25.

<sup>284</sup> *Id.*

<sup>285</sup> *Id.*

<sup>286</sup> *Id.* at 27.

<sup>287</sup> *Id.*

<sup>288</sup> *Id.* at 28.

<sup>289</sup> *Id.*

<sup>290</sup> *Id.*

would be throwing good money after bad. It had now been over four years since the first VCs invested. They were looking for an exit.

Gandhi's emails back to Sequoia around that time make clear that he wanted out. He wrote that, while "Campbell had done a decent job getting the company cleaned up," now "[h]is mission is to architect an M&A exit as soon as practicable."<sup>291</sup> Gandhi lamented that, "[g]iven the preference structure and likely exit valuation for this business, we unfortunately have to resign ourselves to getting a small fraction of our original Uniscape investment back."<sup>292</sup> Then he added: "I am not spending a lot of time on this investment, even though I remain on the board."<sup>293</sup> In these emails, Gandhi does not sound like a loyal director of a company that just achieved its best ever quarterly profit. He sounds like a VC. He is reassuring his partners that he appreciates the opportunity cost of spending time on a company that will not become a home run.<sup>294</sup>

The Trados VCs faced an obstacle to a sale: their own liquidation preferences. Around the time of the deal, the preferences added up to \$57.9 million.<sup>295</sup> The best price that Trados could likely garner in a sale was about \$60 million.<sup>296</sup> That meant that the most common shareholders could receive from a deal would be about \$2.1 million. The limited potential payout for common shareholders created three problems. First, the VCs needed the board to approve the deal. But they only held three of the seven board seats.<sup>297</sup> CEO Campbell, founder/CTO Hummel, and two independent directors held the other seats, and Campbell and Hummel were common shareholders.<sup>298</sup> The VCs would need at least one of those four to vote yes. Second, the VCs needed the stockholders to approve the deal. The preferred shares represented less than 50% of Trados's total outstanding stock, so some common shareholders would need to vote for the deal.<sup>299</sup> Third, the VCs needed Trados's managers to help negotiate and execute the deal.

The VC directors solved all three problems by driving a wedge between the interests of Campbell and Hummel and the interests of the other common shareholders. The board adopted a "Management Incentive Plan" ("MIP"), which provided that a portion of any deal proceeds would go to Campbell, Hummel, and Trados' CFO James Budge before any sharehold-

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<sup>291</sup> *Id.* at 29.

<sup>292</sup> *Id.*

<sup>293</sup> *Id.*

<sup>294</sup> *Id.*

<sup>295</sup> *Id.* at 33.

<sup>296</sup> *Id.* at 59-61.

<sup>297</sup> *Id.* at 60.

<sup>298</sup> *Id.* at 60-62.

<sup>299</sup> *Id.* at 65.

ers.<sup>300</sup> The share of the proceeds that the managers would receive under the MIP was designed to rise with the total value of the sale, so they would have an extra incentive to seek out a high value deal.<sup>301</sup> The explicit promise of the MIP functioned like the implicit promise of a secondary sale. The VCs essentially said: pursue the strategy we want and we will reward you with a cash out that the other common shareholders will not share.

The MIP worked. Trados agreed to a sale at \$60 million.<sup>302</sup> Due to the MIP, the first 13% of the deal, \$7.8 million, went to Campbell, Hummel, and Budge.<sup>303</sup> Because of the liquidation preferences, the remaining \$52.2 million of the deal went to the VCs.<sup>304</sup> The common shareholders received nothing.<sup>305</sup> The board approved the deal unanimously.<sup>306</sup> The shareholders voted to approve the deal in part because Hummel, whose common shares represented 11.9% of the total shares outstanding, voted with the VCs.<sup>307</sup> For a moment, it looked like the VCs had engineered a successful exit. The MIP switched the loyalties of Campbell, Hummel, and Budge, which created a unanimous board and a shareholder majority in favor of the deal.

It is not uncommon for VCs to effectively pay off common shareholders to get a deal done.<sup>308</sup> But the Trados VCs forgot to mollify everyone. Marc Christen, a former Trados employee and common shareholder who owned about 5% of Trados's stock, was dissatisfied with the deal. He brought an appraisal action in the Delaware Court of Chancery.<sup>309</sup> After learning more about the deal in discovery, he sued Trados's former directors for breach of the duty of loyalty.<sup>310</sup> The gist of Christen's argument was that the VC and MIP-participant directors put their own financial interests above the interests of common shareholders in approving the deal.

Vice Chancellor Laster, who has become the Chancery's resident startup expert, got the case. He held that startup directors must prioritize the interests of common shareholders, regardless of whether preferred or common

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<sup>300</sup> *Id.* at 29.

<sup>301</sup> *Id.*

<sup>302</sup> *Id.* at 31.

<sup>303</sup> *Id.* at 32.

<sup>304</sup> *Id.* at 33.

<sup>305</sup> *Id.*

<sup>306</sup> *Id.* at 59.

<sup>307</sup> *Id.* at 34.

<sup>308</sup> See Brian J. Broughman & Jesse M. Fried, *Renegotiation of Cash Flow Rights in the Sale of VC-Backed Firms*, 95 J. FIN. ECON. 384, 391 (2010) (presenting evidence that VCs provide carveouts to common shareholders in connection with acquisitions); Brian J. Broughman & Jesse M. Fried, *Carrots and Sticks: How VCs Induce Entrepreneurial Teams to Sell Startups*, 98 CORNELL L. REV. 1319, 1336 (2013).

<sup>309</sup> Trados, 73 A.3d at 34.

<sup>310</sup> *Id.* at 35.



controlled the company.<sup>311</sup> Then he found that the VC directors were not disinterested, for two reasons. First, the VCs' interest in "receiving their liquidation preference as holders of preferred stock diverged from the interests of the common stock."<sup>312</sup> Second, the VC directors "faced a conflict of interest because of their competing duties" as fiduciaries to their venture partnerships.<sup>313</sup> Specifically, Laster found that the VCs were motivated to liquidate Trados so that they could spend their time on portfolio companies with greater upside potential. He quoted Sahlman: "Although the individual company may be economically viable, the return on time and capital to the individual venture capitalist is less than the opportunity cost."<sup>314</sup>

Laster found that the VCs' improper motivations tainted each stage of the deal process. He wrote: "[T]he VC directors wanted to exit. They were not interested in continuing to manage the Company to increase its value for the common. They initiated a sale process and pursued the Merger to take advantage of their special contractual rights."<sup>315</sup> The structure of the MIP showed the VCs' indifference to common. Laster explained: "To fund the MIP, the common stockholders effectively paid \$2.1 million, and the preferred stockholders effectively paid \$5.7 million. As a result, the common stockholders contributed 100% of their ex-MIP proceeds while the preferred stockholders only contributed 10%."<sup>316</sup> Laster also criticized the stockholder approval. He noted that, when Hummel, whose vote was critical to securing a majority, "seemed to be having second thoughts just before the Merger, his MIP percentage was increased from 12% to 14%."<sup>317</sup>

Laster supported his reasoning with damning testimony from the directors themselves. In a deposition, one of the independent directors "volunteered that the Trados directors never considered the common stockholders."<sup>318</sup> The most revealing testimony came from Gandhi. In his deposition, he said:

[P]eople ultimately wonder about this, the preferred versus common and the conflict. There's no conflict. When . . . a venture capital firm makes money, they only make money in scenarios where they're . . . converting to common shares. I think like a common shareholder because the great investments mean the common did phenomenally well and, therefore, I did well. We never made money on preferred instruments. Preferred for us . . . [is] a thinly veiled version

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<sup>311</sup> *Id.* at 37-39.

<sup>312</sup> *Id.* at 52.

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

<sup>314</sup> *Id.* at 51.

<sup>315</sup> *Id.* at 58.

<sup>316</sup> *Id.* at 60.

<sup>317</sup> *Id.* at 65.

<sup>318</sup> *Id.* at 62.

of common. It gives you a couple little rights: you're a minority investor. You can't tell anybody what to do, there's no control. You get to be on the board as one board member; and you have to use persuasion, influence, and good reasoning and arguments more than anything else.<sup>319</sup>

Laster called Gandhi's testimony "particularly strident" and argued that a sophisticated investor like Gandhi would have fully appreciated the conflict of interest between common and preferred.<sup>320</sup> We think that, although Gandhi's testimony is a bad faith defense of his actions as a Trados director, it is a largely accurate account of the VC worldview. No venture fund succeeds because the VCs did a good job of harvesting their liquidation preferences from Trados-like companies. A venture fund succeeds because it has one or two home runs—scenarios where preferred shareholders are paid out like common shareholders.

Ultimately, Laster held that, despite the VCs' unfair dealing, the transaction was fair because "Trados would not be able to grow at a rate that would yield value for the common."<sup>321</sup> Whatever strategy the board chose, Laster wrote, Trados "did not have a realistic chance of generating a sufficient return to escape the gravitational pull of the large liquidation preference."<sup>322</sup> For our purposes, though, *Trados* is interesting because it shows how VCs' home run monomania warps startup governance. Once Gandhi decided that Trados had limited upside potential, his main goal as a director was to spend less time on Trados. Every hour he spent on Trados was an hour that should have been spent on a portfolio company with more upside potential. He wanted to sell Trados so he could seek risk elsewhere.

## B. In re Good Technology

Four years after *Trados*, in *In re Good Technology*, Laster was presented with another case in which common shareholder plaintiffs argued they were shortchanged by risk-seeking VCs.<sup>323</sup> Good Technology Corporation (GTC)

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<sup>319</sup> *Id.* at 64.

<sup>320</sup> *Id.*

<sup>321</sup> *Id.* at 77. Under Delaware law, when the court finds that a defendant board is not disinterested or independent, the directors bear the burden of proving that the transaction meets the "entire fairness" standard. *Id.* at 55-56. Entire fairness includes both fair dealing and fair price. *Id.* Entire fairness is not a "bifurcated" test—fair dealing and fair price must be considered holistically. Laster held that, because the price was fair, the deal was entirely fair. *See id.* at 78-79.

<sup>322</sup> *Id.* at 77.

<sup>323</sup> *See In re Good Technology Corp. Shareholder Litigation*, No. 11580-VCL, 2017 WL 2537347, at \*2 (Del. Ch. May 12, 2017). For more discussion of *Good Technology* in the context of other post-*Trados* developments, see Abraham J.B. Cable, *A Decade of Trados* 5-6 (unpublished working paper) (on file with authors).

was a startup developing security software for mobile devices. It raised capital from the east coast VC firm Oak Investment Partners and Silicon Valley's Draper Fisher Jurvetson.<sup>324</sup> GTC achieved early success, and by early 2015, garnered a valuation over \$1 billion.<sup>325</sup>

GTC's board hoped to take the company public. But they were running out of time. GTC had taken out a large amount of debt that would come due in a year.<sup>326</sup> In its S-1, GTC told investors that it would need to take drastic measures if it did not achieve liquidity by the third quarter of 2015.<sup>327</sup> In March 2015, shortly before its planned IPO, GTC received an acquisition offer from CA Inc. at a price of \$825 million.<sup>328</sup> At the time, the board was expected a post-IPO price of \$1-1.2 billion, so they dismissed CA's offer.<sup>329</sup> But then in April, GTC posted disappointing quarterly results.<sup>330</sup> The board postponed the IPO.<sup>331</sup>

The directors were divided about the next steps. Russell Planitzer, an investor director whose fund held both preferred and common stock pushed for a sale. He wrote to Christine Wyatt, GTC's CEO:

While you might refile [for an IPO] sometime in the quarter, no investment bank will risk its reputation until Q II is known: that means July at the earliest. With \$85 million of subordinated debt due next March, cash from operations below budget, disclosure in the S-1 telling your customers and competitors that you will gut the company, it's time to find a home for the Good. Do it now before it's too late.<sup>332</sup>

But the preferred-holding VCs disagreed. Bandel Carano, a director with Oak, told Wyatt that pursuing a sale would "muddy our IPO messaging."<sup>333</sup> He said he would not agree the company for less than \$1.5 billion.<sup>334</sup> And Wyatt, whose stock options would only be "in the money" in a high-value exit, agreed.<sup>335</sup> The board told GTC's investment banker, JP Morgan, to limit its conversations about a potential sale to a small number of strategic buy-

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<sup>324</sup> Expert Report of Jesse M. Fried, *In re Good Technology Corporation*, No. 11580-VCL, 2017 WL 11068189, ¶ 16 (Del. Ch. Mar. 17, 2017).

<sup>325</sup> *Id.* ¶ 39.

<sup>326</sup> *Id.*

<sup>327</sup> *Id.*

<sup>328</sup> *Id.* ¶ 44.

<sup>329</sup> *See id.* ¶ 45.

<sup>330</sup> *See id.* ¶ 49.

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

<sup>332</sup> *Id.* ¶ 49.

<sup>333</sup> *Id.* ¶ 50.

<sup>334</sup> *Id.* ¶ 51.

<sup>335</sup> *See id.* ¶ 79-80 (describing Wyatt's compensation).

ers.<sup>336</sup> In effect, the board majority had decided gamble that a high-value IPO would materialize.

The gamble failed. GTC never went public. In September 2015, GTC was sold to Blackberry at a “fire sale” price of \$425 million.<sup>337</sup> Because of the VCs’ liquidation preferences, common shareholders only received \$40 million from the deal.<sup>338</sup> A group of common shareholders sued the directors and JP Morgan, alleging, among other claims, that the directors breached their duty of loyalty by not pursuing a sale in early 2015.<sup>339</sup> On the eve of trial, the defendants moved for leave to file for summary judgment. In an order denying the motion, Laster explained why the plaintiffs claim was plausible:

Because the Company was running out of cash, it was essential that the Company enter into a transaction quickly. There is evidence that the [directors] nonetheless delayed entering into a transaction in the hopes of achieving greater financial upside. There is evidence that this decision was motivated by the [directors’] economic interests, which caused them to be more risk-seeking than a loyal fiduciary. ... Viewed in the light most favorable to the non-movant, the [directors] acted disloyally by not negotiating an immediate sale in light of the Company’s looming cash crisis.<sup>340</sup>

The trial never happened. The parties settled for \$52 million.<sup>341</sup>

The VCs’ “risk-seeking” behavior that Laster identified in *Good Technology* is precisely what the risk-seeking model predicts. The VCs were focused exclusively on a home run and willing to risk a much lower value exit. Internal documents produced in discovery showed that the VCs were anxious about having to write down the value of GTC.<sup>342</sup> They worried about how a middling underwhelming exit would affect their funds’ performance relative to other venture funds.<sup>343</sup> In a deposition, Carano testified, that success as a VC is “all [about] relative performance in the vintage class.”<sup>344</sup> That sentiment was shared by his colleagues. In an email produced in discovery, another Oak VC reassured Carano: “You still have great potential in your portfolio. Just focus on delivering on that great potential. That will exonerate everything.

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<sup>336</sup> *Id.* ¶ 53.

<sup>337</sup> *Id.* ¶ 40.

<sup>338</sup> *Id.* ¶ 8.

<sup>339</sup> *Good Technology*, 2017 WL 2537347, at \*2.

<sup>340</sup> *Id.*

<sup>341</sup> Tom McParland, *Laster Sends Challenge to Good Technology Settlement to Arbitration*, ALM MEDIA (Oct. 30, 2017), <https://www.yahoo.com/news/laster-sends-challenge-good-technology-104915774.html>.

<sup>342</sup> Expert Report of Jesse M. Fried, *Good Technology*, No. 11580-VCL, 2017 WL 11068189, ¶ 72.

<sup>343</sup> *See id.* ¶ 37.

<sup>344</sup> *Id.*

There's obviously a Sharpe ratio in venture capital. And it only takes a few great wins to make a great fund."<sup>345</sup>

### C. *The Limits of Corporate Law*

*Trados* sparked a debate among corporate law scholars. The debate focused on Laster's holding that startup directors are obligated to maximize common shareholder value. In an influential critique, William Bratton and Michael Wachter argued that directors should be obligated to maximize enterprise value—that is, the combined value of the preferred and common shares—rather than the value of the common shares alone.<sup>346</sup> They argued that the common maximization rule forces directors to gamble on the small chance that a struggling startup will later receive an offer that provides some value to common when the likely outcome is less value for shareholders as a whole.<sup>347</sup> Under the common maximization rule, they argued, common shareholders can use the threat of litigation to extract holdup value from the preferred.<sup>348</sup>

Bratton and Wachter went further, arguing that the difficulty of contracting around the common maximization rule could undermine the incentives of venture capital:

Venture capital investment is a high-risk, high-return proposition for all participants. The deal structure often allocates to the venture capitalist the power to detach the assets from the entrepreneur and deploy them somewhere (or with someone) else. Infinite patience is not expected from the venture capitalist—the venture capitalist has investors of its own and is under pressures to yield returns in a competitive market. This all-or-nothing governance framework presumably yields a highly incentivized entrepreneur. *Trados* hobbles the incentive structure by handing the entrepreneur a fiduciary backstop in the teeth of the deal's allocation of risk.<sup>349</sup>

Former Chancellor Leo Strine wrote a response in which he defended *Trados*. He argued that “Bratton and Wachter would give venture capitalists the right to act as lenders, to end a company's pursuit of good-faith risk-taking, and to leave others who took critical risks with nothing.”<sup>350</sup> He noted that they could not cite any decision “in which any court has ever required

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<sup>345</sup> *Id.* ¶ 21 n.10.

<sup>346</sup> See William W. Bratton & Michael L. Wachter, *A Theory of Preferred Stock*, 161 U. PA. L. REV. 1815, 1885-87 (2013).

<sup>347</sup> See *id.* at 1886.

<sup>348</sup> See *id.* at 1887.

<sup>349</sup> *Id.* at 1885.

<sup>350</sup> Leo E. Strine, Jr., *Poor Pitiful or Potently Powerful Preferred*, 161 U. PA. L. REV. 2025, 2038 (2013).

preferred stockholders in control to engage in casino-like gambling and to pursue strategies without a bona fide potential for success that would leave creditors at unfair risk.”<sup>351</sup>

In the venture industry, the response to *Trados* was more measured. One study of lawyers at Silicon Valley law firms found that the case “had a modest but noticeable effect on sale process.”<sup>352</sup> After *Trados*, “lawyers now advise boards to more systematically consider continuation value and, in some cases, push consideration to common shareholders.”<sup>353</sup> Scott Kupor, the Andreessen Horowitz partner, gives similar advice in a book chapter targeted at startup board members. He recommended that directors pay more attention to process, document their understanding of the common-preferred conflict, and bring in an investment banker.<sup>354</sup> He suggests that when boards use an MIP, they should consider “the relative contribution” of the common and preferred.<sup>355</sup> He suggests (plausibly) that *Trados* might have been decided differently “[i]f the VCs had carved out an additional \$2 million from their proceeds (the amount common would have received but for the MIP) to give to common.”<sup>356</sup>

We think *Trados* is a more subtle opinion than some scholars have appreciated. Yes, Laster makes it clear that directors must put the interests of common shareholders first. But Laster does not claim that the VCs were only biased by their preferred shares’ liquidation preferences. As Abe Cable has pointed out, Laster emphasizes the VCs’ opportunity cost conflict.<sup>357</sup> The VCs wanted to sell *Trados* quickly so they could allocate their time and effort on other portfolio companies with more upside potential. Laster’s analysis of the VCs’ motivations goes beyond their cash flow rights.<sup>358</sup>

*Good Technology* makes this point clear. GTC’s VCs were pushing for a high-value IPO—a scenario in which common shareholders and convertible preferred shareholders would receive the same per share payout. Yet Laster still thought it was plausible that the VCs’ incentives made them “more risk-seeking than a loyal fiduciary.”<sup>359</sup> While Bratton and Wachter worried that *Trados* would push startups to gamble when an exit would benefit VCs but not common shareholders, *Good Technology* suggests that VC directors could be found liable for gambling when an exit would serve common but not the

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<sup>351</sup> *Id.*

<sup>352</sup> Abraham J.B. Cable, *Does Trados Matter*, 45 J. CORP. L. 311, 325 (2020).

<sup>353</sup> *Id.* at 338.

<sup>354</sup> See KUPOR, *supra* note 19, at 228-31.

<sup>355</sup> *Id.* at 229.

<sup>356</sup> *Id.* at 229-30.

<sup>357</sup> See Abraham J.B. Cable, *Opportunity-Cost Conflicts in Corporate Law*, 66 CASE W. RES. L. REV. 51, 52-54 (2015).

<sup>358</sup> See *Trados*, 73 A.3d at 51-54.

<sup>359</sup> *Good Technology*, 2017 WL 2537347, at \*2.

VCs. *Trados* is best understood as a rule that VCs breach the duty of loyalty when they put their own idiosyncratic interests—including their risk and exit timing preferences—above the interests of common shareholders.

In terms of efficiency, we think that the *Trados* rule is a wash. By limiting VCs' discretion to prioritize their own interests, it could reduce VC returns and therefore the flow of capital into VC. But at the same time, it could also increase the expected payout for common shareholders, typically angel investors and employee shareholders. That would—again, on the margin—make it easier to get a seed stage startup funded and to attract talent with equity compensation. If *Trados* imposes any efficiency cost, it is the cost of time and money spent on a more careful deal process. But we expect that VCs have strong incentives to keep the process frugal. Indeed, given their opportunity cost, VCs should generally prefer to pay common a little more rather than bring in a banker.

In terms of distributive justice, we think the *Trados* rule makes sense. The risk-seeking model explains that startup governance predictably favors the interests of those in the board room over those outside of it. The VCs get the company to take risks that other shareholders might not support. The founders get their private benefits. The other common shareholders get neither. Viewed in this light, the MIP that the *Trados* board adopted was just another bargain among board insiders that conferred no benefit to other shareholders. The *Trados* rule just gives the shareholders not party to the bargain their slice of the acquisition pie. Bratton and Wachter's characterization of that slice as "hold up" value begs the question of whose interests an acquisition should serve. We see *Trados* as requiring VCs to compensate common shareholders for extinguishing the option value of their shares earlier than they might like. And we see *Good Technology* as suggesting that VCs should not be able to gamble when the odds do not favor common shareholders.

Our larger point, though, is that the Delaware courts are peripheral to startup governance. In exit scenarios, the caselaw can nudge VCs towards considering common shareholder interests. But the most important decisions that startup boards make are not subject to judicial regulation. A board's decision to pursue high-risk strategies is protected by the business judgment rule. A board's acquiescence to the founders' extraction of private benefits is in theory litigable self-dealing, but it is unlikely to be litigated. The parties most likely to know the facts—the VCs and the founders themselves—have no incentive to sue. And the secrecy of private companies makes it unlikely that other shareholders will find out. The most important decisions in startup governance happen in Silicon Valley, not Delaware.

## CONCLUSION

Our primary goal in this Article has been descriptive. We have sought to show that the monitor model no longer explains how VCs behave. VCs are giving founders more control and more equity, replacing founders less often, agreeing to dual-class structures more often, and spending less time actively monitoring their portfolio companies. We have argued that, instead of monitoring, VCs use their role in corporate governance to strike an implicit bargain with founders. The VCs get the founders to pursue high-risk strategies like blitzscaling, underwater expansion, regulatory entrepreneurship, and venture predation. In compensation for the risk they bear, the founders receive private benefits. They can cash out in secondary sales, indulge in a little self-dealing, avoid public criticism and lawsuits, and benefit from a soft landing.

Is risk-seeking governance normatively desirable? As a system of private ordering, risk-seeking governance seems to be working. Institutional investors continue to pour money into venture capital. Founders have never had access to so much capital on such friendly terms. The only shareholders who might have grounds to complain are the two groups not party to the implicit bargain: angel investors and employees. For angels, the desirability of risk-seeking governance depends on their risk preferences. If they are sufficiently diversified, they might approve of the risk-seeking bargain that VCs have struck on their behalf. If not, their enthusiasm may depend on their access to secondary sales. For employee shareholders, risk-seeking governance may not be worth the costs. Employees who do not share in the founders' private benefits may be bearing uncompensated risk.

If, however, we expect corporate governance to serve as a form of privately-administered regulation, then risk-seeking governance may be more costly. VCs pour capital into lightly regulated private companies and then push them to take risks. The risks that startups take are not only financial. Some risks will materialize after the VCs have exited. Other risks will be externalized because the companies that created them will become judgment-proof. We doubt that there is a simple policy intervention that could harness the strengths of risk-seeking governance while curbing its excesses. But we hope that, by providing a more accurate account of how VCs behave, we have helped to illuminate the choices that we face.



APPENDIX

This Appendix provides computations supporting the results in Part II. Variables are defined in the hypothetical fact pattern at the start of Part II.B.

1. Choice of Strategy

The Founder's choice of strategy at t=2 depends on the type of equity that the VC purchases.

a. VC Purchases Common Stock

The VC will require a share of equity [ $Y_{i,s}$ ] in the Series B such that:

$$K/2 = Y_{i,s} * [(1-\pi_i)V_{i,0,s} + \pi_i V_{i,1,s}] \quad (a1)$$

for all  $i \in \{0, 1\}$  and  $s \in \{l, h\}$ . Substituting assigned values for  $V$ ,  $K$ , and  $\pi$  without monitoring we find:

$$\begin{aligned} Y_{0,l} &= 10/18.5 &&= 54.1\% \\ Y_{1,l} &= 10/47.5 &&= 21.1\% \\ Y_{0,b} &= 10/25 &&= 40.0\% \\ Y_{1,b} &= 10/75 &&= 13.3\% \end{aligned}$$

We can compare the Founder's expected payoff from each strategy. Let  $x \in (0, 1)$  represent the VC's ownership fraction purchased in the Series A. By pursuing the low-risk strategy [s=l] the Founder can expect to receive:

$$\begin{aligned} &(1-x)[(1-Y_{0,l})((1-\pi_i)(1-\pi_i)V_{0,0,l} + (1-\pi_i)\pi_i V_{0,1,l}) + (1-Y_{1,l})(\pi_i(1-\pi_i)V_{1,0,l} + \pi_i\pi_i V_{1,1,l})] \\ &= .25*[(1-x)(1-Y_{0,l})(12 + 25) + (1-x)(1-Y_{1,l})(20 + 75)] \\ &= (1-x)*23 \end{aligned} \quad (a2)$$

If instead, the Founder pursues high-risk strategy she can expect to receive:

$$\begin{aligned} &(1-x)[(1-Y_{0,b})((1-\pi_i)(1-\pi_i)V_{0,0,b} + (1-\pi_i)\pi_i V_{0,1,b}) + (1-Y_{1,b})(\pi_i(1-\pi_i)V_{1,0,b} + \pi_i\pi_i V_{1,1,b})] \\ &= .25*[(1-x)(1-Y_{0,b})(50) + (1-x)(1-Y_{1,b})(150)] \\ &= (1-x)*40 \end{aligned} \quad (a3)$$

While the expected payout in Eq.(a3) is greater than Eq.(a2), it produces lower expected utility. When startup pursues a low-risk strategy [s=l] we find the following expected utility:

$$\begin{aligned} &.25 * [\sqrt{(1-x) * 5.51} + \sqrt{(1-x) * 11.48} + \sqrt{(1-x) * 15.79} + \sqrt{(1-x) * 59.21}] \\ &= .25 * \sqrt{(1-x) * [\sqrt{5.51} + \sqrt{11.48} + \sqrt{15.79} + \sqrt{59.21}]} = \sqrt{(1-x) * 4.35} \end{aligned} \quad (a4)$$

If startup instead pursues a high-risk strategy [s=h] we find:

$$\begin{aligned} &.25 * [\sqrt{(1-x) * 30} + \sqrt{(1-x) * 130}] \\ &= .25 * \sqrt{(1-x) * [\sqrt{30} + \sqrt{130}]} = \sqrt{(1-x) * 4.21} \end{aligned} \quad (a5)$$

Notice Eq.(a4) is greater than Eq.(a5) for all  $x \in (0, 1)$ .

We repeat this analysis for a monitor VC who purchases common stock. This effectively increases  $V$  by a multiple  $\alpha=1.1$  whenever  $i=0$ . This in turn decreases Series B dilution:

$$\begin{aligned} Y_{0,l} &= 10/20.35 &&= 49.1\% \\ Y_{0,b} &= 10/27.5 &&= 36.4\% \end{aligned}$$

We skip to the expected utility analysis. As before, let  $x \in (0, 1)$  represent the VC's ownership fraction purchased in the Series A. With a monitor VC, if Startup pursues a low-risk strategy [s=l], we find the following expected utility:

$$\begin{aligned} &.25 * [\sqrt{(1-x) * 6.71} + \sqrt{(1-x) * 13.98} + \sqrt{(1-x) * 15.79} + \sqrt{(1-x) * 59.21}] \\ &= \sqrt{(1-x) * 4.49} \end{aligned} \quad (a6)$$

If Startup instead pursues a high-risk strategy [s=h], we find:

$$\begin{aligned} &.25 * [\sqrt{(1-x) * 35} + \sqrt{(1-x) * 130}] \\ &= \sqrt{(1-x) * 4.32} \end{aligned} \quad (a7)$$

Notice Eq.(a6) is greater than Eq.(a7) for all  $x \in (0, 1)$ . In our hypothetical, if the VC purchases common stock, the Founder has an incentive to choose the low-risk strategy.

*b. VC Purchases Participating Preferred Stock*

The key difference here is that expected returns and round pricing needs to account for the VC's liquidation preference, which we assume is equal to 1x the amount invested. With participating preferred, the VC will price the Series B such that it receives a share of residual [ $Y_{i,j}$ ] equal to:

$$K/2 = (1-\pi_i)[\min(V_{i,0,s}, K/2) + \max(0, Y_{i,s}(V_{i,0,s} - K))] + \pi_i[\min(V_{i,t,s}, K/2) + \max(0, Y_{i,s}(V_{i,t,s} - K))] \quad (a8)$$

for all  $i \in \{0, 1\}$  and  $s \in \{l, h\}$ . Substituting for  $V$ ,  $K$ , and  $\pi$  without monitoring we find:

$$\begin{aligned} Y_{0,l} &= 0 && = 0\% \\ Y_{1,l} &= 0 && = 0\% \\ Y_{0,b} &= 10/30 && = 33.3\% \\ Y_{1,b} &= 10/130 && = 7.7\% \end{aligned}$$

We now compare the Founder's expected payoff from each strategy. Let  $x \in (0, 1)$  represent the VC's share of the residual in the Series A. By pursuing the low-risk strategy [s=l], the Founder can expect to receive:

$$\begin{aligned} &(1-x)[(1-Y_{0,l})(1-\pi_l)\pi_l(V_{0,l,l} - 20) + (1-Y_{1,l})\pi_l\pi_l(V_{1,l,l} - 20)] \\ &= .25*(1-x)(5 + 55) \\ &= (1-x)*15 \end{aligned} \quad (a9)$$

If instead the Founder pursues the high-risk strategy, she can expect to receive:

$$\begin{aligned} &(1-x)[(1-Y_{0,b})(1-\pi_b)\pi_b(V_{0,t,b} - 20) + (1-Y_{1,b})\pi_b\pi_b(V_{1,t,b} - 20)] \\ &= .25*(1-x)(20 + 120) \\ &= (1-x)*35 \end{aligned} \quad (a10)$$

Notice with preferred stock the VC's liquidation preference prevents the Founder from receiving any payout when  $j=0$  regardless of whether Startup pursues  $l$  or  $b$ . As a consequence, the Founder is incentivized to pursue the high-risk strategy. We see this by comparing expected utilities. When Startup pursues a low-risk strategy [s=l], we find:

$$\begin{aligned} &.25 * [\sqrt{(1-x) * 5} + \sqrt{(1-x) * 55}] \\ &= .25 * \sqrt{(1-x) * [\sqrt{5} + \sqrt{55}]} && = \sqrt{(1-x) * 2.41} \end{aligned} \quad (a11)$$

If Startup instead pursues the high-risk strategy [s=h], we find:

$$\begin{aligned} &.25 * [\sqrt{(1-x) * 20} + \sqrt{(1-x) * 120}] \\ &= .25 * \sqrt{(1-x) * [\sqrt{20} + \sqrt{120}]} && = \sqrt{(1-x) * 3.85} \end{aligned} \quad (a12)$$

Notice Eq.(a12) is greater than Eq.(a11) for all  $x \in (0, 1)$ , and the Founder has an incentive to pursue the high-risk strategy whenever the VC purchases participating preferred stock.

Finally, we repeat this analysis for a monitor VC who purchases preferred stock. This effectively increases  $V$  by a multiple  $\alpha=1.1$  whenever  $i=0$ . This in turn decreases Series B dilution associated with the high-risk strategy to:

$$Y_{0,b} = 10/35 \quad = 28.6\%$$

With a monitor VC, if Startup pursues a low-risk strategy [s=l], we find the Founder's expected utility is:

$$\begin{aligned} &.25 * [\sqrt{(1-x) * 7.5} + \sqrt{(1-x) * 55}] \\ &= .25 * \sqrt{(1-x)} * [\sqrt{7.5} + \sqrt{55}] \qquad = \sqrt{(1-x)} * 2.54 \end{aligned} \tag{a13}$$

If Startup instead pursues a high-risk strategy [s=h], we find:

$$\begin{aligned} &.25 * [\sqrt{(1-x) * 25} + \sqrt{(1-x) * 120}] \\ &= .25 * \sqrt{(1-x)} * [\sqrt{25} + \sqrt{120}] \qquad = \sqrt{(1-x)} * 3.98 \end{aligned} \tag{a14}$$

Regardless of whether financing is provided by a monitor VC or a founder-friendly VC, the use of participating preferred stock gives the Founder an incentive to pursue the high-risk strategy.

## 2. Founder Welfare Analysis

We calculate the risk premium term [see Table 4] for each financing arrangement. We start with the Founder's utility function [U(\$x million) =  $\sqrt{x}$ ]. We square the Founder's expected utility to determine the certainty equivalent dollar value. To illustrate, a preferred stock monitoring agreement gives the Founder an equal chance of receiving 0, 0, \$21.55M or \$103.44M, for an expected payout of \$31.25M. Expected utility from this set of payoffs is:

$$(.25)\sqrt{21.55} + (.25)\sqrt{103.44} = 3.70. \tag{a15}$$

And the certainty equivalent =  $(3.70)^2 = \$13.71M$ . The Founder would be indifferent between receiving \$13.71M with certainty or an expected value of \$31.25M with uncertainty. The Risk Premium equals the expected financial payout minus the certainty equivalent:

$$\$17.54M = \$31.25M - \$13.71M. \tag{a16}$$

Repeating these steps for the other three financing arrangements yields the following:

Preferred stock from a founder-friendly VC:

- expected utility =  $(.25)\sqrt{17.14} + (.25)\sqrt{102.83} = 3.57$ , and
- risk premium =  $\$17.25M = 30 - (3.57)^2$ .

Common stock from a founder-friendly VC:

- expected utility =  $(.25)(\sqrt{3.11} + \sqrt{6.49} + \sqrt{8.92} + \sqrt{33.46}) = 3.27$ , and
- risk premium =  $2.3 = 13 - (3.27)^2$ .

Common stock from a monitor VC:

- expected utility  $(.25)(\sqrt{3.90} + \sqrt{8.13} + \sqrt{9.18} + \sqrt{34.43}) = 3.43$ , and
- Risk Premium =  $2.12 = 13.9 - (3.43)^2$ .

The Founder's private benefit ( $\beta = \$2M$ ) listed in Table 4 is the average of the private benefit received in each state of nature.

Finally, to calculate the impact of secondary sales on the Founder's risk premium we repeat the analysis above after adjusting the Founder's payout for the amount she received through the secondary sale and reducing her ownership percentage by the percentage of shares sold.

Using the example discussed in the text—in which the Founder anticipates receiving a \$2M side payment when  $i=1$  [see Eq. 6]—the Founder has an equal chance of receiving 0, \$17.1M, \$2M, or \$100.9M. The expected utility and risk premium are calculated below:

Preferred stock from a founder friendly VC with a \$2M side payment:

- expected utility =  $(.25)\sqrt{17.14} + (.25)\sqrt{2} + (.25)\sqrt{100.83} = 3.89$ , and
- risk premium =  $\$14.79M = 30 - (3.89)^2$