Risk-Seeking Governance

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Brian Broughman
Vanderbilt University

Matthew Wansley
Yeshiva University

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Abstract

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.

Keywords: Venture Capital, Corporate Governance, Risk, Private Equity

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Brian Broughman*
Professor of Law
Vanderbilt University
131 21st Ave S
Nashville, TN 37203 , United States
e-mail: brian.j.broughman@vanderbilt.edu

Matthew Wansley
Associate Professor of Law
Yeshiva University
55 Fifth Ave.
New York, NY 10003, USA
e-mail: matthew.wansley@yu.edu

*Corresponding Author

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*Brian J. Broughman**
*Matthew T. Wansley***

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 theory 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

* Professor of Law and Robert S. and Theresa L. Reder Faculty Fellow, Vanderbilt Law School.

** Associate Professor of Law and Faculty Co-Director, Heyman Center on Corporate Governance, Cardozo School of Law.

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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.

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.[1] But they have an outsize influence on the economy. From 1995 to 2018, they accounted for 47% of IPOs.[2] And some of them grow to become giants, like Amazon, Apple, Facebook, Google, and Microsoft.[3] 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 1990s, a group of scholars developed what has become the standard account.[4] 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.[5] After they invest, VCs are

1. *See* Manju Puri & Rebecca Zarutskie, *On the Life Cycle 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).

2. 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. PERSPS. 237, 240 (2020).

3. *Id.* at 237.

4. *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).

5. *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").

exposed to the risk that the founders will operate the company for their own private benefit.[6]

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.[7] Most importantly, VCs take seats on their portfolio companies' boards and take an active role in corporate governance.[8] 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 founders with outside executives.[9] Scholars view VCs' active engagement in corporate governance and monitoring of their portfolio companies' management as one of the primary ways that VCs create value.[10]

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.[11] Founders are also holding onto CEO positions for longer, which suggests that VCs have become less willing to replace them.[12] Some prominent venture firms have announced a policy of not

6. *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.").

7. *See infra* Section I.A.

8. *See* Gilson, *supra* note 4, at 1082–83; Sahlman, *supra* note 4, at 508–09.

9. *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).

10. 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, 1565–66 (2018) (finding "causal evidence that venture capitalists [ ] 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, 235 (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 VCs add value and challenges in measuring the value of active governance, see Marco Da Rin, Thomas Hellmann & Manju Puri, *A Survey of Venture Capital Research*, *in* 2 HANDBOOK OF THE ECONOMICS OF FINANCE 573, 595–97 (2013).

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

12. *Id*.

removing founders at all.[13] More venture-backed startups are going public with share structures that give founders disproportionate voting power.[14] Most strikingly, some of the scholars who developed the monitor model are now expressing concern about a decline in active governance.[15] And at the same time, there have been a series of high-profile scandals—Uber, WeWork, FTX—in which VCs proved unable or unwilling to prevent founder misbehavior.[16]

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.[17] If VC governance creates value for startups—as research has long suggested—all startup shareholders, including founders, should benefit at the right price.[18]

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.[19] The success of a venture fund depends on one or two "home runs"—portfolio companies that return ten times or more the amount invested.[20] The most successful venture funds generate even more skewed returns, with a higher percentage of failures but one or two "grand slams"—companies that deliver even greater exponential returns.[21] Generating outlier returns is not only a

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

14. *See* Dhruv Aggarwal, Ofer Eldar, Yael V. Hochberg & Lubomir P. Litov, *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).

15. *See* Lerner & Nanda, *supra* note 2, at 238.

16. *See infra* Section I.C.

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

18. *See id.* at 252.

19. *See* Gilson, *supra* note 4, at 1076 (observing that there is a "wide variation in returns" in venture investing, with "some investments return[ing] many multiples of the original investment"); SCOTT KUPOR, SECRETS OF SAND HILL ROAD: VENTURE CAPITAL AND HOW TO GET IT 37–40 (2019) (explaining why VCs focus on hitting "home run[s]"); MALLABY, *supra* note 9, at 6–9 (describing the distribution of venture returns); PETER THIEL & BLAKE MASTERS, ZERO TO ONE: NOTES ON STARTUPS, OR HOW TO BUILD THE FUTURE 83–90 (2014) (discussing the significance of the power law for venture investing); Sahlman, *supra* note 4, at 483–84 (presenting data that shows the skewed distribution of venture returns).

20. 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 [https://perma.cc/B7DG-AW3H].

21. *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* Section I.D.

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 the 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 financial future on high-risk strategies. As one VC puts it, "I sell jet fuel, . . . and some people don't want to build a jet."[22]

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.[23] We extend the analysis by including the cost to the founder of bearing the risk associated with uncertain payouts.

The risk-seeking model offers a new explanation for some of the distinctive patterns of venture investing. For example, like the monitor model, we predict that VCs will purchase preferred stock, which carries a liquidation preference that guarantees an outsize percentage of the returns in an underwhelming exit.[24] But our explanation for the choice of preferred stock is different. According to the monitor model, the VCs'

22. 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 [https://perma.cc/54KA-F7XJ] (quoting Josh Kopelman, a VC at First Round Capital).

23. 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).

24. 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.

liquidation preference reduces adverse selection at the time of investment by requiring founders to agree to bear more of the cost of poor performance.[25] Founders with more confidence in their skills and work ethic are more likely to accept these terms. Instead, 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 the founders' percentage of the returns in a home run. It effectively turns a founder's common stock into a nonlinear financial claim, akin to a stock option, that rewards the founder for pursuing high-risk strategies.[26]

Risk bearing also has implications for the price of equity. Under the standard account, VCs compete on price. But raising the price of equity amplifies inefficient risk sharing. Investing a set amount at a higher price per share reduces the percentage of equity held by the VC, thereby lowering the VC's expected payout while increasing the founder's expected (but still highly uncertain) payout. If we ignore the cost of risk, increasing the price of equity would lead to 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).

The risk-seeking model predicts that VCs will try to compete on nonprice dimensions. In particular, VCs could promise to protect founders' private benefits. This protection could be formal. For example, a 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. a 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 risk-averse founders. At the same time, they 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 benefits of monitoring exceed the founder's private benefits, we find that risk-bearing concerns can lead to founder-friendly financing arrangements in which VCs limit their ability to replace the founders. The choice between founder-friendly and monitoring

25. *See* Sahlman, *supra* note 4, at 510–11.

26. A VC's liquidation preference is functionally the exercise price for a founder's option. The value of a stock option increases with volatility. Consequently, the executive compensation literature suggests that options can be awarded to corporate executives to encourage greater risk-taking. *See infra* notes 112–113 and accompanying text.

relationships depends on the extent of the founders' risk aversion relative to the potential financial gains from monitoring.

Our model helps explain why startups increasingly pursue high-risk strategies. Many startups accelerate growth through "blitzscaling"—taking shortcuts like hiring candidates without vetting them, bringing unfinished products to market, and neglecting compliance and other long-term risks.[27] Other startups are expanding their operations with underwater unit economics and relying on VCs to subsidize their losses.[28] 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 a change in the law)[29] or venture predation (using predatory pricing to drive competitors out of the market).[30] Each of these strategies is highly risky but can increase the chance of a home run.

Our analysis can also help explain 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.[31] In some cases, VCs have acquiesced to founders' brazen self-dealing.[32] Even when they decide to pass on investing, VCs almost never sue nor publicly criticize founders.[33] When startups fail, VCs seek to arrange a "soft landing"—a face-saving acqui-hire or a new job for the founders.[34] 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 how corporate law envisions directors should

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27. *See* Tim Sullivan, *Blitzscaling*, HARV. BUS. REV. (Apr. 2016), https://hbr.org/2016/04/blitzscaling [https://perma.cc/D3NX-CMMC]; REID HOFFMAN & CHRIS YEH, BLITZSCALING: THE LIGHTNING-FAST PATH TO BUILDING MASSIVELY VALUABLE BUSINESSES 23–37 (2018) (explaining the concept of blitzscaling).

28. *See infra* Subsection III.A.2.

29. *See* Elizabeth Pollman & Jordan M. Barry, *Regulatory Entrepreneurship*, 90 S. CAL. L. REV. 383, 392–410 (2017) ("[S]ome companies pursue a line of business that has a legal issue at its core—a significant uncertainty regarding how the law will apply, . . . a need for new regulations . . . , or a legal restriction that prevents the long-term operation of the business.").

30. *See* Matthew T. Wansley & Samuel N. Weinstein, *Venture Predation*, 48 J. CORP. L. (forthcoming 2023) (manuscript at 32–49) (on file with authors).

31. *See infra* Subsection III.B.1.

32. *See infra* Subsection III.B.2.

33. *See infra* Subsection III.B.3.

34. *See* Elizabeth Pollman, *Startup Failure*, DUKE L.J. (forthcoming 2023) (manuscript at 19–28) (on file with author). For more information on acqui-hires, see also *infra* Subsection III.B.4.

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 unbargained-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 for the last thirty years. William Sahlman developed the core idea of VCs as monitors in 1990.[35] Over the next decade, Paul Gompers, Josh Lerner, and other economists extended the analysis to other aspects of venture contracts and startup governance.[36] In 2003, Ron Gilson introduced these ideas to legal scholars.[37] 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 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 fund's 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

35. *See* Sahlman, *supra* note 4, at 506–14.
36. *See* GOMPERS & LERNER, *supra* note 4, at 157–271.
37. *See* Gilson, *supra* note 4, at 1078–87.

structure their investments to overcome adverse selection and moral hazard.

Startups cannot be valued like established businesses.[38] They lack predictable cash flows. Most are unprofitable, and many do not even generate revenue. They sell novel products, like 3D 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.[39] 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. They also know less about the founders' entrepreneurial skills and work ethic. These information asymmetries create an adverse selection problem.[40] If VCs cannot effectively distinguish between high-quality startups and low-quality startups, they will offer them both similar terms. In theory, this will 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 explain, all firms must manage incentive misalignments between principals and agents.[41] 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.[42]

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

39. *See* Gilson, *supra* note 4, at 1077.

40. *Id.* at 1080; Sahlman, *supra* note 4, at 512–13. Adverse selection follows the general logic of George 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 generally Wouter Dessein, *Information and Control in Ventures and Alliances*, 60 J. FIN. 2513 (2005).

41. *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).

42. *See* Gilson, *supra* note 4, at 1077; Sahlman, *supra* note 4, at 506.

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."[43] 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.[44] This incentive alignment reduces moral hazard. Founders are less likely to slack off or 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.[45] 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 twelve to twenty-four months.[46] A successful startup may go through several stages—seed round, Series A, Series B, etc.—before an acquisition or IPO. VCs are

43. Gilson, *supra* note 4, at 1078.

44. *See id.* at 1083; Sahlman, *supra* note 4, at 508.

45. *See* Gilson, *supra* note 4, at 1080; Sahlman, *supra* note 4, at 512–13.

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

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.[47] Staged financing is typically coupled with syndication—multiple VC firms coinvest in each round.[48] 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 VC's power to cut off funding by not reinvesting in a startup's next round—and not vouching for the startup in conversations with other prospective investors—reduces moral hazard.[49] 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. This reduces the information asymmetry between the founders and VCs at the time of investment.[50] Staged financing, like equity compensation, also reduces adverse selection by sorting. Founders with more confidence in their 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.[51] 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.[52] As a result, if a startup is sold at a low price, VCs receive a disproportionate share of the proceeds.

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47. *See* NAT'L VENTURE CAP. ASS'N, MODEL TERM SHEET 10 (2020), https://nvca.org/model-legal-documents/ [https://perma.cc/J5TZ-EU3V] (select "Term Sheet" under the "NVCA Model Legal Documents" header to download the model term sheet).

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

49. *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.").

50. *See id.* at 133 (staging investment gives VCs an opportunity to learn about the quality of a startup and reduces asymmetric information between VCs and founders).

51. *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, 284 (2003) (finding that, in a sample of 213 VC investments, 79.8% of contracts used convertible preferred stock).

52. Sahlman, *supra* note 4, at 504.

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 the VCs have invested in the business. In that case, the VCs holding convertible preferred shares may choose to convert their equity to common, relinquishing their liquidation preference and receiving the same payout per share as the firm's founders.[53] 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.[54] In other words, participating preferred gets to double dip.

The monitor model explains VCs' use of preferred stock—like equity compensation and staged financing—as a means to reduce adverse selection.[55] Sahlman writes that "the convertible preferred security shifts some of the costs of poor performance to the entrepreneurial team."[56] 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 own abilities and deeply committed to the venture."[57]

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.[58] The value of startup employees' stock options—like all options—increases with volatility.[59] Startup founders' common stock also has an option-like character because it only pays out after the VCs' 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."[60] Gilson likewise worries that the "option-like

53. Conversion is typically at a one-to-one ratio, but the VCs' preferred stock may include an antidilution 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.

54. *See id.* at 286.

55. 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).

56. Sahlman, *supra* note 4, at 510.

57. *Id.*

58. 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* Section IV.A.

59. 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).

60. Sahlman, *supra* note 4, at 508.

characteristics of the portfolio company's compensation structure can lead the entrepreneur to increase the risk associated with the portfolio company's future returns."[61] 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.[62]

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.[63] 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.[64] In an initial fundraising round, founders often retain control of the majority of shares and board seats.[65] As the startup grows and raises more rounds, though, the founders' shares will be diluted and the board will be expanded.[66] In most startups, the VCs eventually gain control.[67] In addition to board seats, VCs often bargain for "protective provisions"—contractual rights to veto certain decisions.[68] For example, VCs may obtain a blocking right—the right to veto an acquisition below a certain dollar value.[69]

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 toward milestones. The directors approve important decisions, such as large equity grants to new hires,

61. Gilson, *supra* note 4, at 1084.

62. *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.").

63. *See, e.g.*, NAT'L VENTURE CAP. ASS'N, *supra* note 47, at 14.

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

65. Michael Ewens & Nadya Malenko, *Board Dynamics over the Startup Life Cycle* 41 (Nat'l Bureau of Econ. Rsch., Working Paper No. 27769, 2020), https://www.nber.org/papers/w27769 [https://perma.cc/2VRF-UPBN] (showing that founders have almost a 50% chance of controlling the board following the first round of VC financing).

66. *Id.* at 15–17, 41. 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 P. Bartlett, *Venture Capital, Agency Costs, and the False Dichotomy of the Corporation*, 54 UCLA L. REV. 37, 71–80 (2006) (same).

67. *See* Ewens & Malenko, *supra* note 65, at 41.

68. *See* D. Gordon Smith, *The Exit Structure of Venture Capital*, 53 UCLA L. REV. 315, 346–48 (2005).

69. *See id.*

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 toward the business strategies that the VCs 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 until 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.[70] The VCs' power to replace founders keeps the founders 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, and this advice has added credibility because the VCs have skin in the game.[71] VCs also can use their professional networks to help their portfolio companies find prospective employees, business partners, suppliers, and customers.[72] 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 attract founders looking to raise capital.[73]

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

70. *See* Brian Broughman, *Investor Opportunism, and Governance in Venture Capital*, *in* VENTURE CAPITAL: INVESTMENT STRATEGIES, STRUCTURES, AND POLICIES 354–57 (Douglas Cumming ed., 2010).

71. *See* Paul A. Gompers, Will Gornall, Steven N. Kaplan & Ilya A. Strebulaev, *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).

72. *See id.* (reporting the responses of VCs to survey questions on the connections they facilitated for managers of their portfolio companies).

73. *See* Sahlman, *supra* note 4, at 500.

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 did 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%.[74] Founders are also retaining a larger share of their company's 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%.[75] 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.[76] 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.[77] And Andreessen Horowitz, one of the most successful VC firms of the last decade, has made protecting founder CEOs central to its investment strategy.[78] 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 attractive acquisition."[79] 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,

74. Ewens & Farre-Mensa, *supra* note 11, at 283 tbl.1.

75. *Id.*

76. Michael Ewens has gathered evidence (on file with the authors) based on a large sample of venture-backed startups that shows 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, M. Diane Burton & James N. Baron, *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 forty months).

77. MALLABY, *supra* note 9, at 208.

78. *See* Ben Horowitz, *Why We Prefer Founding CEOs*, ANDREESSEN HOROWITZ (Apr. 28, 2010), https://a16z.com/2010/04/28/why-we-prefer-founding-ceos/ [https://perma.cc/KPR9-6392].

79. Ewens & Marx, *supra* note 10, at 1535.

and angel investors and a separate class of preferred shares for each round of outside investors (e.g., Series A Preferred, Series B Preferred. A startup is said to have a dual-class structure if one or more shareholders—typically the founders—hold shares with disproportionate voting power.[80] In some cases, the founders of a startup with a dual-class structure will obtain outright control of the company.[81] 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.[82] VCs' increasing willingness to agree to dual-class structures suggests that they are placing less value on the mechanisms of control that were 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."[83] 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]."[84] Some VC firms that specialize in late-stage "growth" investing—such as DST, an early investor in Facebook—have decided not to take board seats at all.[85] 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.[86] Uber's VC directors tolerated

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

81. *See id.*

82. *Id.* at 143 & fig.7.

83. Lerner & Nanda, *supra* note 2, at 238.

84. 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/ [https://perma.cc/XFB4-FU2G] (internal quotation marks omitted) (quoting Bill Gurley, Partner, Benchmark).

85. MALLABY, *supra* note 9, at 275.

86. *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 [https://perma.cc/2TAM-NAHG].

a variety of scandals involving founder Travis Kalanick—spying on regulators, harassing journalists, and ignoring credible complaints of sexual harassment.[87] 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.[88] As Elizabeth Pollman asks, "If VCs are strong monitors, why are examples of oversight failures in startups so plentiful and varied?"[89]

The most prominent explanation for these trends is increased competition among VCs.[90] Over the past decade, the flow of capital pouring into VC funds 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 this 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."[91] 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.[92]

We are sympathetic to the increased-competition theory, but we doubt it tells the full story. As Lerner and Nanda ask, "If the intensive governance provided by venture capitalists is socially beneficial—as generations of academic analyses would suggest—why would groups choose to abandon it?"[93] Even founders should benefit from active governance at the right price.[94] Lerner and Nanda wonder, Why would VC firms not "compete instead by offering entrepreneurs progressively higher valuations . . . [rather than] by abandoning governance provisions?"[95] We think this is a question that the monitor model cannot answer.

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87. *See* MIKE ISAAC, SUPER PUMPED: THE BATTLE FOR UBER 129–31, 213–27, 242–54 (2019).

88. *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 [https://perma.cc/YXG9-MKRV].

89. Pollman, *supra* note 66, at 200.

90. *See* Lerner & Nanda, *supra* note 2, at 251.

91. Lynley, *supra* note 84 (internal quotation marks omitted) (quoting Bill Gurley, Partner, Benchmark).

92. Jesse M. Fried & Jeffrey N. Gordon, *The Valuation and Governance Bubbles of Silicon Valley*, CLS BLUE SKY BLOG (Oct. 10, 2019), https://clsbluesky.law.columbia.edu/2019/10/10/the-valuation-and-governance-bubbles-of-silicon-valley/ [https://perma.cc/HV4V-LXNH].

93. Lerner & Nanda, *supra* note 2, at 252.

94. It is possible that founders underappreciate the value that active VC governance adds. *See id*.

95. *Id*.

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.[96] 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.[97] 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.[98] As more VCs and growth investors join a startup's cap table, horizontal conflicts among investors can undermine their ability to effectively monitor the startup's management team.[99] Pollman argues that these conflicts can help explain monitoring failures in late-stage startups.[100]

These theories are not mutually exclusive.[101] 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 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 backward. 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

96. *See* Michael Ewens, Ramana Nanda & Matthew Rhodes-Kropf, *Cost of Experimentation and the Evolution of Venture Capital*, 128 J. FIN. ECON. 422, 423 (2018).

97. *See id.*

98. *See* Pollman, *supra* note 66, at 209.

99. *See id.* at 160.

100. *See id.* at 201–05; *see also* Anat Alon-Beck, *Alternative Venture Capital: The New Unicorn Investors*, 87 TENN. L. REV. 983, 1041 (2020) (arguing that some late-stage investors, such as mutual funds, may have little appetite for monitoring).

101. 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.

four uncontroversial facts about risk bearing in startups: (1) the VCs' 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.[102] 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.[103] Successful venture funds are more likely to include "home runs"—investments that return more than ten times the initial investment. The most successful VC funds are more likely to include "grand slams"—investments that return more than thirty times the initial investment. In Dixon's data, the best investment in a successful VC fund returns about twentyfold, and the best investment in one of the most successful funds returns about seventyfold.[104] Critically, the most successful funds have more strikeouts—investments that lose money—than other funds.[105]

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, "[E]very single company in a good venture portfolio must have the potential to succeed at vast scale."[106] In the words of Scott Kupor, Dixon's colleague at Andreessen Horowitz, "In VC, all we really care about is the at bats per home run."[107] 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 sixty times the initial investment, the fund has been a smashing success. In fact, VC funds with more idiosyncratic risk earn systematically higher returns—that is, positive alpha—than predicted by asset pricing models.[108] VCs have no choice but to seek out risk. As Kupor says, "[Y]ou can't de-risk your way to a winning venture fund."[109]

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102. *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.

103. Dixon, *supra* note 20.

104. *Id.*

105. *Id.*

106. THIEL & MASTERS, *supra* note 19, at 87 (emphasis omitted).

107. KUPOR, *supra* note 19, at 39.

108. *See* Michael Ewens, Charles M. Jones & Matthew Rhodes-Kropf, *The Price of Diversifiable Risk in Venture Capital and Private Equity*, 26 REV. FIN. STUD. 1853, 1855 (2013) ("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%.").

109. KUPOR, *supra* note 19, at 39.

The structure of VCs' compensation amplifies their incentives to take risks. In typical venture funds, VCs are entitled to (1) a management fee, and (2) carried interest. The management fee is an annual payment, usually calculated as a percentage (typically 2%) of the fund's committed capital.[110] Carried interest is a performance-based incentive, typically 20% of the fund's profits.[111] 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.[112]

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, VCs 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 thus 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 toward risk. VCs, and the LPs they

110. ANDREW METRICK & AYAKO YASUDA, VENTURE CAPITAL & THE FINANCE OF INNOVATION 25–27 (3d ed. 2021).

111. *Id.* at 27–30.

112. See Axel Buchner & Niklas F. Wagner, *Rewarding Risk-Taking or Skill? The Case of Private Equity Fund Managers*, 80 J. BANKING & FIN. 14, 14–15 (2017). There is a potential downside, as carried interest can encourage a general partner to push a portfolio company into excessive risk. *See id.* A recent lawsuit involving Good Technology Corporation ("GTC") illustrates the problem. Common shareholders sued, claiming that VC directors on GTC's board refused to go forward with a proposed IPO because it failed to generate sufficient returns for the VCs to receive carried interest. Instead of an IPO, the VCs exposed GTC to continued risk while pursuing a more lucrative exit that never materialized. *See* Expert Report of Jesse M. Fried ¶ 27, *In re* Good Tech. Corp. S'holder Litig., No. 11580-VCL (Del. Ch. Mar. 17, 2017), 2017 WL 11068189; *see also* Abe Cable, A Decade of *Trados* (Feb. 28, 2023) (unpublished manuscript) (on file with author).

represent, are diversified and relatively undeterred by risk.[113] Founders are undiversified and motivated to reduce risk. If this were the only concern, the parties might solve the 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: (1) a founder's strategic vision and ongoing involvement may be critical to the success of the venture, (2) asymmetric information may make it impossible for the parties to agree on an immediate sale, and (3) 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 founders 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 an agent is compensated with contingent payments.[114] 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.[115] 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

113. Our primary claim here is only that VCs' portfolio investments are relatively more diversified than founders' equity stakes. 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.

114. *See generally* Bengt Holmström, *Moral Hazard and Observability*, 10 BELL J. ECON. 74 (1979).

115. For background on the relation between executive compensation and risk, 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, LeeSeok Hwang & Steven Lilien, *CEO Stock-Based Compensation: An Empirical Analysis of Incentive-Intensity, Relative Mix, and Economic Determinants*, 73 J. BUS. 661 (2000); and Todd A. Gormley & David A. Matsa, *Playing It Safe? Managerial Preferences, Risk, and Agency Conflicts*, 122 J. FIN. ECON. 431 (2016).

that executives of publicly traded firms be compensated with stock options rather than restricted stock to encourage risk-taking.[116]

In the context of venture capital, scholars understand that returns follow a power law and that the parties bear risk.[117] 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."[118]

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 would usually file for an IPO. Now that the venture market includes over 1,200 "unicorns"—private, venture-backed companies valued over $1 billion—there are more founders bearing concentrated risk at an unprecedented scale.[119] As a matter of common sense, we think that most people worth tens or hundreds of

116. *See* Bryan et al., *supra* note 115, at 663 (arguing that "restricted stock awards provide relatively inefficient inducements for risk-averse CEOs to pursue risky, yet value-increasing, investment projects," whereas "stock option awards . . . likely provide a more efficient incentive mechanism for the CEOs of high-growth firms").

117. For example, in Gilson's analysis of staged financing, he 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.

118. Sahlman, *supra* note 4, at 511.

119. *See The Complete List of Unicorn Companies*, CB INSIGHTS, https://www.cbinsights.com/research-unicorn-companies (last visited Sept. 21, 2023) [https://perma.cc/5X3F-CP5Y].

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.

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. The goal of the model is not to generate a closed-form solution but rather to provide a framework for introducing risk-bearing considerations into the design of the financing contract. 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 intuitions on 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 ("Founder") is initially the sole equity owner of a startup ("Startup"). To continue operations, Startup needs external financing ($K > 0$), which can be raised from a VC firm.[120] 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 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.[121]

Founder can choose between two types of VCs:

1. A **monitor** VC who negotiates for control rights (i.e., board seats) so they can replace Founder or make other governance changes that will improve the value of Startup

120. Founder has no initial wealth, and thus she must seek external financing to continue the business.

121. This is a standard assumption in the financial contracting literature. *See, e.g.*, Aghion & Bolton, *supra* note 23, at 475 ("We suppose for simplicity that there are many wealthy investors looking for good investment opportunities and fewer entrepreneurs with good projects . . . ."). 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.

2. A **founder-friendly** VC who does not have the control rights to make unilateral governance changes and instead pledges to protect 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 control through its ability to withhold follow-on financing.[122] 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.[123]

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 connected 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 contractual terms.

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.[124] The founders must believe that a VC who 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

122. 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.

123. 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 the purpose of the model, however, we focus on the endpoints.

124. One challenge for reputation in the VC setting is that many founders are one-shot players while VCs are repeat players. 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, *Corporate 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 the 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 LAW & SOC. INQUIRY 679 (1996).

assumptions are true is an empirical question, but current research supports the general importance of reputation for VC firms.[125] VCs certainly act like reputation matters, as Founders Fund's promise to never replace a founder illustrates.[126] For the purpose of the model, we assume founders can distinguish between a monitor VC and a founder-friendly VC.

The parties in the model 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.[127]

Startup is a risky business. The value of the firm depends on the future state of nature and on Founder's choice to pursue a low- or high-risk business strategy. Both 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—such that neither can be contracted over ex ante.[128] Founder serves as Startup's initial manager. Between the Series A and the Series B, we assume Founder's role as manager is critical to the success of the firm.[129] The monitor VC can, however, choose to replace Founder in connection with the Series B. As a consequence, 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 $[i: i \in \{0, 1\}]$ is revealed after the Series A, and the final state of nature $[j: j \in \{0, 1\}]$ is revealed after the Series B. Let $\pi_i \in (0, 1)$ represent the probability that $i = 1$ and $\pi_j \in (0, 1)$ represent the probability that $j = 1$. Each state of nature is positively correlated with the value of Startup. Let $V_{i,j,s}$

125. *See generally* David H. 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).

126. *See* MALLABY, *supra* note 9, at 208.

127. 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 (and 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* Section II.C. for more on this distinction.

128. Incomplete contracting may arise because of bounded rationality, transaction costs, or unobservable information. Even if it were possible to anticipate and describe the desired choice of strategy, verifying compliance or noncompliance to a court ex post may be impractical.

129. Consistent with this framework, investor control rights are used to monitor Founder after she selects the choice of strategy and cannot be used to directly control the choice of strategy. Founder's strategic vision or 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.

represent the value (V) of Startup for initial state of nature i, final state of nature j, and business strategy $s \in \{l, h\}$, 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 in each state. If Startup pursues a low-risk strategy, this is given by

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

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

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

To capture the risk associated with the choice of business strategy, we require that $V_{i,0,h} < V_{i,0,l} < V_{i,1,l} < V_{i,1,h}$ holds for all $i \in \{0, 1\}$ and $V_{0,j,s} < V_{1,j,s}$ holds for all $j \in \{0, 1\}$ and $s \in \{l, h\}$. Since much of the value in venture capital 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 Founder cannot diversify away idiosyncratic risk associated with the performance of Startup. 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.[130] 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 Founder also receives nonpecuniary private benefits ($\beta > 0$) from Startup. These may include the joy of being her own boss and pursing her private vision for Startup.[131] Putting this together, we can express Founder's objective function in three components,

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

130. Admittedly, the VCs themselves are less clearly diversified than the LPs that invest in their funds. *See* Ewens et al., *supra* note 108, at 1855.

131. *See generally* Goshen & Hamdani, *supra* note 101 (discussing agency cost).

where *Risk Premium* represents the amount of money Founder would be willing to give up to remove uncertainty in her expected financial payout.[132]

In venture-backed startups, important governance changes—such as replacing the founder or pivoting to a new business strategy—often occur in connection with a new round of financing.[133] 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, Founder's management is suboptimal, and a monitor VC will engage in governance changes that increase the economic value of Startup by a multiplier ($\alpha > 1$). These governance changes come at the expense of Founder's private benefits, causing Founder to lose β.[134] On the other hand, when the initial state of nature is positive, there is no benefit to making governance changes, and the monitor VC will not replace Founder or make other changes.

A founder-friendly VC, however, lacks the 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's stock in connection with the Series B.[135]

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 $t = 2$, 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 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 Founder's stock. Finally, at time $t = 5$, the final state of nature (j) is revealed and

132. Equation (3) is denominated in dollars. The risk premium can be calculated from Founder's utility function by finding a certainty equivalent dollar amount that would yield the same expected utility as Founder's uncertain payout based on variation in *V*.

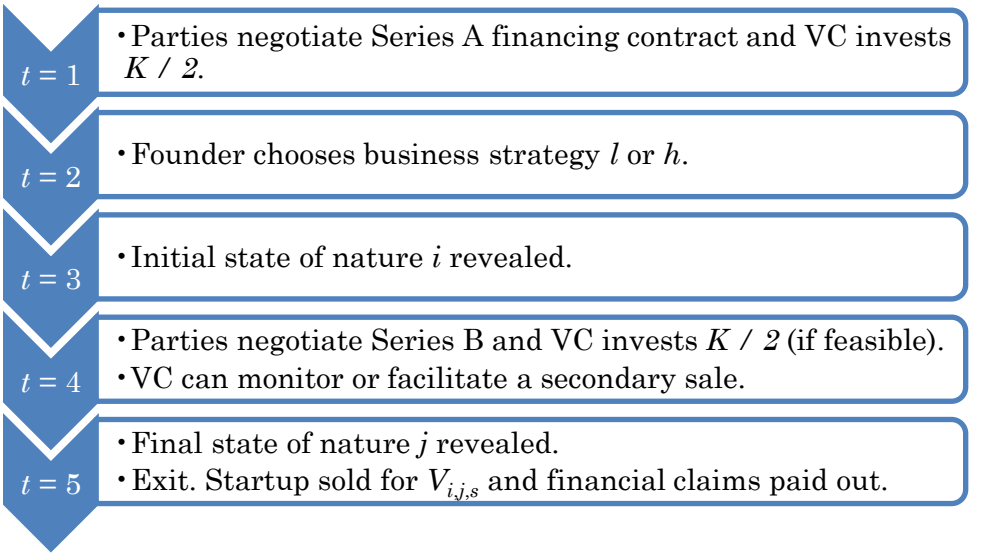
133. *See generally* Noam Wasserman, *Founder-CEO Succession and the Paradox of Entrepreneurial Success*, 14 ORG. SCI. 149 (2003).

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

135. 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).

Startup is sold for $V_{i,j,s}$. The VC exits, and all financial claims are paid. This timeline is summarized in Figure 1.

FIGURE 1: EVENT TIMELINE



B. Results

We divide our main results into two parts—ex post incentives and 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 created 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.[136] We save computations and technical details for the Appendix.

Suppose Startup needs $20 million in total financing, split into two investments of $10 million each. 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 between $12 million and $75 million depending on the state of nature—either

136. Interactive spreadsheet currently available at *Brian Broughman*, VAND. L. SCH., https://law.vanderbilt.edu/bio/brian-broughman (last visited Sept. 21, 2023) [https://perma.cc/6K5Y-R7N3] (select the "WWW" link included in the "Risk-Seeking Governance" entry under Representative Publications).

$V_{0,0,l} = \$12$ *million*; $V_{0,1,l} = \$25$ *million*; $V_{1,0,l} = \$20$ *million*; or $V_{1,1,l} = \$75$ *million*. If Startup instead pursues a high-risk strategy, the firm will be worth between $0 and $150 million depending on the state of nature—either $V_{0,0,h} = \$0$; $V_{0,1,h} = \$50$ *million*; $V_{1,0,h} = \$0$; or $V_{1,1,h} = \$150$ *million*. 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 $33 million, compared to $50 million for the high-risk strategy. If Startup 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 (β) to $2 million. Table 1 shows that when $\alpha = 1.1$, monitoring increases the expected value of Startup to $33.9 million if Founder pursued a low-risk strategy and $51.2 million if she pursued a high-risk strategy. We use the following expected utility function where "x" is a dollar measure of wealth to account for Founder's risk premium: $U(x) = \sqrt{x}$.

TABLE 1: VALUE OF STARTUP

Choice of Strategy & Initial State of Nature ($\pi_i = 0.5$)	*Final State of Nature* ($\pi_j = 0.5$)		**Expected Value**
	j = 0	*j = 1*	
Panel A: Without Monitoring			
Low-Risk Strategy			
i = 0	$12 million	$25 million	
i = 1	$20 million	$75 million	
Expected Value	$16 million	$50 million	**$33 million**
High-Risk Strategy			
i = 0	$0	$50 million	
i = 1	$0	$150 million	
Expected Value	$0	$100 million	**$50 million**
Panel B: With Monitoring ($a = 1.1$)			
Low-Risk Strategy			
i = 0	$12 million · a	$25 million · a	
i = 1	$20 million	$75 million	
Expected Value	$16.6 million	$51.25 million	**$33.92 million**
High-Risk Strategy			
i = 0	$0 · a	$50 million · a	
i = 1	$0	$150 million	
Expected Value	$0	$102.5 million	**$51.25 million**

1. Ex Post Incentives

First, we explore how the equity purchased by the VC—common or participating preferred stock—impacts 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 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, 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 Founder's expected utility from pursuing the low-risk strategy to her utility from pursuing the high-risk strategy. Pursuit of the low-risk strategy reduces Founder's expected return and causes her to experience greater dilution in the Series B financing.[137] Nonetheless, we find that if the VC purchases common stock, Founder can expect a higher utility by pursuing the low-risk strategy.[138] Given the shape of 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 of whether Startup accepted financing from a monitor VC or a founder-friendly VC.[139]

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 $20 million (the total amount invested over two rounds) before Founder's common stock receives any payout because of the participating preferred stock's liquidation preference. Founder would then receive some fraction of exit proceeds greater than $20 million, depending on the price of each round, and the VC would receive the remainder through its participation right.

Preferred stock changes Founder's expected utility analysis and leads to the opposite result: Founder can expect a higher utility by pursuing the high-risk strategy.[140] The VC's liquidation preference is driving the change in incentives. It prevents Founder from receiving any meaningful payout unless the firm is sold for a large amount, which in turn encourages Founder to choose riskier strategies.

Because of the VC's liquidation preference, 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 Founder over

137. Recall the expected value of Startup is only $33 million if Founder pursues the low-risk strategy compared to $50 million for the high-risk strategy. The Series B investor anticipates these values and demands more equity if Founder chooses a low-risk strategy.

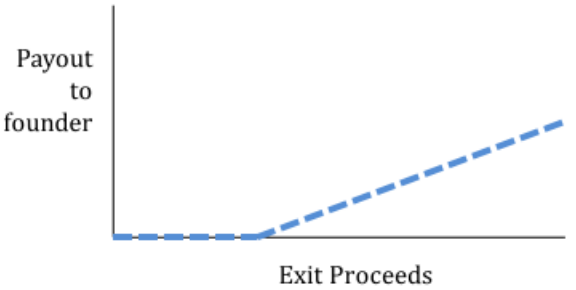
138. This holds regardless how the Series A is priced. For supporting calculations, see *infra* Appendix.

139. *See infra* Appendix.

140. *See infra* Appendix.

total exit proceeds.[141] Founder receives nothing unless the exit value is greater than the liquidation preference. The result is a hockey-stick shaped payout diagram, the same as for a call option. And similar to the holder of a call option, Founder has an incentive to magnify risk-taking. Convexity corrects incentive misalignment due to risk aversion.[142]

FIGURE 2: FOUNDER PAYOUT WHEN VC HOLDS PARTICIPATING PREFERRED STOCK



To be sure, preferred stock is not the only way that the VC can encourage Founder to take risks. The VC's willingness to provide follow-on financing may be in part contingent on observing 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 Founder pursuing a high-risk strategy, effectively creating an implicit reward to incentivize risk-taking.

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

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

142. For the purpose 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 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 VCs 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.

participation—does 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 that 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, 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 Founder's expected welfare.

We start with the pricing of participating preferred stock. A founder-friendly VC will set its Series B ownership fraction (δ_2) so that the Series B investment has an expected value equal to the amount invested ($10 million). We solve for δ_2 conditional on the initial state of nature, so that[143]

when $i = 0$, $\quad 10 = (0.5)(10 + \delta_2 \cdot 30)$ implying $\delta_2 = 33.3\%$,

when $i = 1$, $\quad 10 = (0.5)(10 + \delta_2 \cdot 130)$ implying $\delta_2 = 7.7\%$.

Since $\pi_i = 0.5$ and $\pi_j = 0.5$, we can now price the Series A investment. The VC needs to set its Series A ownership fraction (δ_1) so that

$$10 = (0.25)(10 + \delta_1 \cdot 20) + (0.25)(10 + \delta_1 \cdot 120) \text{ implying } \delta_1 = 14.3\%. \quad (4)$$

143. The analysis here builds on the result shown in the prior section that preferred stock will cause 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 $50 million. We assume a 1x liquidation preference for all examples using participating preferred stock. So, of the $50 million exit value when $i = 0$ and $j = 1$, only $30 million is left after paying the liquidation preference.

In the Series A, a founder-friendly VC purchasing participating preferred stock needs to receive 14.3% of the residual in exchange for its $10 million investment, and Founder is left with 85.7%. In other words, the price of a 1% ownership claim is $700,000.[144]

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 Founder with 86.2%. This suggests that a monitor VC would pay $725,000 for a 1% ownership claim.[145]

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 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.[146]

TABLE 2: 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	$31.25 million
F-Friendly	Part. Preferred	$700,000	$30 million
Monitor	Common	$239,000	$13.9 million
F-Friendly	Common	$230,000	$13 million

We compare the expected financial payout to Founder from each of the financing contracts described above.[147] Results are shown in Table 2. Because of competition among VCs, Founder captures the economic surplus created by monitoring. A monitor VC is able to invest at a higher valuation. Consequently, Founder is able to hold onto a

144. 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 $10 million for a 14.3% ownership fraction. So, post-money valuation = *$10 million / 0.14285 = $70 million*. Post-money valuations involving preferred stock tend to overstate firm value. *See* Will Gornall & Ilya A. Strebulaev, *Squaring Venture Capital Valuations with Reality*, 135 J. FIN. ECON. 120, 121 (2020).

145. Equation (4) becomes $10 = (0.25)(10 + \delta_1 \cdot 25) + (0.25)(10 + \delta_1 \cdot 120)$. Solving for δ_1, we find $\delta_1 = 13.79\%$. Consequently, post-money valuation equals *$10 million / 0.138 = $72.5 million*.

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

147. This is equal to the average of Founder's payout in each state of nature.

larger percentage of the firm's equity and receive a larger expected payout. If 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 Founder's objective function. In particular, it does not account for 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 Subsection.

3. Secondary Sales and the Risk Premium

We start by examining Founder's full objective function, equation (3), for each of the financing contracts described above. We first calculate 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 3 compares Founder's expected welfare from each financing arrangement. To determine the risk premium, we find 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.[148] The first four rows of Table 3 assume no secondary sales.

TABLE 3: EXPECTED BENEFITS TO RISK-AVERSE FOUNDER (WITH AND WITHOUT SECONDARY SALE)

		Founder's Objective Function ($ millions)			
VC Equity	Type of VC	Expected $ Value	Risk Premium	Private Benefits	**Total**
Without a Secondary Sale					
Part. Preferred	Monitor	31.25	17.54	1	**14.70**
Part. Preferred	Founder-Friendly	30	17.25	2	**14.74**
Common	Monitor	13.9	2.12	1	**12.77**
Common	Founder-Friendly	13	2.29	2	**12.71**
With a Secondary Sale					
Part. Preferred	Founder-Friendly + $2 million secondary sale	30	14.79	2	**17.20**

148. For calculation of the risk premium, see *infra* Appendix.

On the question of capital structure, notice that the risk savings associated with common stock are insufficient to offset the lower expected financial payout. Consistent with actual VC financing—which is almost exclusively preferred stock—we focus our remaining analysis on the various preferred stock financing arrangements.

The first two rows of Table 3 highlight the tradeoff between a monitor VC and founder-friendly VC. The monitor VC increases Founder's expected financial returns ($31.25 million versus $30 million), but this increase is uncertain and consequently comes with a higher risk premium ($17.54 million versus $17.25 million). Monitoring also creates tension with Founder's private benefits. Even without a secondary sale, Founder prefers (slightly) the deal offered by the founder-friendly VC.

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 Founder a cash payment at time $t = 4$ in exchange for a reduction in Founder's ownership percentage at exit.[149] To illustrate with our hypothetical, assume a founder-friendly VC will offer to pay $2 million for a share of 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.[150]

We can now recalculate the impact on Founder's objective function. When $i = 0$, there is no secondary sale and Founder's payouts are unchanged. When $i = 1$, Founder will receive a $2 million payout through the secondary sale, and, consequently, we add $2 million to

149. A related benefit could be created by increasing the cash portion of Founder's employment compensation. In a new study, Michael Ewens and collaborators find evidence, consistent with our theory. *See* Michael Ewens, Ramana Nanda & Christopher Stanton, *Founder-CEO Compensation and Selection into Venture Capital-Backed Entrepreneurship*, SOCARXIV 13 (Jan. 2023), https://osf.io/preprints/socarxiv/rku3m [https://perma.cc/9YNE-HSGQ] ("[Founder-CEOs'] cash compensation increases substantially after developing an initial product.").

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

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 Founder's expected financial payout without a secondary sale,

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

to what Founder could expect with a $2 million secondary sale,

$$\$30 \text{ million} = \pi_{0,1}(\$17.14 \text{ million}) + \pi_{1,0}(\$2 \text{ million}) + \pi_{1,1}(\$100.86 \text{ million}). \quad (6)$$

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

The secondary sale causes Founder's risk premium to fall from $17.25 million without a secondary sale to $14.79 million with it.[151] 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 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, Founder will be more likely to accept the VC's financing offer and may even be willing to sell at a lower price to the VC ex ante. Consistent with this, Table 3 shows that the founder-friendly contract with a $2 million secondary sale creates the largest expected benefit for Founder.

The prospect of a secondary sale can also be seen as an inducement for 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 Founder pursues the high-risk strategy.[152] When negotiating the Series B at time $t = 4$, the VC will have already observed whether Founder pursued the high-risk strategy at $t = 2$ or not. The VC can thus create an implicit reward for Founder if she pursues a high-

151. *See infra* Appendix.

152. 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.

risk strategy by offering to purchase some of 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 founders 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 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 economic surplus by investing at lower valuations and may 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.[153] 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. If Founder believes her firm is overvalued, she may be especially eager to sell her shares prior to exit. Moreover, a secondary sale reduces 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. Even if secondary sales were to lower firm value, a founder-friendly VC might still be willing to facilitate such transactions as they 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

153. *See* Matthew Wansley, *Beach Money Exits*, 45 J. CORP. L. 151, 166–75 (2019).

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 nonprice dimensions to make its offer more attractive to a risk-averse founder. By contrast, a monitor VC competes by raising prices. 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 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.[154]

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 Founder was 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 the 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

154. *See generally* Hsu, *supra* note 125.

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 start a business after all.[155]

Second, the risk-seeking model offers insights applicable to both participating preferred and convertible preferred stock.[156] Our analysis focuses on participating preferred because it provides the founders with a convex payout scheme over the full range of outcomes and thus encourages them to take risks regardless of the distribution of valuation outcomes (i.e., V). Conversely, convertible preferred induces more complex incentives contingent on the distribution of firm valuation. Specifically, if risk is centered around a VC's conversion threshold, founders may find themselves shouldering an uneven share of the risk and bearing more of the potential losses compared to the potential gains.[157] The conversion threshold introduces a local area of nonconvexity in the founders' 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 stock. Both include a liquidation preference, offering no payout to the founder unless the company is sold profitably—a condition most startups struggle to meet.[158] For both participating and convertible preferred, the founder's portion of the residual is maximized when the company achieves a home-run exit. 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

155. The cost to society of nascent entrepreneurs deterred by risk is potentially very large.

156. 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 the implicit terms of the contract and the existence of a liquidation preference, which applies to both participating and convertible preferred.

157. For a discussion of the incentive problem around the conversion threshold, see Sarath Sanga & Eric L. Talley, *Don't Go Chasing Waterfalls: Fiduciary Duties in Venture Capital Backed Startups* (Eur. Corp. Governance Inst., Working Paper No. 634/2022, 2023), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3721814 [https://perma.cc/H55T-TJN2].

158. *See* Robert E. Hall & Susan E. Woodward, *The Burden of the Nondiversifiable Risk of Entrepreneurship*, 100 AM. ECON. REV. 1163, 1163 (2010) (finding that approximately three quarters of founders receive nothing at exit).

disparities.[159] To facilitate a comparison between convertible and participating preferred, our 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.[160]

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,[161]
2. volatility in the startup's potential valuation increases (i.e., the startup has a home run or bust profile),
3. β increases (i.e., the founder's private benefits are larger), and
4. α decreases (i.e., the potential benefit of monitoring is smaller).

Each of the above parameters can be adjusted in our interactive spreadsheet. Some assumptions of the model also increase the likelihood of financing from a founder-friendly VC. These include (1) the founder being essential to the startup's financial success, (2) VCs' reputation and conduct toward founders being clearly observable to third parties, and (3) extensive competition among VCs.[162]

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 preserving her role as CEO and the private benefits associated with being her own boss, 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

159. 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.

160. See *supra* note 136 for instructions to download the interactive spreadsheet.

161. 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: $U(\$x\ million) = \sqrt[3]{x}$. If this were changed, for example, to $U(\$x\ million) = \sqrt[3]{x}$, we would predict increased likelihood of financing from a founder-friendly VC.

162. If a VC knew it were the only bidder for Startup and 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.

bearing and is not just about protecting a founder's private benefits. Indeed, an early merger- or acquisition-triggered exit may strip the founder of her managerial position and force her to give up some autonomy,[163] suggesting that founders who want to exit early are motivated more by risk-bearing concerns than private benefits.[164] We hope that future empirical research can differentiate between the different factors that push VCs to move away from monitoring and toward 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 (1) protect the founder's private benefits; (2) incentivize the founder to take big risks; and (3) shield the founder from the cost of bearing undiversified, firm-specific risk. Risk-seeking governance is on the rise because it can achieve each of these goals.[165]

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 of 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

163. For a discussion of this phenomenon, see generally Brian Broughman & Jesse M. Fried, *Do Founders Control Start-Up Firms that Go Public?*, 10 HARV. BUS. L. REV. 49 (2020).

164. 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 $\beta = 0$.

165. 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.

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."[166] Reid Hoffman—the former Chief Operating Officer of PayPal, a cofounder of LinkedIn, and a partner at the VC firm Greylock—coined the term.[167] 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."[168] He continues: "Blitzscaling adopts a similar perspective. If a startup 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."[169]

Hoffman argues that founders need to "follow a new set of rules that fly in the face of what is taught in business schools."[170] They should expedite hiring by scrutinizing candidates less carefully.[171] They should beat their rivals to market by launching "embarrassing" products.[172] They should "let fires burn"—that is, neglect long-term risks until they threaten the company's survival.[173] Hoffman's advice is worth studying because it reflects the conventional wisdom in Silicon Valley.[174] Each of

166. HOFFMAN & YEH, *supra* note 27, at 27 (emphasis omitted).

167. *See* Sullivan, *supra* note 27 (interviewing Reid Hoffman).

168. *Id.*

169. *Id.*

170. HOFFMAN & YEH, *supra* note 27, at 198.

171. *See id.* at 129–30.

172. *See id.* at 206–11.

173. *See id.* at 211–15.

174. A recent study provides academic support for blitzscaling in venture capital. *See generally* Pehr-Johan Norbäck, Lars Persson & Joacim Tåg, *Risky Business: Venture Capital, Pivoting and Scaling* (Rsch. Inst. of Indus. Econs., Working Paper No. 1444, 2023), https://papers.ssrn.com/

his suggestions provides a shortcut to the rapid growth that VCs demand if 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: "As 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."[175] 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.[176]

Some founders would be reluctant to take Hoffman's advice to cut corners on hiring. After all, they have to work with new hires and 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.[177] 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."[178] Dalgaard replied that the target should be five times higher.[179] Then he added: "You guys gotta get your heads out of your asses, start focusing on going big here."[180]

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.[181] The management theorists who developed the

sol3/papers.cfm?abstract_id=4280389 [https://perma.cc/5YRM-PKPQ] (arguing that exit costs and the presence of an active VC market encourage venture-backed startups to pursue riskier scaling strategies than an independent startup might).

175. Sullivan, *supra* note 27.

176. *See* ISAAC, *supra* note 87, at 213–27 (describing how Uber mishandled sexual harassment complaints).

177. *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 [https://perma.cc/62VF-CZTL].

178. *Id.*

179. *Id.*

180. *Id.* (internal quotation marks omitted).

181. *See* HOFFMAN & YEH, *supra* note 27, at 207 (internal quotation marks omitted).

idea of an MVP saw it as a strategy for *reducing* risk.[182] They recommended that startups 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 this idea of the MVP. He says that startups should be embarrassed by their initial product.[183] 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."[184] Instead, he writes: "To 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."[185] To be sure, Hoffman cautions that "embarrassed" does not mean "ashamed or indicted."[186] 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.[187] 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."[188] In other words, they should neglect long-term risks that do not 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?"[189]

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

182. *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 [https://perma.cc/8AF3-9QRP] (explaining the idea of an iterative development process).

183. *See* HOFFMAN & YEH, *supra* note 27, at 206–11.

184. *Id.* at 215.

185. *Id.*

186. *Id.* at 208.

187. *See id.* at 286–87 (acknowledging the need for tighter risk management in synthetic biology).

188. *Id.* at 211.

189. *Id.* at 212.

recognized that it was important to prevent credit card fraud and illegal transactions.[190] 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.[191] 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.[192]

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."[193]

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 them 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.[194] In some cases, even "sales reps who had failed a broker license exam once or more were allowed to continue working the phones."[195]

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 it failed to maintain enough liquidity for customer withdrawals.[196] According to the Securities and Exchange Commission, at FTX, "[a]ssets and liabilities of all forms were generally treated as interchangeable."[197] The company also failed to manage the conflicts of interest between the exchange and its affiliated hedge fund, Alameda.[198] Sam Bankman-Fried, the former CEO of FTX

190. *See id.* at 289–90.

191. *Id.* at 290.

192. *Id.*

193. Sullivan, *supra* note 27 (interviewing Reid Hoffman).

194. *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 [https://perma.cc/P2M7-A7HU].

195. *Id.*

196. Complaint at 15, ¶¶ 50–51, SEC v. Bankman-Fried, No. 22-cv-10501 (S.D.N.Y. Dec. 13, 2022).

197. *Id.* at 16, ¶ 55.

198. *See* Patricia Kowsmann, Vicky Ge Huang, Caitlin Ostroff & Gregory Zuckerman, *Troubles at Sam Bankman-Fried's Alameda Began Well Before Crypto Crash*, WALL ST. J. (Dec.

and cofounder of Alameda Research, himself later admitted on television: "I wasn't spending any time or effort trying to manage risk on FTX."[199]

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.[200] 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."[201]

Expanding before you reached unit profitability would be too risky. Each additional good you sold would push your business deeper

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31, 2022, 8:00 AM), https://www.wsj.com/articles/alameda-sam-bankman-fried-ftx-crypto-crash-11672434101 [https://perma.cc/FNJ2-ZAA8].

199. Complaint, *supra* note 196, at 18, ¶ 62.

200. HOFFMAN & YEH, *supra* note 27, at 198 (internal quotation marks omitted).

201. The name for this strategy comes from an influential book aimed at startup founders. *See generally* NATHAN FURR & PAUL AHLSTROM, NAIL IT THEN SCALE IT: THE ENTREPRENEUR'S GUIDE TO CREATING AND MANAGING BREAKTHROUGH INNOVATION (2011).

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 customer, but we make it up on volume."[202] 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 will run out of cash along the way.

Now consider the impact of venture finance. From the founders' 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 still 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 VCs' 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 climb 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.[203] Therefore, VCs have an incentive to encourage startups to pursue underwater expansion.

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202. Sam Altman, *Unit Economics*, SAM ALTMAN BLOG (Sept. 21, 2015, 2:22 PM), https://blog.samaltman.com/unit-economics [https://perma.cc/9ENL-KXGZ] (internal quotation marks omitted).

203. In a sense, the interest alignment created by early losses parallels the interest alignment created by the VCs' liquidation preference.

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 founders. 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.[204] 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.[205] He argued:

> [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.[206]

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: expanding 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.

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204. *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).

205. *See* Altman, *supra* note 202.

206. *Id.*

3. Regulatory Entrepreneurship

Some startups have combined blitzscaling's cavalier attitude toward 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."[207] The difference between regulatory entrepreneurship 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.[208] FanDuel and DraftKings disregarded laws against gambling.[209] Uber defied local taxi regulations.[210] 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.[211] In some cases, they facilitated consumer adoption of their product with below-cost pricing.[212] 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."[213] When regulators tried to crack down, the companies asked their users to send an email or sign a petition to show their support.[214]

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.[215] In some cases, regulatory entrepreneurship succeeded tremendously. At the close of their first day

207. Pollman & Barry, *supra* note 29, at 383, 392–97.
208. *See id.* at 389.
209. *See id.* at 402–03.
210. *See id.* at 387–89.
211. *See id.* at 400–03.
212. *See id.* at 401–02.
213. *See id.* at 400–03.
214. *See id.* at 403–06.
215. *See id.* at 388 (Uber); *id.* at 389 (Airbnb); *id.* at 403 (FanDuel and DraftKings).

as public companies, Uber was worth about $76 billion[216] and Airbnb about $101 billion.[217]

Of course, there is nothing new about businesses lobbying for favorable legislation and regulation. What makes the regulatory entrepreneurs distinctive is their "ask for forgiveness, not permission" approach.[218] One benefit of this 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.[219] Our point 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.[220] In June 2014, the Supreme Court held that Aereo's business model violated copyright laws.[221] By November 2014, Aereo was bankrupt.[222]

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.

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216. Corrie Driebusch & Maureen Farrell, *Uber's High-Profile IPO Upsets with Weak Debut*, WALL ST. J., https://www.wsj.com/articles/uber-stumbles-in-trading-debut-11557503554 (last updated May 10, 2019, 6:54 PM) [https://perma.cc/WX8T-DMVG].

217. Preetika Rana, Maureen Farrell & Micah Maidenberg, *Airbnb's Stock Price More Than Doubles in Market Debut*, WALL ST. J., https://www.wsj.com/articles/airbnb-shares-more-than-double-in-market-debut-11607625899 (last updated Dec. 10, 2020, 4:32 PM) [https://perma.cc/2F7F-CJKY].

218. *See* Pollman & Barry, *supra* note 29, at 392–97 (distinguishing regulatory entrepreneurship from other kinds of corporate political activity).

219. 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.

220. *Id.* at 422–23.

221. ABC v. Aereo, Inc., 573 U.S. 431, 451 (2014).

222. 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 [https://perma.cc/WNY6-RTA2].

4. Venture Predation

Venture predation is a strategy in which startups use VCs to fund predatory pricing. The strategy has three steps:[223] 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 multibillion-dollar losses for years as it waged a price war against the taxi companies and then other ride-hailing companies like Lyft.[224] Other venture predators have followed the same playbook. WeWork used venture predation to drive competing coworking sites out of business, only to have its own business unravel when it filed for an IPO.[225] Bird used venture predation in a failed attempt to clear the electric scooter market.[226] A group of instant-grocery startups may be waging venture predation campaigns right now.[227]

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 lawbreaking. Predatory pricing violates antitrust laws.[228] But like regulatory entrepreneurs, venture predators can avoid the legal consequences because 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.[229] 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 the shares' value because of it.

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223. Wansley & Weinstein, *supra* note 30, at 21.
224. *See id.* at 31–37.
225. *See id.* at 40–44.
226. *See id.* at 44–49.
227. *See id.* at 51.
228. *See id.* at 8–20 (explaining the law of predatory pricing).
229. Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 224 (1993).

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 the startup can recoup its costs.

Despite these risks, venture predation has proven successful for some VCs. Benchmark generated a $5.8 billion return on Uber[230]—one of the largest grand slams in venture history. Benchmark also made hundreds of millions on WeWork—not bad for a company that had to withdraw from an IPO.[231] Accel and Sequoia may not have been so lucky with Bird.[232] But venture predation, 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 VCs cannot use a contract to commit founders to take risks, founders cannot use a contract to commit VCs to provide 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.[233] 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 preexisting VCs or outside investors willing to take

230. *See* Wansley & Weinstein, *supra* note 30, at 36.

231. *See id.* at 42–43.

232. *See id.* at 48.

233. Some startups, particularly late-stage startups, have larger liquidity programs in which nonfounder employees can also sell some of their shares. *See* David F. Larcker, Brian Tayan & Edward Watts, *Cashing It In: Private-Company Exchanges and Employee Stock Sales Prior to IPO* 2–3 (Stanford Univ. Graduate Sch. of Bus., Rsch. Paper No. 18-45, 2018), https://www.gsb.stanford.edu/faculty-research/publications/cashing-it-private-company-exchanges-employee-stock-sales-prior-ipo [https://perma.cc/98RW-5Y5Y]. A founder secondary sale can be hashed out in a private board meeting and kept secret from other employees.

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 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.[234] Secondary sales must fit into narrow exemptions, which require, among other things, that the buyer be an accredited investor or a financial institution.[235] 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 becomes involuntarily subject to public company regulations.[236] 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 a right of first refusal in favor of the company.[237] 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, the 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, but the concept of a secondary sale is not a recent innovation. Marc Benioff, the cofounder of Salesforce, sold some of his shares before taking the company public in 2004.[238] Two cofounders of Groupon sold $300 million and $133 million worth of their stakes, respectively, in secondary sales before its IPO in 2011, and the founder of Zynga sold a $109 million stake before

234. *See* 17 C.F.R. §§ 230.502(d), 230.701(g) (2023) (restricting the resale of securities sold under the rules typically used for the sale of startup equity).

235. S*ee* 17 C.F.R. §§ 230.144, 230.144A (2023) (providing safe harbors for the resale of private company securities to accredited investors and qualified institutional buyers under certain conditions).

236. *See* 15 U.S.C. § 781(g)(1)(A) (providing that issuers must register their securities once they possess $10 million in assets and two thousand record shareholders or five hundred record shareholders who are not accredited investors).

237. Larcker et al., *supra* note 233, at 2–3.

238. Shayndi Raice & Justin Scheck, *For Zynga CEO, Cash Came Early*, WALL ST. J., https://www.wsj.com/articles/SB10001424052970204844504577100713531520358 (last updated Dec. 16, 2011) [https://perma.cc/4V6M-RB9H].

his company's IPO the same year.[239] But these sales were considered rare at the time, and they happened when the companies' IPOs were within sight.[240] 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, "Half of Series A and B deals now have some secondary component for founders."[241]

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.[242] In 2018, Travis Kalanick sold $1.4 billion of his Uber shares after his misconduct led the company to lose billions and he was ousted as CEO.[243] In the years leading up to WeWork's aborted IPO, Adam Neumann cashed $700 million out of the company through secondary sales and debt.[244]

The most colorful example, though, may be the cybersecurity unicorn Tanium, cofounded by the father-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.[245] The sale came months after it was reported that Tanium had exposed a hospital's private network[246] and nine senior executives had left

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239. *Id.*

240. *See id.* (noting VC Charles Beeler's statement 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").

241. Berber Jin, *Startup Founders Use Record-High Valuations to Cash Out Earlier*, INFORMATION (Sept. 13, 2021, 6:01 AM), https://www.theinformation.com/articles/startup-founders-use-record-high-valuations-to-cash-out-earlier [https://perma.cc/D8DQ-WHMY].

242. 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-founder-sold-stock-months-before-scandal [https://perma.cc/J8V7-3XBT]. 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.*

243. 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, 2:27 PM), https://www.cnbc.com/2018/01/18/uber-ex-ceo-travis-kalanick-will-officially-be-a-billionaire-thursday.html [https://perma.cc/RL4D-TNDC].

244. Eliot Brown, Maureen Farrell & Anupreeta Das, *WeWork Co-Founder Has Cashed Out at Least $700 Million via Sales, Loans*, WALL ST. J., https://www.wsj.com/articles/wework-co-founder-has-cashed-out-at-least-700-million-from-the-company-11563481395 (last updated July 18, 2019, 5:15 PM) [https://perma.cc/T53Y-H9U6].

245. Cat Zakrzewski, *Tanium Lets Staff, Chairman Cash Out for $100 Million*, WALL ST. J., https://www.wsj.com/articles/tanium-lets-staff-chairman-cash-out-for-100-million-1495706400 (last updated May 25, 2017, 3:47 PM) [https://perma.cc/3RBC-MAE4].

246. Rolfe Winkler, *Cybersecurity Startup Tanium Exposed California Hospital's Network in Demos Without Permission*, WALL ST. J., https://www.wsj.com/articles/cybersecurity-startup-

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."[247] 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.[248]

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 VCs invest, they can make an informal promise to the founders that they will agree to a secondary sale at the next round if the founders hit the agreed-upon milestones. 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 when founders miss 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.

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tanium-exposed-california-hospitals-network-in-demos-without-permission-1492624287 (last updated Apr. 19, 2017, 10:11 PM) [https://perma.cc/7A5T-SYFC].

247. 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 [https://perma.cc/YU7D-X37S].

248. *See id.*

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.[249] Adam Neumann spent company money on a sauna and ice bath for his personal office.[250] He had the company buy a "top of the line" Gulfstream and used it for personal trips.[251] Neumann was also shameless about nepotism; WeWork hired his wife, his brother-in-law, and his wife's brother-in-law.[252] 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 "We."[253] It also allowed him to invest $13 million of WeWork's money into a company developing "artificial-wave pools."[254] The product was, of course, unrelated to WeWork's business, but Neumann was a "passionate surfer."[255]

Neumann's self-dealing was facilitated by WeWork's dual-class share structure, which gave him control of the company.[256] Before gaining control of the board, Neumann tried to buy an equity stake in a building that leased to WeWork.[257] The board raised concerns about a potential conflict of interest, so WeWork bought the stake instead.[258]

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249. For an analysis of the many corporate governance failures at WeWork, see Donald C. 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.

250. Farrell & Brown, *supra* note 86.

251. *Id.*

252. *See* Eliot Brown, *WeWork's Long List of Potential Conflicts Adds to Questions Ahead of IPO*, WALL ST. J., https://www.wsj.com/articles/weworks-long-list-of-potential-conflicts-adds-to-questions-ahead-of-ipo-11567808023 (last updated Sept. 6, 2019, 6:26 PM) [https://perma.cc/E3HL-PX6V].

253. *See id.*

254. 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 [https://perma.cc/28HK-QHGQ].

255. *Id.*

256. *See* Eliot Brown, *WeWork's CEO Makes Millions as Landlord to WeWork*, WALL ST. J., https://www.wsj.com/articles/weworks-ceo-makes-millions-as-landlord-to-wework-11547640000 (last updated Jan. 16, 2019, 10:01 PM) [https://perma.cc/G3RR-RNE5].

257. *Id.*

258. *Id.*

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."[259] 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 is exceptional in that the self-dealing became public. WeWork was required to disclose its related-party transactions in its S-1, an initial registration form required by the Securities and Exchange Commission.[260] 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.

The no-litigation norm is well established, and 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."[261] 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.[262] The

259. *Id.*

260. *See* We Co., Registration Statement (Form S-1) 99–102 (Aug. 14, 2019), https://www.sec.gov/Archives/edgar/data/1533523/000119312519220499/d781982ds1.htm [https://perma.cc/QY36-N2TQ].

261. Vladimir A. Atanasov, Vladimir I. Ivanov & Kate Litvak, *Does Reputation Limit Opportunistic Behavior in the VC Industry? Evidence from Litigation Against VCs*, 67 J. FIN. 2215, 2218 (2012).

262. 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 [https://perma.cc/P2EL-2K82].

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.' "[263]

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, . . . [b]ecause in the back of their mind (mine included) will always be the question of, 'What will happen if things get that bad?' "[264] A founder said that he "empathized a lot with Travis" and would not raise money from Benchmark.[265] A VC put it more bluntly: "I wouldn't take [Benchmark partner Bill Gurley's] money to start a McDonalds franchise at this point."[266]

There is a similar norm against VCs criticizing founders in public.[267] 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

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.[268] 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 a merger and acquisition, an asset purchase, or even just a payment in

263. *Id.*

264. Theodore Schleifer, *Some Startup Founders Are 'Nervous' About Dealing with Benchmark After It Sued Uber*, VOX (Aug 11, 2017, 1:23 PM), https://www.vox.com/2017/8/11/16130148/benchmark-uber-startup-founder-backlash-lawsuit [https://perma.cc/C9WJ-NLTW] (quoting Hazem Awad, Inv.).

265. *Id.* (internal quotation marks omitted) (quoting Gabriel Puliatti, Founder, Emptor).

266. *Id.* (internal quotation marks omitted) (quoting Rick Barber, VC).

267. *See* Nellie Bowles, *Want to Do Business in Silicon Valley? Better Act Nice*, N.Y. TIMES, https://www.nytimes.com/2019/09/10/style/oh-behave.html (last updated Sept. 20, 2019) [https://perma.cc/X7DT-UM2A].

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

consideration for a covenant not to sue.[269] 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 new jobs elsewhere.[270] 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 toward them, or even 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.[271] 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 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

269. *See* Pollman, *supra* note 34 (manuscript at 27–28).

270. *See id.* (manuscript at 35).

271. 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).

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 board's strategic decisions 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 disloyal in theory. 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 board faces choices that 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. In re 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.[272] Jochen Hummel founded the company in Germany in 1984.[273] 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.[274] 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.[275] 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.[276]

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

273. Hummel's cofounder, Iko Knyphausen, left the company and was not involved in the litigation. *See id.*

274. *Id.*

275. *Id.*

276. *Id.*

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

In 2003, Trados's revenues continued to grow, but the VCs were starting to get impatient.[283] The chance that Trados would become a home run was diminishing. When Trados's CEO missed budget targets in 2004, the board replaced him.[284] The directors explored the possibility of an immediate acquisition but decided instead to bring in an outsider to serve as CEO.[285] 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."[286] 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)."[287]

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.[288] Campbell pitched the board on a strategy to expand the company into the adjacent market for content management software, which he said would require $4 million in new capital.[289] The VCs on the board showed little interest in his plan.[290] 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.

277. *Id*. at 22–23.
278. *Id*.
279. *Id*.
280. *Id*. at 23.
281. *Id*.
282. *Id*.
283. *Id*. at 25.
284. *Id*.
285. *Id*.
286. *Id*. at 27 (internal quotation marks omitted).
287. *Id*. (internal quotation marks omitted).
288. *Id*. at 28.
289. *Id*.
290. *Id*.

From their perspective, funding Campbell's plan would be throwing good money after bad. By this point, it had 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."[291] 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."[292] Then he added, "I am not spending a lot of time on this investment, even though I remain on the board."[293] 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.[294]

The Trados VCs faced an obstacle to a sale in their own liquidation preferences. Around the time of the deal, the preferences added up to $57.9 million.[295] The best price that Trados could likely garner in a sale was about $60 million.[296] This 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.[297] CEO Campbell, founder and Chief Technology Officer Hummel, and two independent directors held the other seats, and Campbell and Hummel were common shareholders.[298] 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.[299] 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

291. *Id*. at 29 (alteration in original) (internal quotation marks omitted).
292. *Id*. (internal quotation marks omitted).
293. *Id*. (internal quotation marks omitted).
294. *See id*.
295. *Id*. at 33.
296. *Id*. at 59–61.
297. *Id*. at 60.
298. *Id*. at 60–62.
299. *Id*. at 65.

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's Chief Financial Officer James Budge before any shareholders.[300] 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.[301] 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.[302] Due to the MIP, $7.8 million—the first 13% of the deal—went to Campbell, Hummel, and Budge.[303] Because of the liquidation preferences, the remaining $52.2 million of the deal went to the VCs.[304] The common shareholders received nothing.[305] The board approved the deal unanimously.[306] 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.[307] 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.[308] 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 and brought an appraisal action in the Delaware Court of Chancery.[309] After learning more about the deal in discovery, he sued Trados's former directors for breach of the duty of loyalty.[310] The gist of Christen's argument was that the VC and MIP-participant directors

300. *Id*. at 29.

301. *Id*.

302. *Id*. at 31.

303. *Id*. at 32.

304. *Id*. at 33.

305. *Id*.

306. *Id*. at 59.

307. *Id*. at 33.

308. *See* Brian Broughman & Jesse 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 Broughman & Jesse M. Fried, *Carrots and Sticks: How VCs Induce Entrepreneurial Teams to Sell Startups*, 98 CORNELL L. REV. 1319, 1336 (2013).

309. *In re Trados*, 73 A.3d at 34.

310. *Id*. at 34–35.

put their own financial interests above the interests of common shareholders in approving the deal.[311]

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 shareholders controlled the company.[312] He then 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."[313] Second, the VC directors "faced a conflict of interest because of their competing duties" as fiduciaries to their venture partnerships.[314] 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."[315]

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."[316] The structure of the MIP showed the VCs' indifference to common shareholders. 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%."[317] 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%."[318]

Laster supported his reasoning with damning testimony from the directors themselves. In a deposition, one of the independent

311. *See id.*
312. *Id.* at 20, 37–39.
313. *Id.* at 52.
314. *Id.*
315. *Id.* at 51 (internal quotation marks omitted) (quoting Sahlman, *supra* note 4, at 507).
316. *Id.* at 58.
317. *Id.* at 60.
318. *Id.* at 65.

directors "volunteered that the Trados directors never considered the common stockholders."[319] The most revealing testimony came from Gandhi, who said in his deposition:

> [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 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.[320]

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 shareholders.[321] 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."[322] 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."[323] For our purposes, though, the *Trados* decision 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.

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319. *Id*. at 62.

320. *Id*. at 64 (alterations in original) (internal quotation marks omitted).

321. *Id*.

322. *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. *Id*. at 56 (quoting Weinberger v. UOP, Inc., 57 A.2d 701, 711 (Del. 1983)). Laster held that because the price was fair, the deal was entirely fair. *See id*. at 78–79.

323. *Id*. at 77.

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.[324] Good Technology Corporation ("GTC") 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.[325] GTC achieved early success and, by early 2015, garnered a valuation over $1 billion.[326]

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.[327] 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.[328] In March 2015, shortly before its planned IPO, GTC received an acquisition offer from CA, Inc. at a price of $825 million.[329] At the time, the board expected a post-IPO price of between $1 billion and $1.2 billion, so they dismissed CA's offer.[330] But in April, GTC posted disappointing quarterly results.[331] The board postponed the IPO.[332]

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.[333]

But the preferred-holding VCs disagreed. Bandel Carano, a director with Oak, told Wyatt that pursuing a sale would "muddy our

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324. *See In re* Good Tech. Corp. S'holder Litig., No. 11580, 2017 WL 2537347, at *1–2 (Del. Ch. May 12, 2017). For more discussion of *Good Technology* in the context of other post-*Trados* developments, see Abe Cable, A Decade of *Trados* (Feb. 28, 2023) (unpublished manuscript) (manuscript at 5–6) (on file with authors).

325. Expert Report of Jesse M. Fried, *supra* note 112, ¶ 16.

326. *Id.* ¶ 39.

327. *Id.*

328. *Id.*

329. *Id.* ¶ 44.

330. *See id.* ¶ 45.

331. *See id.* ¶ 49.

332. *See id.*

333. *Id.* (alteration in original).

IPO messaging."[334] Carano said he would not agree to sell the company for less than $1.5 billion.[335] And Wyatt, whose stock options would only be "in the money" in a high-value exit, agreed.[336] The board told GTC's investment banker, J.P. Morgan, to limit its conversations about a potential sale to a small number of strategic buyers.[337] In effect, the board majority decided to 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.[338] Because of the VCs' liquidation preferences, common shareholders only received $40 million from the deal.[339] A group of common shareholders sued the directors and J.P. Morgan, alleging, among other claims, that the directors breached their duty of loyalty by not pursuing a sale in early 2015.[340] 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.[341]

The trial never happened—the parties settled for $52 million.[342]

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.[343] They worried about how a middling, underwhelming exit would affect their

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334. *Id.* ¶ 50 (internal quotation marks omitted).

335. *Id.* ¶ 51.

336. *See id.* ¶¶ 79–80 (describing Wyatt's compensation).

337. *Id.* ¶ 53.

338. *Id.* ¶ 40.

339. *Id.* ¶ 8.

340. *In re* Good Tech. Corp. S'holder Litig., No. 11580, 2017 WL 2537347, at *2 (Del. Ch. May 12, 2017).

341. *Id.*

342. Tom McParland, *Laster Sends Challenge to Good Technology Settlement to Arbitration*, ALM MEDIA (Oct. 30, 2017, 6:49 PM), https://www.law.com/delbizcourt/2017/10/30/laster-sends-challenge-to-good-technology-settlement-to-arbitration/ [https://perma.cc/SH7T-8VDF].

343. Expert Report of Jesse M. Fried, *supra* note 112, ¶ 72.

funds' performance relative to other venture funds.[344] In a deposition, Carano testified that success as a VC is "all [about] relative performance in the vintage class."[345] 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. There's obviously a sharpe ratio in venture capital. And it only takes a few great wins to make a great fund."[346]

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 argue 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.[347] They assert 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.[348] Under the common maximization rule, they argue, common shareholders can use the threat of litigation to extract holdup value from the preferred.[349]

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

> 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.[350]

344. *See id.* ¶ 37.

345. *Id.* (alteration in original) (internal quotation marks omitted).

346. *Id.* ¶ 21 n.10 (internal quotation marks omitted).

347. *See* William W. Bratton & Michael L. Wachter, *A Theory of Preferred Stock*, 161 U. PA. L. REV. 1815, 1885–87 (2013).

348. *See id.* at 1886.

349. *See id.* at 1887.

350. *Id.* at 1885 (citations omitted).

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."[351] He noted that they could not cite any decision "in which any court has ever required 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."[352]

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 [the] sale process."[353] After *Trados*, "lawyers now advise boards to more systematically consider continuation value and, in some cases, push consideration to common shareholders."[354] Scott Kupor, the Andreessen Horowitz partner, gives similar advice in a book chapter targeted at startup board members. He recommends that directors pay more attention to process, document their understanding of the common-preferred conflict, and bring in an investment banker.[355] He suggests that when boards use an MIP, they should consider "the relative contribution" of the common and preferred.[356] 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."[357]

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 he 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.[358] 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.[359]

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351. Leo E. Strine, Jr., Response, *Poor Pitiful or Potently Powerful Preferred?*, 161 U. PA. L. REV. 2025, 2038 (2013).

352. *Id*.

353. Abraham J.B. Cable, *Does* Trados *Matter*, 45 J. CORP. L. 311, 325 (2020).

354. *Id*.

355. *See* KUPOR, *supra* note 19, at 228–31.

356. *Id*. at 229.

357. *Id*. at 229–30.

358. *See* Abraham J.B. Cable, *Opportunity-Cost Conflicts in Corporate Law*, 66 CASE W. RSRV. L. REV. 51, 52–54 (2015).

359. *See In re* Trados Inc. S'holder Litig., 73 A.3d 17, 51–54 (Del. Ch. 2013).

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."[360] While Bratton and Wachter worried that *Trados* would push startups to gamble when an exit would benefit VCs but not common shareholders,[361] *Good Technology* suggests that VC directors could be found liable for turning down an exit that would benefit common stock in order to gamble on a future that may benefit the 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 VCs' returns and therefore the flow of capital into startups. 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 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 shareholders 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 boardroom 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 simply gives the shareholders not party to the bargain their slice of the acquisition pie. Bratton and Wachter's characterization of that slice as "holdup" value begs the question of whose interests an acquisition should serve.[362] We see *Trados* as requiring VCs to

360. *In re* Good Tech. Corp. S'holder Litig., No. 11580, 2017 WL 2537347, at *2 (Del. Ch. May 12, 2017).

361. *See* Bratton & Wachter, *supra* note 347, at 1885, 1888.

362. *See id.* at 1888.

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 case law can nudge VCs toward 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 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 frequently, 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, and 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 forced to bear 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—risks that 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 Section II.B.

A. Choice of Strategy

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

1. VC Purchases Common Stock

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

$$K/2 = Y_{i,s} \cdot [(1-\pi_j)\, V_{i,0,s} + \pi_j V_{i,1,s}] \tag{a1}$$

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

$$Y_{0,l} = 10/18.5 = 54.1\%,$$
$$Y_{1,l} = 10/47.5 = 21.1\%,$$
$$Y_{0,h} = 10/25 = 40.0\%,$$
$$Y_{1,h} = 10/75 = 13.3\%.$$

We can compare 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 $[s = l]$, Founder can expect to receive

$$\begin{aligned}&(1-x)[(1-Y_{0,l})((1-\pi_i)(1-\pi_j)\, V_{0,0,l} + (1-\pi_i)\,\pi_j V_{0,1,l}) + (1-Y_{1,l})(\pi_i(1-\pi_j)\, V_{1,0,l} + \pi_i\pi_j V_{1,1,l})] \\ &= 0.25 \cdot [(1-x)(1-Y_{0,l})(12+25) + (1-x)(1-Y_{1,l})(20+75)] \\ &= (1-x) \cdot 23.\end{aligned} \tag{a2}$$

If instead, Founder pursues high-risk strategy $[s = h]$, she can expect to receive

$$(1-x)[(1-Y_{0,h})((1-\pi_i)(1-\pi_j)V_{0,0,h}+(1-\pi_i)\pi_j V_{0,1,h})+(1-Y_{1,h})(\pi_i(1-\pi_j)V_{1,0,h}+\pi_i\pi_j V_{1,1,h})] \quad \text{(a3)}$$
$$=0.25\cdot[(1-x)(1-Y_{0,h})(50)+(1-x)(1-Y_{1,h})(150)]$$
$$=(1-x)\cdot 40.$$

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

$$0.25\cdot[\sqrt{(1-x)\cdot 5.51}+\sqrt{(1-x)\cdot 11.48}+\sqrt{(1-x)\cdot 15.79}+\sqrt{(1-x)\cdot 59.21}] \quad \text{(a4)}$$
$$=0.25\cdot\sqrt{(1-x)}\cdot[\sqrt{5.51}+\sqrt{11.48}+\sqrt{15.79}+\sqrt{59.21}]$$
$$=\sqrt{(1-x)}\cdot 4.35.$$

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

$$0.25\cdot[\sqrt{(1-x)\cdot 30}+\sqrt{(1-x)\cdot 130}] \quad \text{(a5)}$$
$$=0.25\cdot\sqrt{(1-x)}\cdot[\sqrt{30}+\sqrt{130}]$$
$$=\sqrt{(1-x)}\cdot 4.21.$$

Notice equation (a4) is greater than equation (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 $a = 1.1$ whenever $i = 0$. This in turn decreases Series B dilution:

$$Y_{0,l}=10/20.35=49.1\%$$
$$Y_{0,h}=10/27.5=36.4\%.$$

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:

$$0.25\cdot[\sqrt{(1-x)\cdot 6.71}+\sqrt{(1-x)\cdot 13.98}+\sqrt{(1-x)\cdot 15.79}+\sqrt{(1-x)\cdot 59.21}] \quad \text{(a6)}$$
$$=\sqrt{(1-x)}\cdot 4.49.$$

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

$$0.25\cdot[\sqrt{(1-x)\cdot 35}+\sqrt{(1-x)\cdot 130}] \quad \text{(a7)}$$
$$=\sqrt{(1-x)}\cdot 4.32.$$

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

2. VC Purchases Participating Preferred Stock

The key difference here is that expected returns and round pricing need 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 $Y_{i,s}$ equal to

$$\begin{aligned} K/2 = (1-\pi_j)[\min(V_{i,0,s}, K/2) + \max(0, Y_{i,s}(V_{i,0,s} - K)] \\ + \pi_j[\min(V_{i,1,s}, K/2) + \max(0, Y_{i,s}(V_{i,1,s} - K)] \end{aligned} \tag{a8}$$

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

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

We now compare 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 $[s = l]$, Founder can expect to receive

$$\begin{aligned} &(1-x)[(1-Y_{0,l})(1-\pi_i)\pi_j(V_{0,1,l} - 20) + (1-Y_{1,l})\pi_i\pi_j(V_{1,1,l} - 20)] \\ &= 0.25 \cdot (1-x)(5+55) \\ &= (1-x) \cdot 15. \end{aligned} \tag{a9}$$

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

$$\begin{aligned} &(1-x)[(1-Y_{0,h})(1-\pi_i)\pi_j(V_{0,1,h} - 20) + (1-Y_{1,h})\pi_i\pi_j(V_{1,1,h} - 20)] \\ &= 0.25 \cdot (1-x)(20+120) \\ &= (1-x) \cdot 35. \end{aligned} \tag{a10}$$

Notice with preferred stock the VC's liquidation preference prevents Founder from receiving any payout when $j = 0$ regardless of whether Startup pursues l or h. As a consequence, 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

$$0.25 \cdot \left[\sqrt{(1-x)\cdot 5} + \sqrt{(1-x)\cdot 55}\right] \quad \text{(a11)}$$
$$= 0.25 \cdot \sqrt{(1-x)} \cdot \left[\sqrt{5} + \sqrt{55}\right]$$
$$= \sqrt{(1-x)} \cdot 2.41.$$

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

$$0.25 \cdot [\sqrt{(1-x)\cdot 20} + \sqrt{(1-x)\cdot 120}] \quad \text{(a12)}$$
$$= 0.25 \cdot \sqrt{(1-x)} \cdot [\sqrt{20} + \sqrt{120}]$$
$$= \sqrt{(1-x)} \cdot 3.85.$$

Notice equation (a12) is greater than equation (a11) for all $x \in (0, 1)$, and 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

$$Y_{0,h} = 10/35 = 28.6\%.$$

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

$$0.25 \cdot [\sqrt{(1-x)\cdot 7.5} + \sqrt{(1-x)\cdot 55}] \quad \text{(a13)}$$
$$= 0.25 \cdot \sqrt{(1-x)} \cdot [\sqrt{7.5} + \sqrt{55}]$$
$$= \sqrt{(1-x)} \cdot 2.54.$$

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

$$0.25 \cdot \left[\sqrt{(1-x)\cdot 25} + \sqrt{(1-x)\cdot 120}\right] \quad \text{(a14)}$$
$$= 0.25 \cdot \sqrt{(1-x)} \cdot [\sqrt{25} + \sqrt{120}]$$
$$= \sqrt{(1-x)} \cdot 3.98.$$

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

B. Founder Welfare Analysis

We calculate the risk premium term [see Table 3] for each financing arrangement. We start with Founder's utility function [$U(\$x \text{ million}) = \sqrt{x}$]. We square Founder's expected utility to determine the certainty equivalent dollar value. To illustrate, a preferred stock monitoring agreement gives Founder an equal chance of receiving \$0, \$0, \$21.55 million, or \$103.44 million, for an expected payout of \$31.25M. Expected utility from this set of payoffs is

$$(0.25)\sqrt{21.55} + (0.25)\sqrt{103.44} = 3.70, \tag{a15}$$

and the certainty equivalent is

$$(3.70)^2 = \$13.71 \text{ million}.$$

Founder would be indifferent between receiving \$13.71 million with certainty or an expected value of \$31.25 million with uncertainty. The risk premium equals the expected financial payout minus the certainty equivalent:

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

Repeating these steps for preferred stock from a founder-friendly VC yields the following:

$$\text{expected utility} = (0.25)\sqrt{17.14} + (0.25)\sqrt{102.83} = 3.57,$$

$$\text{risk premium} = \$17.25 \text{ million} = 30 - (3.57)^2.$$

Repeating these steps for common stock from a founder-friendly VC yields the following:

$$\text{expected utility} = (0.25)(\sqrt{3.11} + \sqrt{6.49} + \sqrt{8.92} + \sqrt{33.46}) = 3.27,$$

$$\text{risk premium} = \$2.3 \text{ million} = 13 - (3.27)^2.$$

Repeating these steps for common stock from a monitor VC yields the following:

$$\text{expected utility} = (0.25)(\sqrt{3.90} + \sqrt{8.13} + \sqrt{9.18} + \sqrt{34.43}) = 3.43,$$

$$\text{risk premium} = \$2.12 \text{ million} = 13.9 - (3.43)^2.$$

Founder's private benefit ($\beta = \$2M$) listed in Table 3 is the average of the private benefit received in each state of nature.

Finally, to calculate the impact of secondary sales on Founder's risk premium, we repeat the analysis above after adjusting 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 Founder anticipates receiving a $2 million side payment when $i = 1$ [see equation 6]—Founder has an equal chance of receiving $0, $17.1 million, $2 million, or $100.9 million. The expected utility and risk premium of preferred stock from a founder-friendly VC with a $2 million side payment are calculated below:

$$\text{expected utility} = (0.25)\sqrt{17.14} + (0.25)\sqrt{2}(0.25)\sqrt{100.83} = 3.89,$$

$$\text{risk premium} = \$14.79 \text{ million} = 30 - (3.89)^2.$$

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