

A THEORY OF SEED FINANCING

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ABSTRACT

Startups' earliest investors frequently compromise on the extent of control rights they possess. Their investment terms do not afford them the same degree of contractual controls that later-stage investors have, and the securities that they hold often exclude them, at least temporarily, from shareholder status and the statutory control rights and protections it entails. This inclination to cede control contrasts the practices of later-stage startup investors, who rely more heavily on strong-form control rights to mitigate firm-specific risks. This study introduces a novel framework for understanding early-stage startup governance structures. It emphasizes the distinctive factors that make investor control more costly and less valuable for startups' earliest investors than their later-stage counterparts despite the greater risks and uncertainties associated with earlier investments. These factors include the substantial information imbalance favoring entrepreneurs during the very early stage and the complex interplay between control and entrepreneurial incentives. Collectively, these elements shape the rationale behind early investors' tendency to grant entrepreneurs more flexibility and contribute to the widespread utilization of deferred equity instruments in early-stage financing.

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INTRODUCTION

HBO's successful comedy series *Silicon Valley* tells the story of Pied Piper, a fictional early-stage startup.¹ The show's premiere² introduces us to Richard Hendriks, one of Pied Piper's founders and the brain behind its cutting-edge compression algorithm. Richard dedicates his spare time to developing early Pied Piper software while maintaining his day job at Hooli, a tech giant. At the episode's climax, Richard grapples with two competing offers: Selling his algorithm to Hooli for a life-changing \$10 million or accepting an investment from Raviga, a venture capital fund ("VC"), to nurture Pied Piper as a startup. With a wrenching stomach, he finally chooses the latter.

Raviga's investment is closed a few episodes later.³ While the show does

¹ As used in this paper, the term "startup" refers to privately held technological ventures that apply, or pursue, a high-yield, high-growth, exit-bound business model relying primarily on capital raised from angels and VCs. For more on the term "startup" as representing a distinctive form of business venture see, e.g., Jill E. Fisch, *Stealth Governance: Shareholder Agreements and Private Ordering*, 99 WASH U. L. REV. 913, 927–9 (2021); Elizabeth Pollman, *Startup Governance*, 168 U. PA. L. REV. 155, 159–64 (2019).

² *Silicon Valley: Minimum Viable Product*, Season 1, Episode 1 (HBO television broadcast April 6, 2014).

³ *Silicon Valley: Fiduciary Duties*, Season 1, Episode 4 (HBO television broadcast April 27,

not dive too deep into the deal mechanics (to viewers' relief), it reveals some key terms. To start, the security issued to Raviga will be a *convertible note*. This means that Raviga is obligated to invest the agreed amount immediately at closing but will not immediately assume the role of a Pied Piper shareholder. In fact, it is unlikely to become one until the closing of Pied Piper's *next* investment round.⁴ Second, Raviga will appoint a single director – a minority position on Pied Piper's entrepreneur-controlled board.⁵

At the bottom line, Raviga would possess limited influence over the startup it had just invested in – either as an investor or a manager. This is true even though, in its embryonic stage, Pied Piper is an incredibly risky investment. A myriad of technological and business challenges, both known and unknown, may stand in the way of building “something people want” around Pied Piper's algorithm.⁶ There is also no guarantee that a first-time entrepreneur like Richard can successfully lead such a process or even if he seriously intends to try.

Vcs are known for incorporating various control mechanisms into their investment agreements to mitigate these risks. Consequently, one might expect that a VC investing in an early-stage startup would secure controls and safeguards that are at least as comprehensive as those obtained by later-stage investors, who participate in more established startups.⁷ The reality, however, is that Raviga's relatively loose control over Pied Piper closely mirrors the structure of thousands of initial investment rounds – often referred to as *seed* or *pre-seed* financings⁸ – closed by real-life startups every year.

Startups' governance structures have grown generally more entrepreneur-friendly in recent years.⁹ Despite this broader trend, a significant variation remains between startups' seed and later-stage governance structures. First, seed investments are less likely than later-stage investments to afford investors “hard” controls – i.e., the power to interfere with the entrepreneurs'

2014).

⁴ “Convertible notes” are debt instruments that may convert to the issuer's equity, at will or upon the occurrence of predetermined trigger events. About convertible notes and their use in startup financing see *infra* notes 56–61 and text.

⁵ Other than Richard and Raviga's director, Pied Piper's proposed board would have also included Erlich Bachman, who ran the tech incubator where Richard lived and worked. Erlich was technically an investor, but as viewers of the show would agree, more accurately fits among the entrepreneurial team.

⁶ “Make something people want” is a maxim associated with the well-known tech accelerator Y Combinator. See *Make Something People Want*, MEDIUM (May 8, 2017) <http://bit.ly/41vmID8>.

⁷ See *infra* part I.B.2.

⁸ This paper will use the term “Seed” to describe startups' earliest financing rounds funded by arm's-length financiers. These rounds may sometimes be referred to by industry players as “pre-seed” rounds. About the boundaries of the term “seed”, as used in this paper, and the distinction between the “seed” and “pre-seed” concepts, see *infra* notes 46–48 and text.

⁹ See Brian J. Broughman & Matthew Wansley, *Risk-Seeking Governance*, 76 VAND. L. REV. 1299, 1313–17 (2023).

business decisions, remove them from their managerial positions, or force a liquidation of the startup. Second, seed financings are often structured differently from later-stage financings. Later-stage investors are almost always issued preferred stock at the closing of their investments. Seed investors, in contrast, are often issued *deferred equity* instruments – securities that, like Raviga’s note, are designed to convert into startup stock at its next financing event (if ever closed). Until that happens, the investors are not shareholders and do not enjoy the rights and protections of such status.¹⁰

Scholars have described this surprising willingness of seed investors to accept less-protective investment terms as a “puzzle” or a “paradox.”¹¹ Various theories have been proposed to demystify seed investors’ behavior, all making valid points. However, their explanatory aspirations do not extend beyond describing specific aspects or traits of seed financing or the conduct of particular types of seed investors. For instance, costly contracting theories correctly emphasize how the smaller investment amounts in seed financing do not justify extensive negotiation over structures that would allow closer investor oversight. However, they cannot rationalize startups’ choices between possible governance structures that are equally cost-effective.¹² Theories focused on the difficulty of pricing seed equity emphasize that using deferred equity instruments, which do not require pricing the startup’s stock, helps mitigate these pricing challenges. However, these theories struggle to explain why deferred equity instruments often require negotiating over conversion mechanisms that create similar mispricing concerns.¹³ Option value-based theories may explain why seed

¹⁰ This paper uses the term *deferred equity* to refer to any kind of debt or equity securities, other than preferred stock, that are designed to convert into startup stock upon the occurrence of certain trigger events, such as the lapse of time or the raising of additional capital.

¹¹ See, e.g., J. Brad Bernthal, *The Evolution of Entrepreneurial Finance: A New Typology*, 2018 B.Y.U.L. REV. 773, 836 (using the term “the angel paradox” to refer to the fact that “the earliest investors who take the most risk often receive less favorable terms than later-in-time investors”); Darian M. Ibrahim, *The (Not So) Puzzling Behavior of Angel Investors*, 61 VAND. L. REV. 1405, 1408 (2008) (“angels’ use of simple contracts appear to be a departure from what financial contracting theory would predict and, as a result, seems to be a puzzling behavior”).

¹² This notion is often made, for instance, in the context of choosing between issuing deferred equity instruments or “light” preferred stock. See, e.g., John F. Coyle & Joseph M. Green, *Contractual Innovation in Venture Capital*, 66 HASTINGS L.J. 133, 173 (2014) (“As contractual innovations in preferred stock financings have decreased the cost and complexity of those transactions precipitously, the comparative advantage of seed notes [...] has diminished”); BRAD FELD & JASON MENDELSON, *VENTURE DEALS* 114 (4th ed. 2019) (“most fans of convertible debt argue that it’s much easier transaction than an equity financing [...] the legal fees argument is less persuasive these days with the many forms of standardized documents”).

¹³ See Coyle & Green, *Contractual Innovation*, *supra* note 12, at 163–65; Will Gornall & Ilya A. Strebulaev, *The Contracting and Valuation of Venture Capital-Backed Companies*, in HANDBOOK OF THE ECONOMICS OF CORPORATE FINANCE §3.4.6 (2023); John L. Orcutt, *Valuing Young Startups Is Unavoidably Difficult: Using (And Misusing) Deferred-Equity Instruments for Seed Investing*, 55 TULSA L. REV. 469, 505 (2020); E. THOM RUMBERGER, JR., *THE ACQUISITION AND SALE OF EMERGING GROWTH COMPANIES: THE M&A EXIT* §2:15, fn. 2 (2nd ed. 2022).

investors would rather wait to see if the startup turns out to be successful before leaning in and investing more significant resources, but cannot explain why seed investors are particularly more reluctant to invest *human* capital (e.g., by exercising control rights) in their portfolio startups.¹⁴ Entrepreneur-friendly markets could give entrepreneurs the upper hand when negotiating investment terms,¹⁵ which explains why seed financing transactions are entrepreneur-friendly overall. However, these market trends cannot explain why seed investors are consistently willing to compromise on the extent of hard controls they hold but are much less willing to compromise on other deal aspects.¹⁶

This paper will thus propose a new theory for understanding seed investors' behavior. It will emphasize how seed-specific factors make hard controls more costly to hold and less useful for seed investors compared to later-stage investors. This notion directly affects how seed financing transactions are structured and the investment terms offered to seed investors.

Seed investor control is costly for two main reasons. *Firstly*, seed investors are prone to making mistakes when wielding control due to the vast information advantage held by seed-stage entrepreneurs over their investors.¹⁷ Seed investors often find themselves venturing beyond their comfort zone when attempting to oversee the research and development (R&D) intensive seed stage of startups. In contrast, later-stage investors exercise control when the startup has transitioned towards a greater emphasis on commercialization and business development—domains in which business-savvy investors often have an advantage over entrepreneurs.¹⁸ Moreover, later-stage investors can evaluate the

¹⁴ See *infra* part II.B.2.

¹⁵ This notion is particularly common as an explanation for the rising popularity of the use of SAFEs, a form of deferred equity instrument that is often considered entrepreneur friendly. See, e.g., Joseph M. Green & John F. Coyle, *Crowdfunding and the Not-So-Safe SAFE*, 102 VA. L. REV. ONLINE 168, 173 (2016) (suggesting that the originally-intended users of SAFEs were “founders of hot startups and highly experienced startup investors competing for access to those companies”); ALAN S. GUTTERMAN, BUSINESS TRANSACTIONS SOLUTIONS §158:3 (2023) (“Safes seem to be more prevalent among “hot” deals where investors are scrambling to be included and have less leverage to negotiate more protections [...]”); David Magnum, *Bringing Angel Investing Out of the Shadows* 20 (Silicon Flatirons Roundtable Series on Entrepreneurship, Innovation and Public Policy, May 2012) <https://bit.ly/40yK2jo> (citing venture capitalist Mark Suster, who opined that angels should insist on purchasing stock rather than deferred equity “unless [...] in the rare position of having access to some of the hottest deals in the world”); A. Reid Monroe-Sheridan, *Promoting Legal Innovation in Japanese Startup Financing*, 10 GEO. MASON J. INT’L COM. L. 22, 35 (2019) (“The popularity of the Safe also likely reflects that promising founders currently command substantial negotiation leverage in Silicon Valley”). About SAFEs in general see *infra* notes 62–68.

¹⁶ See *infra* subpart II.C.

¹⁷ For a similar discussion focused on the governance structures of publicly-traded firms see generally Zohar Goshen & Assaf Hamdani, *Corporate Control and Idiosyncratic Vision*, 125 YALE L.J. 560 (2016); and see *infra* part III.A.1.

¹⁸ See Darian M. Ibrahim, *Debt as Venture Capital*, 2010 U. ILL. L. REV. 1169, 1192 (2010) (“the entrepreneur has vastly superior information about the start-up due to a combination of

startup's performance based on a much more stable business plan, as well as data and metrics that are unavailable or inconclusive during the seed stage.¹⁹

Secondly, seed investor control is also more costly due to its adverse effects on entrepreneurs' incentives to contribute to the startup's success. At the seed stage, startups rely heavily on the willingness of entrepreneurs to transfer their technological and business concepts to the startup and put in a dedicated effort to develop a product around them. Entrepreneurs would be hesitant to make these firm-specific investments in investor-controlled startups, as controlling investors could easily restrict their ability to reap the rewards of their hard work.²⁰ In contrast, later-stage startups are not as reliant on the unique contributions of their entrepreneurs. It is during the seed stage that the active involvement of entrepreneurs should be most strongly encouraged, and failing to do so would be most costly. Consequently, seed investors rationally provide entrepreneurs with the necessary degree of control to alleviate these concerns and facilitate their vital contributions.²¹

While it is costlier for investors to hold, seed investor control is also not as necessary for mitigating risks as later-stage control is believed to be. Several seed-specific factors reduce the risk of entrepreneurs' self-serving or less-than-diligent behavior, making seed investors comfortable giving entrepreneurs more leeway. *First*, the potential for self-dealing in smaller, cash-constrained firms like seed-stage startups is significantly lower.²² *Second*, seed-stage entrepreneurs know that most of the investor funds needed to sustain the startup are yet to be secured, and concerns about their integrity could render the startup non-fundable.²³ *Third*, exit-related conflicts of interest that often occur in later-stage startups are much less likely at the seed stage. Seed-stage startups have fewer investors whose exit-related interests may conflict, and their exits usually provide for insignificant amounts that are rarely worth fighting about. Accordingly, investors have less use for rights designed to resolve exit-related conflicts.²⁴ *Finally*, by ensuring that entrepreneurs retain a substantial equity stake throughout the seed stage, seed investors further diminish the risks associated

technical complexity and newness"); Elizabeth Pollman, *Team Production Theory and Private Company Boards*, 38 SEATTLE U.L. REV. 619, 628 (2015) ("entrepreneurs typically have superior information about the startup because of the technical novelty and complexity of the product or service")

¹⁹ See *infra* part III.A.1.

²⁰ The risk of opportunist appropriation of value created by firm-specific investments is, of course, not unique to startup. For a discussion of these risks and their governance effects more generally see, e.g., Benjamin Klein et al, *Vertical Integration, Appropriable Rents, and the Competitive Contracting Process*, 21 J.L. ECON. 297, 298–302 (1978); Oliver E. Williamson, *Transaction-Cost Economics: The Governance of Contractual Relations*, 22 J.L. ECON. 233, 238–45 (1979). For notable startup-specific applications see *infra* note 220.

²¹ See *infra* part III.A.2.

²² See *infra* part III.B.

²³ See generally Pollman, *Startup Governance*, *supra* note 1, at 165–70; and *infra* part III.B.

²⁴ *Id.*

with entrepreneur-side opportunism without asserting control.²⁵

It is easy to see how the low cost-efficiency of seed investor control explains their limited appetite for securing hard controls. Less easily observable, perhaps, is how the prevalence of deferred equity instruments in seed financing follows the same logic. Investors may hold powers to interfere with the managers' business strategy not only under their *contractual* rights but also under their *statutory* ones. These powers may stem, for instance, from their fiduciary protections, appraisal rights, or their right for a class vote over certain charter amendments. Seed investors tend to discount the value of many of these protections, much like they discount the significance of contractual safeguards. However, not all of these protections can be easily waived or opted out of by seed investors who hold shares. Certain waivers may be explicitly prohibited by statutory provisions or necessitate the formulation of intricate shareholder agreements.²⁶ Holding deferred equity offers seed investors a straightforward and dependable means of temporarily suspending their statutory protections during the seed stage by temporarily avoiding shareholder status.²⁷

Applying the proposed theory could affect how legislatures, regulators, and courts perceive seed financing instruments and their users. For instance, it has been the persistent position of Delaware courts that the special rights of preferred shareholders should be strictly construed and not be awarded fiduciary protection. Among the common justifications for this approach was the perception of preferred shareholders as sophisticated investors who can negotiate their investment terms to the maximum extent their bargaining power allows. Theories that view seed investors' relaxed protections as the result of investor unsophistication or non-financial investment motives may call for a different approach, allowing courts more freedom to add what is missing where seed investors' rights are concerned. The theory proposed here, which sees these relaxed protections as a rational exchange between low and high-valued investor rights, does not justify deviation from Delaware courts' traditional approach.

This paper thus makes two main contributions. First, it critically reviews the present theories about the terms and structure of seed financing transactions, systematically exploring their blind spots and the limits of their explanatory power. Second, it proposes a new, comprehensive framework for understanding the terms and structure of seed financing.

The paper proceeds as follows. Part I discusses the place of seed

²⁵ See generally Zohar Goshen & Richard Squire, *Principal Costs: A New Theory for Corporate Law and Governance*, 117 COLUM. L. REV. 767, 807–08 (2017), referring to publicly-traded firms with a concentrated ownership structure; and see *infra* note 236 and text.

²⁶ About the limits of opting out of statutory shareholder protections through the corporation's governing documents and through shareholder agreements see Fisch, *supra* note 1, at 923–27; 927–41, and see *infra* part III.C.2.

²⁷ Holders of deferred equity instruments are not considered shareholders and are not owed fiduciary duties. See Bernthal, *Evolution*, *supra* note 11, at 806, 808–09; RICHARD A. BOOTH, FINANCING THE CORPORATION §§3:10, 8:40.

financing within the startup’s lifecycle and its distinct features compared to later-stage financing rounds. Part II reviews and critically examines the current theories explaining seed financing’s unique features. Part III presents a new approach to understanding the terms and structure of seed financing transactions. A brief conclusion follows.

I. SEED FINANCING AND ITS UNIQUE FEATURES

A. Seed Financing and the Startup Lifecycle

A startup is born when one or more entrepreneurs start working on generating an idea of how some market need may be answered in a new, innovative way. This thought process is often portrayed as an attempt to identify a “problem” and propose a novel “solution” to address it.²⁸ In their early stage, startups focus on turning the entrepreneurs’ perceptions of such problems and solutions into products. A typical first step in this process would be the *proof of concept*. This means creating a model or a prototype to demonstrate that the startup’s solution is technically capable of resolving a well-defined problem in a way that could make economic sense.²⁹

Once the concept is “proven,” startups often move to build a limited-feature version of their solution – a *minimum viable product* (MVP) – and release it to the market selectively. The MVP and the startup’s business model would then undergo iterative cycles of validation and improvement based on customer feedback.³⁰ This process would gradually improve the startup’s perception of its target market and optimize the product to meet its needs, a.k.a. achieving *product-market fit*.³¹ Alternatively, it may make the entrepreneurs realize that some of

²⁸ See, e.g., ROBERT JOE HULL ET AL, REPRESENTING START-UP COMPANIES §1:1 (2022) (“A startup begins its early stage when one or more founders conceive of an idea [...] The animating feature of these examples and any promising startup idea is that it solves a problem”); Pollman, *Startup Governance*, *supra* note 1, at 165–67 (“Startups are typically founded or cofounded by entrepreneurs who have an invention, technological idea, or discovery, and a desire to pursue commercial development [...] by their nature, startups pursue innovation”).

²⁹ see Max Bonpain, *Starting Up: “From ‘No Idea’ to Product-Market Fit in 4 Steps*, MEDIUM (Aug. 20, 2020) <https://bit.ly/3LuPb74>; HULL ET AL, *supra* note 28, at §1.1 (“Once an idea is generated and a startup is launched, the founder(s) begin to develop a business concept around the idea. This often involves building a prototype of the product or services and developing a business model to clearly define how the product or services will eventually be marketed and sold to generate revenue”).

³⁰ The “minimum viable product” concept is often associated with the “Lean Startup” business development methodology. See ERIC RIES, THE LEAN STARTUP, ch. 6 (2011); and see also Bonpain, *supra* note 29; Haje Han Kamps, *Your MVP is Neither Minimal, Viable nor a Product*, TECHCRUNCH (May 3, 2022) <https://bit.ly/41EDqR7>.

³¹ Marc Andreessen of the well-known VC Andreessen Horowitz famously defined “product-market fit” as “being in a good market with a product that can satisfy that market”; see Tren Griffin, *12 Things About Product-Market Fit*, ANDREESSEN HOROWITZ (Feb. 18, 2017) <https://bit.ly/3LuRyXw>; see also Bonpain, *supra* note 29.

their original hypotheses about the product or target market were wrong. The entrepreneurs may then *pivot*, i.e., rethink their initial perceptions of the problem or its solution and return to square one with a different technological or business concept.³² The exact moment a particular startup crosses the finish line of its early stage may be hard to spot.³³ However, such startups are expected to be ready to gradually shift their focus from product development to *scaling*, i.e., increasing their market share or revenue generation and exposing the product's capability to answer the needs of large markets.³⁴

Reducing the entrepreneurs' ideas from abstraction into a scalable product requires cash. At some point, moving forward would necessitate purchasing software or equipment, hiring more working hands and a workspace to accommodate them, and paying for outsourced services like cloud computing, bookkeeping, or legal advice. As startups typically make no revenue at this stage or have insufficient revenues to cover their increasing expenses,³⁵ they must tap into external financing sources to survive.

At least for a while, the entrepreneurs may be able to *bootstrap* – i.e., keep the startup afloat by harnessing their personal funds to supplement whatever revenue the startup can make and keeping expenses at a bare minimum.³⁶ Where possible, the entrepreneurs are likely to seek financial support from their close circles – often called *friends-and-family* financing.³⁷ Sometimes, these sources alone would suffice to create a marketable product that could generate enough revenue to cover the startup's costs and sustain its growth objectives, saving the need to raise any more funds.³⁸ In most cases, though, once these resources have been exhausted and the startup's expenses increase, the entrepreneurs seek funding from arms-length financiers.

³² REIS, *supra* note 30, at ch. 8.3.

³³ See HULL ET AL., *supra* note 28, at §1.1. (“The line between early stage and growth stage startups is often blurred. But hallmarks of a growth stage startup include a thriving company that has met early-stage business model goals, received market acceptance for its product or service, is solving an important problem, is earning revenue, and is in the process of increasing revenue and adding personnel to scale up operations”).

³⁴ See Pollman, *Startup Governance*, *supra* note 1, at 168; HULL ET AL., *supra* note 28, at §1.1 (“growth stage”).

³⁵ Ibrahim, *Debt*, *supra* note 18, at 1175 (“start-ups can burn through millions of dollars a month before having any sort of revenue-generating product or service to market”); Orcutt, *supra* note 13, at 474 (“Because startups are built for growth, they generally must sacrifice near-term profitability and endure years of losses”).

³⁶ Pollman, *Startup Governance*, *supra* note 1, at 170; HULL ET AL., *supra* note 28, at §1.1 (referring to bootstrapping as a main source of pre-seed startup financing, defining it as “reliance on the personal finances of the founders, operating revenue of the new business (if any), and severe frugality”).

³⁷ GUTTERMAN, *supra* note 15, at §158:14; Pollman, *Startup Governance*, *supra* note 1, at 170; Orcutt, *supra* note 13, at 476. Some refer to this source of financing jokingly as “3F” – “friends, family, and fools”; see *id.* at fn. 29; HULL ET AL., *supra* note 28, at §1.1.

³⁸ See Darian M. Ibrahim, *Equity Crowdfunding: A Market for Lemons?* 100 MINN. L. REV. 561, 580 and fn. 100 (2015).

Since the startup would usually have neither a positive cash flow nor sufficient assets to use as collateral, raising debt, like traditional emerging businesses often do, would rarely be an option,³⁹ and the likely alternative would be equity financing. While various early-stage financing sources exist, the two archetypical investor types who provide such financing are *angels* and *VCs*.⁴⁰ Angels are high-net-worth individuals, often ex-entrepreneurs, who invest their personal wealth in early-stage startups.⁴¹ They may do so independently or collaborate with others as part of an “angel group.”⁴² VCs are investment funds that pool the financial resources of upstream investors such as financial institutions, university endowments, sovereign wealth funds, and family offices into investments in high-growth, high-risk businesses.⁴³ While traditionally known for investing in the later stages of the startup lifecycle, it is not unusual for VCs today to participate in very early rounds, too.⁴⁴ Some VCs, typically smaller, participate primarily or exclusively in startups’ earliest arms-length financings.⁴⁵

For simplicity and clarity, this paper uses the term “*seed financing*” to refer to a startup’s first equity financing in which it raises funds primarily from angels

³⁹ See Bernthal, *Evolution*, *supra* note 11, at 798–99; Ibrahim, *Debt*, *supra* note 18, at 1175–76, 1181–82; Orcutt, *supra* note 13, at 501 and fn. 133. Many early-stage financing instruments, however, are based on *convertible* debt – see *infra* part I.B.1. In addition, debt may become an available source of financing for startups (known as “venture debt” or “venture lending”) once the startup had secured its first VC investment; see generally Ibrahim, *Debt*, *supra* note 18.

⁴⁰ See Darian M. Ibrahim, *Should Angel-Backed Start-Ups Reject Venture Capital?* 2 MICH. J. PRIVATE EQUITY & VENTURE CAP. L. 251, 253–54 (2013) (referring to angels and VCs as the “two main sources of entrepreneurial finance”); Seth C. Oranburg, *Bridgefunding: Crowdfunding and The Market for Entrepreneurial Finance*, 25 CORNELL J.L. & PUB. POL’Y 397, 404 (2015) (noting that “angels and VCs currently provide the vast majority of traditional startup investments”); Pollman, *Startup Governance*, *supra* note 1, at 170 (“two types of investors specialize in financing startups: angel investors and VCs”). About some alternative funding sources for early-stage startups see *infra* note 46.

⁴¹ Abraham J.B. Cable, *Fending for Themselves: Why Securities Regulations Should Encourage Angel Groups*, 13 U. PA. J. BUS. L. 107, 115–16 (2010); Ibrahim, *(Not So) Puzzling*, *supra* note 11, at 1406.

⁴² About angel groups see Cable, *Fending*, *supra* note 41, at 117–20; Ibrahim, *(Not So) Puzzling*, *supra* note 11, at 1443–46; Scott Shane & Nicos Nicolaou, *Exploring the Changing Institutions of Early-Stage Financing*, 14 J. INST. ECON. 1121, 1123 (2018).

⁴³ About venture capital funds see generally Ronald J. Gilson, *Engineering a Venture Capital Market: Lessons from the American Experience*, 55 STAN. L. REV. 1067, 1070–76 (2003); Paul Gompers & Josh Lerner, *The Venture Capital Revolution*, 15 J. ECON. PERSPECT. 145 (2001).

⁴⁴ Coyle & Green, *Contractual Innovation*, *supra* note 12, at 136; HULL ET AL., *supra* note 28, at §1.1 (“Venture capital firms [...] traditionally have invested in startups only during the growth or late stages. But in a recent trend, VCs are now providing funding to startups at increasingly earlier stages”); According to the National Venture Capital Association (NVCA), 39 percent of all VC investments in 2022 went to angel or seed rounds; see NVCA, 2023 YEARBOOK 12 (2023) [hereinafter: NVCA YEARBOOK]. About the NVCA’s definition of “seed rounds” see *infra* note 46.

⁴⁵ Some such VCs are referred to as “seed funds”, “micro-VCs”, or “super-angels”; see GUTTERMAN, *supra* note 15, at §158:18; Shane & Nicolaou, *supra* note 42, at 1124–26.

or VCs.⁴⁶ The financing event following such a round is referred to as “Series A.” It should be noted that this terminology may not be entirely in sync with industry players’ varying naming conventions. With the increase in the availability of early-stage financing in the last two decades, it has become increasingly common to divide startups’ financing rounds preceding the Series A into “pre-seed” and “seed” rounds,⁴⁷ with the dividing line between these concepts being somewhat blurry and fluid. Broadly speaking, “pre-seed rounds” are smaller early financing rounds raised to develop the MVP and find product-market fit. These rounds are more likely to be funded by individual investors. “Seed rounds,” respectively, are larger rounds, raised once the product is more mature (often after having raised a “pre-seed” round earlier), and which are more likely to be funded by professional investors. Many of these so-called “Seed rounds” would have likely been classified as a “Series A” until a few years ago.⁴⁸ Applying the pre-seed/seed classification, the term “seed financing,” as used here, would loosely overlap with “pre-seed” rounds.

B. *The Structuring and Terms of Seed Investments*

Seed investments are different from later-stage startup investments. This applies both to the deal mechanics and deal terms. As mentioned above, unlike later-stage investors, seed investors are often not shareholders but hold deferred equity instruments. In addition, whether or not they hold shares, seed investors are likely to have lesser control rights and protections compared to later-stage investors. This part will briefly describe these differences.

1. Transaction Structuring

Startups’ investment rounds are typically based on straightforward issuance of stock to investors. At the closing of their investment, the investors wire the investment amount and concurrently become shareholders holding

⁴⁶ This largely follows the way the term “Seed Round” was defined by the NVCA in its latest yearbook (see NVCA Yearbook, *supra* note 44, at 65). As defined here, the term “seed” leaves outside the scope of discussion alternative early-stage financing sources. These may include, e.g., funding provided as part of incubation or acceleration programs (see Brad Bernthal, *Investment Accelerators*, 21 STAN. J.L. BUS. & FIN. 139 (2016)); governmental grants (see Brian Kingsley Krumm, *Fostering Innovation and Entrepreneurship: Shark Tank Shouldn’t Be the Model*, 70 ARK. L. REV. 553, 583–86 (2017)); crowdfunding campaigns (Ibrahim, *Equity Crowdfunding*, *supra* note 38, at 567–73); or cryptocurrency offerings (Bernthal, *Evolution*, *supra* note 11, at 811–13).

⁴⁷ See Robert P. Bartlett, *Standardization and Innovation in Venture Capital Contracting: Evidence from Startup Company Charters* 12–14 (Rock Ctr. Corp. Gov. Stan. U. Working Paper No. 253, 2023).

⁴⁸ About the rise of “pre-seed” concept and the differences between “seed” and “pre-seed” rounds see FELD & MENDELSON, *supra* note 12, at 8; GUTTERMAN, *supra* note 15, at §158:47:13; HULL ET AL., *supra* note 28, at §1.1; NVCA YEARBOOK, *supra* note 46, at 63, 65 (definitions of “Pre-Seed round” and “Seed round”).

convertible preferred stock.⁴⁹ Historically, this has been the case for seed investors, too (although they were typically issued common stock rather than preferred).⁵⁰ Since the early twenty-first century, however, seed financing standards have gradually changed.⁵¹

An increasingly significant number of seed investments – and today, perhaps, most⁵² – are based on issuing deferred equity instead of stock.⁵³ The particular terms of deferred equity instruments may vary. However, they share a simple principle: the investors holding them do not become shareholders immediately but only upon their conversion into shares later.⁵⁴ Therefore, unlike standard, priced investment rounds, deferred equity instruments do not require the entrepreneurs and the investors to set a valuation for the startup or name a price for its stock. Rather than specifying an accurate purchase price in dollar amounts, deferred equity instruments only provide the formula based on which the future conversion price would be finally calculated.⁵⁵

Convertible notes (“notes”) used to be an industry standard for non-

⁴⁹ See, e.g., Brian Broughman & Jesse M. Fried, *Carrots and Sticks: How VCs Induce Entrepreneurial Teams to Sell Startups*, 98 CORNELL L. REV. 1319, 1326–27 (2013); Charles R. Korsmo, *Venture Capital and Preferred Stock*, 78 BROOK. L. REV. 1163, 1173 (2013); Pollman, *Startup Governance*, *supra* note 1, at 160. For an example of the closing mechanics of post-seed investments see the NVCA’s model Series A transaction documents: *Stock Purchase Agreement*, NVCA (Apr. 2023) <https://bit.ly/3Lf7gET>, § 1.2.

⁵⁰ Cable, *Fending*, *supra* note 41, at 127; Coyle & Green, *Contractual Innovation*, *supra* note 12, at 136; Ibrahim, *(Not So) Puzzling*, *supra* note 11, at 1422.

⁵¹ John Coyle & Joe Green have marked the year 2005 as the turning point; see Coyle & Green, *Contractual Innovation*, *supra* note 12, at 136.

⁵² See, e.g., Lian Chang, *State of Private Markets: Q2 2022*, CARTA (Aug. 19, 2022) <https://bit.ly/3LwgE7i> (suggesting, based on a dataset of over 30,000 startups using Carta’s popular capitalization table management software, that the majority of startups’ initial financing rounds between the first quarter of 2019 and the second quarter of 2022 were based on deferred equity); John F. Coyle & Joseph M. Green, *The SAFE, The KISS, and The Note: A Survey of Startup Seed Financing Contracts*, 103 MINN. L. REV. HEADNOTES 42, 55–58 (2018) (estimating, based on a lawyer survey, that about fifty percent of all seed financing transactions in the US and Canada were based on deferred equity (“seed” defined as “the initial round of capital raised by a startup company”; *id.* at fn. 1)); Peter Walker, *Seed Rounds: Priced or SAFEs?* LINKEDIN (Oct. 2023) <https://bit.ly/48PEwOb> (finding, e.g., that sixty-five percent of a dataset of over two thousand seed rounds recorded on Carta on the first half of 2023 and providing for at least one million dollars were based on deferred equity).

⁵³ To be sure, deferred equity instruments are used in later stages too, but usually to raise “bridge financing” rather than major investment rounds. Bridge financing provides out-of-air startups with a few months’ worth of cash between rounds, allowing them to prepare for a sale or hit the business milestones necessary to raise their next major round. In bear markets, startups may use bridge financing to avoid raising a priced round at a low valuation. See, e.g., Chang, *supra* note 52; Coyle & Green, *Contractual Innovation*, *supra* note 12, at 151–54; Adam Lewis, *Bridge Rounds on The Rise as VC Market Slows*, CARTA (Dec. 20, 2022) <https://bit.ly/449vCZl>.

⁵⁴ About the conversion terms of notes and SAFEs see *infra* notes 104–107 and text.

⁵⁵ Bernthal, *Evolution*, *supra* note 11, at 804–05; Orcutt, *supra* note 13, at 501; and see *infra* notes 104–107 and text.

priced seed financings but have largely fallen from grace in recent years.⁵⁶ Superficially, notes are debt securities.⁵⁷ The noteholder lends a certain amount of funds to the startup, which should technically be repaid – with the interest accrued – at a predetermined maturity date.⁵⁸ If, however, the startup raises its Series A before the maturity date, the principal and interest accrued will automatically convert into shares of the same class issued to the Series A investors, terminating the note thereby.⁵⁹ Conversion into Series A shares is the hopeful result and the note’s true purpose.⁶⁰ The repayment feature serves as downside protection. Seed-stage startups’ cash-constrained nature would rarely allow repayment in cash without pushing the startup to insolvency. However, the right to demand repayment at maturity offers noteholders some leverage to renegotiate their rights should the startup fail to raise a Series A as planned.⁶¹

SAFEs – an acronym for “simple agreement for future equity” – are the more popular form of seed deferred equity instruments, gradually replacing notes in recent years.⁶² Developed in the early 2010s by Carolynn Levy of the well-known tech accelerator Y Combinator (YC),⁶³ SAFEs are often thought of as notes stripped from their debt features.⁶⁴ Like noteholders, SAFE holders provide the investment amount upfront and are issued with Series A shares once the startup raises one.⁶⁵ However, unlike notes, SAFEs do not have a maturity

⁵⁶ Chang, *supra* note 52 (finding that notes were used in thirty-six percent of startups’ initial financing rounds in the first quarter of 2019, dropping to eleven percent in the second quarter of 2022); Coyle & Green, *The SAFE*, *supra* note 52, at 55–58 (convertible notes were used at about thirty-six percent of all seed financings in the US and Canada, as of 2018); Hamza Shad & Kevin Dowd, *State of Pre-Seed: Q2 2024*, CARTA (Aug. 21, 2024) (finding, e.g., that 14 percent of the capital invested in pre-priced rounds of US startups were note-based), <https://bit.ly/4erFcLm>; About the various uses of convertible notes by non-startup firms see Coyle & Green, *Contractual Innovation*, *supra* note 12, at 151 and fn. 92.

⁵⁷ Bernthal, *Evolution*, *supra* note 11, at 804–05; Orcutt, *supra* note 13, at 501.

⁵⁸ See Bernthal, *Evolution*, *supra* note 11, at 803–04. Noteholders may also have the option to convert the note into common stock instead of being repaid: *id.* §3(b). In addition, repayment would also normally occur if a change of control event occurs while the note is outstanding; see *id.* at §3(d); Orcutt, *supra* note 13, at 503.

⁵⁹ More precisely, the notes would often convert into “shadow stock”, having the same rights and preferences as the Series A stock, with their economic rights (such as liquidation preference or antidilution protections) adjusted to match their lower price per share. See generally Bernthal, *Evolution*, *supra* note 11, at 804–05; Orcutt, *supra* note 13, at 502–03.

⁶⁰ Bernthal, *Evolution*, *supra* note 11, at 803–04; FELD & MENDELSON, *supra* note 12, at 113.

⁶¹ Coyle & Green, *Contractual Innovation*, *supra* note 12, at 167; Monroe-Sheridan, *supra* note 15, at 28–29.

⁶² See Chang, *supra* note 52; Coyle & Green, *The SAFE*, *supra* note 52, at 55–58; Shad & Dowd, *supra* note 56.

⁶³ See Carolynn Levy, *Safe Financing Documents* Y COMBINATOR (last visited Mar. 5, 2023) <https://bit.ly/3HEmLFg> [hereinafter: *Safe Financing Documents*].

⁶⁴ Coyle & Green, *Contractual Innovation*, *supra* note 12, at 168–69; GUTTERMAN, *supra* note 15, at §158:7.

⁶⁵ To be more precise, SAFEs convert into “SAFE Preferred Stock” that has the same rights and preferences as the Series A stock, except that any priced-based rights (such as

date (meaning they might never be repaid or converted), and interest does not accrue on the investment provided under them.⁶⁶ SAFEs would, therefore, be usually classified as equity derivatives rather than debt, essentially similar to pre-paid call options.⁶⁷ While various versions of SAFE-like instruments exist, YC's formats have situated themselves as the market standard.⁶⁸

Concurrently with the rising popularity of deferred equity, priced seed rounds have evolved to being based, almost exclusively, on issuing preferred stock rather than common stock.⁶⁹ Seed preferred stock may come as “*light preferred*” – a simplified version of classic VC-held preferred stock, offering relaxed investor rights and protections.⁷⁰ The “Series Seed” document set – introduced in 2010 by Ted Wang, then-partner at the law firm Fenwick & West – has been described as a market standard for this sort of structuring.⁷¹

Priced seed rounds have been observed to be more popular with professional seed investors, such as angel groups or VCs.⁷² However, angel groups and VCs would often accept deferred equity structuring too.⁷³ The use

liquidation preference or antidilution protections) attach to the SAFE's conversion price rather than the Series A purchase price. See, e.g., *Safe: Valuation Cap, No Discount*, Y COMBINATOR <https://bit.ly/3HEmLFg> [hereinafter: Model SAFE (Cap)], §§ 1(a) and 2 (definition of “Safe Preferred Stock”).

⁶⁶ Green & Coyle, *Crowdfunding*, *supra* note 15, at 171–72; GUTTERMAN, *supra* note 15, at §158:7; Monroe-Sheridan, *supra* note 15, at 27–28.

⁶⁷ Bernthal, *Evolution*, *supra* note 11, at 807; Green & Coyle, *Crowdfunding*, *supra* note 15, at 171–72; GUTTERMAN, *supra* note 15, at §158:7; Monroe-Sheridan, *supra* note 15, at 29 and fn. 35.

⁶⁸ Coyle & Green, *The SAFE*, *supra* note 52, at 54–58 (comparing the popularity of the SAFE and the “KISS”, a comparable form developed by tech accelerator 500 Startups); GUTTERMAN, *supra* note 15, at §158:7 (“Safe documents developed by Y Combinator continue to dominate the market for forms used for this type of financing strategy [...]”).

⁶⁹ Coyle & Green, *Contractual Innovation*, *supra* note 12, at 170–71.

⁷⁰ See Bernthal, *Evolution*, *supra* note 11, at 800; GUTTERMAN, *supra* note 15, at §158:17.

⁷¹ See *Series Seed Financing Documents*, SERIES SEED (FEB. 25, 2014) <https://bit.ly/3Hl0ODr>; Coyle & Green, *Contractual Innovation*, *supra* note 12, at 175–76. about the popularity of the Series Seed model see GUTTERMAN, *supra* note 15, at §158:3 (“many issuers issuing equity in connection with their seed round financings rely on the “series seed” documents”); Brad Newman, *Seed Note and Equity Financing Documents and Generators*, COOLEYGO <https://bit.ly/3LVEI4J> (noting that the Series Seed model documents “have become one of the “go-to” sets of documents for many early-stage equity financings”).

⁷² *Id.* at 172 (suggesting that some angels and early-stage VCs “will only invest in seed equity”); GUTTERMAN, *supra* note 15, at §158:23 (“if the investors have experience investing in preferred stock and prefer that instrument, as is often the case with seed capital funds, the company likely issue preferred stock”); HULL ET AL., *supra* note 28, at Appendix 5-E (“the form of the investment [by angel groups – G.W.] is mostly equity through preferred shares”).

⁷³ Coyle & Green, *Contractual Innovation*, *supra* note 12, at 172 (“there are many angels and early-stage VCs that are comfortable investing via seed notes containing conversion price caps”); HULL ET AL., *supra* note 28, at Appendix 5-E (noting, with respect to angel groups’ investments, that “convertible notes are often used”); see also Ash Rust, *Seed Fundraising – VCs vs. Seed Funds vs. Angels*, MEDIUM (Apr. 27, 2017) <https://bit.ly/41c1idH> (suggesting, e.g., that “seed funds are usually comfortable with notes but be prepared for a potential lead to want a priced round”);

of preferred stock is similarly believed to be correlated with seed financings that occur later in the startup's lifecycle or provide more significant investment amounts.⁷⁴ That said, recent years have seen a strong trend of deferred equity instruments being used to facilitate increasingly larger seed rounds.⁷⁵

2. Investment Terms

i. *Control Terms*

Compared to later-stage investors, seed investors are significantly less likely to hold “hard” controls – namely, the power to cause the startup to pursue certain business decisions or decisively prevent it from doing so, the power to remove the entrepreneurs from their managerial positions, or the power to force an exit strategy on the startup.

Later-stage investors exercise a certain level of control through their voting power as shareholders.⁷⁶ While they would often hold minority interests (particularly in the startup's earlier stages),⁷⁷ VCs' investment documents almost always provide them with means of control that allow much more significant shareholder-level influence than what their pro rata share reflects. These means are likely to include a list of *protective provisions* – i.e., issues requiring obtaining their consent by a class vote before corporate action may be taken.⁷⁸ These contractual rights complement similar minority protections that investors may hold by statute.⁷⁹ Another notable example is *drag-along rights*, which may allow

Ed Zimmerman, *When The Music Stops: SAFEs & Convertible Notes Give VCs Massive Price Protection*, FORBES (Mar. 15, 2020) <https://bit.ly/3ntmRZy>.

⁷⁴ Coyle & Green, *Contractual Innovation*, *supra* note 12, at 172 (noting that “the amount of capital being raised in the seed round also plays a part” when choosing between issuing deferred equity and preferred stock in seed rounds); GUTTERMAN, *supra* note 15, at §158:23 (“companies may issue some form of convertible preferred stock in the later stages of seed financing and/or when the size of the financing is relatively large [...]”); HULL ET AL., *supra* note 28, at Appendix 5-E (suggesting that angel groups are more likely to use notes where the investment amounts are relatively small).

⁷⁵ Walker, *Seed Rounds*, *supra* note 52 (finding, based on a dataset of over 13,000 seed rounds exceeding one million dollars and recorded on Carta, that deferred equity-based rounds constituted sixty-five percent of such rounds closed in the first half of 2023, compared to thirty-eight percent of such rounds closed in 2020); Shad & Dowd, *supra* note 56 (finding, e.g., that between June 2023 and June 2024, twenty-eight percent of startups' financing rounds exceeding \$5 million were SAFE-based).

⁷⁶ Later-stage investors are almost always shareholders; see *supra* note 49 and text.

⁷⁷ About the typical equity stakes purchased by seed and Series A investors see *infra* note 103 and text.

⁷⁸ For an example of typical Series A protective provisions see *Certificate of Incorporation*, NVCA (Jul. 2024) <https://bit.ly/3Lf7gET>, §3.3 [hereinafter: Series A Model COI]; see also HULL ET AL., *supra* note 28, §§ 7:9 and 7:29; D. Gordon Smith, *The Exit Structure of Venture Capital*, 53 UCLA L. REV. 315, 346–47 (2005).

⁷⁹ For instance, under Delaware law, certain charter amendments that could adversely affect

investors, under certain conditions, to force other shareholders to vote in favor of a sale of the startup.⁸⁰ Seed investors, however, are less likely to hold the same extent of shareholder-level control.⁸¹ Priced seed rounds may give investors similar privileges to those later-stage investors enjoy, including protective provisions⁸² and drag-along rights.⁸³ However, as mentioned, a significant number of seed investors – most, probably – hold deferred equity instruments. These seed investors are not shareholders and have no shareholder-level voting power.⁸⁴

Seed investors are also likely to have less significant control over the startup's board than later-stage investors. VCs leading later-stage investments will usually secure at least one board seat, such that as the startup matures and more rounds are raised, the entrepreneurs gradually lose their unfettered dominance over the board.⁸⁵ When not controlling the board, later-stage investors often ensure that specific board resolutions require investor-appointed directors' consent.⁸⁶ Seed investors, conversely, are less likely to hold board seats. When they do, it would typically be a minority position within an entrepreneur-controlled board, often having no power to veto board resolutions.⁸⁷ One critical implication of holding less board control is that seed-stage investors are less likely than later-stage investors to have the ability to remove the entrepreneurs from their senior managerial positions.⁸⁸

a particular class of stock would require a class vote; see DEL. CODE ANN. tit. 8, § 242(b).

⁸⁰ See *Voting Agreement*, NVCA (Jan. 2024) <https://bit.ly/3Lf7gET>, § 3; HULL ET AL., *supra* note 28, § 7:25; FELD & MENDELSON, *supra* note 12, at 85–88.

⁸¹ The right to demand repayment of seed notes at maturity is a prominent exception which provides noteholders with a form of hard controls that are rarely afforded to other seed or later-stage startup investors. This is true both for SAFE holders (see *supra* note 66 and text) and shareholders (see, e.g., Series A Model COI, *supra* note 78, n. 69 and Abraham J.B. Cable, *Opportunity-Cost Conflicts in Corporate Law*, 66 CASE W. RES. L. REV. 51, 105 (2015), referring to startup shareholders' redemption rights).

⁸² See also GUTTERMAN, *supra* note 15, at §158:3 (describing the protective provisions of Series Seed stock as “similar to those found in a company-friendly venture capital financing”).

⁸³ See *Series Seed – Stock Investment Agreement* § 5.3 (Feb. 25, 2014) <https://bit.ly/3Hlo0Dr> [hereinafter: Series Seed Model SPA].

⁸⁴ See *supra* note 52 and text.

⁸⁵ Pollman, *Startup Governance*, *supra* note 1, at 181; Smith, *The Exit Structure*, *supra* note 78, at 326–27.

⁸⁶ The default wording of the NVCA's model Series A documents set requires such consent, e.g., regarding certain related party transactions, incurring debt in excess of the approved budget, changing the principal business of the startup, or entering into “strategic relationships”; see *Investors' Rights Agreement*, NVCA (Apr. 2024) <https://bit.ly/3Lf7gET>, §5.5 [hereinafter: Series A Model IRA].

⁸⁷ GUTTERMAN, *supra* note 15, at §158:6 (noting that seed investors would be typically represented on the board – if at all – by a single representative “without any ability to override decisions made by the majority of the board elected by common shareholders”). Angels are particularly less likely to secure board seats – see Cable, *Fending*, *supra* note 41, at 127; Gornall & Strebulaev, *supra* note 13, at §4.7; Ibrahim, *(Not So) Puzzling*, *supra* note 11, at 1423.

⁸⁸ In Delaware corporations, unless otherwise prescribed, the right to appoint and remove

Fiduciary protections are another way for shareholders to influence directors' and officers' behavior. This influence can be manifested either ex-post, by actively challenging managerial decisions in court, or ex-ante, through the restraining effect these duties presumably have on managers' decision-making process. As shareholders, later-stage investors are owed fiduciary duties under Delaware law (although these protections may not extend to all their rights).⁸⁹ Seed investors holding deferred equity instruments, on the other hand, lack this supplementary level of investor protection. Deferred equity holders are not shareholders and, as such, are not owed fiduciary duties,⁹⁰ at least as long as the startup remains solvent.⁹¹

Later-stage and seed investors have much more in common regarding their softer means of control. Notably, both later-stage and seed-stage investors – whether holding shares or deferred equity instruments – often possess a *pro-rata right* on new equity issuances. This means that while seed investors may not be able to initiate or veto a new equity issuance,⁹² they are more likely to secure the right to participate.⁹³ Seed investors are also expected, similarly to later-stage investors, to bargain for means to monitor and gather information about how

the Chief Executive Officer is part of the board's blanket authority to manage the corporation's affairs; DEL. CODE ANN. tit. 8, § 141(a). This is also the typical situation in VC-backed startups; see FELD & MENDELSON, *supra* note 12, at 77 (“the board of directors [...] almost always has the power to fire the CEO”).

⁸⁹ Where the interests of common shareholders diverge from the contractual rights of preferred shareholders, directors' fiduciary duties generally require them to favor common shareholders' interests; see *Equity-Linked Invs., L.P. v. Adams*, 705 A.2d 1040, 1042 (Del. Ch. 1997); *LC Cap. Master Fund, Ltd. v. James*, 990 A.2d 435, 449–51 (Del. Ch. 2010); *In re Trados Inc. S'holder Litig.*, 73 A.3d 17, 39–41 (Del. Ch. 2013).

⁹⁰ The law is settled re notes: see *Simons v. Cogan*, 549 A.2d 300, 302–03 (Del. 1988); *In re Nine Sys. Corp. S'holders Litig.*, No. CIV.A. 3940-VCN, 2013 WL 771897, at *7 (Del. Ch. Feb. 28, 2013). There does not seem to be a direct authority discussing the fiduciary duties owed to SAFE holders. However, there is no apparent reason to treat them differently than holders of similar equity derivatives – warrants, for example – who are not owed such duties (see *id.*; *Corp. Prop. Assocs. 14 Inc. v. CHR Holding Corp.*, No. CIV.A 3231-VCS, 2008 WL 963048, at *4–5 (Del. Ch. Apr. 10, 2008)). See also Bernthal, *Evolution*, *supra* note 11, at 808–09; Green & Coyle, *Crowdfunding*, *supra* note 15, at 172.

⁹¹ Fiduciary duties may be enforced by creditors where a corporation is insolvent; see *Credit Lyonnais Bank Nederland, N.V. v. Pathe Communs. Corp.*, Civil Action No. 12150, 1991 Del. Ch. LEXIS 215 (Del. Ch. Dec. 30, 1991); *Am. Catholic Educ. Programming Found., Inc. v. Gheewalla*, 930 A.2d 92 (Del. 2007).

⁹² Seed investors holding protective provisions may be able to do so; see *supra* note 78 and text.

⁹³ For later-stage pro rata rights see Series A Model IRA, *supra* note 86, at § 4; FELD & MENDELSON, *supra* note 12, at 100–01. The Series Seed model documents provides investors with pro rata rights – see *Series Seed – Stock Investment Agreement* § 6 (Feb. 25, 2014) <https://bit.ly/3HIo0Dr> [hereinafter: Series Seed Model SPA]. Pro rata right is also a fairly common in SAFE side letters, including Y Combinator's model side letter (see Carolyn Levy, *Pro Rata Side Letter*, Y COMBINATOR (last visited Mar. 5, 2023) <https://bit.ly/3HEmLFg>; GUTTERMAN, *supra* note 15, at §158:7 (“side letter topics”). They are also ordinarily added to notes (see, e.g., model note included *id.* at §158:30:70).

the startup is managed. For instance, it is not unusual for seed investors – shareholders or not – to secure access rights to the startup’s financial data and the right to receive periodic updates from its managers.⁹⁴ The minority board positions held by seed investors⁹⁵ are, too, more accurately described as means of access to information rather than means of control.

ii. *Economic Terms*

Similarly to soft controls, the cash-flow rights of seed and later-stage investors are more alike than their hard controls. Both seed and later-stage investment instruments are universally designed to be senior to common stock in terms of their liquidation preference (meaning, their priority in the distribution of exit proceeds).⁹⁶ Among investors, the liquidation preference of seed equity may be on equal footing (*pari passu*) or junior to later-stage equity.⁹⁷ It should be noted, however, that even when later-stage investors hold senior cash-flow rights, these rights would not necessarily translate to superior returns. This would depend on transaction-specific factors and the metrics used for comparison.⁹⁸ For instance, due to their significantly lower purchase price (as

⁹⁴ For later-stage information rights see Series A Model IRA, *supra* note 86, at § 3; FELD & MENDELSON, *supra* note 12, at 97–8. The Series Seed model documents include information rights by default; see Series Seed Model SPA, *supra* note 93, at § 4.1. While not included in Y Combinator’s model documents, information rights are regularly included in SAFE side letters (see GUTTERMAN, *supra* note 15, at §§158:7 (“side letter topics”); 158:45:30) as well as in notes (see model note *id.* at §158:31.50).

⁹⁵ See *supra* note 87 and text.

⁹⁶ Standard liquidation preference provisions, which are prevalent both in priced seed financing and later-stage financing, allow investors to participate in the distribution of exit proceeds prior to investors holding lower-ranking stock, up to a certain cap. Where the exit valuation is relatively high, preferred shareholders are likely to waive their preference, convert into common stock, and participate in the distribution on a pro-rata basis. See Series Seed Model COI, *supra* note 82, at §B.1.; Series A Model COI, *supra* note 78, at §§ 2.1–2.2; and see generally FELD & MENDELSON, *supra* note 12, at 54–63; HULL ET AL., *supra* note 31, § 7:17. Seed deferred equity instruments similarly allow participation in exit proceeds in preference to common stock; see, e.g., Model SAFE (Cap), *supra* note 65, at §1(d).

⁹⁷ *Pari passu* distribution among all preferred shareholders is, arguably, the market standard as of 2023; see Kristoffer Warren, *What to Know About Equity Liquidation Rights and Preferences*, CARTA (Jul. 25, 2023) <https://bit.ly/3OHhMb7>. *Pari passu* preference is between the seed and Series A equity is particularly likely where the seed round was not priced. The shadow stock to which deferred equity rounds convert is designed to have rank on equal footing with the Series A stock purchased by new investors, with the necessary adjustments for the different purchase price; see *supra* note 59.

⁹⁸ Notably, among the popular performance metrics for assessing startup investments, some account for the length of time between capital deployment and payout, and some do not. For instance, two of the most significant metrics for measuring the performance of startup investments are multiple on invested capital (MOIC), which is not time-weighted, and internal rate of return (IRR), which is time-weighted. See generally Robert S. Harris, *Private Equity Performance: What Do We Know?*, 69 J. FIN. 1851, 1859–62 (2014).

described below), seed investors may expect a higher internal rate of return in quick, high-valuation exits, even when holding junior stock. This is because most senior investors' rights and preferences are unlikely to come into play in such scenarios, and the differences in the periods between investors' respective capital deployment and payouts are relatively minor.⁹⁹

Finally, seed financings are investor-friendly when it comes to pricing. Seed equity is cheaper for investors to purchase compared to later-stage equity – often significantly so. Priced seed rounds are based on low startup valuations. To illustrate, in 2022, the median startup valuations were roughly 5 million dollars in angel-led rounds, 10.5 million dollars in other seed rounds, and 50 million dollars in post-seed early-stage rounds.¹⁰⁰ Low valuations make seed rounds highly dilutive for entrepreneurs *per dollar invested*.¹⁰¹ However, they are not necessarily more dilutive than later-stage rounds in absolute terms since the investment amounts involved are relatively small. Traditionally, seed investment amounts provide startups with the cash reserves (or “runway”) necessary to survive no more than twelve to eighteen months. This cash is expected to allow the startup to achieve the progress and momentum milestones – “traction,” in jargon – necessary to be considered Series A-ready.¹⁰² In 2022, the median equity stake acquired by investors was roughly 13 percent in angel-led rounds, 26 percent in other seed rounds, and 23 percent in post-seed early-stage rounds.¹⁰³

Deferred equity instruments do not name the startup's equity price when issued.¹⁰⁴ However, they are designed to have a lower conversion price than the future purchase price for new Series A investors. This means that a dollar invested using a seed deferred equity instrument will be worth more Series A shares than a dollar of new Series A investment. The conversion price of

⁹⁹ In less likely occasions, investors will hold “participating” preference rights that guarantee above pro-rata participation in the distribution of proceeds regardless of the exit valuation (see FELD & MENDELSON, *supra* note 12, at 54–63; HULL ET AL., *supra* note 31, § 7:17). Above pro-rata participation may also be the result of down-rounds that invoked investors' antidilution protections, or “cram down” restructurings that wiped out earlier investors. See generally Joseph L. Lemon, Jr., *Don't Let Me Down (Round): Avoiding Illusory Terms in Venture Capital Financing in the Post-Internet Bubble Era*, 39 TEX. J. BUS. L. 1 (2003); 5 William L. Norton III, NORTON BANKRUPTCY LAW & PRACTICE §97:9 (3rd ed. 2023).

¹⁰⁰ PITCHBOOK, US VC VALUATIONS REPORT 5–10 (2023) and accompanying spreadsheet available at <http://bit.ly/3mnY09d>.

¹⁰¹ This paper uses the term “dilution”, as customary in startup financing jargon, to refer to any reduction in preexisting shareholders' equity ownership stake due to a new equity issuance, regardless of its impact on the value of their holdings. See, e.g., Bernard Moon, *Dilution: The Good, The Bad and the Ugly*, TECHCRUNCH (Jun. 4, 2019) <https://bit.ly/3VRDQ10>; *How to Manage Share Dilution as an Early-Stage Startup*, CARTA (Sep. 6, 2022) <https://bit.ly/3VQgpsm>.

¹⁰² Coyle & Green, *Contractual Innovation*, *supra* note 12, at 158–9; GUTTERMAN, *supra* note 15, at §158:1; Geoff Ralston, *A Guide to Seed Fundraising*, Y COMBINATOR (JAN. 7, 2016) <https://bit.ly/3t8T2Qn>.

¹⁰³ The median deal sizes were 300,000 dollars, 2.7 million dollars, and 9.6 million dollars, respectively; PITCHBOOK, *supra* note 100, accompanying spreadsheet.

¹⁰⁴ See *supra* note 55 and text.

deferred equity instruments is calculated based on one of two mechanisms: *discount* or *valuation cap*. When a discount is applied, the conversion price is calculated as a given percentage of the price-per-share paid by new investors participating in Series A.¹⁰⁵ When a valuation cap is used, the conversion price is calculated based on a valuation that is either a given figure specified in the instrument (the “cap”) or the actual valuation that was finally set at the Series A – whichever is lower.¹⁰⁶ SAFEs and notes may sometimes provide for both mechanisms and apply the one that produces the lower conversion price.¹⁰⁷

C. The Seed Governance Irregularity

The previous two parts described the main aspects in which seed financing differs from later-stage financing. Seed rounds rely more heavily on deferred equity instruments and typically provide investors with relaxed control rights compared to later-stage investors while pricing their equity more favorably. This notion should come as a surprise.

Startup investing is an unavoidably high-risk business. Ronald Gilson famously analyzed that increased risk as the result of the less information available to startup investors about the management’s quality, the scientific uncertainty typical of investing in emerging technologies, and the fact that most of the crucial decisions impacting the startup’s ultimate success have not yet been made.¹⁰⁸ These risk factors exacerbate the three classic problems of financial contracting. They increase the overall *uncertainty* involved in assessing the startup’s future performance.¹⁰⁹ They intensify the *information asymmetries* between the investors and entrepreneurs, as the entrepreneurs are likely to be more knowledgeable than the investors about the quality of their technology and themselves as managers.¹¹⁰ Lastly, they also increase *agency costs* between entrepreneurs and investors. Entrepreneurs and investors often have different investment horizons and risk appetites.¹¹¹ This divergence in interests can bias entrepreneurs’ judgment as agents and lead to decisions that benefit themselves more than their investors, resulting in higher agency costs for the latter. Since startups’ future value hinges heavily on *upcoming* decisions, the impact of these

¹⁰⁵ For example, where the Series A price-per-share is ten dollars, and the discount rate is twenty percent, the conversion price would be eight dollars. See Orcutt, *supra* note 13, at 504–7; 510–11.

¹⁰⁶ For example, where the cap is ten million dollars, and the pre-money valuation set at the Series A financing is fifty million dollars, the conversion price would be calculated based on a valuation of ten million dollars. If, however, the Series A financing was based on eight million dollars, the conversion price would also be based on an eight-million-dollar valuation (or on the discount mechanism, if available). See Orcutt, *supra* note 13, at 504–07; 510–11.

¹⁰⁷ *Id.* at 504–05.

¹⁰⁸ Gilson, *supra* note 43, at 1076–77.

¹⁰⁹ *Id.*

¹¹⁰ *Id.* at 1077.

¹¹¹ See discussion *infra* notes 241–244 and text.

agency costs is more significant compared to more mature businesses where the most important strategic decisions have already been made.¹¹²

The risk factors characteristic of startup investing generally are even more present in seed investments.¹¹³ Seed investors have inferior means to assess the quality of the startup's product or the manager's success in developing and commercializing it than later-stage investors typically have. Most information that seed investors can collect and analyze about the product and its target market should be taken with a grain of salt due to the high likelihood of pivots or significant changes in the product, especially before product-market fit is achieved.¹¹⁴ The lack of a significant operating track record for the startup makes it challenging for investors to apply classic valuation methods.¹¹⁵ Financial metrics often at the center of startup investors' attention may be entirely unavailable or only remotely indicative of success at the seed stage, as the startup would usually have gone through limited commercial releases (if any).¹¹⁶ And finally, investing earlier in the startup lifecycle naturally also means that more decisions impacting the startup's ultimate success have not yet been made.¹¹⁷

The classic VC investment model was designed to mitigate the effects of increased uncertainty, information asymmetries, and agency costs. VCs' retention of significant control rights is believed to be vital in this respect. The allocation of hard controls to VCs allows them to reduce agency costs by disciplining opportunistic entrepreneurs, replacing them, or actively dictating the startup's strategy through their management representatives in a way that serves their own interests better.¹¹⁸ It also allows investors to reduce information asymmetries through signaling mechanisms. By agreeing to allocate strong controls to the VC ex-ante, entrepreneurs can credibly convey to the VC that they are both reliable and confident about their potential to run an exponentially growing business.¹¹⁹

That being so, one would assume that seed investors will use similar structures and secure at least the same level of control as later-stage investors.¹²⁰ After all, VCs have been otherwise observed to rely more heavily on hard controls where information asymmetries are more significant. This is evident, for instance, in their contracting practices with serial entrepreneurs. Serial

¹¹² Gilson, *supra* note 43, at 1077.

¹¹³ See also Ibrahim, *(Not So) Puzzling*, *supra* note 11, at 1420–21 (referring to angel investing); Monroe-Sheridan, *supra* note 15, at 32; and see *infra* part III.A.1.

¹¹⁴ See *supra* notes 28–32 and text.

¹¹⁵ Orcutt, *supra* note 13, at 498–99.

¹¹⁶ See *supra* notes 28–32 and text, and see also *infra* part III.A.1.

¹¹⁷ Cp. *supra* note 108 and text.

¹¹⁸ *Id.* at 1082; William A. Sahlman, *The Structure and Governance of Venture-Capital Organizations*, 27 J. FIN. ECON. 473, 506–14 (1990); Smith, *The Exit Structure*, *supra* note 78, at 316.

¹¹⁹ Gilson, *supra* note 43, at 1083.

¹²⁰ See also Ibrahim, *(Not So) Puzzling*, *supra* note 11, at 1420–21 (referring to angel investing).

entrepreneurs' track record offers investors access to information about team quality that is unavailable with respect to first timers. Accordingly, startups led by serial entrepreneurs were found by one study to have more board seats held by insiders and to be more likely to have an entrepreneur-CEO compared to startups led by novice entrepreneurs. This was found to be true both for previously successful and previously *unsuccessful* entrepreneurs.¹²¹ The same study also revealed that startups led by unsuccessful serial entrepreneurs had lower valuations. This suggests that VCs may prefer to hedge firm-specific risks through pricing or other means rather than active governance when more information about the startup is available.¹²² The use of significant control rights by financiers to mitigate increased information asymmetry and agency costs is also well-documented outside startup investments. Scholars have long noted, for instance, how loan covenants and collateral requirements are stricter where lenders have less track record, more leverage, or low credit rating.¹²³

As the previous part shows, however, the case is quite the opposite with seed-stage startups. Counter-intuitively, despite the increased uncertainty, information asymmetries, and agency costs that presumably characterize seed investments, seed investors typically possess *less significant* control rights than their later-stage colleagues.

II. PRESENT THEORIES AND THEIR LIMITS

Existing literature has identified various explanations for seed investors' reluctance to hold hard controls. While all these theories make valid points, as this part of the paper will show, their explanatory power remains limited. They may focus on specific aspects of seed financing, neglect certain types of investors, or fail to fully address the underlying motivations behind investor behavior. This review aims to systematically analyze the main theories, highlighting their blind spots and the crucial questions they leave unanswered.

A. Costly Contracting

Costly contracting theory posits that rational contracting parties would only incorporate explicit contractual provisions when the advantages of such provisions surpass the associated costs.¹²⁴ In seed investments, it is commonly

¹²¹ Rajarishi Nahata, *Success is Good but Failure is Not So Bad Either: Serial Entrepreneurs and Venture Capital Contracting*, 58 J. CORP. FIN. 624, 633–36 (2019).

¹²² *Id.* at 636–39; *but see* Paul Gompers et al, *Performance Persistence in Entrepreneurship*, 95 J. FIN. ECON. 18, 32 (2010) (finding that startups led by previously successful serial entrepreneurs do not secure favorable valuations from VCs).

¹²³ Albert Choi & George Triantis, *Market Conditions and Contract Design: Variations in Debt Contracting*, 88 N.Y.U.L. REV. 51, 58–9 (2013), and the sources referenced therein.

¹²⁴ About costly contracting theory see generally Paul Gompers & Josh Lerner, *The Use of Covenants: An Empirical Analysis of Venture Partnership Agreements*, 39 J.L. & ECON. 463, 469–72

perceived that investors are willing to accept the absence of hard controls or shareholder status due to the prohibitively high costs associated with negotiating intricate contracts to secure them. This is primarily because the investment sums involved are relatively modest.¹²⁵ In addition, the rights granted to seed investors are typically of short duration and prone to unravel during later-stage financing negotiations.¹²⁶

Seed investment instruments' brevity, simplicity, and uniformity are among their most often-touted virtues.¹²⁷ SAFEs, notably, are the poster boys of cost-effective contracting. YC SAFEs are six pages long – extremely brief compared to classic startup investment documents.¹²⁸ As their name suggests, they were also designed to be simple to use and understand, even by laypersons.¹²⁹ SAFEs were further intended to remain highly standardized; in fact, YC SAFEs require the parties to confirm that no changes were made to their standard terms.¹³⁰ In reality, SAFEs are somewhat less standardized than their creators had envisioned and may introduce various deal-specific deviations from YC's model form.¹³¹ They may also be accompanied by side letters, typically affording "lead" investors with pro-rata or information rights.¹³²

The same principles of conciseness, uniformity, and simplicity have also guided the creation of the Series Seed document set. Investor rights customarily included in Series A documents were removed with the professed intention that streamlining the investment negotiations, saving time and money, would appeal to investors enough to compensate them for all protections lost.¹³³

(1996) ("because negotiation and enforcement of explicit provisions are costly, covenants are included only when the benefits of restricting activity are greater than the costs"); Ibrahim, (*Not So*) *Puzzling*, *supra* note 11, at 1433–34.

¹²⁵ Coyle & Green, *Contractual Innovation*, *supra* note 12, at 157–60 (referring to the use of deferred equity instead of preferred stock); Ibrahim, (*Not So*) *Puzzling*, *supra* note 11, at 1433–35 (referring to angels' investment instruments).

¹²⁶ *Id.* at 1435 (referring to angels' investment instruments); and see discussion *infra* in part II.C.

¹²⁷ See, e.g., Bernthal, *Evolution*, *supra* note 10, at 800–01 and 804; Coyle & Green, *Contractual Innovation*, *supra* note 12, at 162 and 195; GUTTERMAN, *supra* note 15, at §158:4 ("advocates of relying on standardized forms in seed financing cite several potential advantages including reduced costs and time to closing"); and *infra* notes 128–133.

¹²⁸ Y Combinator's original SAFE formats are available on Y Combinator's website; see *Safe Financing Documents*, *supra* note 63.

¹²⁹ Coyle & Green, *Contractual Innovation*, *supra* note 12, at 169–70.

¹³⁰ Each SAFE format included in *Safe Financing Documents*, *supra* note 63, includes the following text: "This Safe is one of the forms available at <http://ycombinator.com/documents> and the Company and the Investor agree that neither one has modified the form, except to fill in blanks and bracketed terms".

¹³¹ See Jeff Perry et al, *SAFEs As (New) Financing Instruments*, 23 BUS. L. INT'L 249 (2022).

¹³² YC even introduced its own model form of such side letter; see *supra* note 93. See also GUTTERMAN, *supra* note 15, at §158:7 ("side-letter topics").

¹³³ *About the Series Seed Documents*, SERIES SEED (Feb. 24, 2010) <https://bit.ly/3nVDUUu> ("while moving away from the traditional full-blown financing documents entails giving up a number of rights and protections [...] the benefits of spending less time and money on the

While accurate, costly contracting explanations only mark the starting point of analysis. The smaller investment amounts and the likelihood of later-stage unwinding unquestionably make seed investors more sensitive to negotiation and drafting costs. It follows that seed investors would be more comfortable with relaxed protections and using off-the-rack investment instruments. However, this notion does not explain why seed investors consistently feel comfortable compromising on certain rights and protections (hard controls) but less so with others (e.g., information rights, liquidation preference, or favorable pricing). To get there, one must understand why some contractual provisions are systematically less costly or more beneficial to create.

One particular feature of seed financing transactions – their increased reliance on deferred equity instruments – makes them too unlike later-stage financing than what could be reasonably explained by contracting costs alone.¹³⁴ The use of deferred equity reflects a dramatic shift from the established conventions of startup investment structuring. At the same time, the extent of transaction costs saved using deferred equity over straight equity should not be overstated. In recent years, priced equity rounds have become significantly more standardized and less costly to conduct than they once were.¹³⁵ Accordingly, as many have observed, any cost-efficiency advantage that using deferred equity used to have has largely eroded.¹³⁶ Meanwhile, the use of deferred equity in seed financing, if anything, has only become more prevalent.¹³⁷

Even assuming that some seed investments are too small to justify issuing Series Alike preferred stock or even “light” preferred stock, using deferred equity is not an obvious strategy. Entrepreneurs and seed investors have other cost-effective options to provide seed investors with a comparable scope of protection.¹³⁸ For instance, startups could – and occasionally will –

documents outweigh the cost of sacrificing these additional rights and protections”).

¹³⁴ See *supra* notes 108–120 and text.

¹³⁵ Notably, the NVCA model documents (*Model Legal Documents*, NVCA <https://bit.ly/3Lf7gET>) became an unquestionable market standard in Series A financings (and beyond); see generally Bartlett, *Standardization*, *supra* note 47.

¹³⁶ See Coyle & Green, *Contractual Innovation*, *supra* note 12, at 172 (suggesting that deferred equity instruments and light preferred stock “have become increasingly comparable from a cost perspective”); FELD & MENDELSON, *supra* note 12, at 114 (“most fans of convertible debt argue that it’s much easier transaction to complete than equity financing [...] the legal fees argument is less persuasive these days with the many forms of standardized documents”) and 126 (“equity rounds have become cheaper to consummate, and the legal fees argument doesn’t carry much weight”).

¹³⁷ See *supra* notes 52 and 56.

¹³⁸ Issuing plain-vanilla common stock, as old-school seed investors used to hold, is not comparable to holding deferred equity instruments as common stock does not provide investors with rights exceeding those of entrepreneurs and employees (for a discussion of the reasons for which contemporary seed investors require senior rights to those held by common shareholders see Coyle & Green, *Contractual Innovation*, *supra* note 12, at 154–176). Issuing common stock to investors might also have negative tax consequences for entrepreneurs and employees receiving equity incentives; see generally Ronald J. Gilson & David M. Schizer, *Understanding Venture*

issue to seed investors common stock with the right to exchange it for Series A preferred stock once it is finally issued.¹³⁹ They may, alternatively, issue a class of preferred stock that is even lighter in investor rights than “light preferred” and undertake to match their rights to the future rights finally offered to Series A investors.¹⁴⁰ Costly contracting explanations alone cannot explain why these similarly costly solutions are so uncommon in seed financing while deferred equity instruments are overwhelmingly popular.

B. Uncertainty Theories

1. Rationalizing Seed Investment Structuring

Uncertainty theories focus on the significance of the higher uncertainty in seed investments in shaping their structure or terms. One such theory – defined by John Orcutt as the “Young Startup Valuation Challenge”¹⁴¹ – focuses on the role of uncertainty in the rising popularity of seed deferred equity instruments. Its central premise is that deferred equity instruments, which do not require setting a valuation for the startup, help overcome the inherent difficulty in pricing seed-stage equity.

Due to the lack of track record or robust performance data, seed-stage startup valuations are less accurate and more speculative than later-stage ones.¹⁴² Where the investors’ perception of the startup’s valuation is highly speculative, they are concerned about overpaying for its equity, which would adversely affect their rate of return.¹⁴³ At the same time, entrepreneurs uncertain about the startup’s “true” valuation are worried about giving away chunks of control and cash-flow rights for less than their worth.¹⁴⁴ Therefore, seed investment negotiations requiring investors and entrepreneurs to agree on valuation are expected to be difficult, defensive, and inefficiently prone to lagging or breakups.¹⁴⁵ The use of deferred equity instruments postpones the inevitable negotiations over the startup’s valuation to a later point where such valuation could be based on more robust analyses and less guesswork.¹⁴⁶

Capital Structure: A Tax Explanation for Convertible Preferred Stock, 116 HARV. L. REV. 874 (2003).

¹³⁹ GUTTERMAN, *supra* note 15, at §158:4, describes the practice of issuing exchangeable common stock; see also *id.*, at §158:34.50, for a model term sheet for such issuance.

¹⁴⁰ The Series Seed document set, for instance, includes such an undertaking by default; see Series Seed Model SPA, *supra* note 93, at §4.2.

¹⁴¹ Orcutt, *supra* note 13.

¹⁴² Magnum, *supra* note 15, at 23–24; David Nows & Jeff Thomas, *Delaware’s Public Benefit Corporation: The Traditional VC-Backed Company’s Mission-Driven Twin*, 88 UMKC L. Rev. 873, 914–15; Orcutt, *supra* note 13, at 498–99; and see also *supra* notes 113–117 and text.

¹⁴³ Orcutt, *supra* note 13, at 498–99.

¹⁴⁴ *Id.*

¹⁴⁵ *Id.*

¹⁴⁶ FELD & MENDELSON, *supra* note 12, at 126 (“the main force driving the use of convertible debt in early stage companies is the parties’ desire to avoid setting a valuation”); Nows

The valuation challenge story makes sense and is likely to affect, to some degree, the structuring of seed investments. However, there are reasons to doubt that overcoming the need to price startup equity is the driving force behind the prevalence of deferred equity in seed financing. Notably, incorporating valuation caps into notes and SAFEs recreates, to a significant extent, the valuation challenge. Valuation caps are the go-to conversion mechanism in contemporary seed-stage deferred equity instruments; discount-only instruments are rare.¹⁴⁷ At face value, valuation caps do not indicate an agreement over the startup's actual valuation but rather over the range of possible valuations in which the accurate valuation should be placed (i.e., any number lower than or equal to the valuation cap). While setting caps requires some value judgment by investors and entrepreneurs, reaching an agreement over a range of possible valuations is presumably more manageable than agreeing on any fixed number.¹⁴⁸

In practice, however, market players perceive the valuation cap not as a range but as an indication of the startup's *actual* valuation. Seed investors would often not accept a cap that is higher than the valuation that they would have offered the same startup in a priced round.¹⁴⁹ Series A investors, likewise, perceive the valuation cap as a proxy for valuation and use it as a reference for setting their own proposed valuations.¹⁵⁰ This last point should trouble both entrepreneurs and seed investors. Entrepreneurs would be worried about putting the cap too low as it will likely pull the Series A valuation down and cause excessive dilution. At the same time, a high cap might result in a Series A conversion that provides a minimal discount for the seed investors or even a quasi-down-round where the Series A is finally priced below the cap.¹⁵¹ Such rounds would upset seed investors, who would receive little or no benefit for investing earlier in the startup's lifecycle.¹⁵² Like actual down rounds, they might

& Thomas, *supra* note 142, at 914–15; Orcutt, *supra* note 13, at 501.

¹⁴⁷ See, e.g., Gornall & Strebulaev, *supra* note 13, at §3.4.6 (suggesting that most convertible notes have valuation caps); Peter Walker, *What's Market for SAFEs?* LINKEDIN (Jul. 2023) <https://bit.ly/3Od34Hl> (suggesting, based on data gathered by the popular capitalization table management software Carta, that only 4 percent of US pre-seed SAFEs recorded were discount-only SAFEs, as of the first two quarters of 2023).

¹⁴⁸ Orcutt, *supra* note 13, at 505–7.

¹⁴⁹ See, e.g., Coyle & Green, *Contractual Innovation*, *supra* note 12, at fn. 153 (“founders and seed investors appear to be setting that threshold low enough to approximate the current price the seed investors would be willing to pay for equity”); FELD & MENDELSON, *supra* note 12, at 115–16 (suggesting, from an investor's perspective, that “our cap would be the price that we would have agreed to in an equity round”); Gornall & Strebulaev, *supra* note 13, at §3.4.6.

¹⁵⁰ Bernthal, *Evolution*, *supra* note 11, at 834–35; see also FELD & MENDELSON, *supra* note 12, at 114–18 (suggesting that some VCs may even view the cap as the “price ceiling for the next round price”).

¹⁵¹ “Down round”, in industry jargon, is a financing round priced at a lower valuation than the one immediately preceding it; see Derek Colla, *What You Need to Know About Down Round Financings*, COOLEYGO (Jan. 24, 2022) <https://bit.ly/47qhoVI>.

¹⁵² About the implications of a deferred equity instrument converting at a Series A that reflects a valuation lower than the cap see *supra* notes 104–107 and text.

also send a negative signal to outsiders that the startup might have gone off-track.¹⁵³ The perception of caps as indicative of the startup's actual valuation implies that cap negotiations would resemble valuation negotiations, potentially undermining the efficacy of deferred equity in addressing the valuation challenge.¹⁵⁴ The fact that valuation caps are so prevalent in seed deferred equity instruments is thus hard to reconcile with the valuation challenge theory.

Another issue to consider is that while the uncertainty making startup equity difficult to price is more significant at the seed stage, it is undoubtedly also present in later investment rounds.¹⁵⁵ Accordingly, legacy VC investment structures apply different mechanisms to handle pricing uncertainty – prominently, antidilution protections. These provisions compensate investors where the startup later raises a down round by improving existing investors' conversion rate to common stock, bringing them economically closer to where they would have been had they originally priced the startup lower.¹⁵⁶ This, arguably, offers investors the comfort they need to show more flexibility when negotiating the startup's valuation. The divergence in the methods to tackle comparable pricing challenges in seed-stage and later-stage investment instruments underscores another blind spot of the valuation challenge theory.

The potential of costly contracting explanations to bridge this gap is debatable. While antidilution provisions are undeniably lengthy, technical, and complex, the scope of their transaction cost footprint is unclear. For instance, the creators of the Series Seed document set explained that antidilution protections' tendency to prompt wasteful negotiations was one of the reasons for their omission from the model forms.¹⁵⁷ At the same time, other writers have observed that antidilution provisions are among the most standardized and least negotiated aspects of VCs' investment contracts.¹⁵⁸

2. Rationalizing Seed Investment Terms

Uncertainty-focused explanations have also been used to rationalize the investment *terms* of seed financing. The basic premise of these explanations is

¹⁵³ About the signaling effect of down rounds see Colla, *supra* note 151.

¹⁵⁴ FELD & MENDELSON, *supra* note 12, at 114–16; RUMBERGER, *supra* note 13, at §2:15 fn. 2.

¹⁵⁵ See *supra* notes 108–111.

¹⁵⁶ For a model antidilution clause see Series A Model COI, *supra* note 78, at §4.4; and see generally FELD & MENDELSON, *supra* note 12, at 71–75; HULL ET AL., *supra* note 28, at §7:18.

¹⁵⁷ *For the Faithful*, SERIES SEED (Feb. 24, 2010) <https://bit.ly/3LTp0qz> (noting, e.g., that “the carve-outs (i.e. exclusions) to the anti-dilution section are often the subject of negotiation -- which can be costly and time consuming”).

¹⁵⁸ See, e.g., FELD & MENDELSON, *supra* note 12, at 71 (commenting that antidilution provisions are “not usually contentious from a negotiation standpoint”). See also Michael A. Woronoff & Jonathan A. Rosen, *Understanding Anti-Dilution Provisions in Convertible Securities*, 74 FORDHAM L. REV. 129, 130 (2005) (suggesting that “many practitioners mechanically rely on precedent” when drafting antidilution provisions).

that rational investors would rather avoid investing resources in active governance in the startup's early days, where assessing its potential for success (and, accordingly, the returns of the investment in active governance) is difficult.

Startup investors have long been described to mitigate the high uncertainty involved in startup investing by staging their investments across multiple rounds.¹⁵⁹ Investing substantially in the early stages, where accurately appraising a startup's potential is hard, requires navigating a landscape of heightened uncertainty. By spreading their investments thin across various rounds, investors effectively diminish this uncertainty, affording themselves the flexibility to adjust their investment strategy based on emerging information about the startup and its potential for success. The intervals between funding rounds serve as crucial checkpoints, enabling investors to examine the startup's progress and, accordingly, divest from underperforming portfolio assets and amplify their commitments to those exhibiting success.¹⁶⁰

Real option theory is often invoked when theorizing this investment strategy in economic terms. The choice between investing significant amounts upfront or staging investments is akin to choosing between purchasing an asset directly or a call option on it. The option's maturity period (i.e., the lapse of time between rounds) allows for information about the underlying asset's value to emerge before a purchasing decision (meaning, investing more resources) must be made. When faced with high uncertainty, as in seed financing, a "call option" on the startup's equity (staging investments) becomes a more attractive proposition compared to a full-fledged purchase (i.e., investing significant amounts upfront).¹⁶¹

More specifically, it has been posited that the reduction in the costs associated with launching new startups since the early 21st century created a landscape with far more early-stage investment opportunities that investors cannot adequately assess and price. This trend has prompted some seed-focused VCs to adopt a broad funnel investment strategy, sometimes mockingly described as "spray-and-pray." Instead of conducting rigorous screenings of potential investments ex-ante and exercising active governance ex-post, these VCs mitigate firm-specific risks through enhanced staging and diversification. They allocate smaller investments to a more extensive array of startups than the conventional VC playbook prescribes. And since active governance in more startups takes more resources, this investment thesis supposedly dictates a more passive approach as investors than typically expected of VCs. As their portfolios mature, these VCs or their affiliates lean in, allocating more significant

¹⁵⁹ About the significance of staged financing in startup governance see, e.g., Gilson, *supra* note 43, at 1074; Sahlman, *The Structure*, *supra* note 118, at 506; Smith, *The Exit Structure*, *supra* note 78, at 323–24.

¹⁶⁰ See, e.g., Paul A. Gompers, *Optimal Investment, Monitoring, and the Staging of Venture Capital*, 50 J. FIN. 1461, 1462–63 (1995); Gilson, *supra* note 43, at 1078–81; Sahlman, *The Structure*, *supra* note 118, at 506–07.

¹⁶¹ See, e.g., Gompers, *supra* note 160, at 1462–63; Gilson, *supra* note 43, at 1078–81.

investments and becoming actively engaged with their most promising portfolio startups.¹⁶² Where VCs' investment thesis relies less heavily on seed-stage active governance, it is unsurprising that the same VCs are also unwilling to secure control rights allowing such active governance.

Uncertainty-minimizing motives can credibly explain why investors tend to keep their seed-stage investments relatively small. However, they cannot fully explain the tendency of seed-stage VCs to avoid active governance. As discussed below, startup investors' contribution to their portfolio assets comprises financial and human capital through active engagement.¹⁶³ Even if minimizing the total investment (human and financial) provided to seed-stage startups is the ideal strategy, as real option theory suggests, investing less in *active governance* does not directly follow. Seed investors could decide to spread their investments of both *financial* and *human* capital thinner.

Put differently, higher uncertainty in seed-stage investments could have also prompted seed investors to allocate less money and more managerial time and attention to each portfolio startup. This is the investment thesis adopted, e.g., by some alternative seed investors not discussed in detail here (like tech accelerators, which have proliferated in the last decade).¹⁶⁴ While staffing limitations at VC firms may effectively restrict active governance to a handful of startups at a time,¹⁶⁵ had active governance offered a significant upside potential for them, seed-stage VCs would have indeed adapted their model to allow them to capitalize on that opportunity. For instance, VCs could have charged higher fees to upstream investors to fund the expansion of their team to allow more active governance. In this respect, it should also be noted that most resources VCs invest in active stewardship are not firm-specific.¹⁶⁶ The time and effort VCs spend honing their finance, marketing, strategy, and recruiting skills could support many portfolio startups and benefit from economies of scale in delivery. Seed VCs' strategic choice of a passive approach suggests that their perceived returns from stewardship are low compared to seed-stage cash injections (or later-stage stewardship). This perception cannot be adequately explained by real option theory alone.

C. Bargaining Power Dynamics

Another group of theories suggests that seed financing terms and

¹⁶² Michael Ewens et al, *Cost of Experimentation and The Evolution of Venture Capital*, 128 J. FIN. ECON. 422 (2018); Shane & Nicolaou, *supra* note 42, at 1124–26 (describing the investment thesis of micro-VCs).

¹⁶³ See *infra* note 214 and text.

¹⁶⁴ Shane & Nicolaou, *supra* note 42, at 1123–24.

¹⁶⁵ Like most private investment funds, VCs are usually lean and sparingly staffed operations; see generally Dean Galaro & Gregory Crespi, *The Carried Interest Standoff: Reaffirming Executive Agency Authority*, 70 SMU L. REV. 153, 167 and n.120 (2017).

¹⁶⁶ See *infra* note 222 and text.

structuring are best understood as the reflection of the equilibrium points between the bargaining power of the stakeholders involved. First, seed transaction structuring is believed to be affected by the direct power dynamics between seed investors and entrepreneurs. Entrepreneurs' bargaining position is generally expected to be inferior to that of seed investors.¹⁶⁷ However, within the spectrum of seed investments, a startup with a solid entrepreneurial team and a promising product serving a booming market will likely have more leverage over seed investors than other seed-stage startups. Likewise, highly reputable seed investors writing large checks should have more leverage over entrepreneurs than other seed investors. These differences in bargaining positions are also believed to affect transaction structuring. Deferred equity instruments – especially SAFEs – are often perceived as entrepreneur-friendly, and their use in any given financing is sometimes seen as indicative of the entrepreneurs' superior bargaining position vis-à-vis their seed investors.¹⁶⁸

Seed transaction structuring is further believed to be affected by lifecycle considerations – i.e., the bargaining power dynamics between seed investors and entrepreneurs, collectively, and later-stage investors. Seed investors and entrepreneurs have a joint incentive to avoid terms that could hinder the closing of Series A or later-stage financings. And the harder it is to secure later-stage funding in a given market, the more significant effect lifecycle considerations are expected to have on seed financing design.

Lifecycle considerations arguably affect the design of seed financing in two main ways. *First*, market dynamics have traditionally allowed later-stage investors to demand any rights and protections that earlier-stage investors have and then some.¹⁶⁹ Entrepreneurs thus have limited flexibility to answer seed investors' demands since they should also account for having to offer later-stage investors a deal at least as sweet. Securing overreaching rights could be a double-edged sword from the seed investor's perspective. The Series A investor is likely to demand at least the same level of protection, which could eventually come at the seed investor's expense as well.¹⁷⁰ *Second*, entrepreneurs and seed investors are wary of terms that create what would be called “adverse selection and moral hazard problems” by economists or “due diligence issues” by practitioners.

¹⁶⁷ See, e.g., Steven C. Alberty, 1 ADVISING SMALL BUSINESSES § 15:6 (2022) (“the early stage is typically the most dilutive stage to the existing owners since [...] the negotiating leverage of the entrepreneur [...] is lowest”); Coyle & Green, *Contractual Innovation*, *supra* note 12, at 167 (“investors typically (though not always) have greater leverage in seed financing deals”); Ibrahim, *Not So (Puzzling)*, *supra* note 11, at 1426 (“angels do, as a general rule, enjoy bargaining power over cash-strapped entrepreneurs”).

¹⁶⁸ See *supra* note 15.

¹⁶⁹ This is believed to be so since later-stage investors provide larger investments and are less concerned about keeping follow-on investors away; see Ibrahim, *Not So (Puzzling)*, *supra* note 11, at 1430–31.

¹⁷⁰ Bernthal, *Evolution*, *supra* note 11, at 802–3; FELD & MENDELSON, *supra* note 12, at 215–16; Ibrahim, *Not So (Puzzling)*, *supra* note 11, at 1430–31.

Unusually investor-friendly structuring at a seed-stage startup may indicate that the startup is a lemon and has failed to gain seed investors' trust for some hidden reason.¹⁷¹ It may also raise concerns with Series A investors that the startup will have difficulty operating long-term or require a costly fight with seed investors about unwinding their excessive rights before the Series A could be closed.¹⁷²

Seed financing transactions may undoubtedly be affected by the availability of capital and other factors affecting the transacting parties' bargaining power. These suspicions are not unique to seed financing; they are equally valid for startup investments at large and, in fact, any case of financial contracting. While there is a broad-based agreement over the effect of bargaining power on *price* in financial contracting, scholars have long debated its impact on non-price terms – a debate that this paper is not set to settle.¹⁷³ But even assuming that bargaining power dynamics affect non-price terms, examining the typical terms and structuring seed financings through that lens provides a monochromatic, low-resolution picture.

Take, for instance, the argument that using a SAFE in a given seed financing indicates the entrepreneurs' superior bargaining position vis-à-vis their investors.¹⁷⁴ While not necessarily wrong, this reasoning is incomplete. Even assuming that SAFEs are entrepreneur-friendly per se, they are not the *only* form of entrepreneur-friendly deal that investors may offer. Any entrepreneur-friendly value shifting resulting from using a SAFE could be compensated for using other deal structures. For instance, rational entrepreneurs should accept a priced round over a SAFE, provided the investor's cash flow rights are moderate enough, or the valuation is high enough. A complete theory of seed financing should have an answer to why the use of specific terms or structuring is a better choice compared to alternative structures that the equilibrium point of investors and entrepreneurs' respective bargaining positions could have prescribed. These answers cannot be provided by bargaining power dynamics alone.

D. Investor-Specific Theories

Some scholars have attempted to explain the terms and structuring of seed financing not as the result of the specific traits of seed *investments* but rather as a reflection of the characteristics of particular kinds of seed *investors*. Darian

¹⁷¹ About the extent of seed investors' rights as a signal of their trust in the entrepreneurial team see Ibrahim, *Not So (Puzzling)*, *supra* note 11, at 1441–42 (referring to angel investors).

¹⁷² *Id.*; and see also Monroe-Sheridan, *supra* note 15, at 34.

¹⁷³ See generally, e.g., Albert Choi & George Triantis, *The Effect of Bargaining Power on Contract Design*, 98 VA. L. REV. 1665 (2012); and see, in the specific context of startup investments, Spencer Williams, *Venture Capital Contract Design: An Empirical Analysis of the Connection Between Bargaining Power and Venture Financing Contract Terms*, 23 FORDHAM J. CORP. & FIN. L. 105 (2017) (finding that the market venture financing supply has a significant effect on both price and non-price terms of venture capital investments).

¹⁷⁴ See *supra* note 168 and text.

Ibrahim's influential 2008 paper, focusing on angels,¹⁷⁵ is a notable example of such an effort. Alongside broader explanations such as costly contracting¹⁷⁶ or bargaining power dynamics,¹⁷⁷ Ibrahim explores and identifies several angel-specific factors that explain the more relaxed contractual protections in angel investments. Notably, Ibrahim suggests that angels use informal substitutes for contractual protections to generate trust with entrepreneurs by following leads from their close business networks and investing in industries and geographical areas where they have first-hand experience.¹⁷⁸ They also have more freedom to show flexibility with entrepreneurs' demands since, unlike VCs, they invest their personal wealth and owe no duties to upstream investors.¹⁷⁹ They may have non-financial interests in investing that cannot be promoted, or might even be harmed, by strong contractual protections – e.g., wanting to feel like a “part of the team” rather than outsider financiers.¹⁸⁰ Some angels invest partially for altruistic reasons and care more about helping startups commercialize socially desirable technologies than maximizing returns.¹⁸¹ Other writers have emphasized that angels, as a group, may also be less sophisticated than other investors and, therefore, more prone to accepting unfavorable contractual protections.¹⁸² In particular, angels' use of deferred equity instruments is sometimes associated with their supposed lesser sophistication.¹⁸³

Investor-specific and seed-specific explanations are not mutually exclusive. The behavior of seed investors and entrepreneurs is likely affected by investor-specific *and* seed-specific factors. The limitations of investor-specific theories and the necessity for seed-specific theories to complement them are underscored by the unexpected parallels in the terms and structures of seed rounds led by various investor types. VCs and angels, as mentioned, are thought to operate within distinctive investor-specific contexts.¹⁸⁴ If these investor-specific factors primarily drove the structuring and terms of seed investments, one would anticipate significant disparities between investment instruments that

¹⁷⁵ Ibrahim, (*Not So*) *Puzzling*, *supra* note 11.

¹⁷⁶ *Id.* at 1428–31.

¹⁷⁷ *Id.* at 1433–35.

¹⁷⁸ *Id.* at 1431–33.

¹⁷⁹ *Id.* at 1438.

¹⁸⁰ *Id.* at 1439.

¹⁸¹ *Id.*

¹⁸² Ibrahim refers to the lesser sophistication argument as “the conventional wisdom” but doubts its merit noting that angels should be assumed to be fairly sophisticated; see *id.* 1426–7. See also Jesse M. Fried & Mira Ganor, *Agency Costs of Venture Capitalist Control in Startups*, 81 NYU L. REV. 967, 1009 (2006) (“Because angels invest less than VCs and are generally less sophisticated, their financing agreements are much more informal”); Magnum, *supra* note 15, at 10.

¹⁸³ *Id.* at 20–21 (quoting, e.g., well-known venture capitalist Mark Suster).

¹⁸⁴ This is particularly true when comparing VCs with “traditional” angels; the investment theses of angel groups are believed to be somewhat closer to those of VCs. See Ibrahim, (*Not So*) *Puzzling*, *supra* note 11, at 1443–52.

could accommodate angels and VCs, respectively. However, while there are identifiable nuances in their individual preferences,¹⁸⁵ angels and VCs frequently find themselves at ease using substantially similar instruments.¹⁸⁶ In fact, many seed rounds involve a lead VC and several angel investors investing under the same instruments and receiving nearly identical terms.¹⁸⁷ This similarity implies that the influence of investor-specific factors is, to some extent, counterbalanced by other factors that impact all seed investors across the spectrum.

III. THE TIME-SENSITIVE VALUE OF HARD CONTROLS

The previous part showed how the available theories provide incomplete explanations for the differences between seed and later-stage startup financing. Costly contracting and bargaining power dynamics may explain why seed investments are more entrepreneur-friendly *overall*. However, they cannot explain why seed investors tend to show much flexibility about holding hard controls but much less regarding soft controls or the purchase price. They also cannot convincingly explain why seed financing transactions are often based on deferred equity rather than a more cost-effective and entrepreneur-friendly version of the classic VC investment structure. Uncertainty-focused theories better justify the use of deferred equity instruments and convincingly rationalize investors' reluctance to invest significant resources at the early stage. Still, they fail to explain the prevalence of valuation caps, the difference in how seed and later-stage financings handle valuation challenges, or the fact that seed investors seem particularly reluctant to invest *human* capital at the seed stage. Investor-specific theories are inherently limited to explaining the behavior of particular kinds of investors and grapple with the fact that different seed investors often invest under substantially similar investment instruments.

This part of the paper will thus introduce an alternative theory to fill these gaps. The new theory is rooted in the insights of Philippe Aghion and Patrick Bolton's seminal work, *An Incomplete Contracts Approach to Financial Contracting*. Aghion and Bolton contend that a firm's optimal allocation of control rights affects its financial structuring just as much as revenue stream or tax

¹⁸⁵ For instance, as mentioned, VCs are somewhat more likely to use priced rounds than deferred equity instruments (see *supra* notes 72–73 and text) and angels are less likely to secure board seats (see *supra* note 87 and text).

¹⁸⁶ See *supra* note 73 and text.

¹⁸⁷ A common structure, for instance, would be a SAFE round in which a lead VC and several angels invest under the same SAFE, with the lead VC possibly securing some additional rights via side letter; see, e.g., Green & Coyle, *Crowdfunding*, *supra* note 66, at 173, describing the structure of typical seed financing secured by startups graduating from YC. About the issues included in SAFE side letters see GUTTERMAN, *supra* note 15, at §158:7 (“Side letters are often limited to pro-rata participating in the offering in which the SAFE is converting and information rights issuer [...] or may be slightly expanded to include observation rights and rights and obligations regarding disclosure and marketing of the relationship between the parties [...] special topics [...] include pro-rata participation in equity and token offerings of the issuer”).

considerations.¹⁸⁸ Where the optimal distribution of control changes throughout a firm's life, Aghion and Bolton predict that firms would use financing structures that shift control to the optimal controller at the right moment.¹⁸⁹

Building on this framework, the proposed theory posits that startups' financing structures seek to minimize the scope of investor control throughout the seed stage, where investors are inefficient controllers, and allow much more investor control as the seed stage concludes and investors' ability to exercise control efficiently improves.¹⁹⁰ Seed and later-stage startups' capital and governance structures are designed to handle the same classic problems of financial contracting – uncertainty, information asymmetry, and agency costs.¹⁹¹ These problems, as explained, are all exacerbated at the seed stage.¹⁹² However, the hard controls that later-stage investors use to mitigate these problems are ineffective or counterproductive when held by investors at seed-stage startups. Seed investors, unlike later-stage investors, are rationally reluctant to hold them. As a result, just like the Aghion-Bolton model forecasts, seed investment instruments are designed to support a gradual shift of control from the entrepreneurs to investors as the startup matures.

A. The High Costs of Seed Investors' Control

1. Cost of Error

A startup stakeholder holding hard controls (a “controlling party”) may make honest managerial mistakes while using them. For instance, controlling entrepreneurs might destroy value by pivoting too late after burning too much cash down the wrong path. Controlling investors, conversely, might do so by vetoing a timely pivot, causing the startup to throw good money after bad due to their mistaken belief that the original concept deserves another chance. The costs incurred by an investor due to such mistakes will be referred to here as “cost of error” or, borrowing the terminology of an analytic model proposed by Zohar Goshen and Richard Squire, “competence costs.”¹⁹³

The competence costs resulting from an investor's holding of hard controls are dictated by multiple factors, some of which are not necessarily correlated with its funding stage. For instance, at any stage, it would be more costly to place control with entrepreneurs or investors who are less experienced or

¹⁸⁸ Philippe Aghion & Patrick Bolton, *An Incomplete Contracts Approach to Financial Contracting*, 59 REV. ECON. STUD. 473 (1992).

¹⁸⁹ *Id.* at 491.

¹⁹⁰ Interestingly, Aghion & Bolton briefly mention venture capital financing structures, as well as convertible securities specifically, as examples of such contingent control arrangements; see *id.*

¹⁹¹ See *supra* notes 108–111 and 118–120.

¹⁹² See *supra* notes 113–117.

¹⁹³ Goshen & Squire, *supra* note 24, at 785–90.

knowledgeable.¹⁹⁴ However, the competence costs resulting from seed-stage startups' governance structures are also affected by seed-specific factors.

A prevalent characteristic of entrepreneurial ventures at large is that their entrepreneurs' vision and performance as they strive to bring it to fruition are often challenging for outsider investors to observe or accurately verify. This form of investor information deficiency can heighten the likelihood of errors when investors attempt to exert active control over entrepreneurial ventures.¹⁹⁵ Seed investments, however, present this issue in a particular manner. Seed investors are more prone than later-stage investors to make costly mistakes when exercising hard controls and overriding the entrepreneurs' business judgment. This is primarily due to three key seed-specific reasons.

First, the focus of the seed stage is technological development – a field in which investors are generally not expected to have a relative advantage over entrepreneurs.¹⁹⁶ Some VC team members could be tech-savvy and perhaps have an entrepreneurial track record.¹⁹⁷ However, VCs' most significant added value remains in their superior finance, marketing, strategy, and recruiting capabilities—not actively contributing to product development.¹⁹⁸ These skills are less valuable where the startup is still R&D-focused and become more beneficial as it matures and its focus shifts from developing its technology to commercializing it. Angels, perhaps to a greater extent than venture capitalists, may be ex-entrepreneurs and tend to focus on relatively narrow domains they know very well.¹⁹⁹ However, even angels are unlikely to have an edge over entrepreneurs in product-building matters. Their technological knowledge and skills may not be entirely on-point and, at times, rusty or outdated. Even with extensive and highly relevant technical skills, angels will not have invested the same amount of human capital as the entrepreneurs, working full-time for months or years to study *that* problem.

Second, assessing the entrepreneurs' success is tricky in seed-stage startups since the concept of success is a moving target. In seed investments, and even more so in the earlier ones, investors invest much more in the entrepreneurial team than in a well-defined product.²⁰⁰ They choose to provide entrepreneurs

¹⁹⁴ *Id.*

¹⁹⁵ See generally Goshen & Hamdani, *supra* note 17, at 579.

¹⁹⁶ See *supra* note 18.

¹⁹⁷ See, e.g., Guarav Jain, *How to Be A VC Without Any Capital*, TECHCRUNCH (Sep. 19, 2015) <https://tcrn.ch/3DQlhFP>.

¹⁹⁸ See, e.g., Michael Gorman & William A. Sahlman, *What Do Venture Capitalists Do?* 4 J. BUS. VENTURING 231, 236–37 (1989); David Large & Steven Muegge, *Venture Capitalists' Non-Financial Value-Added: An Evaluation of the Evidence and Implication for Research*, 10 VENTURE CAPITAL 21, 27–32 (2008); D. Gordon Smith, *Venture Capital Contracting in the Information Age*, 2 J. SMALL & EMERGING BUS. L. 133, 138–40 (1998).

¹⁹⁹ See Ibrahim, *(Not So) Puzzling*, *supra* note 11, at 1431–32, and *supra* note 41 and text.

²⁰⁰ See, e.g., Nikolaus Franke et al, *Venture Capitalists' Evaluations of Start-Up Teams: Trade-Offs, Knock-Out Criteria, and the Impact of VC Experience*, 32 ENTRE. THEORY & PRAC. 461–62 (2008) (surveying the literature regarding VCs' evaluation criteria, ranked by their order of

that they trust with the financing necessary to find product-market fit or refine it. Receiving negative user feedback, returning to the sketching table, and trying again with an entirely different product or business concept are natural parts of the process that should be expected. They may indicate gradual progress just as much as they may indicate unskilled or disoriented management.²⁰¹ In such a setting, it is much harder to tell mid-process whether the entrepreneurs are headed in the right direction. As the startup matures, the management's objectives are more straightforward and better defined. With the startup's focus gradually shifting to maximizing the commercial potential of the now relatively stable product and business model, it becomes much easier for investors to set clear milestones and reach meaningful conclusions from the entrepreneurs' success or failure to hit them.²⁰²

Lastly, even with a relatively stable product and business plan, seed investors often have significantly less reliable quantitative data for assessing the startup and entrepreneurs' performance than later-stage investors. Take, for example, SaaS startups – one of the most prominent market segments of the last decade.²⁰³ Most key performance indicators that SaaS investors use for assessing the startup's traction are, in fact, different analyses of marketing and sales data. These include, for instance, the startup's annual recurring revenue (ARR), customer acquisition costs (CAC), customer lifetime value (LTV), or churn rate.²⁰⁴ At the seed stage, these metrics are likely unavailable or less indicative of actual success as the startup would often have only gone through a limited commercial release. Investors are, therefore, left to assess seed-stage startups' traction while relying on softer, more qualitative, and less coherent methods.²⁰⁵

importance); Paul A. Gompers et al, *How Do Venture Capitalists Make Decisions?*, 135 J. FIN. ECON. 169, 178 (2020) (finding, e.g., that 53 percent of VC respondents considered the strength of the team to be the most important factor in making early-stage investment decisions, while only 12 percent replied that the product was the most important factor).

²⁰¹ Entrepreneur and venture capitalist Reid Hoffman famously commented that “if you are not embarrassed by the first version of your product, you’ve launched too late”; Nick Saint, *If You're Not Embarrassed by The First Version of Your Product, You've Launched Too Late*, BUSINESS INSIDER (Nov. 13, 2009) <https://bit.ly/3DNjtgH>; and see *supra* notes 30–32 and text.

²⁰² See also Mirjam Knockaert & Tom Vanacker, *The Association Between Venture Capitalists' Selection and Value Adding Behavior: Evidence from Early Stage High Tech Venture Capitalists*, 40 SMALL BUS. ECON. 493 (2013) (finding that early-stage VCs who invest primarily based on the strength of the entrepreneurial team, rather than financial criteria, are less likely to be actively involved in the startup's management).

²⁰³ See, e.g., Omari Rigg, *The Real Reason Why Venture Capitalists and Investors Love SaaS Companies*, FORBES (Jun 9, 2022) <https://bit.ly/44XCbOx>.

²⁰⁴ See Jeff Jordan et al, *16 Startup Metrics*, ANDREESEN HOROWITZ (Aug. 21, 2015) <https://bit.ly/3rJlKM9>; Paul Roche & Sid Tandon, *SaaS and the Rule of 40: Keys to the Critical Value Creation Metric*, MCKINSEY & CO. (Aug. 3, 2021) <https://mck.co/451rSJ6>.

²⁰⁵ See, e.g., Christopher Algier, *A Founder's Guide to Pre-Seed*, MEDIUM (Feb. 3, 2021) <https://bit.ly/3OVGpzE> (“evaluation criteria for B2B pre-seed startups”); James Church, *How Much Traction Do You Need to Win Over Investors in a Seed Round?*, MEDIUM (Jan. 19, 2022) <https://bit.ly/3Z3emmw> (explaining seed-stage startups and investors' reliance on softer

Seed investors can mitigate, to some extent, the effects of the first risk factor – the entrepreneurs’ relative advantage in leading the startup’s R&D-focused phase. As mentioned, they do so by hiring tech-savvy personnel or by specializing in narrow verticals.²⁰⁶ However, they can do little to address the other risk factors that make seed-stage startup assessments hard: the lack of a clear endgame and the scarcity of reliable quantitative data and metrics. Seed investors can, as mentioned, address this higher uncertainty by staging their investments even more aggressively.²⁰⁷ However, concerning those funds that *were* invested at the seed stage, the only way seed investors can effectively avoid the increased likelihood of costly mistakes is by limiting ex-ante the extent of hard controls that they hold.

Empirical findings support the notion that investors’ presumed confidence about the quality of their governance skills is correlated with their appetite for active governance. Baker & Gompers’ 2003 study found, e.g., that reputable VCs were more likely to secure board seats in their portfolio startups and that the probability that an entrepreneur would possess the role of a CEO decreases the more reputable the startup’s VC investors are.²⁰⁸ Bengtsson & Sensoy’s 2011 study confirmed that experienced VCs were more likely to protect their positions by securing board seats and less likely to do so through strong economic downside protections.²⁰⁹ Similarly, Bottazzi, Da Rin, and Hellman’s 2008 study of European VCs found that firms whose partners have prior business experience (not necessarily venture experience) were more likely to be actively involved in their portfolio startups’ activities.²¹⁰ A similar correlation between financier’s skills and appetite for control rights has also been observed in non-startup contexts.²¹¹

2. Under-incentivizing Entrepreneur-Side Investments

Startups require intensive investments by both the entrepreneurs and investors to succeed. The main contribution needed from the entrepreneurs is their human capital – i.e., their unique knowledge assets, skills, and person-hours spent overseeing the startup’s day-to-day operations.²¹² Investors are expected

traction indicators such as surveys, focus groups, or feedback by industry experts).

²⁰⁶ See *supra* notes 197, 199, and text.

²⁰⁷ See *supra* notes 160–162 and text.

²⁰⁸ See Malcolm Baker & Paul A. Gompers, *The Determinants of Board Structure at the Initial Public Offering*, 46 J.L. & ECON. 569, 571 (2003).

²⁰⁹ Ola Bengtsson & Berk A. Sensoy, *Investor Abilities and Financial Contracting: Evidence from Venture Capital*, 20 J. FIN. INTERMEDIATION 477, 479 (2011).

²¹⁰ Laura Bottazzi et al, *Who Are the Active Investors? Evidence from Venture Capital*, 89 J. FIN. ECON. 488, 489 (2008).

²¹¹ See, e.g., Greg Nini et al., *Creditor Control Rights and Firm Investment Policy*, 92 J. FIN. ECON. 400, 401 (2009); Choi & Triantis, *Market Conditions*, *supra* note 123, at 59.

²¹² *Id.* at 166; D. Gordon Smith, *Team Production in Venture Capital Investing*, 24 J. CORP. L. 949, 953 (1999).

to commit an agreed-upon amount of financial capital,²¹³ and often also human capital (“value-adding,” in industry jargon) – e.g., through their active participation in management or mentoring and advising the entrepreneur-managers.²¹⁴ More specifically, a startup’s success depends upon the willingness of both entrepreneurs and investors to make *firm-specific investments* – that is, investment of resources whose value would be difficult or impossible to recover once committed for use by the startup.²¹⁵

Two main factors determine how firm-specific a startup investment would be. The first factor is the *timing of investment*. Between the making of the initial human and financial investments in the startup and until a marketable product is in good shape, the startup’s future value is fully perceivable only to its insiders. Outsiders are reluctant to buy useless lines of code or piles of unfinished prototypes based solely on insiders’ vision of their potential and usually expect to see some evidence of external validation. Should the startup be forced to sell its equity or core assets to outsiders within that timeframe (e.g., due to a controlling entrepreneur forcing a premature sale or an investor refusing to provide further financing once cash reserves were burned out), the likely result would be a very substantial loss of enterprise value. And so, the fruit of both the human capital and financial capital invested at that time are, by and large, firm-specific assets.²¹⁶ Edward Rock and Michael Wachter have memorably described this problem as “akin to making an omelet: between the time the eggs are broken and the omelet sets, the cook knows his grand plan for the omelet, but to outsiders, the half-cooked omelet is unappetizing.”²¹⁷

The second factor is the *specialization* of the investment’s outputs. Startups often require stakeholders to develop specialized skills necessary to support that specific startup that are not easily transferable to other uses. Consider, for instance, a startup developing a SaaS legal-tech product. For the startup to succeed, its entrepreneur-CTO must apply her knowledge and skills in building SaaS products. However, she would also likely be required to acquire

²¹³ *Id.*

²¹⁴ This is true both for VCs (see, e.g., Bernard S. Black & Ronald J. Gilson, *Venture Capital and the Structure of Capital Markets: Banks Versus Stock Markets*, 47 J. FIN. ECON. 243, 259 (1998); Gorman & Sahlman, *supra* note 198) and for angels (see, e.g., Cable, *Fending*, *supra* note 41, at 130; Ibrahim, (*Not So*) *Puzzling*, *supra* note 11, at 1419)).

²¹⁵ About the concept and definition of firm-specific investments see generally Margaret M. Blair & Lynn A. Stout, *A Team Production Theory of Corporate Law*, 85 VA. L. REV. 247, 249 (1999); Pollman, *Team Production*, *supra* note 196, at 623. For applications in the context of startup governance see *infra* note 220.

²¹⁶ See Edward B. Rock & Michael L. Wachter, *Waiting for The Omelet to Set: Match-Specific Assets and Minority Oppression in Close Corporations*, 24 J. CORP. L. 913, 918–20 (1999); and see generally Blair & Stout, *supra* note 215, at 276 (explaining, e.g., how even fungible assets such as cash may become firm-specific once utilized). However, even in case of complete loss of all enterprise value, some human capital invested by the parties may still be transferable for other uses – see *infra* note 218 and text.

²¹⁷ Rock & Wachter, *supra* note 216, at 919.

fundamental knowledge and understanding of the legal field and apply it to the product's design. Once her involvement with the startup concludes, the legal knowledge she has acquired will have little use for her unless she is involved again in a legal-tech or otherwise law-related business. Therefore, the human capital invested by such an entrepreneur-CTO to become legally savvy is mostly a firm-specific investment. Conversely, the time and effort spent applying her SaaS product-building skills are less firm-specific investments. By doing so, she gained knowledge, experience, and expertise that are more likely to be transferable to her future endeavors.²¹⁸

An entrepreneur or an investor's upside potential from making firm-specific investments depends entirely on the startup being successful enough *and* affording them the cash-flow rights to gain from such success. However, without holding means of control, firm-specific investors have limited power to protect their upside potential. The controlling stakeholders could use their means of control in a self-serving way that would be detrimental to the startup's enterprise value or the non-controlling stakeholder's cash-flow rights. As a result, firm-specific investors are exposed to the risk of *holdups* by counterparties holding means of control. Controllers may threaten to use their control rights in a way that would be detrimental to the firm-specific investor's interest, aiming to appropriate the value created from the firm-specific investment by forcing certain benefits or concessions from the firm-specific investor.²¹⁹

Holdup concerns have a deterring effect on making both kinds of firm-specific investments mentioned above. For instance, a non-controlling investor is exposed to the risk of entrepreneur-induced premature sale when the value of financial capital invested exceeds the value of human capital invested by the entrepreneur. On the flip side, a non-controlling entrepreneur who had made firm-specific human capital investments may be terminated prematurely by controlling investors, adversely affecting her cash-flow rights (i.e., the payment of salary and perhaps the vesting of her equity-based compensation would cease). As a result, startup stakeholders are less incentivized to make firm-specific investments the less control they hold. The more significant their firm-specific contributions are, and the more disincentivized they are to make them, the more the startup's governance structures should incentivize them. Indeed, scholars have long described how startups' governance structures were designed to mitigate these problems and incentivize mutual firm-specific investments by relieving entrepreneurs' and investors' holdup concerns.²²⁰

²¹⁸ See, e.g., Abraham J.B. Cable, *Opportunity-Cost Conflicts in Corporate Law*, 66 CASE W. RES. L. REV. 51, 86–90 (2015); Manuel A. Utset, *High Powered (Mis)Incentives and Venture Capital Contracts*, 7 OHIO ST. ENTREPRENEURSHIP BUS. L.J. 45, 61–62 (2012).

²¹⁹ Holdup problems are, of course, not unique to startups; see *supra* note 20 and text.

²²⁰ See, e.g., Brian J. Broughman, *The Role of Independent Directors in Startup Firms*, 1010 UTAH L. REV. 461, 482–84 (2010) (referring to the use of contingent-control boards with industry-expert, independent directors); Rock & Wachter, *supra* note 216, at 218–20 (referring to the use of corporations for startup formation, rather than business associations that allow easier

Seed investors' relaxed control over seed-stage startups is yet another example of how startups' governance structures mitigate holdup concerns. Consider, first, investments that are firm-specific primarily due to their timing – Rock & Wachter's omelets. Startups' governance structures should incentivize entrepreneurs and investors to make firm-specific investments throughout the R&D-focused seed stage, at least to some extent, since much of the value of such investments is unlikely to be salvageable in case of a premature sale. However, while investors can diversify away much of that firm-specific risk by allocating their investments of financial capital between different assets, entrepreneurs cannot diversify their investment of human capital.²²¹ Therefore, for investors and entrepreneurs to be equally incentivized to make firm-specific investments, entrepreneurs should be *more* protected than investors from holdup risks. Seed-stage startups' governance structures efficiently allocate more control to entrepreneurs to relieve their concerns about investor-side holdups. As the startup matures, more of the human and financial capital investment could be recouped in case of a sale, and the impact of the investors' relatively superior ability to diversify firm-specific risks diminishes. Investors can gradually bargain for more control without under-incentivizing entrepreneur-side investments.

Similar logic applies to investments that become firm-specific due to specialization. Both entrepreneurs and investors may be required, to some extent, to develop specialized and non-transferable skills to support a startup. However, that burden of specialization lies mainly with the entrepreneurs, as those responsible for building the firm-specific technology and product. The nature of value-adding activities of VCs – e.g., finance, marketing, strategy, and recruiting advice is primarily general and transferable, even if it may require some firm-specific adjustments.²²² Angels' value-adding, similarly, is usually comprised of transferable coaching skills and more specialized product-related advice.²²³ However, even highly involved and tech-savvy angels cannot – and will not – build the product instead of the entrepreneurs and are not required to develop the same level of specialized skills as they do.²²⁴ Accordingly, startups' governance structures must incentivize entrepreneur-side specialization more intensely than investor-side specialization.

This conception is true, to some extent, for any stage of the startup's lifecycle (provided that the entrepreneurs remain actively involved); however, it is much more emphasized at the R&D-focused seed stage. As the startup matures, the entrepreneurs are no longer required to develop and utilize their

dissociation); Smith, *The Exit Structure*, *supra* note 78, at 323–24 (referring to the use of staged financing by VCs to mitigate entrepreneur-side holdup risks).

²²¹ See discussion of horizontal conflicts *infra* note 241 and text.

²²² See Cable, *Opportunity-Cost*, *supra* note 218, at 87 (commenting that VCs “will also make some firm-specific investments of time. But fundamentally, their expertise is of a more general nature”); about the nature of VCs' value-adding activities see also *supra* note 198.

²²³ Ibrahim, *(Not So) Puzzling*, *supra* note 11, at 1419; and see *supra* note 199 and text.

²²⁴ See *supra* note 199 and text.

firm-specific, product-related skills to the same extent. Instead, they are gradually required to build and use their managerial and business development skills, which are less firm-specific and more transferable.²²⁵ This gradual process has two crucial governance implications. First, the more transferable the skills the entrepreneurs are required to develop, the less deterring effect investor control would have on making them. Second, as the startup gradually becomes less reliant on the entrepreneurs' specialized skills, controlling investors can more easily remove underperforming entrepreneurs from their managerial positions and replace them with professional managers.²²⁶ Maintaining an incentive structure supporting entrepreneurs' firm-specific investments thus becomes a less crucial factor in promoting the startup's success.

Therefore, while any startup in which the entrepreneurs are actively involved should incentivize entrepreneur-side firm-specific investments to some extent, the governance structures of seed-stage startups must do so more intensely than those of later-stage startups. And since investor control disincentivizes such investments, it follows that seed-stage startups would not afford investors the extent of control that later-stage startups often do.

B. *The Questionable Benefits of Seed Investors' Control*

As the previous subpart had shown, by choosing not to secure hard controls, seed investors avoid the high costs they would have incurred by holding them.²²⁷ However, at the same time, allowing the entrepreneurs more control means that the investors would be less capable of minimizing the costs of entrepreneurs' self-serving or careless conduct. Borrowing Goshen and Squire's terminology again, the costs associated with opportunistic or less-than-diligent management will be referred to in this subpart as "conflict costs."²²⁸ As mentioned above, minimizing these types of conflict costs is one of the classic reasons identified by scholars for later-stage investors' emphasis on holding control in their portfolio startups.²²⁹

The increase in conflict costs resulting from affording entrepreneurs more control is affected by various factors, some unrelated to the startup's funding stage. Notably, affording the entrepreneurs more control would increase conflict costs more significantly where the entrepreneurs' and investors' motivations are more conflicted or where the entrepreneurs are less honest or diligent by nature.²³⁰ However, regardless of these entrepreneur-specific factors, conflict

²²⁵ See Utset, *supra* note 218, at 60–63 (also discussing how entrepreneurs are incentivized to develop these skills earlier than what the startups' needs require).

²²⁶ See Brian Broughman & Jesse M. Fried, *Do Founders Control Start-up Firms that Go Public?* 10 HARV. BUS. L. REV. 49, 55–56 (2020); Fried & Ganor, *supra* note 182, at 989–90.

²²⁷ See *supra* part III.A.1.

²²⁸ Goshen & Squire, *supra* note 25, at 790–95.

²²⁹ See *supra* notes 111, 118 and text.

²³⁰ See generally Goshen & Squire, *supra* note 25, at 796–8.

costs are potentially high at the seed stage due to the information advantage that seed-stage entrepreneurs enjoy over seed investors.

In fact, the same reasons that make holding hard controls by seed investors high in *competence* costs make the holding of hard controls by entrepreneurs high in *conflict* costs. As mentioned, it is much more complicated to quantify and assess the performance of seed-stage entrepreneurs.²³¹ While seed investors are likely to make honest mistakes as they attempt to do so,²³² seed-stage entrepreneurs can use that information advantage to cover self-serving or careless conduct. Assume, for instance, that a startup had failed to close a POC with a tech giant that, if closed, would have been a strategic breakthrough for the startup. The actual reason for the failure was that the entrepreneurs' presentation was disastrous. The entrepreneurs could easily and credibly explain to their investors that the failure resulted from other causes that are naturally expected at the seed stage but much less so in later stages (e.g., that the meeting was premature and the product still needs more work).

As discussed above, there is little seed investors can do to address the increased competence costs resulting from holding hard controls other than limiting the extent of hard controls they hold.²³³ Since the allocation of control is a zero-sum game, less investor control necessarily means more entrepreneur control, which, in turn, is usually expected to increase entrepreneur-side conflict costs.²³⁴ However, seed investors are much better equipped to address this anticipated increase than they are equipped to handle their own high cost of error. Unlike competence costs, conflict costs are responsive to economic incentives, and seed investors can use that notion to their advantage. By keeping their investment amounts small, seed investors can ensure that the entrepreneurs retain a significant portion of the startup's cash-flow rights by holding a substantial percentage of its equity immediately following the seed stage, even in investor-friendly seed rounds.²³⁵ This helps align the entrepreneurs' upside potential with that of the startup itself, thus reducing the entrepreneurs' incentive for extracting private benefits and increasing their motivation to maximize the overall enterprise value.²³⁶

²³¹ See *supra* notes 113–117.

²³² See *supra* part III.A.1.

²³³ *Id.*

²³⁴ Goshen & Squire, *supra* note 25, at 796–98.

²³⁵ See *supra* note 103 and text.

²³⁶ See generally Goshen & Squire, *supra* note 25, at 807–08, referring to publicly-traded firms with a concentrated ownership structure. It should be noted, however, that in privately held startup equity, the allocation of cash-flow rights follows the allocation of equity less closely than it does in publicly traded firms. Notably, as the startup's valuation nears investors' liquidation preference, the entrepreneurs' share of the startup's cash-flow rights might drop below their pro rata share of the startup's equity; see *supra* notes 96–99 and text). Scholars have long noted how liquidation preference provisions may incentivize entrepreneur-managers to work diligently to increase enterprise value (see Fried & Ganor, *supra* note 182, at 983; Robert P. Bartlett III, *Venture Capital, Agency Costs, and the False Dichotomy of the Corporation*, 54 UCLA L.

Other than this strategic allocation of equity, seed-specific incentives acting on entrepreneurs further mitigate the increase in conflict costs. Consider, first, the seed-specific aspects of *vertical conflicts*. These conflicts exist in the relationship between the investors, as principals, and the entrepreneurs, as managers. As in other firms, startup managers may attempt to extract private benefits that could come at the cost of sacrificing enterprise value. These may include, for instance, paying themselves above-market salaries or choosing not to apply the level of care and diligence that their jobs require.²³⁷ While more entrepreneur control may increase the cost of vertical conflicts to some extent, two main seed-specific reasons factors moderate the effects of any such increase.

First, there is less potential for extracting private benefits in low-valued, cash-constrained seed-stage startups compared to their more mature and financially stable later-stage equivalents. To allow the entrepreneurs to extract more significant private benefits, the startup must first grow to be more successful. This notion should decrease entrepreneurs' motivation to engage in self-serving behavior as early as the seed stage.

Second, and more importantly, the seed stage only marks the beginning of the startup's funding lifecycle.²³⁸ Assuming that the entrepreneurs are not entirely corrupt and are indeed trying to build a startup rather than simply scam early-stage investors, they must care about having to gain investors' trust again to secure future financing. Considering the emphasis that startup investors place, as mentioned, on the quality of the entrepreneurial team when making investment decisions,²³⁹ it is easy to see how doubts regarding the entrepreneurs' loyalty or diligence could make a startup non-fundable. At the seed stage, most funds the startup is expected to require are yet to be raised, and its ability to sustain itself independently is significantly lesser.²⁴⁰ Therefore, this notion should have a more substantial inhibiting effect on seed-stage entrepreneurs than on later-stage entrepreneurs.

Next, consider the seed-specific nature of *horizontal conflicts*. These conflicts emerge in the relationship among the entrepreneurs and investors as joint principals and primarily relate to the startup's growth and exit strategy. The investment strategy of startup investors, mainly VCs, follows the "power law." Startups fail at famously high rates, while successful ones could provide staggering returns on investments. And so, startup investors diversify their investments, hoping for a few "home run" exits by having the startup go public

REV. 37, 54–55 (2006). However, at the same time, an entrepreneur holding underwater common stock that cannot be reasonably brought back to having actual value, may be incentivized to extract private benefits instead.

²³⁷ About vertical conflicts in startups see generally Pollman, *Startup Governance*, *supra* note 1, at 179–88; Simone M. Sepe, *Intruders in the Boardroom: The Case of Constituency Directors*, 91 W.A. U.L. REV. 309, 319.

²³⁸ See generally Pollman, *Startup Governance*, *supra* note 1, at 165–70.

²³⁹ See *supra* note 200 and text.

²⁴⁰ See discussion of staged financing *supra* notes 160–162 and text.

or acquired. These home runs must provide returns large enough to compensate for all other unsuccessful portfolio assets so investors can generate overall high returns on their portfolio to justify the risks taken when choosing to invest in emerging technologies. Entrepreneurs, conversely, are not diversified and typically invest their human capital into a single startup at a time.²⁴¹ While they should be motivated enough to pursue home run exits – otherwise, they would not have been able to attract investors on reasonable terms²⁴² – entrepreneurs are expected to remain somewhat more risk-averse. In some circumstances, they may apply lower-risk, lower-reward strategies that could compromise the startup's homerun potential.²⁴³ Inter-investor horizontal conflicts may also arise between different investors with varying investment strategies, orders of preference, and liquidity needs.²⁴⁴

Like vertical conflicts, the effect of entrepreneur control on horizontal conflicts is also moderated by seed-specific factors. Shareholder-level conflicts are expected to be less of a concern at the seed stage, and not because exits are necessarily a remote option. While rarely an entrepreneur or an investor's best-case scenario, startups are not unlikely to exit before raising a Series A.²⁴⁵ These typically unremarkable exits are often tolerated (or even encouraged) by investors as they allow them to cut their losses early and divert any salvageable resources elsewhere. At the same time, they offer the entrepreneurs a dignified way to bring the sideways venture to an end.²⁴⁶ On other occasions, seed-stage exits are more contentious, leaving investors bitter about the entrepreneurs opting for a quick cash-out and letting a promising home run prospect go to waste.²⁴⁷ Even so, different views regarding the seed-stage exit strategies are unlikely to escalate into full-scale shareholder conflicts. *First*, seed-stage startups

²⁴¹ See generally Broughman & Wansley, *supra* note 9; Pollman, *Startup Governance*, *supra* note 1, at 188–96; Sepe, *supra* note 237, at 320–21.

²⁴² See, e.g., Gompers et al, *supra* note 200, at 181–82 (finding, e.g., that exit considerations are the most important factor when deciding on the valuations VCs offer to candidate startups); Smith, *Venture Capital*, *supra* note 198, at 138–39 (“At the outset of the relationship, venture capitalists and entrepreneurs typically have a common goal: build the company to the point where its stock may be sold to the public”); PETER THIEL & BLAKE MASTERS, *ZERO TO ONE: NOTES ON STARTUPS OR HOW TO BUILD THE FUTURE* 64 (2014) (suggesting that VCs “only invest in companies that have the potential to return the value of the entire fund”).

²⁴³ See references *supra* note 241.

²⁴⁴ See generally Bartlett, *supra* note 236, at 71–80; Pollman, *Startup Governance*, *supra* note 1, at 191–93.

²⁴⁵ For instance, Carta reports that between 2017 and 2023, twenty to twenty-eight percent of the startups using its popular capitalization table management platform were acquired before raising their first priced round, and eleven to twenty-four percent were acquired before raising their Series A (Peter Walker, *Startup Acquisitions Happen Most Frequently at Series A*, LINKEDIN (May 2023) <https://bit.ly/47XI0O5>).

²⁴⁶ See Broughman & Wansley, *supra* note 9, at 1358–59; Elizabeth Pollman, *Startup Failure*, 73 DUKE L.J. 327, 356–59 (2023); John F. Coyle & Gregg D. Polsky, *Acqui-Hiring*, 63 DUKE L.J. 281 (2013).

²⁴⁷ See generally Matthew Wansley, *Beach Money Exits*, 45 J. CORP. L. 151 (2019).

have gone through fewer financing rounds. Thus, they naturally have fewer investors involved whose diverging interests may prompt such conflicts – either among investors themselves or between any particular investor and the entrepreneurs.²⁴⁸ *Second*, powerful reputational constraints have been known to moderate startup investors’ litigious tendencies and even their willingness to criticize the entrepreneurs’ decisions publicly.²⁴⁹ The substantially smaller stakes in seed investments make it even less likely that a distressed seed investor would take the reputational hit and pick a fight with the entrepreneurs.

C. Deal Design Implications

The previous subparts have emphasized how seed investors are inferior startup controllers compared to later-stage investors, as the resulting costs of seed investor control are higher than those of later-stage investor control. At the same time, seed investors do not need to hold the same extent of control to achieve the governance objectives that require later-stage investors to do so. This notion has implications both on the terms and structuring of seed financing transactions.

1. Investment Terms: Placing Control with Efficient Controllers

Through the lens of the respective costs and benefits of entrepreneur versus investor seed-stage control, the entrepreneur-friendly *control terms* of seed financing transactions make perfect sense. Seed investors are less likely to hold hard controls²⁵⁰ since these costly rights have little value in mitigating seed-stage risks. It is equally easy to see why seed investments more closely resemble later-stage investments regarding soft controls.²⁵¹ Soft controls’ potential to decisively affect how the startup is run is lower than that of hard controls. Thus, their being held by seed investors does not entail as-high cost of error and does not disincentivize entrepreneur-side firm-specific investments the same way.

The *economic terms* of seed financing transactions follow the same rationale of avoiding placing hard controls in seed investors’ hands.²⁵² Seed investors are

²⁴⁸ About the increasing complexity of startup governance as the startup matures see generally Pollman, *Startup Governance*, *supra* note 1, at 196–200.

²⁴⁹ See Broughman & Wansley, *supra* note 9, manuscript at 1357–58.

²⁵⁰ See *supra* notes 76–91 and text.

²⁵¹ See *supra* notes 92–95 and text.

²⁵² Liquidation preference, which is primarily an economic right, is often also seen as indirect means of allocating startup control. Since entrepreneurs holding common stock would gain little-to-no exit proceeds from exits priced below or slightly above the preference amount, liquidation preference provisions are often seen as a soft veto right on low-valuation exits (see e.g., Smith, *The Exit Strategy*, *supra* note 78, at 347–48). Liquidation preference provisions have also been described as means to motivate the entrepreneurs to take risks and increase the startup’s enterprise value high above the preference amount (see, e.g., Fried & Ganor, *supra* note 182, at 983). These control aspects of liquidation preference are much less significant at the seed

comfortable negotiating for a low price-per-share, as much as their bargaining position allows,²⁵³ since a low price-per-share does not – itself – entail an inefficient transfer of control rights to seed investors. The small investment amounts involved in seed investments ensure that, even in priced seed rounds, the low price-per-share would not result in seed investors gaining control over the startup as shareholders.²⁵⁴ And, since the investment amount is calculated to provide just enough runway for the startup to become Series A-ready,²⁵⁵ it is also ensured that as the seed stage concludes, the entrepreneurs would have to renegotiate the startup’s control structure as part of a follow-on financing.²⁵⁶ That way, the startup’s seed-specific control allocation will not persist through its later stages, where hard controls become more valuable for investors.

2. Investment Structuring: Deferred Equity as a Control-Shifting Agent

Less easily observable than the effect on investment terms, perhaps, is how the *structuring* of seed investments also follows the same logic. Seed investors may be afforded hard controls not only through the express provisions of their investment instruments but also under applicable law. As mentioned, shareholder status comes with a set of statutory protections already built in.²⁵⁷ Where it is inefficient to place specific control means with the investors, whether these controls are contractual or statutory should make no difference. There is no apparent reason for investors to omit the contractual language granting them such controls from their investment documents, and, at the same time, cling to statutory rights that provide comparable controls.²⁵⁸

The extent to which shareholders may opt out or waive their statutory rights and protections varies greatly. Some statutory protections – e.g., most aspects of the fiduciary duty of care – are expressly waivable by including simple

stage due to the smaller investment amounts involved (see *supra* notes 102–103).

²⁵³ See *supra* part I.B.2.ii.

²⁵⁴ See *supra* note 103 and text.

²⁵⁵ See *supra* note 102 and text.

²⁵⁶ Seed investors that value the right to lead the startup’s Series A and negotiate the new financing rounds themselves can contractually secure the right to do so *ex ante* as part of their seed investments, or provide the startup with the best offer for a Series A funding *ex post*. Seed investors that do not value that right as-much would free-ride on the efforts of the Series A lead investor that would do so in their stead.

²⁵⁷ See *supra* notes 79, 89–91 and text.

²⁵⁸ Assume, for instance, that a seed investor contemplating the terms of a priced seed round discounts the value of holding a veto right over the terms of the startup’s future Series A, as she believes that reputational considerations sufficiently minimize the agency costs resulting from the entrepreneurs misusing this freedom. Even if the investor would choose not to secure an express protective provision in this respect (see *supra* note 78 and text), under Delaware law, she may still be entitled to a class vote over charter amendments that the Series A could entail (see *supra* note 79 and text, and see DAVID A. DREXLER ET AL., *DELAWARE CORPORATION LAW & PRACTICE* § 32.04[3] (2022), about the ambiguity of the “adverse effect” over existing shareholders’ rights that requires a class vote).

provisions to the contrary in the startup's charter.²⁵⁹ Others – notably, most aspects of the fiduciary duty of loyalty – may not be eliminated that way.²⁶⁰ Some protections that may not be eliminated in the charter could be waived by shareholders through shareholder agreements. However, these waivers are often subject to shareholder-specific or transaction-specific requirements to be enforceable, such as valuable consideration, reasonableness, specificity, public policy considerations, or the shareholders' being sophisticated, informed, or represented.²⁶¹ At least two of these requirements – investor sophistication and representation – are far from trivial where seed investments are concerned. Thus, such waivers are not necessarily available to seed investors and, in any event, remain prone to legal challenges and are not as reliable as waivers expressly allowed by statute.

Where it is inefficient for investors to hold most of what the statutory investor protection package offers, it makes little sense for them to acquire these protections by becoming shareholders only to carve out most of them through charter amendments or shareholder agreements of varying reliability. Conversely, since deferred equity holders are not shareholders, they are automatically and indisputably *uncovered* by statutory shareholders protections. Deferred equity instruments thus allow seed investors a simple, foolproof, and widely available way to have their statutory protections hibernate during the seed stage. The entrepreneurs and investors may then pick and choose those few elements of control – if any – that investors should hold through the seed stage and secure them contractually. The investors' fully blown set of statutory protections will automatically spring back at the Series A upon converting their instruments into stock, where the startup is more mature and holding such protections by investors makes, by and large, more economic sense.

Lastly, the analysis above also explains why deferred equity instruments are less popular for facilitating later or more significant seed investments.²⁶² Compared to deferred equity rounds, priced seed rounds provide investors with rights and protections closer to those held by Series A investors (albeit often more relaxed in the extent of investor-held hard controls).²⁶³ The seed-specific factors that make hard controls less valuable when held by investors – their high

²⁵⁹ DEL. CODE ANN. tit. 8, § 102(b)(7).

²⁶⁰ See generally *Id.*; however, shareholders may waive claims for breach of the duty of loyalty under the corporate opportunity doctrine (DEL. CODE ANN. tit. 8, § 122(17)).

²⁶¹ Under Delaware law, preconditions of that sort apply, e.g., with respect to the waiver of appraisal rights through shareholder agreements (see *Manti Holdings, LLC v. Authentix Acquisition Co.*, 2018 Del. Ch. LEXIS 318 (Oct. 1, 2018)) or shareholders' contractual undertaking not to sue for breach of fiduciary duties in connection with the exercise of drag-along rights (*New Enter. Assocs. 14, L.P. v. Rich*, 295 A.3d 520, 589–93 (Del. Ch. 2023)). For discussion of the use of shareholder agreements to bypass mandatory features of corporate law see Fisch, *supra* note 1; Gabriel V. Rauterberg, *The Separation of Voting and Control: The Role of Contract in Corporate Governance*, 38 YALE J. REG. 1124 (2021).

²⁶² See *supra* note 74 and text.

²⁶³ See *supra* part I.B.2.

cost of error and the need to incentivize entrepreneur-side firm-specific investments – evolve not only as the startup outgrows the seed stage but also gradually *throughout* the seed stage. An early-seed-stage startup still focused on reducing the entrepreneurs’ abstract ideas into a functioning MVP²⁶⁴ is particularly hard for investors to monitor, and requires very significant entrepreneur-side firm-specific investments. Conversely, a late-seed-stage startup that has already gone through a significant commercial release is likely to resemble Series A startups much more than it does early-seed startups. It would allow investors to monitor its performance more than its early-seed equivalents and require a different balance of entrepreneur-side versus investor-side firm-specific investments. It is thus unsurprising that significant investments that allow startups to reach Series Alike level of maturity without further fundraising, or late-seed investments in startups that are already relatively mature, would be more in line with Series A investment standards.

CONCLUSION

Seed financings stand apart from later-stage counterparts due to their pronounced reliance on deferred equity instruments and a tendency to establish governance structures that grant investors substantially less control than what is typically seen in later-stage investments. This paper demonstrated how both unique aspects are best understood as a product of the high costs and questionable benefits of seed investor control. Exercising investor control at the R&D-focused seed stage is likely to have a high cost of error and deter entrepreneur-side firm-specific investments when these investments should be most intensively encouraged. At the same time, investor control is not as necessary to keep entrepreneur-side agency costs low at the seed stage. Seed entrepreneurs’ significant equity stakes, as well as seed-stage startups’ cash-constrained nature, need to raise further investments, and the lesser likelihood of horizontal conflicts all make seed investors comfortable with allowing entrepreneurs substantial control. This cost-benefit analysis rationalizes seed investors’ reluctance to secure contractual controls or benefit from the statutory controls attached to the shareholder status.

Further research could validate or challenge this study’s findings. Notably, the model developed herein suggests that variations in governance structures may emerge among startups operating in different industry verticals. For instance, the influence of investors’ cost sensitivity and the imperative to motivate entrepreneurs’ firm-specific contributions may carry more weight in deep-tech ventures, such as AI or biotech startups, in contrast to surface tech startups like e-commerce platforms or video streaming services. Consequently, other factors being equal, deep-tech seed investors may exhibit a reduced propensity to secure hard controls while being more inclined to use deferred

²⁶⁴ See *supra* notes 30–31, 48, and text.

equity instruments compared to their counterpart surface tech ventures.

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