The Exit Structure of Venture Capital

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Venture capital contracts contain extensive provisions regulating exit by the venture capitalists. In this Article, Professor Smith employs financial contracting theory in conjunction with original data collected from 367 venture-backed companies to analyze these exit provisions. He concludes that the combination of exit provisions in a typical venture capital relationship serves to lock venture capitalists into the investment during the initial stage. In later stages of the relationship, the venture capitalists acquire increasing control over exit by securing additional seats on the board of directors and by obtaining contractual exit rights. The result is a sophisticated transfer of control from the entrepreneur to the venture capitalists as financial investments increase.
INTRODUCTION

The focus of this Article is the venture capital relationship, stylized here as a relationship between an entrepreneur and a venture capitalist. Potential conflicts between the entrepreneur and venture capitalist, created by the fact that the two parties benefit in different ways from the relationship, motivate the study of exit structure. The choice among exit options may have important distributional consequences between the entrepreneur and the venture capitalist. This Article peers through the lens of financial contracting theory—and uses original data collected from 367 venture-backed companies—to analyze the methods employed by venture capitalists and entrepreneurs to mitigate conflicts regarding potential exit strategies.

Before venture capitalists invest, they plan for exit. That is, they plan to withdraw their investment, adjusted for any return, from the entrepreneur's company. The ability to control exit is crucial to the venture capitalist's business model of short-term funding of nascent business opportunities. Exit allows venture capitalists to reallocate funds and the nonfinancial contributions that accompany them to early stage companies. It also allows fund investors to evaluate the quality of their venture capitalists and, if necessary, to reallocate their funds away from venture capital toward other investment vehicles or from less successful venture capitalists to more successful venture capitalists. Finally, the credible threat of exit by venture capitalists may work to minimize the temptation toward self-dealing by the entrepreneurs who manage the venture-backed companies.

1. Of course, this does not reflect the fact that the “entrepreneur” is often a team of individuals and the “venture capitalist” typically includes several venture capital firms. For the limited purpose of analyzing the venture capital relationship, so stylized, conflicts among members of the entrepreneur team or the venture capital syndicate are moved to the side, unless otherwise noted. With regard to the propensity of venture capitalists to syndicate investments, see Joshua Lerner, The Syndication of Venture Capital Investments, 23 FIN. MGMT. 16 (1994).


3. For an introduction to the financial contracting literature, see Oliver Hart, Financial Contracting, 39 J. ECON. LIT. 1079 (2001).

Venture capitalists generally obtain the ability to exit by controlling the portfolio company’s board of directors, by obtaining specific contractual rights of exit, by terminating the portfolio company’s funding, or by some combination of those three methods. Ultimately, the form of exit selected by the venture capitalists will depend on the portfolio company’s future prospects. Exit may be accomplished through the sale or distribution of the venture capitalist’s shares during or after an initial public offering (IPO) or acquisition of the portfolio company by another company. The portfolio company may also redeem the shares of the venture capitalist on demand pursuant to a contractual put right. Or, the venture capitalist may receive a cash distribution upon the liquidation of the portfolio company.

The academic literature generally overstates the rights of most venture capitalists to control the exit decision. Venture capitalists typically do not obtain control over the board of directors from the beginning of the investment relationship, and contractual rights that allow the venture capitalist to initiate exit—or, perhaps more importantly, threaten to initiate it—typically become available only in the later stages of the venture capital relationship. In short, venture capitalists seem to subject themselves to a modest form of “lock in,” at least during the early stages of the investment relationship. What are we to make of this?

5. The portfolio company is the company that receives financing from the venture capitalist.
6. Of course, a venture capitalist possessing neither control over the board of directors nor specific contractual rights of exit can still determine the timing of exit, either by selling shares in a private transaction or by walking away from the investment. In many instances, a private sale of shares is impossible, except at fire sale prices. Given this Article’s focus on mitigation of conflicts between venture capitalists and entrepreneurs, however, these options suggest no meaningful level of control.
7. See infra Part II.C.3.
8. Cumming and MacIntosh suggest five means of exit: initial public offering (IPO), acquisition, company buyback, secondary sale, or write-off. Douglas J. Cumming & Jeffrey G. MacIntosh, Venture-Capital Exits in Canada and the United States, 53 U. TORONTO L.J. 101, 106 (2003). Secondary sales are rare, and Cumming and MacIntosh state that most secondary sales are made to strategic acquirors. Accordingly, secondary sales are treated here as functionally equivalent to acquisitions. The term “liquidation” is used in place of “write-off” to suggest that venture capitalists may sometimes receive a distribution of assets from the portfolio company. Cumming and MacIntosh consider both full and partial exits, and refer to a partial write-off as a “write-down.” Id. at 189.
9. For example, the account of venture investing offered by Black and Gilson suggests that entrepreneurs routinely surrender control to investors:
Even if entrepreneurs value control highly, they cannot demand its retention at the time that they are seeking venture financing. The typical entrepreneur has not previously run a startup company. Venture capitalists rationally insist on retaining control to protect themselves against the risk that the entrepreneur would not run the firm successfully or will extract private benefits from the firm instead of maximizing its value to all investors. Black & Gilson, supra note 4, at 259.
This Article combines theoretical insights from incomplete contracting theory, empirical results from a well-known study of venture capital contracts by Steven Kaplan and Per Strömberg,10 and original data from 367 venture-backed firms to describe a relationship in which venture capitalists and entrepreneurs allocate control over portfolio companies through a combination of staged financing, voting rights, and contractual protections to ensure optimal allocation of decisionmaking authority while preserving the venture capitalists' exit options.

Part I of this Article focuses on the relationship between exit and board control. Using a financial contracting model as the general framework for discussion, the Article uses empirical evidence to show how venture capital relationships conform to that model. Part II explores the relationship between exit and specific contract provisions. In this section, a separate financial contracting model is used to describe the incentive effects of contractual rights regulating exit. Again, empirical evidence bolsters the theoretical insights.

I. EXIT AND BOARD CONTROL

In negotiating for the right to control exit, the venture capitalist and the entrepreneur must grapple with the fact that their incentives may not be completely aligned. For example, the entrepreneur may receive private benefits from retaining ownership of the company that are unrelated to the company's value. As a result, entrepreneurs may be "inclined to continue and expand their ventures even when their contraction or termination is efficient."11 Conversely, the venture capitalist may be likely to seek exit too early because of his own liquidity or publicity needs. If one party retains unilateral control of the company and makes all of the exit decisions, that party will be able to reap private benefits at the expense of the other.

Conflicts between venture capitalists and entrepreneurs sometimes are resolved in the boardroom. The board of directors of a corporation is charged with managing the business and affairs of the corporation12 and initiates most important exit decisions, including mergers, IPOs, and liquidations. While stockholder approval is required for certain transactions,13 stockholders

12. DEL. CODE ANN. tit. 8, § 141(a) (2001); MODEL BUS. CORP. ACT § 8.01 (2004).
13. For example, mergers (tit. 8, § 251(c)); charter amendments (tit. 8, § 242(b)); sales of all or substantially all assets (tit. 8, § 271(a)); and dissolutions (tit. 8, § 275(a)).
typically do not have the power to initiate exit events. Given that venture capitalists usually invest in portfolio companies that are organized as corporations, it is no surprise that the economic models of venture capital exit place heavy emphasis on the board of directors, which has a "large reservoir of authority" under corporate law.

A. Exit in the Early Stages

In the early stages of a venture capital relationship, the venture capitalist is concerned primarily with protecting himself from forced exit. In a majority of the deals studied by Kaplan and Strömberg, venture capitalists initially received a minority of the votes in their portfolio companies and minority positions on the boards of directors. Venture capital contracts often allocate board control roughly evenly among the venture capitalists and entrepreneurs, with outside (swing) positions being determined by their collective voice. In these early stages of the relationship, the outside directors usually would be selected by consensus (regardless of the formal voting rules), as conflicts between the venture capitalist and entrepreneur have not yet fully surfaced.

During this initial period, venture capitalists appear vulnerable in the sense that they do not formally control the board of directors. Nevertheless, they formally limit their exposure to harm in two important ways. First, venture capitalists use negative contractual covenants (often called "protective provisions") and liquidation rights to limit the ability of entrepreneurs to act opportunistically. Venture capitalists typically hold preferred stock, and entrepreneurs hold common stock. The negative covenants prohibit the portfolio

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15. See Joseph Bankman, The Structure of Silicon Valley Start-ups, 41 UCLA L. Rev. 1737 (1994); Victor Fleischer, The Rational Exuberance of Structuring Venture Capital Start-ups, 57 Tax L. Rev. 137, 137 (2003) ("A typical start-up is organized as a corporation under state law, which means that it is treated as a separate entity from its owners for tax purposes."); see also D. Gordon Smith & Cynthia A. Williams, Business Organizations: Cases, Problems, and Case Studies 169 (2004) (reporting, with regard to a case study of NeoClone Biotechnology International LLC, that "venture capitalists told [the CEO of NeoClone] that the company would need to become a corporation before receiving venture capital").
17. Venture capitalists may effectively control the board, even if they do not have the right to elect a majority of the directors, by exerting influence over the choice of outside directors and by persuading outside directors on substantive questions. Cf. William W. Bratton, Venture Capital on the Downside: Preferred Stock and Corporate Control, 100 Mich. L. Rev. 891, 921 (2002) ("Information asymmetries and differentials in bargaining power and skill could mean that the 'independent' third director is highly susceptible to the influence of the [venture capitalist] . . . .").
company from engaging in business combinations (for example, mergers) and other important transactions without prior approval from the venture investors, thus cutting off the means by which common stockholders have traditionally taken advantage of preferred stock. 18 Second, even if the contractual provisions left a gap for opportunism by the entrepreneur, 19 venture capitalists typically would have limited their exposure to harm because they stage their financing of the venture, providing only partial funding during the initial stage, with increased funding at subsequent stages.

Venture capitalists also are protected in this initial phase of the relationship in less formal ways. For example, if outside directors are elected by consensus, one suspects that venture capitalists play a significant role in identifying and recruiting them. After all, the entrepreneurs “hire” venture capitalists partly to attract additional talent to the firm, and the venture capitalists add value by having an expansive network of contacts. 20 Moreover, in the event of conflict between the venture capitalist and the entrepreneur, such outside directors may have a natural inclination to side with the venture capitalist. 21 In the early stages of the investment, therefore, venture capitalists are less concerned about initiating exit than they are about preventing exit from being forced on them.

18. Part II discusses in detail the importance of these contractual mechanisms. For a discussion of “rights stripping” of preferred stock, see D. Gordon Smith, Independent Legal Significance, Good Faith, and the Interpretation of Venture Capital Contracts, 40 WILLAMETTE L. REV. 825, 831-44 (2004).


20. See D. Gordon Smith, Team Production in Venture Capital Financing, 24 J. CORP. L. 949, 957-58 (1999) (describing the recruitment of managers). But see Michael J. Whincop, Entrepreneurial Governance, in BRIDGING THE ENTREPRENEURIAL FINANCING GAP: LINKING GOVERNANCE WITH REGULATORY POLICY 86 (Michael J. Whincop ed., 2001) (“While the [outside] director will be appointed for the welfare of the business, and thus its shareholders, the agent analogy is inaccurate, the focus is outward not inward, and the director's identification with other social groups may be quite as strong as that with the investors.”).

21. In the context of large corporations, this inclination to favor those who are part of the “in” group would be called a “structural bias.” For the seminal study of structural bias in the corporate context, see James D. Cox & Harry L. Munsinger, Bias in the Boardroom: Psychological Foundations and Legal Implications of Corporate Cohesion, 48 LAW & CONTEMP. PROBS. 83 (1985). The term “structural bias” is usually employed to suggest a form of self-interestedness that characterizes the deliberations of the board of directors. See Aronson v. Lewis, 473 A.2d 805, 815 n.8 (Del. 1984). However, the underlying principle suggests a general inclination to return favors. See Donald C. Langevoort, The Human Nature of Corporate Boards: Law, Norms, and the Unintended Consequences of Independence and Accountability, 89 GEO. L.J. 797, 811 (2001) (“The natural inclination, as we have seen, is to choose those who will fit well with existing member. The invitation itself creates a strong pressure: the norm of reciprocity, strongly felt in American culture, inclines people to support those who have favored them in the past.”).
B. Contingent Control

As the business matures, new conflicts begin to play a more prominent role. In particular, problems may arise when one party receives benefits that are not shared with the other. Such private benefits often are not "contractable," that is, they may not be explicitly bargained for within the contract, because they are not readily observable or verifiable. Given the existence of non-contractable private benefits, who should control the business? In their foundational article on incomplete contracting, Philippe Aghion and Patrick Bolton address this question. They theorize a relationship in which, because of the myriad potential outcomes of the investment, the parties cannot create a complete contract that specifies all future actions in advance. Instead, they agree to allocate control over those future actions among themselves.

Under this model, the investment relationship is conceived as a project with a duration of two terms. At the end of the first term, the parties evaluate the project to determine the "state of nature," which would dictate some action. The monetary returns of the project would be realized at the end of the second term and would depend on the action selected at the end of the first term.

Since any appropriate action will depend on the state of nature at the end of the first term, the parties might attempt to specify which actions should be taken under the various possible states of nature. Unfortunately, real investment projects usually are too complex to allow for complete prior specification of actions. As a result, the parties might attempt instead to ensure that the proper action is taken by allocating decisionmaking authority to the person with the right incentives, depending on the state of nature.

22. Philippe Aghion & Patrick Bolton, An Incomplete Contracts Approach to Financial Contracting, 59 REV. ECON. STUD. 473, 476 (1992). On the distinction between "observable" and "verifiable" information, see Alan Schwartz, Relational Contracts in the Courts: An Analysis of Incomplete Agreements and Judicial Strategies, 21 J. LEGAL STUD. 271, 279 (1992) ("Briefly put, information is observable when it is worthwhile for the parties to know it, but the costs of proving it to a third party exceed the gains; information is verifiable when it is both observable and worth proving to outsiders."). One might imagine private benefits that are contractable: For example, the entrepreneur may earn a salary in connection with serving as the CEO of the portfolio company. The venture capitalist and the entrepreneur may enter into an employment agreement to regulate the salary, and many of the obligations under that agreement will be both observable and verifiable.

23. This is really a "state of the project." Aghion & Bolton, supra note 22, at 476–77.

24. Id. at 476.

25. Cf. Hart, supra note 3, at 1084 ("The financial contracting literature takes the view that, although the contracting parties cannot specify what decisions should be made as a function of (impossible) hard-to-anticipate-and-describe future contingencies, they can choose a decision-making process in advance.") (emphasis omitted).
How do the parties decide which person is the right decisionmaker for any particular situation? According to Aghion and Bolton, the entrepreneur is the right decisionmaker when her private benefits are consistent with total returns, and the venture capitalist is the right decisionmaker when his monetary returns are consistent with total returns. Using this rule, the entrepreneur should control the firm when the state of nature is "good." The venture capitalist should control the firm when the state of nature is "bad."

The limitation of this approach is that a project's state of nature also can be exceptionally difficult to describe. The state of nature in the real world is not merely "good" or "bad," but exists in infinite gradations of good or bad. It really is just a general sense of how the project is doing, and many variables comprise such an evaluation. For these reasons, Aghion and Bolton assume that the state of nature is impossible or very costly to describe in advance. As a result, the contract cannot link a specified decisionmaker to the appropriate state of nature.

To simplify matters, the parties could agree in advance to abide by a signal indicating the state of nature. Depending on the signal, control may be given to the venture capitalist or the entrepreneur. If the signal is closely correlated with the state of nature, contingent control allocation of this sort may be preferable to unilateral control in the hands of either the entrepreneur or the venture capitalist. Debt financing, for example, provides one real-world application of this insight. In this case, the signal of the firm's health is its ability to repay the debt. Aghion and Bolton observe that "the entrepreneur gets control as long as he does not default on his debt obligations but the creditor gets control in the event of default."

The contingent control mechanism described by Aghion and Bolton also finds some parallels in the world of venture investing. For example, a small percentage of venture capital financings exhibit contingent control provisions associated with poor performance. In addition, redemption provisions bear some resemblance to events of default, except that redemption in the venture capital context is usually triggered by the passage of some specified period of years rather than a certain performance outcome. In the end, it appears that signals often are either unavailable or unreliable in

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27. Id. at 486.
28. Kaplan and Strömberg find such provisions in 24.5 percent of first round financings and 17.8 percent of total financings. Kaplan & Strömberg, supra note 10, at 288 tbl.2.C. Traditionally, such provisions (called "voting switches") shift control from the entrepreneur to the venture capitalists after missed dividends or the failure to consummate an IPO. See, e.g., George W. Dent, Jr., Venture Capital and the Future of Corporate Finance, 70 WASH. U. L.Q. 1029, 1039 n.39 (1992).
most venture capital relationships. As a result, some other means of allocating control to the proper decisionmaker is required.

C. Staged Financing

Instead of writing the signal directly into the contract, venture capitalists often rely on the practice of staging their investments. Staged financing occurs when venture capitalists invest incrementally in their portfolio companies. If the venture capitalists want to wrest control from an entrepreneur, they may demand majority board control in exchange for additional financing. In some instances, as discussed in more detail below, venture capitalists will not need to make explicit demands because board control shifts naturally when the venture capitalists acquire a majority of the voting rights.

Also, through staged financing, venture capitalists preserve their ability to limit losses by abandoning portfolio companies that are not making satisfactory progress. This threat of abandonment, coupled with the prospect of dilution to the entrepreneur from repeated outside investments, ...

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29. It is true that venture capitalists often use performance milestones to measure the portfolio company's progress, and these milestones can have real effects. See, e.g., Ronald J. Gilson, Engineering a Venture Capital Market: Lessons From the American Experience, 55 STAN. L. REV. 1067, 1081 (2003) ("By accepting a contractual structure that imposes significant penalties if the entrepreneur fails to meet[sic] specified milestones based on the business plan's projections—the venture capital fund's option to abandon then becomes exercisable—the entrepreneur makes those projections credible"). Milestone financing may be the only sort of financing available for distressed companies. See Salvatore J. Vitiello, Financing Strategies for Biotechnology Companies, 718 PLI/PAT 643, 680 (2002). Despite all of the talk about milestones, however, anecdotal evidence confirms the evidence assembled by Kaplan and Strömberg suggesting that milestones are rarely used to effect changes in control. Instead, they appear to be used in most instances as goals that establish parameters for future negotiations. If reliable performance milestones were widely available, Rafael Repullo and Javier Suarez predict, they would be associated with "the use of straight equity and continuation terms explicitly contingent on the attainment of these milestones." Rafael Repullo & Javier Suarez, Venture Capital Finance: A Security Design Approach, 8 REV. FIN. 75, 78 (2004).

30. See William A. Sahlman, The Structure and Governance of Venture Capital Organizations, 27 J. FIN. ECON. 473, 506 (1990) ("The most important mechanism for controlling the venture is staging the infusion of capital.").

31. See Smith, supra note 20, at 952 ("Staged financing [is] the practice of investing only enough money to allow the Entrepreneur to progress to the next milestone in its business plan.").


33. See Smith, supra note 20, at 967–68. Smith writes: From the Entrepreneur's perspective, the prospect of abandonment is not the only danger in staged financing, and it may not even be the most important. Another danger is that subsequent rounds of financing may substantially dilute the Entrepreneur's interest in the company. Obviously, the Entrepreneur would rather have the risk of dilution inherent in staged financing than the certainty of dilution that would follow from lump sum financing. But it is precisely this risk that best addresses the Entrepreneur's incentives to shirk...
mitigates the entrepreneur's holdup incentive and provides substantial incentives for the entrepreneur to maximize the potential of the company quickly. Most importantly for present purposes, the threat of abandonment provides venture capitalists with leverage when the time comes to talk exit strategy.

Staged investments typically occur over a relatively short time period, almost always less than one year apart and frequently at much shorter intervals. They are more important to the balance of control in the early lives of most venture-backed companies than the redemption rights and the registration rights discussed in Part II because other rights are typically not available to venture capitalists for a period of years after the initial investment. Staged financing also typically involves the staged acquisition of control. More often than not, venture capitalists do not acquire a majority of the votes in the initial round of financing. In subsequent rounds of financing, the venture capitalists build their voting power, and at some time within the first few rounds, venture capitalists acquire a majority of the votes.

D. Allocation of Board Seats in the Sample Contracts

The incremental increases in voting power via staged financing, discussed above, are the key to an elegant contingent control mechanism embedded in most venture capital relationships. In this subpart, I describe the board composition provisions in a subset of a sample of 367 venture-backed companies that completed IPOs between January 1, 1997 and June 30, 2002, as identified

34. Darwin V. Neher, Staged Financing: An Agency Perspective, 66 REV. ECON. STUD. 255, 255-56 (1999). Holdup occurs when one party to the relationship threatens to withhold consent to act unless the other party grants specified concessions. It is a particularly acute risk when the threatened party has made relationship-specific investments (that is, investment that would lose value outside the relationship). For more on the problem of holdup, see Benjamin Klein et al., Vertical Integration, Appropriable Rents, and the Competitive Contracting Process, 21 J.L. & ECON. 297, 298-302 (1978).


36. See discussion of redemption rights and registration rights, supra Part II.C.

37. Kaplan & Strömberg, supra note 10, at 288 tbl.2.C.

38. For an example of such staged acquisitions of voting power, see Smith, supra note 20, at 967-69 (describing the experience of GO Corporation). While staged investments provide powerful incentives to entrepreneurs, there are some venture-backed firms that are able to continue operations without obtaining additional outside financing. Firms that are profitable, but not so profitable as to be good candidates for IPOs, are often referred to as the “living dead.” See John C. Ruhnka et al., The “Living Dead” Phenomenon in Venture Capital Investments, 7 J. BUS. VENTURING 137 (1992). In these circumstances, staged financing will have lost its force because the firm obtains necessary financial support from operating income, and demand registration rights or redemption rights may be required to play a forcing role. The fact that this scenario rarely plays out fully is probably evidence of the substantial influence of staged financing at the front end of the relationship.
by VentureOne Corporation. During the first stage of the research, the terms of the last venture capital investment prior to the IPO in each company were coded using information obtained from the Electronic Data Gathering, Analysis, and Retrieval (EDGAR) system established and maintained by the Securities and Exchange Commission. Many of the terms are described generally in each company's prospectus, but the information in those summary descriptions is normally insufficient for this study. Fortunately for present purposes, the SEC requires all companies issuing stock to the public to file corporate documents, including material contracts, as exhibits to the companies' registration statements. The corporate charter (which contains the terms of the convertible preferred stock typically purchased by venture capitalists), investors' rights agreements, and registration rights agreements are often included among those exhibits.

Provisions allocating control over the board of directors can be placed in the corporate charter or in a separate agreement, but these provisions generally expire upon consummation of the IPO. Separate agreements often are not filed with the other exhibits and are not otherwise publicly available. For purposes of this study, board composition provisions were available online for 269 of the 367 sample companies (73.30 percent).

39. VentureOne is a venture capital research firm that collects and sells information on venture capital investing. VentureOne, http://www.ventureone.com (last visited Nov. 4, 2005). The initial list of venture-backed companies obtained from VentureOne numbered 673. Of those, only 367 companies filed with the Securities and Exchange Commission (SEC) the documents necessary to discover the terms of the last venture investment prior to the IPO.


41. The registration statement is a document that companies file with the SEC in anticipation of an IPO. It includes a prospectus, which describes the company's history and operations in some detail and contains the company's financial statements. The contents of the registration statement and the prospectus are dictated in large part by the SEC's Regulations S-K and S-X.

42. Companies registering for an IPO are required to file only documents that are of interest to investors in the IPO. Many of the terms of the preferred stock held by the venture capitalists—which terms are found in corporate charters—are irrelevant to IPO investors because the shares of preferred stock held by the venture capitalists are routinely converted into common stock on consummation of the IPO. As a result, reporting companies are not required to file the corporate charters containing those terms, and many companies simply omit them. Some of the terms of the venture capital investment, however, survive the IPO. In particular, venture capitalists tend to retain registration rights following the IPO. Accordingly, registration rights agreements are routinely filed by reporting companies.

43. These numbers reflect only companies with separate provisions dedicated to board composition, but almost every charter in the sample included a general voting provision that entitled the preferred stockholders to vote with the common stockholders on all matters. In the absence of a separate provision addressing board composition, such general voting provisions would permit the preferred stockholders to vote with the common stockholders on the election of directors. Unfortunately, in most instances, where the corporate charter does not include a separate board composition provision and the companies did not file with the SEC a separate agreement regarding
Most of the board composition provisions that are available online appear in the corporate charters (215/269 or 79.93 percent), and generally speaking, they come in one of two types: (1) sole control provisions, in which control of the board of directors is expressly allocated to either the common stockholders or the preferred stockholders; or (2) contingent control provisions, in which the identity of the tie-breaking directors is determined by the common stockholders and the preferred stockholders voting together as a single class. In the contingent control provisions, votes cast by common stockholders and preferred stockholders typically are lumped together in a single tally, and formal power thus resides with whichever class of stockholders holds a majority of the votes.

Even this simple, two-part taxonomy of board composition provisions may exaggerate the diversity of the contracts. Almost all of the board composition provisions follow the same three-stage structure: (1) A specified number of board seats are allocated to the holders of each series (or multiple series voting together) of preferred stock; (2) a specified number of board seats are allocated to the holders of common stock; and (3) any remaining board seats are filled by the holders of preferred stock and the holders of common stock voting together as a single class. Provisions were coded as “investor control” where the seats allocated under (1) exceeded the total number of seats available in (2) and (3); provisions were coded as “entrepreneur control” where the seats allocated under (2) exceeded the total number of seats available in (1) and (3); and provisions were coded as “contingent control” where the seats allocated under (3) could tip the balance of power to one side or the other.4

Because venture capitalists typically gain additional board seats with each round of investment, over time the board composition provisions of venture-backed companies tend to move from “entrepreneur control” or

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4. A small number of the sample charters (6/269 or 2.23 percent) divided control equally between the common and preferred stockholders, and these were coded separately as “equal control,” but they do not figure in the analysis. In addition, another small cluster of the sample charters (7/269 or 2.60 percent) provided for “joint control” by the common and preferred stockholders. These provisions are discussed briefly infra Part I.E.
"contingent control" to "investor control." Of course, at any point in time, the contingent control provisions are effectively indistinguishable from sole control provisions in the sense that only one party controls the vote. Control is thus contingent only in the sense that it shifts from common stockholders to preferred stockholders over successive stages of financing, and this can occur either because the venture capitalists bargain for additional seats on the board or because the venture capitalists acquire a majority voting stake in the company.45

Sole control provisions appear in the contracts of many of the sample firms (102/269 or 37.92 percent), and in most of these instances, control rests with the venture capitalists as the preferred stockholders (79/102 or 77.45 percent). This is not surprising, as the sample firms have had an average of 3.3 rounds of outside equity investment,46 and as noted above, venture capitalists gain increasing voting rights with each round of investment.

The following is an example of a fairly typical charter provision, allocating sole control to the venture capitalists who had invested in Agile Software Corporation:

Voting for the Election of Directors. As long as 50% or more of the shares of Series A Preferred Stock originally issued remain outstanding, the holders of such shares of Series A Preferred Stock shall be entitled to elect one director of this corporation at each annual election of directors. As long as 50% or more of the shares of Series B Preferred Stock originally issued remain outstanding, the holders of such shares of Series B Preferred Stock shall be entitled to elect one director of the corporation at each annual election of directors. As long as 50% or more of the shares of Series C Preferred Stock and Series C1 Preferred Stock originally issued remain outstanding, the holders of such shares of Series C Preferred Stock and Series C1 Preferred Stock, voting together as a single class, shall be entitled to elect one director of the

45. Bratton calls this sort of provision "somewhat arbitrary": The legal literature suggests that a low-cost but somewhat arbitrary alternative approach is utilized in some venture capital deals. Under this, the charter provides that [the entrepreneur's] class of stock elects one director, [the venture capitalist's] class of stock elects one director, and the third director is elected by all the stock, voting as a single class. Assuming that [each of the entrepreneurs and the venture capitalists] have one vote per share and do not hold exactly the same number of shares, the result in a case of disagreement is that the winning third-seat candidate will be nominated by the actor with the larger absolute number of shares. Absent some other arrangement constraining the exercise of voting power, this means that in the event of disagreement, the party with the share voting majority controls all significant firm decisions. According to Kaplan and Strömberg's numbers, this contracting solution favors the [venture capitalist] in the majority of cases. Bratton, supra note 17, at 921.

46. This number is derived from the number of series of preferred stock for each firm.
corporation at each annual election of directors. The holders of outstanding Common Stock shall be entitled to elect one director of the corporation at each annual election of directors. The holders of Series A, Series B, Series C, Series C1, Series D, Series D1, Series E, Series E1, Series F and Series F1 Preferred Stock, the holders of Common Stock and the holders of any series of Preferred Stock that may from time to time come into existence (voting together as a single class and not as separate series, and on an as-converted basis), shall be entitled to elect any remaining directors of the corporation.47

This provision expressly allocates four director positions, and the preferred stockholders (each series of which is controlled by venture capital firms) are entitled to elect three of those directors. Moreover, the preferred stockholders participate in the election of “any remaining directors.”

Companies typically determine the total number of directors according to a charter or bylaw provision. In this instance, the total number of directors is not specified in the corporate charter, but the following is a provision from Agile Software’s bylaws:

The number of directors that shall constitute the whole board shall be not less than three (3) nor more than five (5), the exact number of directors to be fixed from time to time within such limit by a duly adopted resolution of the Board of Directors or shareholders. The exact number of directors presently authorized shall be three (3) until changed within the limits specified above by a duly adopted resolution of the Board of Directors or shareholders.48

Presumably, the number of directors of Agile Software had been fixed by resolution to be at least four—the number of directors expressly allocated by the charter. Under the bylaw provision, Agile Software could accommodate up to one “remaining director,” unless the bylaws were amended to expand the size of the board. Even if the common stockholders held a majority of the votes, therefore, they would capture a maximum of two board seats. On the other hand, even as minority stockholders, the common stockholders are still entitled to one board seat.

Although many of the companies in the sample allocated board control to the venture capitalists in a manner similar to Agile Software, a majority of the venture-backed companies leaves control of the board formally open.

In these “contingent control” circumstances, actual control resides with those who own a majority of the votes. The following provision from eBay, Inc. illustrates this approach:

At each annual or special meeting called for the purpose of electing directors, the holders of the Series B Preferred and Series B1 Preferred, voting as a separate class, shall be entitled to elect one (1) member of the Board of Directors, and the holders of the Series A Preferred and Common Stock, voting together as a single class, shall be entitled to elect two (2) members of the Board of Directors. The remaining directors will be elected by the holders of Preferred Stock and the holders of Common Stock voting together as a single class on an as-converted into Common Stock basis.49

In this instance, the Series A Preferred Stock was owned by an insider—eBay's founder, Pierre Omidyar—and the Series B Preferred Stock was owned by eBay's venture capitalists, Benchmark Capital Partners. The fact that two of the three allocated board positions were reserved to the founder and other employees (who owned common stock) might suggest that eBay had significant bargaining power. Alternatively, it might suggest that with only one round of investment, the venture capitalists simply had not invested enough to dictate more board seats. In any event, the bylaws specified the number of directors (or the process by which that number would be determined):

The Board of Directors shall consist of one or more members. The initial number of directors shall be five (5), and thereafter shall be fixed from time to time by resolution of the Board of Directors. No decrease in the authorized number of directors constituting the Board of Directors shall shorten the term of any incumbent director.50

Prior to the IPO, eBay’s board of directors had five members: two officers (Pierre M. Omidyar and Margaret C. Whitman); one venture capitalist (Robert C. Kagle); and two outside directors (Scott D. Cook and Howard D. Schultz). In a disputed election, the outside directors would be elected by the group holding a majority of the votes. After only one round of venture investment in eBay, the insiders would have retained the right to elect the outside directors. With additional rounds of venture investment, however, voting control would eventually transfer to the venture capitalists, either because the venture capitalists would own a majority of the votes or because the

venture capitalists would bargain for additional board seats with each new round of investment. Staged financing, therefore, is the mechanism by which contingent control transfer is accomplished.

E. Shared Control

In an article that relies on the Aghion and Bolton model for inspiration, William Bratton concludes that venture capitalists and entrepreneurs leave control issues open because they “prefer to grapple with unverifiable facts attending [bad business state] in the black box of the boardroom.” This is a surprising hypothesis—and one that ultimately lacks empirical support among the sample firms discussed above—but Bratton’s analysis is worth a closer look.

Bratton attempts to explain why, although preferred stock has fallen out of favor with most investors, venture capitalists rely almost exclusively on a peculiar brand of preferred stock. Like Aghion and Bolton, Bratton relies on the notion of control. Where venture capitalists have full control—holding a majority of the votes in a corporation and electing a majority of the board of directors—the venture capitalist may block any potential opportunistic actions by the entrepreneur. On the other hand, where venture capitalists do not control the voting shares or the board of directors and rely exclusively on contractual covenants and other provisions for protection, room for entrepreneurial opportunism exists. These extreme cases—full

51. Bratton, supra note 17, at 918. He goes on to say that the venture capitalist and entrepreneur will compete to influence the third director. . . . If the third director is motivated to enhance firm value and [the venture capitalist] persuades the third director that the move is necessary for achievement of [a good state of nature, the entrepreneur] is out. At the same time, [the entrepreneur] also has access to the third director and can state a defense. Id. at 919.


53. Contractual covenants normally do not authorize the venture capitalist to remove incumbent managers or force a liquidation of the business. Moreover, to the extent that contractual protections are incomplete, incumbent managers may be able to act opportunistically. For two well-known cases in which the inability to force liquidation combined with lack of control over the board of directors to enable entrepreneurial opportunism, see Equity-Linked Investors, L.P. v. Adams,
control on the one hand and bare contractual protection on the other—are uninteresting to Bratton.\textsuperscript{54} Instead, he focuses on instances of "shared control," which, based on the study by Kaplan and Strömberg, he claims comprise the majority of venture capital investments.\textsuperscript{55}

Shared control may exist even when the venture capitalist owns a majority of the voting stock of the portfolio company, as long as he does not control a majority of the board of directors. At the same time, the entrepreneur does not control the board of directors. Instead, the parties agree to place representatives of each side on the board alongside a specified number of "independent"—or mutually agreed upon—directors.\textsuperscript{56} Bratton notes that shared control of this sort exposes the venture capitalist to a "cognizable risk of not getting the results it wants on the downside,"\textsuperscript{57} and he attempts to use the Aghion and Bolton model to explain the venture capitalist's willingness to assume this risk.

\textsuperscript{54} See Bratton, supra note 17, at 896 ("Fabulous success... presents allocational problems but no questions respecting the entrepreneur's control of the assets in the future. Total failure is similarly cut and dried—the contracts trigger liquidation for the benefit of the venture capitalist subject to the constraints of the bankruptcy system.").

\textsuperscript{55} Id. at 900-01 ("Shared control in the boardroom is the dominant governance mode in the portfolio companies in Kaplan and Strömberg's sample.").

\textsuperscript{56} It has become customary to refer to all nonemployee directors as "outsiders" and only certain of those directors as "independent." See, e.g., Iman Anabtawi, Secret Compensation, 82 N.C. L. REV. 835, 845 (2004) ("The inclusion of only outside (non-employee) directors who are considered to be independent of management (independent directors) on compensation committees limits the influence managers can bring to bear on executive compensation matters.").


Venture capitalists traditionally have been classified as "independent." See Malcolm Baker & Paul A. Gompers, The Determinants of Board Structure at the Initial Public Offering, 46 J.L. & ECON. 569, 575 (2003) (observing that venture capitalists "clearly fit the notion of objective and independent monitors of the CEO's performance"). Nevertheless, such references may be inappropriate under the new independence standards. For a discussion of new views of independence, see William B. Chandler III & Leo E. Strine, Jr., The New Federalism of the American Corporate Governance System: Preliminary Reflections of Two Residents of One Small State, 152 U. PA. L. REV. 953, 992 (2003) (asking whether the tightening of independence standards will discourage venture capitalists from serving as directors of publicly traded companies). More importantly, non-venture capitalist directors may be compromised by their associations with the venture capitalists, and the key inquiry from a substantive point of view is whether these other directors are impartial and objective.

\textsuperscript{57} Bratton, supra note 17, at 895-96.
Bratton is mainly interested in "downside" protection, which he says consists of two powers: (1) the "power to replace the firm's managers (or, alternatively, to force premature sale or liquidation of the firm)"; and (2) the "power to protect the venture [capital] contract itself from opportunistic amendment." While the Aghion and Bolton model has the potential to explain these powers, the model is limited in two ways. First, because Aghion and Bolton posit a debt security, transfer of control involves the initiation of a bankruptcy proceeding following an event of default. Bratton correctly observes that bankruptcy is an expensive and extreme process that is not to be employed lightly to work a change of control. Second, the Aghion and Bolton model assumes the existence of a reliable signal that can trigger a shift in control. Bratton assumes that in a substantial number of relationships, such a signal does not exist.

The defining characteristic of Bratton's effort, therefore, is his careful modification of the Aghion and Bolton model to accommodate the venture capital context. The key feature of Bratton's interpretation of the model is the notion of "shared control"—an "open-ended balance of power in the boardroom [where the] venture capitalist ... gets no unilateral power to control the assets and terminate the entrepreneur on the downside." In developing the notion of shared control, Bratton relies on the empirical evidence of board composition developed by Kaplan and Strömberg, discussed above. According to Kaplan and Strömberg, most venture-backed companies allow both the venture capitalists and the entrepreneurs to choose some of the directors, with certain tie-breaking seats being reserved for directors "mutually agreed upon" by the venture capitalists and the entrepreneurs.

58. Id. at 893.
60. Bratton, supra note 17, at 912.
61. Id. at 895.
62. See supra Part II.A.
63. Kaplan & Strömberg, supra note 10, at 287.
Why would venture capitalists, who are usually viewed as having substantial bargaining power, cede such control to the uncertain discretion of an independent director? Not only does this decisionmaking structure introduce the possibility that the corporation may take actions contrary to the will of the venture capitalists, a unanimity requirement raises the prospect of deadlock and its twin evil, holdup. For Bratton, the redeeming value of placing control in the hands of swing voters is that transfers of control can be accomplished at a low cost. He dismisses the costs associated with potential deadlock and argues that the shared control structure he describes is similar to the contingent control structure described by Aghion and Bolton.

In addition to inviting deadlock, the outside director has only a limited incentive to maximize the value of the firm. Whether the outside director is a professional consultant or a representative of a supplier or customer, she is unlikely to hold a large equity stake in the corporation. After all, it is her independence that qualifies her to provide the swing vote. The result is that she may be more easily influenced by the nonmonetary effects of her actions than the resulting impact on the value of the firm. Bratton relies on reputation to inspire her, but he does nothing to suggest that the market for reputation in this context is efficient.

Perhaps the biggest problem associated with the shared control envisioned by Bratton is the uncertainty it would induce in projected outcomes. Shared control may have much the same effect on expected returns as

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64. This might be viewed as an attempt to ensure that entrepreneurs are willing to invest their human capital in the enterprise. This is reminiscent of Margaret Blair and Lynn Stout's description of large corporations:

Participants—including shareholders, employees, and perhaps other stakeholders such as creditors or the local community—enter into a "pactum subjectionis" under which they yield control over outputs and key inputs (time, intellectual skills, or financial capital) to the hierarchy. They enter into this mutual agreement in an effort to reduce wasteful shirking and rent-seeking by relegating to the internal hierarchy the right to determine the division of duties and resources in the joint enterprise.


65. Bratton, supra note 17, at 901.

66. Bratton contends, "Without a reliable [signal], the negotiating parties would have a high-powered incentive to find a way to contract around the deadlock the model assumes." Id. at 918. It is not clear why such incentives appear only when a reliable signal is absent. More importantly, even if the parties have an incentive to negotiate around deadlock, it is far from clear that they will succeed, and the costs of such an attempt may be grave.

67. Id. at 919 ("[T]he ideal third director has a strong reputational interest in being seen as an impartial, expert maker of good-faith business judgments who pursues firm value from a neutral stance and is impervious to Coasian bribes.").

entrepreneur control, causing venture capitalists to refrain from investing because expected returns violate the rationality constraint.

Moreover, the data regarding board composition provisions in venture capital contracts relied on by Bratton may not be representative of most venture capital relationships. While the board provisions located in the corporate charters of the sample companies, discussed above in Part I.D, provide relatively straightforward options to the drafting companies, those provisions seem much different from the provisions described by Kaplan and Strömberg, in which the common stockholders and preferred stockholders mutually agree on the tie-breaking directors. Only 7/269 (2.60 percent) of the board composition provisions in the present study include the language of "mutual agreement." Given the dominance of such provisions in the Kaplan and Strömberg sample, the scarcity of mutual agreement provisions in the present study is somewhat mysterious. Without having access to the documents underlying the Kaplan and Strömberg study, I cannot determine which sort of contract provisions were characterized as provisions requiring "mutual agreement." Venture capital contracts might use the words "mutually agree" or "jointly agree," or like the eBay charter quoted above, they may simply state that common shareholders and preferred shareholders vote together as a single class, all of which might be coded as a "mutual agreement" requirement. Furthermore, although the portfolio companies in the Kaplan and Strömberg study were geographically diverse, the fourteen venture capitalists who supplied contracts to Kaplan and Strömberg may have been concentrated in the Midwest, thus producing a geographical bias. However, Kaplan and Strömberg explored the possibility of sample bias and found no reason for concern. In the absence of coding problems or sample bias, one other possible source of variation suggests itself: Companies (or their lawyers) systematically may

70. The possibility of a Midwest bias in this particular term occurred to me because I first encountered the "mutual agreement" term in discussions with a venture capitalist in Madison, Wisconsin. Kaplan and Strömberg considered the possibility of sample bias, and reasoned: [T]he 14 VC firms that provided data appear to be largely representative of the overall U.S. VC industry. In addition, because the VC investments are syndicated, the 119 companies in our current sample received VC financing from more than 90 additional VC firms either in the financing round in our sample or in earlier financing rounds. A total of more than 100 different VC firms, therefore, invested under the terms of the contracts in our sample. This suggests that the financings in our sample are likely to be representative of VC contracts in general.
Id. at 286. The possibility of bias in the sample would be more pronounced if the venture capitalists had provided only deal documents on which the venture capitalists were the lead investors, but Kaplan and Strömberg note that "[e]ach VC firm provided the contractual agreements governing each financing round in which the firm participated." Id. at 281.
place certain types of board composition provisions in voting agreements while putting other board composition provisions into corporate charters.\footnote{This possibility suggested itself because six of the seven sample companies with “mutual agreement” provisions placed those provisions in a separate agreement rather than in the charter.}

The secondary literature on venture capital, much of which is written by experienced venture capital lawyers, offers supplemental evidence on board composition provisions. One interesting piece of evidence is the National Venture Capital Association’s “Model Venture Financing Documents Project.”\footnote{National Venture Capital Association (NVCA), What Are the NVCA Model Venture Financing Documents?, http://www.nvca.org/model-documents/model-docs.html (last visited Apr. 8, 2005).} The model voting agreement in that collection contains a provision for the election of an unallocated director that reads as follows:

One individual not otherwise an Affiliate (defined below) with the Company or with any Investor who is [mutually acceptable to (i) the holders of a majority of the Shares held by the Key Holders who are then providing services to the Company as officers, employees or consultants and (ii) the holders of a majority of the Shares held by the Investors] [mutually acceptable to the other members of the Board] \ldots \footnote{NVCA, Voting Agreement § 1.2(d) (emphasis added), http://www.nvca.org/model_documents/Voting%20Agmt%20Rev%202.DOC (last visited Nov. 15, 2005).}

Although the model voting agreement does not specify the exact number of directors, the phrasing of this provision indicates that in some circumstances the venture capitalist and entrepreneur might be required to agree upon a director candidate. In the meantime, the model certificate of incorporation reads as follows:

The holders of record of the shares of Series A Preferred Stock, exclusively and as a separate class, shall be entitled to elect [\_] directors of the Corporation (the “Series A Directors”) and the holders of record of the shares of Common Stock, exclusively and as a separate class, shall be entitled to elect [\_] directors of the Corporation \ldots The holders of record of the shares of Common Stock and of any other class or series of voting stock (including the Series A Preferred Stock), exclusively and voting together as a single class, shall \ldots be entitled to elect the balance of the total number of directors of the Corporation.\footnote{NVCA, Certificate of Incorporation § C.3.2 (emphasis added), http://www.nvca.org/model_documents/Charter%20Rev%202.DOC (last visited Nov. 15, 2005).}

This provision allows for the election of directors by the preferred stock and the common stock voting together as a single class. Obviously, a company would not want both this charter provision and the foregoing voting agreement because the two provisions conflict.
Other secondary sources also produced mixed results regarding board composition provisions. Indeed, one source was internally inconsistent, as if the drafters had decided to try to capture both the "mutual agreement" idea and the "single class" structure in the same document:

Board of Directors: The size of the Company's Board of Directors shall be set at [n]. The Board shall initially be comprised of __________, as the Investor representative[s] __________, __________, and __________. At each meeting for the election of directors, the holders of the Series A Preferred, voting as a separate class, shall be entitled to elect [x] member[s] of the Company's Board of Directors which director shall be designated by Investor, the holders of Common Stock, voting as a separate class, shall be entitled to elect [x] member[s], and the remaining directors will be [Option 1: mutually agreed upon by the Common and Preferred, voting together as a single class.] [or Option 2: chosen by the mutual consent of the Board of Directors].

The highlighted provision suggests that any director positions not allocated to the preferred stock or common stock alone will be "mutually agreed upon" by those two groups, but there is no mechanism for mutual agreement. Instead, the term provides that the two classes of stock will, for purposes of electing the remaining directors, be "voting together as a single class." Just because the common and preferred vote "together as a single class" doesn't mean that they mutually agree. The election could still be disputed, and if they are voting together as a single class, whoever holds a majority of the votes will win.

It is not clear from the sample documents why some companies would choose a "mutually agree" provision while others select a "single class" pro-

75. See, e.g., Gordon K. Davidson, Super Optics, Inc.: A Hypothetical Venture Capital Investment, 1363 PLI/CORP 853, 589 (2003) ("So long as any of the Preferred issued in the financing remains outstanding, the Preferred (voting as a class) will elect the smallest majority of the directors ('Preferred Directors') and the Common Stock (voting as a class) will elect the remaining directors ('Common Directors')."); Craig E. Dauchy, Doing Deals 2004, Keeping Pace With a Rapidly Changing Market, 1410 PLI/CORP 339, 497 (2003). Dauchy states that:

[T]he holders of Common Stock and Series Preferred, voting together as a single class on an as-if-converted basis, shall be entitled to elect all remaining members of the Board at each meeting or pursuant to each consent of the Company's stockholders for the election of directors, and to remove from office such directors and to fill any vacancy caused by the resignation, death or removal of such directors. Id.; Richard D. Harroch, Negotiating Venture Capital Financings, 755 PLI/PAT 583, 592 (2003) (providing in the Term Sheet that nonallocated directors are "elected by the Preferred and Common voting [rights] together as one class, and the Preferred will be entitled to vote as if all of the Preferred were converted to Common").

vision. The current study examines only the terms of the most recent venture capital investment prior to the IPO, and as a result, it cannot capture changes from one round of financing to the next. It is possible that the parties have changed the “mutually agree” clauses to “single class” clauses as they have progressed from early to later rounds of financing. To investigate this possibility, I acquired from the Delaware Secretary of State the complete filing histories of twenty companies randomly selected from the sample of 215 companies whose charters contained board composition provisions. I found no evidence in these documents that companies evolve from “mutually agree” provisions to “single class” provisions. In addition, Kaplan and Strömberg followed several rounds of investment in the same company and reported no such qualitative changes. Moreover, such a practice has not been noted in the secondary literature on venture capital investing. If it occurs, therefore, it seems unlikely to be a widespread practice.

If the charter board composition provisions from the current sample represent the usual practices in the venture capital industry, the boards of directors of venture-backed companies look much different than the boards portrayed by Kaplan, Strömberg, and Bratton. Rather than leaving control up for grabs, venture capitalists and entrepreneurs bargain explicitly for control through a combination of express allocation provisions and voting rights. Through the practice of staged financing, the parties are able to approximate the transfer of control described by Aghion and Bolton, thus providing over time for a form of contingent board control.

II. EXIT AND CONTRACTUAL RIGHTS

The main focus of exit theory, both in the legal and economic literatures, has been the tradeoff between “liquidity” and “control.” Investors who have easy exit options will have correspondingly fewer incentives to invest in monitoring that is designed to improve ongoing performance. The corollary

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78. For examples of this argument in the context of large firms, see Kenji Kojima, Japanese Corporate Governance: An International Perspective (1997); Amar Bhide, The Hidden Costs of Stock Market Liquidity, 34 J. FIN. ECON. 31 (1993); Colin Mayer, New Issues in Corporate Finance, 32 EUR. ECON. REV. 1167 (1988). For a similar argument in the context of closely held
holds that investors may be willing to foreclose exit options where monitoring is sufficiently valuable to the firm. The resulting “lock-in” serves to encourage investment in monitoring activities. In crafting an optimal investment contract, investors and entrepreneurs strive to provide incentives for efficient monitoring while allowing investors to obtain the maximum level of liquidity consistent with such monitoring.

Optimal levels of liquidity depend on three factors. First, investors have different liquidity demands, and investors who specialize in monitoring (for example, venture capitalists) presumably value liquidity less than other investors (for example, public stockholders). Second, because investments in monitoring are inherently speculative, the relative costs of those investments as compared to the costs of exiting and reinvesting must be considered. Third, if the valuation of the firm on exit accurately reflects the fundamental value of the firm, investors will have incentives to exit at the proper time.

One method of calibrating the tradeoff between liquidity and control is through contractual rights. The following sections explain the importance of contractual rights, describe a model that employs mechanism design theory to explore exit provisions in venture capital financing, and then examine the model’s insights in the light of the sample contracts.

A. The Importance of Contractual Rights

The first section of this Article described the substantial control rights that typically reside in a corporation’s board of directors. As noted, the board of directors possesses almost absolute power to initiate exit, unless such power is allocated to stockholders in the constitutional documents of corporations, 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 (1999).

The decision to constrain exit options may be made by the firm or the investors. In either event, the costs of reducing liquidity should be borne by the firm. See Michael C. Jensen & William H. Meckling, Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, 3 J. FIN. ECON. 305 (1976).


Usha Rodrigues, Let the Money Do the Governing: The Case for Reuniting Ownership and Control, 9 STAN. J.L. BUS. & FIN. 254, 272 (2004) (“Venture capitalists make a large upfront commitment to a long-term investment, accepting less liquidity than if they were to invest in a public company.”).

Douglas Cumming & Jeffrey MacIntosh, Boom, Bust, and Litigation in Venture Capital Finance, 40 WILLAMETTE L. REV. 867, 898 (2004) (observing that “early-stage investments typically require a much higher level of monitoring and strategic advice than later-stage investments. It is not appropriate to expect a venture capitalist to expend the same degree of effort in respect of the latter as the former”).

79. The decision to constrain exit options may be made by the firm or the investors. See Michael C. Jensen & William H. Meckling, Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, 3 J. FIN. ECON. 305 (1976).


81. Usha Rodrigues, Let the Money Do the Governing: The Case for Reuniting Ownership and Control, 9 STAN. J.L. BUS. & FIN. 254, 272 (2004) (“Venture capitalists make a large upfront commitment to a long-term investment, accepting less liquidity than if they were to invest in a public company.”).

82. Douglas Cumming & Jeffrey MacIntosh, Boom, Bust, and Litigation in Venture Capital Finance, 40 WILLAMETTE L. REV. 867, 898 (2004) (observing that “early-stage investments typically require a much higher level of monitoring and strategic advice than later-stage investments. It is not appropriate to expect a venture capitalist to expend the same degree of effort in respect of the latter as the former”).
the corporation or in a separate contract. When venture capitalists lack board control, therefore, they typically seek more targeted protection through the terms of the venture capital investment.

Planning for exit occurs in the face of uncertainty about which method of exit will be optimal. Most venture capitalists exit from investments in one of four ways: (1) sale of shares pursuant to an acquisition of the portfolio company; (2) sale or distribution of shares after the portfolio company completes an IPO; (3) redemption of the venture capitalist's shares pursuant to a contractual put right; or (4) liquidation of the portfolio company and concomitant distribution of cash.

Venture capitalists may receive different cash flows, depending on the terms of the contracts. Redemptions and liquidations usually entitle the venture capitalist to receive the original issue price of the preferred stock, either as a "redemption price" or "liquidation preference." Liquidations, which typically include acquisitions of the portfolio company, often entitle the venture capitalist to a share of any proceeds remaining after the payment of the liquidation preference in proportion to the venture capitalist's ownership of the company on an "as-if converted" basis (this is "participating preferred"). Finally, in some acquisitions and all IPOs, the venture capitalist's preferred stock will be converted into common stock, thereby entitling the venture capitalist to share in the success of the company to the same extent as the founders. Because the methods of exit are accompanied by different sets of

83. See supra text accompanying notes 12-13.
85. Cumming and Maclntosh suggest five means of exit: IPO, acquisition, company buyback, secondary sale, and write-off. Cumming & MacIntosh, supra note 8, at 106. Secondary sales are rare, and Cumming and MacIntosh state that most secondary sales are made to strategic acquirors. Accordingly, secondary sales are treated here as functionally equivalent to acquisitions. The term "liquidation" is used in place of "write-off" to suggest that venture capitalists may sometimes receive a distribution of assets from the portfolio company. Cumming and MacIntosh consider both full and partial exits, and refer to a partial write-off as a "write-down." Id. at 189.
86. Scott P. Spector, Venture Capital Investor Perspectives on Executive Compensation, 98 ALI-ABA 429, 431 (2003) (describing issues in a "[later stage company where total liquidation preferences exceed reasonably expected exit valuations]."
87. Timothy J. Harris, Modeling the Conversion Decisions of Preferred Stock, 58 BUS. LAW. 587, 590 (2003) (describing "participating preferred," which is sometimes subject to a cap).
88. Ron Gilson describes the conversion provisions as part of an implicit contract between the venture capitalist and entrepreneur:

The terms of the preferred stock almost universally require conversion into common stock, with the resulting disappearance of special board representation, on a public offering. The negative covenants in investors' rights agreements also typically expire on an IPO. The implicit portion of the contract operationalizes the definition of success that makes the entrepreneur's call option on control exercisable. By triggering automatic conversion
cash flows, the choice among methods may have important distributional consequences for the venture capitalist and the entrepreneur. This potential conflict draws attention to their respective control rights.

The primary thrust of this portion of the Article is that venture capitalists and entrepreneurs usually structure their relationships in a manner that affords entrepreneurs some freedom from the threat of exit by venture capitalists at the beginning of the relationship and transfers greater control over exit decisions to venture capitalists as time passes. This is accomplished through several types of contractual provisions: (1) negative covenants (also known as “protective provisions”); (2) redemption (put) rights; (3) demand registration rights; and (4) conversion rights. Later, Part II.C discusses the operation and usage of these provisions in the sample set of contracts studied.

B. The Financial Contracting Framework

A recent article by Phillipe Aghion, Patrick Bolton, and Jean Tirole (ABT) uses the methodology of mechanism design theory to explore exit provisions in venture capital financing. The ABT model attempts to describe an optimal venture capital contract, considering the tradeoffs between liquidity and incentives. They begin by positing an investment at three time periods: the startup stage, the trading stage, and the payback stage. At the startup stage, financial contracts are negotiated and the investments are made. At the trading stage, the initial investors must decide whether to exit by selling to new investors. At the payback stage, the firm realizes revenues and pays the investors. The startup stage is characterized by uncertainty over the ultimate payback amounts. From a contracting perspective, the goal is to design mechanisms that encourage the

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on an IPO, determination of the measure of success is delegated to independent investment bankers who are in the business of identifying venture capital-backed companies successful enough to be taken public, and whose own incentives make their ex post determination of success credible ex ante. Gilson, supra note 29, at 1084–85.

89. Cf. Rock & Wachter, supra note 78, at 947 (“The limitations on exit, combined with the rule against non pro rata distributions, largely prevent opportunistic behavior by the majority shareholder towards the minority shareholder.”).

90. See Thomas Hellmann, The Allocation of Control Rights in Venture Capital Contracts, 29 RAND J. ECON. 57, 60 (1998) (“Control rights matter either because they allow one party to make a decision in the presence of conflict of interest or because they affect the threat points in any renegotiation. Control is important since it affects the noncontractible behavior of the two contracting parties.”).


92. Id. at 330.
efficient level of monitoring between startup and payback by providing the proper opportunities for exit during the trading stage.

The first key assumption of the ABT model is that entrepreneurs and investors are compensated in different ways. While both parties receive a financial return from a successful investment, entrepreneurs also receive private benefits. This is a familiar point from the Aghion and Bolton model discussed above in Part I.B. As in that model, the different sources of compensation lead to conflicts between venture capitalists and entrepreneurs.

The second key assumption of the ABT model is that the entrepreneur can affect cash flows through her actions. For the sake of simplicity, the model assumes only two possible actions: The entrepreneur shirks or the entrepreneur is diligent. When the entrepreneur shirks, she obtains private benefits but monetary returns are low. The entrepreneur, therefore, would refrain from shirking if she could be paid for any private benefits foregone by working diligently. ABT assume that a full payment for such private benefits would be too expensive, but that monitoring can provide an added incentive for diligence. Ideally, the parties want to provide the “active monitor” (the venture capitalist) with efficient financial incentives to monitor while maximizing the liquidity of the investment. ABT call the tension between liquidity and monitoring the model's “core economic issue.”

The third key assumption of the ABT model is that the firm has the potential to attract three types of investors: “uninformed investors” (the limited partners in a venture capital fund), the active monitor, and the “speculative monitor” (the acquiror or underwriter who gathers information about the firm and makes a speculative investment at the trading stage). The uninformed investors are passive, and their investment is determined by the active monitor. The active monitor invests money on behalf of the uninformed investors and monitors the entrepreneur in an effort to reduce the private benefits derived from shirking. The speculative investors evaluate the firm at the trading stage, estimate future cash flows, and then decide whether to invest. In the simplified world constructed by the ABT model, the decision to invest is a signal that future cash flows of the firm are expected to be high while a decision not to invest is a signal that future cash flows of the firm are expected to be low.

93. Id. at 331. Venture capitalists also receive private benefits, such as reputational capital. See PAUL GOMPERS & JOSH LERNER, THE VENTURE CAPITAL CYCLE 42 (2000). While Aghion, Bolton, and Tirole (ABT) do not model these benefits, the main lesson of the model for our study is not impaired.
94. Aghion et al., supra note 91, at 331.
95. Id.
96. Id.
The fourth key assumption of the ABT model is that the active monitor will prefer to unwind his initial investment during the trading period so that the proceeds of the investment can be reinvested in a more profitable opportunity. This cycling of venture capital is a central feature of the theoretical literature. ABT measure the intensity of the venture capitalist’s desire to exit by reference to the probability of a “liquidity shock,” which occurs when “a more profitable investment opportunity arises” at the trading date.

Unwinding the active monitor’s investment during the trading period poses some special challenges, because the portfolio company has not yet realized the total cash flows. Valuing the company is difficult and raises conflicts between the venture capitalist and the entrepreneur. Thus, the speculative monitor assesses the value of the firm during the trading period.

The entrepreneur, active monitor, and speculative monitor each has at least one incentive problem. The entrepreneur’s incentive problem of whether to shirk depends on the resolution of the active monitor’s incentive problem of whether to monitor. The active monitor’s decision, in turn, depends on the ability to compensate him for his monitoring activity.

The speculative monitor has a twofold incentive problem—whether to monitor and whether to reveal his information fully and truthfully. ABT propose using a call option to address these incentives. The exercise price of the call option must be high enough that the speculative monitor would exercise it only if the signal obtained by the speculative monitor is high (that is, the firm is doing well). Exercising the call option is “tantamount to (truthfully) revealing the signal . . . ” The real world application of this insight is not literally a call option, but rather the opportunity for an underwriter to participate in an IPO of common stock or for an acquiror to purchase a majority of the common shares.

Given the foregoing assumptions, the basic outlines of the contract between the entrepreneur and the venture capitalist become clear. The entrepreneur does not have the same potential for a liquidity shock as the active monitor, so there is no special reason for the entrepreneur to exit in the trading stage. Moreover, if the signal obtained from the speculative investor is not perfectly correlated with realized cash flows, any compensation paid to the entrepreneur at the trading

97. Black & Gilson, supra note 4; GOMPERS & LERNER, supra note 93.
98. Aghion et al., supra note 91, at 332. It is, of course, the presence of the more profitable opportunity that provokes the active monitor to withdraw his money from the portfolio company.
100. The authors assume that the entrepreneur observes the active monitor’s decision prior to deciding whether to shirk. Aghion et al., supra note 91, at 334. The active monitor’s other incentive problem is whether to truthfully report a liquidity shock. Id. at 336.
101. Id. at 342.
stage may misstate the entrepreneur’s real contribution to the firm. As a result, the entrepreneur should not be allowed to exit during the trading period, and any compensation should be deferred until the payback stage.\textsuperscript{102}

To provide proper incentives for the entrepreneur to be diligent, she should receive high compensation when realized cash flows are high and low compensation when realized cash flows are low. Absent private benefits, this would be easily accomplished by giving the entrepreneur an equity claim against the firm because the equity claim changes in value according to firm value. The existence of private benefits complicates the compensation structure, however, because these benefits are not directly correlated with the value of the firm. In the end, the reward for high effort (that is, no shirking) must be greater than the reward for low effort added to the value of private benefits from shirking.\textsuperscript{103}

Of course, the entrepreneur’s private benefits are responsive to efforts by the active monitor. To encourage the venture capitalist to monitor, he should be awarded a high compensation only when the speculative monitor produces a high signal at the trading stage or when high cash flows are realized at the payback stage. The optimal contract minimizes the net expected cost of monitoring, and at the margin, each investment in monitoring should produce an equal or greater payoff to the venture capitalist.\textsuperscript{104}

The venture capitalist needs a slightly more complicated arrangement than the entrepreneur because of the potential for liquidity shock. When the opportunity cost of capital during the trading stage is low (that is, when there is no liquidity shock), the active monitor is indifferent to exit. In this case, providing the active monitor with an exit option in which his return is positive will actually be counterproductive because it will lead the active monitor to forego monitoring. On the other hand, when the opportunity cost of capital during the trading stage is high (that is, when there is a liquidity shock), the active monitor will want an exit option. When contracting at the investment stage, predicting the opportunity cost of capital during the trading stage is far from certain. The higher the probability of a liquidity shock, the more the venture capitalist will value an exit option.\textsuperscript{105}

\footnotesize
\textsuperscript{102.} Id. at 334.  
\textsuperscript{103.} Id. at 334–35.  
\textsuperscript{104.} Id. at 340–41.  
\textsuperscript{105.} Id. at 341. ABT reason as follows:  
[This] may thus provide an explanation for the observed reduction in the average age of technology start-ups before they go public.... Our explanation would be that as more money flows into the venture capital industry the terms demanded by Venture Capital funds go down... and therefore the relative costs of offering a more [efficient] liquid contract go down. Id.
The ABT model contemplates a more nuanced set of contractual provisions than boundedly rational contracting parties can deliver. This is evident from ABT's own discussion of exit design in venture capital deals, which touches only registration rights:

If VC investors hold a minority stake their exit will depend on decisions reached by majority shareholders. Therefore VC investors often require a registration rights agreement giving them the right either to have their shares included in an IPO (so-called "piggyback rights") or to request that an IPO or private placement of shares take place (so-called "demand rights").

While this passage rightly observes the pervasiveness of registration rights, the authors mistakenly assume that these contractual rights are actually exercised as written. In fact, as will be shown empirically below, registration rights are rarely used at the IPO stage and serve a much different function than is apparent from the face of the provisions. Also, by focusing exclusively on registration rights and their literal implementation, ABT miss the larger system of contractual rights that govern in the absence of board control.

Even though ABT stumble when it comes to the real-world interpretation of their model, the model nevertheless offers a useful lens through which to examine the contractual exit rights of venture capitalists because it emphasizes the benefits and costs of exit options. The primary benefit of exit options is the venture capitalist's interest in liquidity, while the primary cost of exit options is the venture capitalist's reduced incentive to monitor. According to ABT:

The optimal contract trades off liquidity and incentives by providing an early exit option to the active monitor only if his demand for liquidity, as measured by his opportunity cost of financing... is high enough. Only then does it pay to obtain a costly speculative signal about the entrepreneur's action choice, and only then does the liquidity benefit of the exit option outweigh the incentive cost.

How can real-world contracts approximate this optimal contract? The simple empirical data presented below portray a relationship that emphasizes lock-in during the early stages of the venture capital relationship, followed by increasing exit rights with the passage of time.

106. Id. at 348.
107. See infra Part II.C.
108. Aghion et al., supra note 91, at 340.
C. Contractual Rights of Exit in the Sample Contracts

Venture capitalists and entrepreneurs may have incentives to pursue different exit strategies. Douglas Cumming and Jeffrey MacIntosh sensibly suggest that venture capitalists will exit from an investment when the projected marginal value added by the venture capitalist’s efforts equals the projected cost of those efforts.\(^{109}\) On the other hand, entrepreneurs receive benefits from operating a privately held company that are not available to the other investors in that company.\(^{110}\) Absent some pressure to provide for investor exit, an entrepreneur may be perfectly happy to maintain the status quo (continuing operations with no mergers, public offering, or other exit events for the venture capitalist), either because the entrepreneur enjoys the private benefits associated with the status quo or because the entrepreneur recognizes some holdup value in deferring exit.\(^{111}\)

Exit is not merely optional for venture capitalists. Most venture capital funds have a fixed life, usually ten years with an option to extend for a period up to three years.\(^{112}\) Any venture capitalist who desires to remain in business, therefore, must successfully raise funds, invest them in portfolio companies, then exit the companies and return the proceeds to the fund investors, who in turn are expected to reinvest in a new fund formed by the same venture capitalist (assuming that the previous investment was successful). All of this suggests that continuation of the status quo—while useful for the thought experiment in the previous section—is not a realistic possibility. In short, the venture capitalist must ensure that exit is available.

\(^{109}\) Cumming & MacIntosh, supra note 8, at 109–10.

\(^{110}\) Manuel Utset describes the issue in this way:

In calculating the value to an entrepreneur of remaining employed by the venture, one needs to take into account the existence of private benefits to the entrepreneur. In other words, an entrepreneur will want to maximize both the return to the venture, in which she will share with the venture capitalist, and her private benefits. Many of these private benefits, however, are available to her only if she remains employed with the firm. Such private benefits would include the pecuniary returns usually associated with employment, the non-pecuniary returns well-documented in the agency literature, and the "psychological returns" such as those that come from running the day-to-day activities of the venture and shepherding an innovation all the way from idea to market.


\(^{111}\) With respect to the holdup value of deferral, see Thomas Hellmann, Going Public and the Option Value of Convertible Securities in Venture Capital, in VENTURE CAPITAL CONTRACTING AND THE VALUATION OF HIGH TECH FIRMS 62 (Joseph McCahery & Luc Renneboog eds., Oxford 2003) ("If the entrepreneur were to control the exit decision, then he could hold up the benefits of going public by demanding a large transfer from the venture capitalist. If the venture capitalists anticipate such a hold up, they no longer have an incentive to adequately prepare the company to go public.").

1. The Role of Negative Covenants

In most venture capital contracts, negative covenants are designated as "protective provisions."[^113] For present purposes, the most important negative covenants are those that prevent the company from forcing an exit decision by the venture capitalist. Provisions requiring the approval of business combinations (for example, mergers or consolidations) have obvious application. Because IPOs almost inevitably require an amendment of the corporation's charter, the right to prevent such amendments provides effective control over the timing of such an offering. Finally, several actions by the company could force the venture capitalist to consider exit. Redemptions of common stock, payment of common stock dividends, the issuance of additional preferred stock, and the creation of a new class of preferred stock on parity with or superior to the existing preferred stock would all have the effect of decreasing the value of the venture capitalist's investment, and may be part of a "squeeze out" strategy.[^114] The following shows the frequency of these provisions among the entire sample:

<table>
<thead>
<tr>
<th>Provision</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engage in Business Combinations</td>
<td>81.47% (299/367)</td>
</tr>
<tr>
<td>Adverse Charter Amendments</td>
<td>91.01% (334/367)</td>
</tr>
<tr>
<td>Redeem Common Stock/</td>
<td>70.84% (260/367)</td>
</tr>
<tr>
<td>Pay Common Stock Dividends</td>
<td>80.38% (295/367)</td>
</tr>
</tbody>
</table>

Most investment contracts contain multiple protective provisions; all but fifteen of the sample companies had at least one of these protective provisions. Among the sample companies with protective provisions, almost 60 percent allowed preferred stockholders to exercise their contractual rights by a majority vote, while the remaining companies required a supermajority


[^114]: Cf. 1 F. ODGE O'NEAL & ROBERT B. THOMPSON, O'NEAL'S OPPRESSION OF MINORITY SHAREHOLDERS § 1.01, at 1 (2d ed. 1999) (defining "squeeze-out" to mean "the use by some of the owners or participants in a business enterprise of strategic position, inside information, or powers of control, or the utilization of some legal device or technique, to eliminate from the enterprise one or more of its owners or participants").
vote. This pattern of contracting suggests that venture capitalists protect themselves against forced exit through the use of negative covenants.

2. The Role of Liquidation Rights

Like the negative covenants just discussed, liquidation rights are protective, not initiatory. Venture capitalists (almost) never possess a contractual right to liquidate the portfolio company, but they are protected by two rights in the event the board of directors decides to pursue a liquidation strategy. First, of the sample documents, 98.37 percent contained a “liquidation preference” entitling the venture capitalist to receive a fixed amount (usually the amount of the original investment) for each share of preferred stock. Second, 83.92 percent of the sample documents allowed the venture capitalists to “participate” in any distributions that occur after payment of the liquidation preference. When combined, these two provisions create a strong incentive against opportunistic liquidation by a controlling entrepreneur. On the other hand, they may provide an incentive for the venture capitalist to force liquidation (usually via board control) in circumstances when the entrepreneur would like to maintain the status quo.

When the company is truly troubled, it seems unlikely that either the venture capitalist or the entrepreneur will receive any return of investment. As the company approaches solvency, however, assets may still be available after paying creditors, and the preferential claims of the venture capitalists may sow the seeds of conflict. This is especially true because the term “liquidation” in venture capital financing includes not only the sale of assets pursuant to a failure of the firm, but also any sale of control of the portfolio company. In other words, “liquidation” covers the spectrum, from utter failure to grand success. In success scenarios, the combination of a liquidation preference plus an uncapped participation right is sometimes viewed by entrepreneurs as excessively generous to the venture capitalists. As a result, many venture capital deals cap the participation rights.

115. For a discussion of cases in which the venture capitalists had no ability to force liquidation, see William W. Bratton, Gaming Delaware, 40 WILLAMETTE L. REV. 853, 865–66 (2004). One possible forcing method for the vulnerable venture capitalist, suggested by Eric Goldman, is that the venture capitalist may bring a deal to the board of directors, forcing them either to accept the liquidating transaction or to face breach of fiduciary duty claims.

116. The size of the liquidation preference is always an issue of interest for entrepreneurs, but only ten firms in the sample had liquidation preferences in excess of the original purchase price of the securities. The largest liquidation preference was 7.5 times the original purchase price (Praecis Pharmaceuticals).


118. Harris, supra note 87, at 590.
The venture capitalist’s claims upon liquidation are structured partly to ensure that a controlling entrepreneur is not able to coerce the venture capitalist into exiting the firm. The liquidation preference ensures a modicum of protection against misappropriation because it must be paid prior to any payments being made to the entrepreneur, and the participation provision deters the controlling entrepreneur from upside exits, that is, exits that may seem favorable to the entrepreneur but not the venture capitalist.

In addition to preventing opportunism by a controlling entrepreneur, participation may have several beneficial incentive effects on both parties. These incentives result from the fact that the rewards from mergers and acquisitions are closely aligned with the rewards from an IPO. The venture capitalists participate in the success of a public offering as residual claimants, having been forced to convert their preferred shares into common shares on consummation of the offering. Thus, venture capitalists profit to the extent of their equity investment in the firm. The right of participation on an equity basis in a merger or acquisition produces the same result, thus ensuring that venture capitalists will not strategically veto a worthwhile merger proposal in hopes of an uncertain public offering.

Participation also affects the entrepreneurs’ incentives. Absent such a provision, entrepreneurs may unduly favor mergers over public offerings. Although venture capitalists routinely reserve the right to veto merger proposals, the uneven incentives may cause the entrepreneurs to position the company so that a merger becomes the logical exit strategy, even if the more profitable public offering might be within reach.

3. The Role of Redemption Rights

Redemption is a term that may cover many types of provisions. At its most general, redemption refers to any repurchase of shares by the company for an amount specified in the contract. Venture capital transactions may have up to three different redemption provisions: (1) mandatory redemption, (2) optional investor redemption (put), and (3) optional company redemption (call).

Mandatory redemption requires the company to begin repurchasing shares at a specified date, usually subject to waiver by the venture capitalists. Such redemptions could be staggered over a period of months or years to lessen the impact on the company. Just interpreting the facial terms, the purpose of these provisions would appear to be twofold: to provide the venture capitalist with the means to extract the original investment from a company that seems unlikely to succeed; and to provide the venture capitalist
with leverage over the entrepreneur based on the credible threat of withdrawal. These same purposes could be achieved with the more flexible put provisions, and the advantage of requiring the company to begin redemption on a date specified years in advance is not clear. Indeed, such provisions may dissuade future investors from providing additional capital for the simple reason that the capital may be used to finance the redemption rather than the operations of the firm. For these reasons, we would expect mandatory redemptions to be rare. Indeed, only thirty-two of the sample firms (8.72 percent) contained fixed mandatory redemption provisions.

Put options allow the venture capitalist to force the repurchase of shares at will. These redemption rights have the same purpose as mandatory redemption rights, but may be more flexible. From the entrepreneur's perspective, they are also more dangerous. An unlimited put right would provide the venture capitalist with excessive leverage over the entrepreneur. Whenever a disagreement arose, the venture capitalist could simply threaten to exercise the put right, an action that would cause most cash-constrained entrepreneurial firms to succumb to the venture capitalist's demands. For this reason, we would expect such rights to be cabined in some meaningful way. Many of the sample firms—159 firms or 43.32 percent of the sample—provided optional redemption rights to the venture capitalists, but in nearly every instance the rights were not immediately available. The average term provided over four and a half years before the redemption rights were exercisable.

Call rights allow the company to redeem the shares owned by the venture capitalist at the company's discretion. This type of provision addresses the entrepreneur's desire to force venture capitalists to exit. Because call provisions would allow entrepreneurs to redeem the venture capitalists' shares when the company is very successful, we would expect venture capitalists to avoid such provisions if possible. Not surprisingly, only twenty-eight firms (7.63 percent) had call provisions.

Nearly half of the companies that allowed for optional investor redemption in the present study were allowed to pay the redemption price in installments. Such staggering of the redemption is sometimes touted by venture capitalists as an entrepreneur-friendly provision because it implies that


120. Kaplan and Strömberg found put rights in 78.7 percent of their sample financings. Kaplan & Strömberg, supra note 10, at 289 tbl.2.D. This presumably was the basis for Bratton's claim that venture capital contracts "invariably provide for redemption of the preferred . . . ." Bratton, supra note 17, at 912.
the venture capitalist will not leave the entrepreneur without capital. This suggests that the venture capitalist uses these provisions as a signal of displeasure toward the entrepreneur because it is certainly not the type of provision a venture capitalist would use if serious about redemption. Once the money is flowing out of the portfolio company, the prospects for continued success would seem slim, and the self-interested venture capitalist would withdraw funds as quickly as possible.\textsuperscript{121}

It is worth noting that this study of redemption rights is limited because the firms studied had all completed an IPO. In the typical venture-backed firm, all shares of preferred stock are converted to common stock on consummation of the IPO. That conversion removes all of the special rights and preferences associated with the preferred stock, including any redemption rights, and thus, we cannot observe the actual redemption of any shares in the subject firms.

4. The Role of Demand Registration Rights

The decision to pursue an IPO typically will be endorsed by both the entrepreneur and the venture capitalist. Likewise, there are undoubtedly many circumstances when both parties agree to pursue some course other than an IPO. With respect to exits generally, however, the entrepreneur and venture capitalist may differ in that the entrepreneur may wish to pursue a particular exit strategy (or no exit strategy) over the objection of the venture capitalist, or the venture capitalist may wish to pursue a particular exit strategy over the objection of the entrepreneur. To the extent that such a conflict may exist at the public offering stage, registration rights may be relevant. In the most extreme case, the entrepreneur simply would continue the status quo, thus altogether depriving the venture capitalist of the ability to exit (except, perhaps, under very unfavorable terms). Such a course would prevent the venture capitalist from cycling investment dollars and could have important consequences for the venture capitalist’s ability to continue in his profession. In the less extreme case, the entrepreneur might postpone an IPO to preserve private benefits from the status quo as long as possible, thus reducing the financial return to the venture capitalist that otherwise would be available from the IPO or the recycling of investment funds.

\textsuperscript{121} Indeed, skepticism of redemption provisions is common. As noted by Benton et al., “Cash redemption of the Preferred Stock is not viewed as a realistic alternative. . . . The foregoing notwithstanding, investors sometimes use mandatory redemption provisions as a forcing device.” Benton et al., supra note 119, at 8-18.
The calculus is completely different if the venture capitalist has the authority to make the exit decision. Without private benefits from continuation, the most dramatic risk to the entrepreneur is that the venture capitalist will attempt to extract wealth under threat of pursuing an exit strategy that is unfavorable to the entrepreneur. Less dramatically, the venture capitalist might engage in “grandstanding”—taking the company public too early, which reduces the financial value of the transaction to all parties but results in private benefits to the venture capitalist, such as the reputational boost that accompanies the funding of a successful company.\(^{122}\)

All of these ruminations have something otherworldly about them. First, there is no mention of the market for IPOs, thus revealing the assumption that an IPO is always possible at some price. While this may be unrealistic,\(^{123}\) it is useful in highlighting the potential vulnerabilities of the parties. A second problem is that, in many instances, neither an entrepreneur nor a venture capitalist would be willing to enter a relationship in which the other had unconstrained power over the exit decision, at least at a valuation that was likely to attract the other party. We should expect, therefore, that the parties would construct a set of checks and balances that roughly account for their respective vulnerabilities. It is in the identification of those vulnerabilities that the foregoing abstract discussion is most valuable. The point is that the party who is most vulnerable should not necessarily have complete authority over the exit strategy, but should possess the complementary rights of initiation and veto. Both rights would in turn be subject to constraints designed to address the other party’s vulnerabilities.

Registration rights occupy an ambiguous position among the panoply of economic and control rights that define the venture capital relationship. As the evidence below confirms, registration rights are almost universal in venture capital investing. The contracts describing the registration rights routinely run in excess of twenty single-spaced pages, and according to practicing lawyers who have written about venture capital contracting, these terms are among the most important in the entire relationship and are heavily negotiated.\(^{124}\)

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122. See Gompers, supra note 112, at 135–37.
123. Whether this assumption is unrealistic is open for debate. The author has encountered some venture capitalists who have been willing to threaten recalcitrant entrepreneurs with a “penny stock” offering. For more on the market for “penny stocks,” see Randolph Beatty & Padma Kadiyala, Impact of the Penny Stock Reform Act of 1990 on the Initial Public Offering Market, 46 J.L. & ECON. 517 (2003).
Notwithstanding the apparent importance of registration rights, they are often dismissed as having only a limited impact on the venture capital relationship. Demand registration rights are particularly undervalued.\textsuperscript{125} For example, in discussing the power of venture capitalists to determine the timing of an IPO, Joshua Lerner mentions board seats, redemption rights, and informal authority, but does not even mention registration rights.\textsuperscript{126} Similarly, in the most complete study of venture capital financings undertaken prior to the study described in this Article, Kaplan and Strömberg omit any mention of registration rights.

Given this background, why are registration rights routinely included in venture capital deals? In the United States, whenever securities are offered or sold, the transaction must be registered with the SEC unless it is exempt from registration. The process of registration is heavily regulated and time consuming, especially for an IPO. Moreover, the transition from privately held to publicly traded imposes substantial ancillary costs for a company, including: increased exposure to liability; the expense, inconvenience, and possible embarrassment that accompany ongoing disclosure of the company’s affairs; the increased formality of corporate decisionmaking; and the heightened expectations to produce returns for investors (measured on a daily basis by the company’s stock price). The decision to pursue an IPO, therefore, is not lightly made.

Nevertheless, an IPO may have numerous advantages for a company and the entrepreneur. The primary justification for an IPO is to raise money, usually in anticipation of a substantial expansion in the company’s operations, but the IPO has many ancillary benefits. In addition to the obvious benefits that accompany the liquidity of public capital markets, companies may find that publicly traded stock is useful in recruiting new managers and acquiring other companies. Furthermore, many managers enjoy the prestige associated with running a publicly traded firm. Collectively, these factors exert a powerful draw toward the public capital markets for many firms.

Prior to making the decision to go public, most firms discuss the business aspects of the offering with investment bankers, who will act as underwriters. A company that decides to pursue a public offering typically employs a small army of accountants and lawyers to assist the company and the underwriters in drafting a registration statement. The registration statement is the company’s disclosure document, and it includes a prospectus, which serves as the primary marketing document for the securities.

\textsuperscript{125} But see Aghion et al., supra note 91, at 348 ("[O]ne of the most important issues for VC investors in negotiations with the entrepreneur concerns the allocation of registration rights.").

\textsuperscript{126} Joshua Lerner, Venture Capitalists and the Decision to Go Public, 35 J. FIN. ECON. 293 (1994).
Demand registration rights are pervasive among the sample companies. Nearly 90 percent of the companies provided demand rights. This finding comports with the conventional wisdom that registration rights are an important part of the investment transaction. But how are these demand rights used? Unfortunately, there is no easy method of discerning whether demand rights have been exercised. We can determine, however, whether venture capitalists registered their shares. Of the 367 firms, only 68 (18.09 percent) included any selling stockholders in the IPO. More importantly, in only 32 firms (8.72 percent) were venture capitalists among the selling stockholders.

The venture capital contracts display wide variation in specifying the commencement of demand rights. While some agreements grant demand rights immediately, these constituted a small minority of the total sample. A more common approach, though still a minority, provides that demand rights commence at some specified period (ranging from ninety days to one year) after an IPO that meets certain objective criteria. The large majority of the agreements combine this reference to the IPO with a fixed date in relation to the venture investment. For example, the Second Amended and Restated Investor Rights Agreement of RealNetworks, Inc. allows for a demand “any time after the earlier of (i) two (2) years after the date of this Agreement or (ii) six (6) months after the effective date of the Initial Public Offering . . . .”

RealNetworks illustrates a common phenomenon in the sample agreements, namely, that demand rights are structured to commence at a time that is beyond the expected date of the IPO. In this regard, it is important to note that they are often triggered by reference to the most recent venture investment. Whenever the agreement that contains the registration rights is amended, the commencement date of the demand rights is pushed further towards the horizon because the provision is structured to engage some two to four years after the date of the agreement.

The practice of postponing the effective date of registration rights with each new investment implies that demand rights are not designed to provide venture capitalists with the right of initiation. Gunderson et al. assert that demand registration rights are “rarely used,” but suggest that they “often provide Investors with leverage in dealing with management with respect to

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127. The Agreement was dated July 21, 1997 (to correspond to an investment in the company on that date by Microsoft Corporation), and the company filed its first registration statement for the IPO on September 26, 1997. The effective date of the RealNetworks registration statement was November 21, 1997.
the nature and timing of Company-initiated registrations. In light of the foregoing, the reasons for the infrequent use of demand registration rights are apparent. Under this view, the source of their leverage is not the immediate threat of exit, but rather the impending deadline.

5. The Significance of Convertible Preferred Stock

Conversion rights play an important role in exit decisions. As noted above, most venture capitalists invest money in exchange for preferred stock that is convertible into common stock under specified circumstances. Generally speaking, venture capital investments contain two types of conversion provisions: (1) optional conversion which allows the venture capitalist to convert at will; and (2) automatic conversion which requires the venture capitalist to convert upon the occurrence of specified events, most importantly an IPO. All but nine of the sample companies (97.55 percent) provided for optional conversion, and all but eleven (97.00 percent) provided for automatic conversion. In nearly every instance, optional conversion was available immediately from the time the preferred shares were issued, and automatic conversion was triggered by an IPO of the company's shares. The conversion provisions also contain complex procedures for adjusting the conversion rates to prevent dilution of the venture capitalists' investments, but those provisions are not important to the current study.129

Thomas Hellmann has modeled the differential cash flow rights for an acquisition and an IPO.130 If the company is able to receive an equal valuation in both contexts, which exit option will the venture capitalist prefer? As noted above, acquisitions are often treated as "liquidations" in venture capital investments. If the venture capitalist receives only a liquidation preference, with no ability to participate in the success of the company (like the common stockholders), an acquisition would at first glance seem quite unfavorable when compared with an IPO—where the venture capitalist will own common

130. Thomas Hellmann, IPOs, Acquisitions and the Use of Convertible Securities in Venture Capital (Stanford Graduate Sch. of Business Research Paper Series, Paper No. 1702(R), Nov. 2002), available at https://gsbapps.stanford.edu/researchpapers/library/RP1702R.pdf. When comparing these two exit options, it makes sense to assume a successful company because IPOs are not reasonably available to failures.
stock following automatic conversion of the preferred shares. Of course, almost every company would allow the venture capitalists to convert preferred shares into common shares. As a result, even with relatively unfavorable liquidation terms, venture capitalists can do no worse in an acquisition than in an IPO.

If the venture capitalist owns participating preferred stock, on the other hand, an acquisition might be more lucrative. Timothy Harris has modeled the “conversion decision” facing venture capitalists in the context of an acquisition, and he shows why venture capitalists will not convert their preferred shares into common shares when the acquisition price is less than or equal to the total value of the liquidation preferences. In that circumstance, conversion would result in the transfer of some proceeds from the venture capitalists (preferred stock) to the entrepreneurs (common stock). The “conversion point” for venture capitalists comes when the acquisition price is large enough that venture capitalists benefit from conversion, that is, when that value that venture capitalists would receive from holding common stock exceeds the value of their liquidation preference and any participation rights.

The timing of the exit decision may also be important to understanding the conversion feature. If the venture capitalist receives private benefits from an IPO, then he may be tempted to engage in grandstanding. By imposing costs on the venture capitalist, an automatic conversion provision mitigates the incentive to grandstand. Moreover, those costs borne by the venture capitalist effectively are benefits to the entrepreneur, whose investment in the company becomes more valuable with the conversion of the preferred stock. The automatic conversion provision, therefore, serves as a form of transfer payment from the venture capitalist to the entrepreneur. Ideally this transfer payment compensates the entrepreneur for the private benefits lost by going public.

131. Being subject to an automatic conversion provision is costly to the venture capitalist in the sense that he loses the option of convertibility. As Hellmann observes:
This option value depends on the maturity of the company. If the company is still in a relatively early stage where there still exists a significant risk of failure, preferred stock is valuable since it affords some downside protection to the venture capitalist. Automatic conversion thus imposes a real cost to the venture capitalist in case of an early IPO. An interesting implication of the analysis is that if the company is taken public at a later, more mature stage the automatic conversion is much more harmless, since the venture capitalist no longer needs the downside protection.
Hellmann, supra note 111, at 62.
132. See Gompers, supra note 112, at 135–37.
133. See Hellmann, supra note 111, at 69.
134. Id.
135. Id.
CONCLUSION

The fact that entrepreneurs and venture capitalists may have incentives to pursue different exit strategies is not obvious. After all, it is widely accepted that the prospect of a lucrative exit via IPO has important incentive effects on both parties. Both entrepreneurs and venture capitalists typically own equity securities, which provide strong incentives to both parties to maximize the value of the firm. In addition, substantial evidence suggests that the greatest financial returns are to be found in exiting into the public capital markets. Why, then, must exit decisions be addressed at all in the contracts between venture capitalists and entrepreneurs? Why not rely on the self-interest of both parties to pursue the most favorable exit option?

The analysis above suggests that venture capitalists and entrepreneurs may have different interests regarding the timing and form of exit. Venture capitalists view exit from their portfolio companies in relatively simple terms. During the initial phase of the investment relationship—perhaps lasting several years—venture capitalists have limited rights to initiate exit. Often lacking either board control or contractual rights to initiate exit, venture capitalists allow entrepreneurs time to prove the business concept. During this initial phase, venture capitalists typically possess veto rights, thus restricting the entrepreneur's ability to force an exit.

After the initial phase, venture capitalists begin to exert more direct control over exit decisions by acquiring control over the board of directors and obtaining contractual exit rights (most importantly, put rights). If the company is a success, the venture capitalist can steer it towards an IPO or an acquisition. Failures move toward liquidation or redemption.

This structure suggests that venture capitalists approach their investments with a bifurcated view of the future: If the company is a success, the venture capitalist will obtain a payment determined by the market, but if the company is a failure, the venture capitalist will obtain a payment equal to the original investment or as much as can be extracted before the assets of the portfolio company are exhausted.

136. In addition to the possibility of great wealth, an IPO may provide substantial private benefits to the entrepreneur, including the increased power and reputation accorded to managers of publicly traded firms. These private benefits in combination with the increased liquidity of shares that trade in the public capital markets (which itself paves the way for the entrepreneur's own exit at some point) explain why entrepreneurs are often eager to pursue an IPO regardless of any registration rights held by the venture capitalist.