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The Role of Independent Directors in VC-Backed Firms

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Abstract

This paper seeks to explain the widespread use of independent directors in the governance of VC-backed firms, and in particular their use as “tie-breakers” on the boards of these firms. Allocating a tie-breaking vote to an unbiased “arbiter” commits the entrepreneur and VCs to more reasonable behavior and can reduce the opportunism that would result if either party were to control the board. Consistent with my theory, data from Silicon Valley startups illustrate several mechanisms entrepreneurs and VCs use to select an unbiased independent director. I conclude by considering implications for corporate law and fiduciary obligations in VC-backed firms.

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I. INTRODUCTION

Independent directors have attracted considerable attention from academics and policymakers in light of recent corporate scandals. Following the passage of the Sarbanes-Oxley Act (SOX) publicly traded firms are required to have an audit committee comprised solely of independent directors, and both the NYSE and NASDAQ now require a majority of independent directors on the board of each listed company.¹ These reforms are consistent with earlier reform proposals, which generally called for a higher percentage of independent directors on corporate boards.² Despite several empirical studies which find an uncertain connection between board independence and financial performance, policy makers consistently view independent directors as an integral part of healthy board oversight.³

This interest in independent directors focuses exclusively on the governance of publicly traded firms. Academic writers have almost completely overlooked the role of independent directors in *privately* held firms. Yet, recent empirical studies show that independent directors are frequently used in privately held startup firms and often occupy an important tie-breaking position on the board.⁴ Firms financed by venture capital ('VC') allocate one quarter of their board seats to independent directors. And the entrepreneur and VC investors share control of the board with an independent director holding the tie-breaking vote more than half the time.⁵ This practice cannot be explained by the existing theory of independent directors, which relies on diffuse ownership and passive investment – features unique to the publicly traded company.⁶

I develop an alternative theory based on the financing contract between a firm's entrepreneurs and VC investors. The structure of a startup's board, including the use of independent directors, is endogenous to the financing contract.⁷ Thus, the relevant question is

¹ See Sarbanes-Oxley Act of 2002, Pub. L. No. 107-204, § 301; NYSE Listed Company Manual, § 303A(1); NASDAQ Manual, Rule 4350(c)(1).

² See e.g. Melvin A. Eisenberg, *THE STRUCTURE OF THE CORPORATION* (Little and Brown, 1976); Kenneth B. Davis, Jr., *The Forgotten Derivative Suit*, 61 *VAND. L. REV.* forthcoming (2008).

³ See e.g. Barry Baysinger & Henry Butler, *Corporate Governance and the Board of Directors: Performance Effects of Changes in Board Composition*, 1 *JOURNAL OF LAW, ECONOMICS, & ORGANIZATION* 101 (1985); Sanjai Bhagat & Bernard S. Black, *The Uncertain Relationship Between Board Composition and Firm Performance*, 54 *BUSINESS LAWYER* 921 (1999); Roberta Romano, *Corporate Law and Corporate Governance*, 5 *INDUSTRIAL AND CORPORATE CHANGE* 277 (1996).

⁴ See Steven N. Kaplan & Per Stromberg, *Financial Contracting Theory Meets the Real World: An Empirical Analysis Of Venture Capital Contracts*, 70 *REV. ECON. STUD.* 281 (2003); and Brian J. Broughman & Jesse M. Fried, *Renegotiation of Cash Flow Rights in the Sale of VC-Backed Firms* (June, 2008), UC Berkeley Public Law Research Paper No. 956243 Available at SSRN: <http://ssrn.com/abstract=956243>.

⁵ See Kaplan & Strömberg *supra* note 4 at ___.

⁶ For a description of alternative theories of the independent director see *infra* notes 103 to 117 and accompanying text. The dominant explanation for the use of independent directors – the monitoring role – is based on diffuse ownership and passive investment. Other explanations, however, also cannot explain the use of independent directors in VC-backed firms. See e.g. Margaret M. Blair & Lynn A. Stout, *A Team Production Theory of Corporate Law*, 85 *VIRGINIA LAW REVIEW* 248 (1999) (proposing a theory of board mediation based on governance arrangements in publicly-held firms). Even the definition of an 'independent' director is different in the startup firm context, as compared to the publicly traded firms, emphasizing that the same theory does not apply in both settings.

⁷ For an illustration of this approach generally see Oliver E. Williamson, *THE ECONOMIC INSTITUTIONS OF CAPITALISM* (1985); and with respect to board composition particularly see Benjamin E. Hermalin & Michael S.

why would a firm's entrepreneurs and VCs want to share control of their board with an outside party holding the tiebreaking seat?

To answer this question I consider the parties' divergent financial interests. The entrepreneurs typically hold common stock and the VCs hold preferred stock. Preferred stock includes a liquidation preference, and consequently the VCs will often favor different strategies than the entrepreneur. This conflict impacts a variety of important decisions faced by VC-backed firms – whether to hire a new CEO, when to sell the firm, how much to invest in a new technology, and so forth. Unfortunately, the financing contract is necessarily incomplete and cannot fully align the parties' interests across such decisions.⁸ As a result, the allocation of board seats becomes particularly important. If either party holds a majority of the board seats it can use this position opportunistically, causing the firm to pursue actions which benefit it at the expense of the firm's aggregate welfare.⁹

Adding an independent director to the board allows a new alternative: control of the board can be shared, with an independent director acting as the tie-breaking vote. To illustrate, consider a board with three directors: an entrepreneur, a VC investor, and an independent director. I refer to this arrangement as 'ID-arbitration' to emphasize the independent director's position as a quasi arbitrator. The independent director can settle disputes that may arise between the entrepreneur and VC. ID-arbitration avoids deadlock, without leaving the entrepreneur or VC vulnerable to unilateral actions by a controlling party.

More importantly, the presence of an independent director may prevent conflicts from ever materializing. Under ID-arbitration neither the entrepreneur nor the VC can take any action opposed by the other party without obtaining the support of the independent director. The parties must propose actions that they expect will be endorsed by the independent director. Similar to analysis of final offer arbitration, the entrepreneur and VC will converge towards the action preferred by the independent director.¹⁰ The independent director does not need to "arbitrate" actual conflicts, but rather she primarily serves as a commitment mechanism that forces the entrepreneur and VC to compromise. Provided the independent director is relatively unbiased, competition for the independent director's support limits the threat of opportunism.

This form of board-level arbitration replaces controlling party opportunism with independent director discretion. The desirability of this arrangement depends on the use of such discretion. If the independent director always sides with the same party or otherwise colludes

Weisbach, *Endogenously Chosen Boards of Directors and their Monitoring of the CEO*, 88 AMERICAN ECONOMIC REVIEW 96 (1998).

⁸ Contractual incompleteness may be due to bounded rationality, transaction costs, and non-verifiable information. See e.g. Philippe Aghion & Patrick Bolton, *An Incomplete Contracts Approach to Financial Contracting*, 59 REV. ECON. STUD. 473 (1992).

⁹ The risk that entrepreneurs face when the VCs control the board is discussed in Jesse M. Fried & Mira Ganor, *Agency Costs of Venture Capitalist Control in Startups*, 81 N.Y.U. L. J. 967 (2006). Conversely, the risk that VC investors face when the entrepreneurs control the board is discussed in William W. Bratton, *Venture Capital on the Downside: Preferred Stock and Corporate Control*, 100 MICH. L. REV. 891 (2002).

¹⁰ Convergence towards the arbitrator's 'fair' outcome is an established result in the literature on final offer arbitration. See *infra* notes __ to __ and accompanying text. The intuition behind my analysis is similar to the convergence of political platforms as predicted by the median voter theorem (Downs, 1957). The entrepreneur and VC create a median voter by adding an independent director to the board.

with one of the primary parties this arrangement is no different than giving the entrepreneur or VC control. However, if the independent director is relatively unbiased, then ID-arbitration can produce a Pareto improvement over alternative board arrangements.¹¹

It is an empirical question whether any factors constrain the independent director's discretion. Using evidence from a sample of 54 VC-backed firms I provide data on the allocation of board control, describe how the parties select independent directors, and discuss the qualifications of the independent directors in this sample. The data illustrate numerous safeguards that entrepreneurs and investors use to ensure an impartial and qualified director.

I conclude by discussing implications for fiduciary duties in VC-backed firms. Fiduciary obligations could potentially limit opportunistic conduct in VC-backed firms; however, for reasons discussed in the paper, fiduciary obligations, as interpreted by Delaware courts, place a weak constraint on opportunistic behavior by either party. My analysis of the independent director suggests a reason for this hands-off approach. The types of disputes that a court would need to adjudicate in startup firms are typically business decisions: whether to sell the firm, which investment to pursue, etc. Determining the efficient outcome of such disputes requires experience with startup firms and familiarity with the relevant industry – qualities that a judge generally does not have. However, unlike judges, independent directors often have significant industry experience and are arguably more qualified to “adjudicate” such disputes.

The remainder of the paper is organized as follows. Section II explains the cash-flow and control rights in a typical VC financing contract, and describes data from past studies on the allocation of board seats in VC-backed firms. Section III describes the problem of opportunistic conduct which can occur if a firm's board is controlled by its entrepreneurs or VC investors. Section IV explains how an unbiased independent director as tiebreaker can prevent opportunism. Section V supports my theory with data from a sample of VC-backed firms located in Silicon Valley. Section VI considers existing academic theories of the independent director and discusses why these cannot account for the use of independent directors in VC-backed firms. Section VII discusses implications of my theory for corporate law and fiduciary obligations. Section VIII concludes.

II. BACKGROUND ON VC CONTRACTING

This section considers the allocation of cash-flow rights and control rights in VC financing contracts. It also describes data on the allocation of board control from past studies of VC-backed firms.

A. Cash-flow Rights

VC-backed startups typically issue two classes of stock: (i) common (held by entrepreneurs and employees) and (ii) convertible preferred (held by VCs).¹² Convertible

¹¹ ID-arbitration can improve the operation of local business norms. The entrepreneur and VC may want their relationship to be governed by business norms; however, such norms are hard to define and specify directly in the contract. Furthermore, a firm's internal conduct may be difficult for outside parties to observe, and consequently business norms may be violated with little penalty from the local community. Allocating a tie-breaking board seat to an independent director with industry experience, however, lets the parties commit to such norms as interpreted by the independent director. For a discussion of Silicon Valley norms *see* Suchman & Cahill *infra* note 83.

preferred stock has two key features. First, it includes a liquidation preference. When the firm is sold or dissolved, preferred stockholders are entitled to be paid the full amount of their liquidation preference before common shareholders receive anything. The liquidation preference usually equals the amount invested ('1X preferences') but can be a multiple of that amount, and may include unpaid dividends.¹³ Second, a preferred stockholder can choose to convert her shares into common stock at a pre-specified ratio. Upon conversion, liquidation preferences and any other rights associated with the preferred stock are eliminated. A VC holding preferred stock will generally choose to convert into common stock only if the company is sold or liquidated for a sufficiently high price.¹⁴

Researchers have offered several explanations for convertible preferred stock.¹⁵ First, preferred stock can address an information asymmetry at the time of investment. Before investment the entrepreneur may have better information than the VC regarding the value and feasibility of the project. VC investors may be concerned that the entrepreneur plans to sell them equity at an inflated price. If the VCs are issued preferred stock, however, the entrepreneur cannot profit from her private information, since the liquidation preference protects the VC's claim. The use of preferred stock allows the entrepreneur to credibly signal that the firm has a high value.¹⁶ Second, preferred stock shifts additional risk to entrepreneurs and can provide stronger incentive effects for the entrepreneur than if the firm was financed entirely with common stock.¹⁷ Finally, the dual class structure has a tax benefit, since it allows the firm to separately price the common stock issued to entrepreneurs and employees from the preferred stock issued to VC investors. As explained by Gilson and Schizer, the use of preferred stock effectively allows the startup to shift some employee income from high ordinary tax rates to low capital gains tax rates.¹⁸

¹² See William A. Sahlman, *The Structure and Governance of Venture-Capital Organizations*, 27 J. FIN. ECON. 473 (1990). Angel investors may receive either common or preferred stock. See Darian M. Ibrahim, *The (Not So) Puzzling Behavior of Angel Investors*, 61 VAND. L. REV. __ (forthcoming 2008).

¹³ VCs' convertible preferred stock sometimes includes participation rights (often referred to as 'Participating Preferred'). Participating preferred entitles the holder not only to a liquidation preference but also to share with common shareholders, on a pro-rata basis, in any additional value available for distribution to shareholders, usually up to a specified amount (say, three times the original investment). Thus, the VCs will convert their participating preferred shares into common stock only if the amount they would receive as common stockholders exceeds the sum of their liquidation preference plus the value of their participation rights. My analysis assumes, for ease of exposition, that the VCs hold nonparticipating preferred stock; however, this assumption does not affect my analysis, since the basic conflict between preferred and common exists regardless of participation rights.

¹⁴ If the firm is sold in an IPO meeting certain conditions, the financing agreement may require the VCs to convert to common (mandatory conversion) even if the preferred stock would offer a higher payout. See Thomas F. Hellmann, *IPOs, Acquisitions and the Use of Convertible Securities in Venture Capital*, 81 JOURNAL OF FINANCIAL ECONOMICS 649 (2006). In most settings, however, conversion is not required.

¹⁵ See Sahlman *supra* note 12.

¹⁶ See Sahlman *supra* note 12; See also Jeremy C. Stein, *Convertible Bonds as Backdoor Equity Financing*, 32 JOURNAL OF FINANCIAL ECONOMICS 3, 3-4 (1992)(arguing that corporations use convertible debt to avoid adverse selection costs associated with equity financing); Fried & Ganor *supra* note 9 at 983.

¹⁷ See Sahlman *supra* note 12 at 510-511.

¹⁸ See Ronald J. Gilson & David M. Schizer, *Understanding Venture Capital Structure: A Tax Explanation for Convertible Preferred Stock*, 116 HARV. L. REV. 874, 877 (2003).

However, despite its many advantages, preferred stock also creates a conflict. Because common shareholders and preferred shareholders have different cash flow rights, their interests in how the startup is run can diverge.¹⁹ In certain states of the world, VCs' liquidation preferences give them debt-like cash flow rights, while making common shareholders analogous to option holders. Preferred-holding VCs may favor less risky strategies than common shareholders. This conflict is relevant to a variety of important decisions frequently faced by VC-backed firms – whether to hire a new CEO, when to sell the firm, how much to invest in a new technology, and so forth. Neither party will always favor the strategy that maximizes total shareholder value.

B. Control Rights

The existence of such conflicts makes the allocation of control rights particularly important. The VC financing arrangement addresses the allocation of control in two primary ways. First, the parties often negotiate for protective provisions, which give the protected party – usually the VC – the right to veto certain transactions, such as the sale of company assets or any amendment to the corporate charter.²⁰ Second, the parties negotiate over board control. Protective provisions only create a right to block unfavorable transactions. Board control gives the controlling party the critical ability to *initiate* fundamental transactions.²¹ Giving either party unilateral control of the board, however, potentially exposes the non-controlling party to opportunistic behavior.²²

¹⁹ Fried and Ganor *supra* note 9. My analysis in this paper focuses on the conflict between preferred stock and common stock, caused by the different cash-flow rights assigned to each group. This conflict, however, is endogenous to the financing contract, and thus could be removed by giving both parties common stock. However, for the reasons discussed above (see text accompanying notes 15 to 18) the parties are likely to demand preferred stock regardless of the conflict it creates. This is not necessarily true outside the United States, *See* Douglas J. Cumming, *Capital Structure in Venture Finance*, 11 J. CORP. FIN. 550, 581-82 (2005) (reporting that VCs receive variety of different types of securities, including common stock, in Canadian VC financing transactions). Nonetheless, I restrict my analysis in this paper to VC investments for preferred stock. For an alternative analysis based on a conflict between private benefits and cash flow rights *see* Aghion & Bolton *supra* note 8; and *see* Brian J. Broughman, *Independent Directors and Board Control in Venture Finance*, (Jan 2008) Available at SSRN: <http://ssrn.com/abstract=1123840>.

²⁰ *See* Sahlman *supra* note 12.

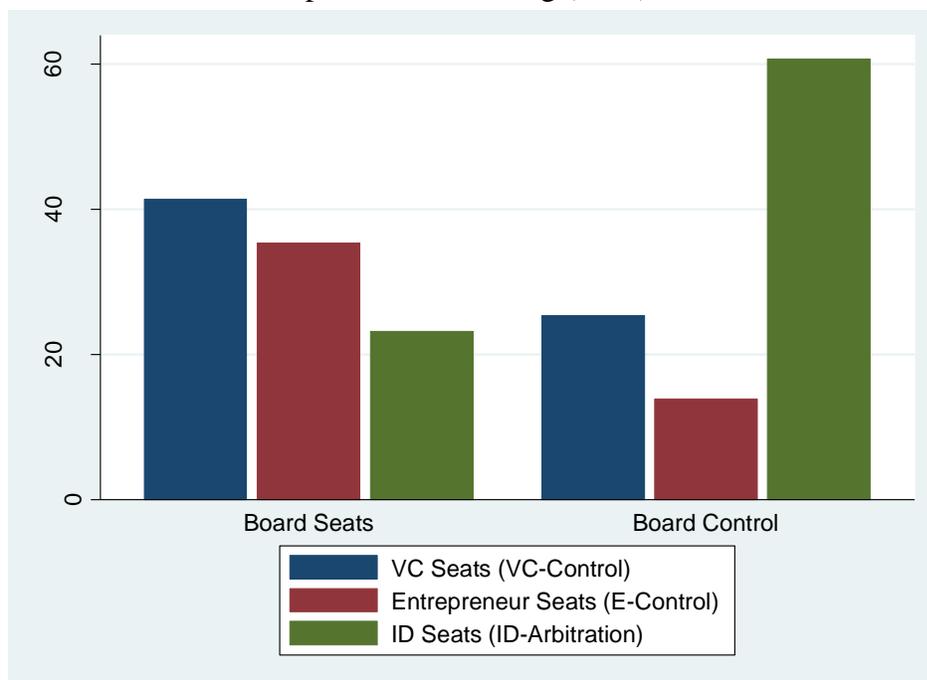
²¹ *See* Fried and Ganor *supra* note 9. The venture capital literature offers various explanations for VCs control rights, especially board control. *See* Josh Lerner, *Venture Capitalists and the Oversight of Private Firms*, 50 JOURNAL OF FINANCE 301 (1995) (arguing that VC control of the board can reduce entrepreneur agency costs by allowing VCs to monitor the entrepreneur and fire her if necessary); Thomas F. Hellmann, *The Allocation of Control Rights in Venture Capital Contracts*, 29(1) THE RAND JOURNAL OF ECONOMICS 57 (1998) (same); Paul Gompers, *Optimal Investment, Monitoring, and the Staging of Venture Capital*, 50 JOURNAL OF FINANCE 1461 (1995) (noting that staged financing facilitates monitoring the CEO); Gordon Smith, *The Exit Structure of Venture Capital*, 53 UCLA LAW REVIEW 315 (2005) (arguing the VC board control makes it easier for VCs to exit their investment over the possible objections of other parties); Fried and Ganor *supra* note 9 (same); Broughman and Fried *supra* note 4 (board control allows VCs to sell the firm without needing to carveout additional payments to common stockholders).

²² *See* Ronald J. Gilson, *Engineering a Venture Capital Market: Lessons from the American Experience*, 55 STAN. L. REV. 1067 (2003).

Board seats in VC-backed firms are typically allocated on a class-specific basis as specified in the financing documents.²³ This makes it possible to classify each director into one of three categories: (i) VC, (ii) entrepreneur, or (iii) independent director.²⁴ In a study documenting over 200 rounds of VC financing, Kaplan and Strömberg find that VC investors hold approximately 41% of the total board seats, entrepreneurs hold 35% and independent directors hold the remaining 23%. Despite the fact that VCs hold more board seats than the other parties, they generally do not control the board. Rather, board control is typically shared. VC investors control the board 25% of the time and entrepreneurs 14% of the time. In the remaining firms (61%) control of the board is shared with third-party independent directors holding the tie-breaking vote(s).²⁵

Figure 1: Allocation of Board Seats and Board Control

Data Source: Kaplan and Strömberg (2003)



The financial contracting literature models the allocation of control between an entrepreneur and an investor but overlooks the use of independent directors. In a foundational paper, Aghion and Bolton show that control should be awarded to the entrepreneur, whenever possible, to protect the entrepreneur's private benefits; however, investor control may often be

²³ The allocation of board seats is typically specified in the corporate charter and in voting agreements negotiated in connection with each round of financing. Class-specific board seats emphasizes that the use of independent directors is not simply an accident of shareholder voting, but rather is explicitly contracted over by the parties.

²⁴ Angel investors generally do not receive board seats. However, if an angel is awarded a board seat she is classified as either a VC if she holds preferred stock or an entrepreneur if she holds common stock.

²⁵ See Kaplan and Strömberg *supra* note 4.

necessary to ensure the investor's participation.²⁶ Aghion and Bolton's study is complimented by a number of recent articles which focus specifically on the allocation of control rights in VC-backed firms.²⁷ These studies treat control as an indivisible right that can be held at any given time by only one party – either the entrepreneur or the VC. The financial contracting literature largely ignores the independent director, and consequently fails to explain ID-arbitration, the most commonly observed startup board configuration.

Some legal academics have noted the frequent use of independent directors in VC-backed startups. However, these articles often assume independent directors are either controlled by the VCs or controlled by the entrepreneurs. Smith, for example, examines corporate charters from a sample of VC-backed firms. He concludes that independent director board seats will *either* be controlled by the entrepreneurs or the VCs, depending on who holds more equity at the time.²⁸ Fried and Ganor argue that “so-called ‘independent’ directors are often not truly independent of the VCs”,²⁹ suggesting that VCs may functionally control the board even when an independent director holds the tie-breaking vote. In both of these articles the independent director is generally treated not as a true third-party, but rather as an entrepreneur or as an investor.

In contrast, Kaplan & Stromberg and Bratton treat the independent director as a distinct third-party, who may sometimes vote with the entrepreneurs and sometimes with the VCs.³⁰ Bratton notes that independent directors may be used because the entrepreneur and VC investor cannot explicitly contract over the relevant contingencies: the parties may “prefer to grapple with unverifiable facts ... in the black box of the boardroom” and may intentionally appoint a third-party independent director to act as a tie-breaker.³¹ These articles, however, do not consider how a tie-breaking independent director changes the incentives of the entrepreneur and VC.

²⁶ See Aghion and Bolton *supra* note 8.

²⁷ Erik Berglof, *A Control Theory of Venture Capital Finance*, 10 JOURNAL OF LAW, ECONOMICS, AND ORGANIZATION, 247 (1994); Bernard S. Black & Ronald J. Gilson, *Venture Capital and the Structure of Capital Markets: Banks Versus Stock Markets*, 47 JOURNAL OF FINANCIAL ECONOMICS 243 (1998); Hellmann, *supra* note 21; Hellmann, *supra* note 14; Wouter Dessein, *Information and Control in Alliances & Ventures*, 60 JOURNAL OF FINANCE 2513 (2005); Andrei A. Kirilenko, *Valuation and Control In Venture Finance*, 56 JOURNAL OF FINANCE 565 (2001); Leslie M. Marx, *Efficient Venture Capital Financing Combining Debt And Equity*, 3 REVIEW OF ECONOMIC DESIGN 371 (1998); Klaus M. Schmidt, *Convertible Securities and Venture Capital Finance*, 58 JOURNAL OF FINANCE 1139 (2003); Vijay Yerramilli, *Joint control and redemption rights in venture capital contracts*. Available at SSRN: <http://ssrn.com/abstract=481362>

²⁸ See Smith *supra* note 19. Smith's data is based primarily on corporate charters rather than voting rights agreements. See *infra* note 94 and accompanying text.

²⁹ Fried and Ganor *supra* note 9 at 988. Also see Manuel A. Utset, *Reciprocal Fairness, Strategic Behavior & Venture Survival: A Theory of Venture Capital- Financed Firms*, 2002 WIS. L. REV. 45 (2002).

³⁰ See Bratton *supra* note 9. See also Kaplan and Stromberg *supra* note 4. In Kaplan & Stromberg's analysis, sharing control with an independent director creates a modified form of state-contingent control: “We interpret the situation where neither the VC nor the founder is in control as similar to state-contingent control. For example, in boards where [independent] board members are pivotal, it seems plausible that these members will vote with the VC as founder performance declines.” This analysis effectively collapses shared control into either E-control or VC-control depending on the state of nature. Bratton also considers a tie-breaking independent director a substitute for state contingent control.

³¹ Bratton *supra* note 9 at page 918.

Unlike Kaplan & Stromberg and Bratton, I model ID-arbitration directly, as a *three-party decision making structure*. I show that ID-arbitration can create incentives to compromise that are not present under state-contingent control. By accounting for these incentives, my analysis shows that ID-arbitration can prevent opportunistic conduct that would occur under alternative governance arrangements.³²

III. THE PROBLEM: ENTREPRENEUR AND INVESTOR OPPORTUNISM

In this section I describe a hypothetical conflict between an entrepreneur holding common stock and a VC holding preferred stock. Due to each party's respective cash-flow rights, the VC will prefer a different strategy than the entrepreneur. The firm's choice of action depends on who controls the board. Neither E-control nor VC-control, however, will lead to the efficient outcome, creating both ex post and ex ante inefficiencies.

A. Model Setup: Hypothetical Conflict

Consider the following hypothetical problem. Startup Corporation, similar to the majority of VC-backed firms, has authorized two classes of stock: common stock and convertible preferred stock.³³ Startup issued 100 shares of common stock to its founder (the 'entrepreneur') and sold 100 shares of convertible preferred stock at \$1 per share to a VC investor (the 'VC'). The VC's preferred shares carry a 1X liquidation preference plus any unpaid dividends (i.e. cumulative dividends). In other words, if Startup is sold or liquidated the VC is entitled to receive \$100 plus unpaid dividends before the entrepreneur receives any payment. Each preferred share may be converted at the VC's option into a single share of common stock.³⁴ Upon a full conversion both parties would own 100 shares of common stock.

Two years after investment the VC's liquidation preference has increased to \$120 though unpaid dividends. At this time Startup must choose from one of three possible strategies: (i) a No-risk strategy; (ii) a Low-risk strategy; or (iii) a High-risk strategy. The No-risk strategy entails a sale of the firm for \$160. A buyer who is willing to pay this amount has already been found, and the sale would not involve any risk. If Startup declines the sale it must decide how much to invest in a new technology (the 'R&D investment'). The Low-risk strategy requires a relatively small R&D investment, while the High-risk strategy requires a larger R&D investment. The Low-risk and the High-risk strategies each have a 50% chance of Success and a 50% chance of Failure; however, the relative payoffs for Success and Failure depend on the level of risk.

³² ID-arbitration is a different mechanism from state contingent control, and may be used even when verifiable signals are available. See Broughman *supra* note 19 at 2.

³³ A conflict between entrepreneurs and VCs can be caused by (i) private benefits and/or (ii) divergent cash-flow rights. In the following hypothetical I focus on cash-flow rights rather than private benefits. My reason for this emphasis is purely illustrative: cash-flows are easier to specify than private benefits. While there are some limitations to using cash-flow rights, this choice does not change the basic result of the model. See Broughman *supra* note 19 (reaching a similar finding using a model based on private benefits). While the basic result of the two models is the same there are some technical differences. Most importantly, private benefits are non-transferable and cannot be directly contracted over, while cash-flow rights are endogenous to the financing contract. This suggests that cash-flow rights could always be realigned to remove the conflict; however, as discussed in section II there are several reasons for the VCs' use of convertible preferred stock.

³⁴ This hypothetical assumes a pre-money valuation of \$100 and a post-money valuation of \$200.

Under the Low-risk strategy Success yields a payoff of \$240, and Failure yields a payoff of \$100. Under the High-risk strategy Success yields a payoff of \$300, and Failure yields a payoff of \$0. For ease of analysis I assume the payoffs under all three strategies are determined immediately, removing any timing concerns. The three strategies are summarized in Table 1:

Table 1: Alternative Strategies

Strategy	Description	Outcomes	Expected Value
No-risk	Sale of firm	\$160	\$160
Low-risk	Small R&D investment	Failure 50% * \$100 Success 50% * \$240	\$170
High-risk	Large R&D investment	Failure 50% * \$0 Success 50% * \$300	\$150

The expected payoff from each strategy is shown in the last column of Table 1. The Low-risk strategy has the greatest expected value (\$170 versus \$160 or \$150), and is the socially optimal policy.³⁵ The question, however, is whether Startup will pursue the optimal strategy.

Due to transaction costs, bounded rationality or non-verifiable information, the financing contract is incomplete and the parties cannot contract over this decision.³⁶ Instead Startup's choice of action depends on who controls the board of directors.³⁷ I assume that none of the three strategies would violate the board's fiduciary obligations, regardless of who controls the board (this assumption is relaxed in Section VII).³⁸ The controlling party will select the strategy that maximizes its private interest, potentially at the expense of the firm's aggregate welfare. Because of the preferred stock liquidation preference the parties have different interests with respect to the three strategies.

No-Risk Strategy: The sale would yield an immediate payment of \$160. The preferred stock liquidation preference grants the VC the right to receive \$120. On the other hand, if the VC were to convert to common it would own 100 shares of common stock and be entitled to half of the sale proceeds, giving the VC \$80 out of the \$160 sale price. Consequently, the VC will elect to receive the full liquidation preference of \$120, and the entrepreneur will receive the residual sale proceeds of \$40.

Low-Risk Strategy: Startup makes a small R&D investment. Case 1: The investment is a Success and the firm receives a total payoff of \$240. This payoff would make the VC indifferent between converting to common stock and receiving their liquidation preference. The VC will

³⁵ I assume that the entrepreneur and the VC are both risk-neutral.

³⁶ Even if the parties could foresee this particular situation, it may not be cost-effective to contract over remote possibilities, or it may be impossible to verify the relevant conditions before a court.

³⁷ I assume that each strategy is sufficiently important to Startup's business to require board authorization. Obviously, the sale of the firm would also require a shareholder vote. For ease of analysis, however, I focus solely on board control.

³⁸ Fiduciary obligations provide, at best, a weak constraint against opportunistic use of control. See *infra* Section VII. Weak enforcement of fiduciary obligations justifies for the above assumption.

receive \$120, and the entrepreneur will receive the remaining \$120.³⁹ Case 2: The investment is a Failure and the firm receives a total payoff of \$100. The VC will not convert to common. Since the liquidation preference (\$120) exceeds the total payout (\$100), the VC will receive the entire amount by retaining its preferred stock. By contrast, conversion to common would force the VC to share the \$100 payoff with the entrepreneur. Given that there is an equal chance of Success and Failure, the expected payoff to the VC from the Low-risk strategy is \$110, and the expected payoff to the entrepreneur is \$60.⁴⁰

High-Risk Strategy: Startup makes a large R&D investment. Case 1: The investment is a Success and the firm receives a payoff of \$300. This payoff is sufficiently high to cause the VC to convert to common. If the VC does not convert it will simply receive the liquidation preference of \$120. By converting, however, the VC will hold half of the outstanding common stock and will receive \$150 (50% of \$300). The entrepreneur holds the remaining common stock and will also receive \$150. Case 2: The investment is a Failure, and both parties receive nothing. Since there is a fifty percent chance of Success, under the High-risk strategy the expected payoff to the VC is \$75, and the expected payoff to the entrepreneur is \$75.⁴¹ These results are summarized in Table 2.

Table 2: Party Payoffs

Strategy	Outcomes	Expected Value	Expected Payoff to VC	Expected Payoff to Entrepreneur
No-risk	\$160	\$160	\$120	\$40
Low-risk	50% * \$100 50% * \$240	\$170	\$110	\$60
High-risk	50% * \$0 50% * \$300	\$150	\$75	\$75

Because of the liquidation preference the expected value of the VC's cash-flow right decreases with risk, while the entrepreneur's payoff increases with risk.⁴² As this would suggest, the highest expected payoff for the VC comes from the No-risk strategy, while the High-risk strategy gives the entrepreneur her best payoff. Absent renegotiation, neither party has an incentive to pick the Low-risk strategy, even though this is the efficient policy.

Ideally, the parties would foresee this problem *ex ante* and include a clause in the original contract specifying that Startup will pursue the Low-risk strategy in this particular scenario. However, such detailed contracting is often infeasible. Despite such limitations, the parties can

³⁹ This follows since converting to common would entitle the VC to half of \$240, which equals the VC's liquidation preference of \$120.

⁴⁰ The VC's expected payoff from the Low-risk strategy is $(.5)\$120 + (.5)\$100 = \$110$. The entrepreneur's expected payoff from the Low-risk strategy is $(.5)\$120 + (.5)\$0 = \$60$.

⁴¹ The VC's expected payoff from the High-risk strategy is $(.5)\$150 + (.5)\$0 = \$75$. The entrepreneur's expected payoff from the High-risk strategy is $(.5)\$150 + (.5)\$0 = \$75$.

⁴² This conflict motivates several studies. See *e.g.* Broughman and Fried *supra* note 4; Fried and Ganor *supra* note 9; and Bratton *supra* note 9.

(consistent with empirical data) contract over the allocation of board control, thereby determining *who* gets to select the strategy that Startup will pursue.⁴³

The parties contract over three possible allocations of board control: (i) E-control, (ii) VC-control, and (iii) ID-arbitration. In the first two cases either the entrepreneur or the VC respectively controls a majority of Startup's board seats, and can use this position to unilaterally select the firm's action. Under ID-arbitration the choice of action is the result of deliberation and voting among the entrepreneur, the VC, and the independent director. To model the firm's decision-making under ID-arbitration I consider a three-party bargaining process similar to final-offer arbitration. The remainder of this section models Startup's choice of action under E-control and VC-Control. Section IV considers Startup's choice of action under ID-arbitration.

B. Board Control without an Independent Director

Without an independent director, Startup's board will either be (i) controlled by the entrepreneurs, (ii) controlled by the VCs, or (iii) the board will be deadlocked. None of these arrangements is particularly desirable. I focus on E-control and VC-control rather than deadlock, since deadlock rarely occurs in VC-backed firms,⁴⁴ and it is less efficient.⁴⁵ E-control and VC-control, though preferable to deadlock, are still susceptible to opportunistic behavior, creating both ex post and ex ante inefficiency.

1. Ex Post Inefficiency

From an ex post perspective the concern is whether Startup pursues the efficient strategy after investment. As Table 2 illustrates, neither party has an incentive to pick the efficient outcome (the Low-risk strategy).⁴⁶ In each case the controlling party will use its position opportunistically, causing the firm to pursue a strategy that benefits the controlling party at the expense of the firm's aggregate welfare.⁴⁷

The inefficient choice of action, however, may be solved or at least mitigated through renegotiation. Under E-control, for example, the VC is likely to recognize that the entrepreneur will pursue the High-risk strategy. To avoid this outcome the VC may try to bargain with the

⁴³ In my model, board control is endogenous to the financing contract. For a similar approach see Hermalin and Weisbach *supra* note **Error! Bookmark not defined.** The contracting literature refers to such decision-making rights as *residual control*. See e.g. Sanford J. Grossman & Oliver D. Hart, *The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration*, 94(4) THE JOURNAL OF POLITICAL ECONOMY 691 (1986). From a normative perspective the firm ought to allocate residual control so as to minimize the cost of bad decisions.

⁴⁴ See *infra* Table 4.

⁴⁵ Deadlock creates a risk of bilateral holdup, since either party can block any action. See Aghion and Bolton *supra* note 8 (proving that deadlock is less efficient than giving control to the entrepreneur or the investor).

⁴⁶ In practice VCs may have other contractual protections against entrepreneur opportunism, including participation rights, staged financing, protective provisions, and redemption rights. See Sahlman *supra* note 12. For a broader discussion of available contractual protections see William Carney, *The Theory of the Firm: Investor Coordination Costs, Control Premiums, and Capital Structure*, 65 WASH. U.L.Q. 1 (1987). These rights may reduce, but not eliminate, the risk of entrepreneur opportunism. At the same time, such provisions increase the risk of VC opportunism. See Gilson *supra* note 22 at __.

⁴⁷ Recall, by assumption none of the strategies violate the board's fiduciary obligations. The possible impact of fiduciary obligations is considered in section VII.

entrepreneur ex post. There is an opportunity for a Pareto improvement, since the aggregate payout under the Low-risk strategy is \$20 higher than the aggregate payout under the High-risk strategy. This \$20 difference represents a potential renegotiation surplus.

I assume the parties have equal bargaining power and will split the surplus evenly (the ‘Nash Bargaining Solution’).⁴⁸ Under E-control the VC will offer to pay the entrepreneur \$25 if the entrepreneur agrees to pursue the Low-risk strategy instead of the High-risk strategy.⁴⁹ This arrangement would benefit both parties. The entrepreneur can expect to receive \$85 after renegotiating to the Low-risk strategy (\$60 + \$25), as opposed to \$75 without renegotiation. The VC expects to receive \$85 after renegotiating (\$110 - \$25) as compared to \$75 without renegotiation.

A similar analysis applies if the VC controls the board. Except now, the entrepreneur must pay the VC to choose an alternative strategy. Assuming equal bargaining power, the entrepreneur will offer to pay the VC \$15 to switch to the Low-risk strategy. This would make both parties better off. After renegotiation, the entrepreneur’s expected payoff would go from \$40 to \$45, while the VC’s expected payoff would go from \$120 to \$125.⁵⁰ These results are summarized in Table 3.

Table 3: Renegotiation

Board Control	Without Renegotiation		Renegotiation Payment (Nash Bargaining Solution)	After Renegotiation	
	Choice	Payoffs		Choice	Payoffs
Entrepreneur	High-risk	E = 75 VC = 75	VC pays E \$25	Low-risk	E = 85 VC = 85
VC	No-risk	E = 40 VC = 120	E pays VC \$15	Low-risk	E = 45 VC = 125

Provided there are no transaction costs, and the parties have symmetric beliefs and are not wealth constrained, renegotiation of this sort will *always* lead to the ex post efficient outcome. This is a direct application of the Coase Theorem, with board control analogous to a property right.⁵¹ Consistent with the Coase Theorem, ex post efficiency does not depend on the allocation of control in the ex ante contract. The allocation of board control will have a distributional consequence – it determines who has to bribe whom – but it should not affect the

⁴⁸ For a description of the Nash Bargaining Solution *see* Robert Cooter & Thomas Ulen, *Law and Economics*, 4th Edition, at ...

⁴⁹ The bargaining range is between \$15 and \$35. If the parties follow the Nash Bargaining Solution they will agree to \$25, splitting the surplus in half.

⁵⁰ After renegotiation, the entrepreneur’s expected payoff equals \$45, which is determined by subtracting \$15 (payment to the VC) from \$60 (the entrepreneur expected payoff under the Low-risk Strategy). Similarly for the VC, after renegotiation, the VC’s expected payoff equals \$125, which is determined by adding \$15 (payment from the entrepreneur) to \$110 (the VC’s expected payoff under the Low-risk Strategy).

⁵¹ See Ronald H. Coase, *The Problem of Social Cost*, 3 J. LAW & ECON. 1 (1960). The incomplete contracting literature refers to control rights as property rights in part to emphasize the possibility of Coasian renegotiation in contractual settings. *See e.g.* Grossman & Hart, *supra* note 43; Oliver D. Hart, *FIRMS, CONTRACTS, AND FINANCIAL STRUCTURE* (1995).

firm's ultimate choice of action. There is evidence suggesting that renegotiation of this sort is sometimes used in the sale of VC-backed firms.⁵²

There are several reasons, however, to question how often the assumptions supporting Coasian renegotiation are satisfied. First, renegotiation may involve significant transaction costs. The cost of renegotiation may increase if there are several entrepreneurs or VC investors (as is often the case in startup firms),⁵³ or if it is difficult to specify or enforce the new bargain. Such transaction costs may entirely prevent renegotiation, or at least diminish the renegotiation surplus. Second, if the parties have asymmetric beliefs, renegotiation may fail. It is often argued, for instance, that entrepreneurs are overly optimistic.⁵⁴ The entrepreneur may legitimately believe that the expected payoff from her preferred strategy is so high that there is no bargaining range to negotiate over. Third, liquidity constraints may limit the availability of renegotiation. The entrepreneur, for example, may have limited wealth and thus be unable to pay the VC to take an alternative action.⁵⁵ So, while renegotiation could theoretically ensure an ex post efficient outcome, it may be limited in practice.

Furthermore, the choice of action cannot be fully solved through contingent control, a strategy emphasized by the financial contracting literature.⁵⁶ The financing contract could award the VC extra board seats if the entrepreneur fails to satisfy a financial milestone or other performance target specified in the contract.⁵⁷ Contingent control can be an improvement over both E-control and VC-control.⁵⁸ However, it cannot solve the hypothetical problem illustrated

⁵² In a study documenting the sale of VC-backed firms, Broughman and Fried *supra* note 4 find that common stockholders at the target firm receive an additional 'carveout' payment (i.e. a side payment) from the VCs in approximately one quarter of the recorded transactions. The VCs were more likely to offer such carveout payments when the VCs did not control the board and thus needed the consent of common stockholders to sell the firm.

⁵³ Robert P. Bartlett, III, *Venture Capital, Agency Costs, and the False Dichotomy of the Corporation*, 54 *UCLA L. Rev.* 37 (2006)

⁵⁴ *See Utset supra* note 29.

⁵⁵ This approach is exemplified by the model in Aghion and Bolton *supra* note 8, and in Hellmann *supra* note 14 (suggesting that a wealth constrained entrepreneur may not be able to bribe the VC by transferring additional shares of equity, since the entrepreneur's equity may be necessary for incentive purposes).

⁵⁶ *See Aghion and Bolton supra* note 8.

⁵⁷ *See Id.* Aghion and Bolton suggest that the standard debt financing contract is a form of contingent control. In a typical debt financing the entrepreneur retains control of the firm as long as she does not default on the loan. However, if the entrepreneur defaults the creditor typically has the right to take control of the firm (through bankruptcy). Kaplan and Stromberg find evidence that contingent control is used in VC-backed firms; however, it rarely applies to the board. *See pg.* 293. For example, in about 19% of the investment rounds in their sample the VCs gain the right to elect a majority of the firm's board if the company fails to redeem preferred stock on demand. *Pg.* 293. This contingency, however, is less meaningful than it appears. VCs typically do not obtain the right to redeem their shares until 5 years after investment. Even after this period, redemption is rarely in the VCs' interest, since it would typically force a cash-strapped firm to liquidate itself at below market value. Kaplan and Stromberg find only one firm where the allocation of board seats is contingent on a contractual measure of financial performance. *Page* 293.

⁵⁸ Provided control is given to the party whose interests are more closely aligned with the firm's aggregate welfare, it is easy to see how this view could be an improvement over E-control and over VC-control. For example, the entrepreneur's incentives may be better aligned with the firm's overall welfare when the firm is performing well, and VC's better aligned when the firm is performing poorly. Ex ante, however, they do not know which situation will arise. The parties could address this uncertainty by making control of the board contingent on a verifiable measure of the firm's economic performance. This arrangement should insure that the desired party has decision-

above for the simple reason that neither the entrepreneur nor the VC would select the efficient outcome if given control.⁵⁹ At best, contingent control may pick the lesser of two inefficiencies.

Finally, protective provisions cannot generally solve the problem. In some instances a protective provision held by the non-controlling party may prevent an opportunistic outcome. For example, a VC may hold a protective provision requiring its consent before any amendments can be made to the firm's corporate charter. The VC may use this provision to block the entrepreneur from pursuing excessive financing (which generally requires a charter amendment to create a new class of preferred stock), even if the entrepreneur controls the board. In this particular example, the protective provision may prevent a suboptimal outcome (excessive financing). However, protective provisions generally do not solve the problem, for two reasons. First, the non-controlling party would need a protective provision to cover every possible instance of controlling party opportunism, an impossible requirement given contractual incompleteness. Second, and more importantly, protective provisions create a problem of bilateral holdup. The party protected by the protective provision could threaten to block desirable outcomes as well as undesirable ones. The protective provision effectively creates a form of deadlock, since consent of the controlling party and the protected party is necessary for the board to take any affirmative action.⁶⁰

2. *Ex Ante Inefficiency*

Even if renegotiation can sometimes lead to the ex post efficient outcome, it cannot solve the ex ante problem. From an ex ante perspective the concern is whether the parties will enter into the contract. The VC and the entrepreneur both need to be assured that their expected return from the project is greater than its cost, in terms of financial investment and lost opportunities. If this condition is not satisfied, the affected party will not enter into the contract in the first place. Following the economic literature, I refer to this as the "participation" constraint.⁶¹ I first consider the problem from the VC's perspective and then from the entrepreneur's perspective.

Recall that the VC makes an initial investment of \$100 in exchange for shares of preferred stock. If we assume an interest rate of zero and no outside options, the VC's participation constraint is satisfied whenever its expected payoff is greater than \$100. Because the VC's expected payoff depends on the allocation of board control, some board configurations may satisfy the VC's participation constraint while others violate it. If the VC controls the board it can ensure that its participation constraint is satisfied. The VC will use its board control to select the No-risk strategy. This gives the VC an expected payoff (\$120) greater than its initial investment (\$100).

The VC's participation constraint, however, is *not* satisfied under E-control. As noted above, the entrepreneur will select the High-risk strategy if she controls the board. This strategy

making authority in each case. This characterization of control is often attributed to Aghion and Bolton. See Kaplan and Stromberg *supra* note 4.

⁵⁹ When there are more than two actions to choose from, as is the case in the hypothetical discussed above, contingent control will be inadequate whenever the efficient outcome is not either party's first choice.

⁶⁰ In the extreme, one could imagine a very broad protective provision that would require the non-controlling party's consent before any board action can be taken. This is functionally identical to deadlock.

⁶¹ This is often called the 'individual rationality' constraint, and in the financing literature it is sometimes referred to as the investor's 'financing' constraint. Regardless of the terminology, the concept is the same.

gives the VC a *lower* expected payoff (\$75) than its initial investment (\$100). Recognizing the problem, the VC will refuse to invest under E-control.⁶²

A similar *ex ante* problem can be seen from the entrepreneur's perspective. While the entrepreneur may not invest much money into Startup, she may be leaving a high paying job at an established firm to work for Startup. The benefits she received from her previous job are an opportunity cost, analogous to the VC's financial investment. The entrepreneur will only enter into the project if her expected benefits from Startup exceed her opportunity cost. To illustrate, assume the entrepreneur would receive \$50 from her previous job. To ensure the entrepreneur's participation, Startup must pledge expected benefits greater than \$50 to the entrepreneur. This constraint is satisfied when the entrepreneur controls the board (payoff = \$75), but not when the VC controls the board (payoff = \$40).

If we simultaneously consider both parties' participation constraints we immediately see a serious problem. The VC will refuse to invest under E-control and the entrepreneur will refuse to invest under VC-control. If E-control and VC-control are the only possible board configurations, Startup will never get off the ground, since neither arrangement ensures the participation of both parties. This problem occurs despite the fact that the project is socially desirable. If the parties could somehow agree to follow the Low-risk strategy the expected surplus would be \$170, which is greater than the sum of the entrepreneur's opportunity cost (\$50) and the VC's investment (\$100). The problem is that the controlling party cannot credibly tie their hands and commit to the efficient outcome.⁶³

In the previous section I showed that renegotiation could lead to the *ex post* efficient outcome under certain assumptions. Renegotiation, however, cannot generally solve *ex ante* inefficiency. The trouble is that the distributive consequences of renegotiation become important when considering the *ex ante* problem. The non-controlling party must *pay* the controlling party a sufficient amount to ensure that the controlling party benefits from the renegotiation. This payment is subtracted from the non-controlling party's *ex ante* expected benefits, hindering efforts to satisfy participation constraints through renegotiation.⁶⁴

Rather than solving the problem of *ex ante* inefficiency, renegotiation can actually make the situation worse. The availability of renegotiation gives the controlling party an incentive to endogenously create additional hold-up opportunities. This may give the controlling party leverage to demand additional concessions from the other party. For example, a controlling VC may threaten to replace the entrepreneur as CEO. In response the entrepreneur may make

⁶² My discussion here is based on the implicit assumption that the VC (& the entrepreneur) can forecast, at the time of the *ex ante* contract, its expected return under each allocation of board control. This may be an unrealistic assumption; however, even if the VC cannot forecast this particular scenario it can recognize the general problem: giving control to the entrepreneur exposes the VC to opportunistic choice of action in numerous situations that may arise. The risk of opportunistic conduct (even if it cannot be precisely forecast) may cause some VC's to refuse to invest *ex ante* if the entrepreneurs demand control.

⁶³ This problem is a variation of the famous holdup problem considered in the corporate governance and contracting literatures. See *e.g.* Williamson *supra* note **Error! Bookmark not defined.**; Grossman & Hart *supra* note 43.

⁶⁴ The renegotiation described in Table 3 (above) illustrates the problem. For example, assuming equal bargaining power, under E-control the VC pays the entrepreneur \$25 to switch to the Low-risk strategy. After renegotiation the VC's expected payoff is \$85. While this is better than the VC's expected payoff without renegotiation, it does not satisfy the VC's *ex ante* participation constraint, since the payoff remains less than the VC's initial investment of \$100. The analogous problem exists from the entrepreneur's perspective (see Table 3).

various concessions to keep her job. The VC, however, can make the same threat the next month, demanding further concessions. The ideal solution is not renegotiation but a mechanism that allows both parties to commit to non-opportunistic behavior. The next section considers whether adding an independent director to the board provides such a commitment mechanism.

IV. THE SOLUTION: INDEPENDENT DIRECTOR ARBITRATION

Independent directors expand the menu of governance structures that a firm may consider. In particular, the entrepreneur and VC may share control of the board with an independent director as tie-breaker ('ID-arbitration'), an arrangement frequently used in firms financed by venture capital.⁶⁵ In this section I consider the simplest form of shared control, a board with three directors: one entrepreneur, one VC, and one independent director.⁶⁶ I show that ID-arbitration will lead to the efficient outcome, provided the independent director is relatively unbiased.

A. Arbitration Setup

I model the choice of action under ID-arbitration with a structured bargaining process similar to final-offer arbitration. The entrepreneur and VC will each propose a strategy. If they propose the same strategy there is no disagreement, and Startup will pursue this strategy regardless of the independent director. However, if they propose different actions, the independent director must choose between the two proposals. Similar to an arbitrator under final-offer arbitration, the independent director cannot introduce a compromise. Rather, he must simply vote for one of the two proposals put forward by the parties. This bargaining process

⁶⁵ The independent director also allows other governance arrangements which I do not consider. For example, independent directors could hold enough board seats to constitute a strict majority. An independent director majority, while now required in publicly-held firms, is unusual in VC-backed firms.

⁶⁶ Not all firms that share control with an independent director have this exact structure. A startup's board may include more than three directors or multiple representatives from each group. I focus on this three-member board, however, because it is the most basic form of ID-arbitration, and the incentives generally apply to other forms of shared control. There are two caveats to this point. First, in firms with multiple entrepreneurs or VC investors sitting on the board, my model of ID-arbitration captures the relevant incentives provided the entrepreneurs have similar interests and the investors have similar interests. This is generally a reasonable assumption since each group holds similar cash-flow rights (i.e. the entrepreneurs all hold common stock and the VCs hold various classes of preferred stock). There are, however, some reasons why the interests of early VC investors may diverge from later round investors. See Bartlett *supra* note 53. Also see *Benchmark Capital Partners IV, L.P. v. Vague No. Civ. A. 19719, 2002 WL 1732423* (Del. Ch. July 15, 2002). The possibility of conflicts between different VC investors (or between entrepreneurs) does not necessarily remove the benefits of an independent director as arbitrator; however, it would require additional analysis of voting and coalition formation that is not considered here.

Second, the board may be structured so that either the entrepreneurs or the VCs hold exactly half the board seats. For example, a four member board could have two VCs, one entrepreneur, and one independent director. Since they hold half the seats, the VCs can effectively veto any action that they do not support. This arrangement favors the status quo, by giving the VC a blanket veto right. The VCs, however, do not hold a majority and thus need the support of the independent director to take any affirmative action opposed by the entrepreneur. My analysis ID-arbitration is still relevant to understanding decision-making in boards with this type of structure (at least for actions requiring affirmative board authorization).

reflects the fact that the independent director is not one of the firm's primary constituencies and typically plays a more passive role in management than the entrepreneur and VC.

This bargaining game illustrates two points. First, when the entrepreneur and the VC agree on a strategy the independent director is irrelevant. The entrepreneur and VC already have a majority of the board votes (2 out of 3). Thus, they can cause Startup to take the proposed action even without the independent director's support. This is important since it means that the independent director cannot holdup the firm. Second, when the entrepreneur and the VC disagree the independent director casts the tie-breaking vote, effectively arbitrating the dispute.

B. Arbitration Results

Under ID-arbitration the entrepreneur and VC anticipate how the independent director is likely to vote if a conflict should arise. This knowledge affects the strategies that the entrepreneur and the VC will propose *ex ante*. There is no point in proposing a strategy that will be rejected by the independent director, as this would effectively let the other party select the firm's course of action. Instead the parties have an incentive to offer a strategic compromise – a proposal that is likely to be endorsed by the independent director and yet is still acceptable to the proposing party. The literature on final-offer arbitration shows that disputing parties have an incentive to converge upon the outcome favored (or deemed 'fair') by the arbitrator.⁶⁷

To illustrate with a concrete example, in Major League Baseball salary disputes are frequently resolved through final-offer arbitration. The player and the team each propose a salary to the arbitrator. If either party were to propose an extreme salary (either too high or too low) it will be rejected by the arbitrator, and the other party's proposal accepted. To prevent this outcome both parties have an incentive to make reasonable proposals, trying to win over the arbitrator. In theory, with perfect information, the disputing parties will propose the exact same salary – the amount deemed 'fair' by the arbitrator – and there will be no dispute to arbitrate.⁶⁸

A similar logic motivates the median voter theorem in political science. In two-party electoral competition the platforms of candidates from rival parties should converge upon the preferences of the median voter. They have an incentive to converge towards the median, since otherwise the other party will win.⁶⁹

Under ID-Arbitration, the entrepreneur and VC effectively *create* a median voter by adding an independent director to their board. In so doing the parties implicitly commit to the independent director's preferred outcome whenever they might otherwise disagree. Competition for the independent director's support causes the parties to converge upon the strategy favored by the independent director. This avoids the problem of controlling party opportunism and replaces it with the preferences of the independent director.

⁶⁷ [Add cite]

⁶⁸ See Daniel R. Marburger, *Arbitrator Compromise in Final Offer Arbitration: Evidence from Major League Baseball*, 42 *ECONOMIC INQUIRY* 60 (2004). In practice, evidence from MLB arbitration shows partial convergence to the player's 'fair' salary. The team typically proposes a slightly lower salary than the player. The small gap between the two salary proposals reflects the fact that parties do not have perfect information regarding the arbitrator's notion of a 'fair' salary, though they may have a reasonable guess.

⁶⁹ See Downs, 1957; See also Robert Cooter, *THE STRATEGIC CONSTITUTION* (Princeton, 2000).

Finding an unbiased independent director is critical. If the independent director always sides with the same party or otherwise colludes with one of the primary parties this arrangement is no different than giving the entrepreneur or VC control. A biased independent director effectively gives the favored party an extra board seat. On the other hand, if the independent director is unbiased in some meaningful sense, the parties can commit to a more efficient outcome through ID-arbitration than is possible through alternative governance arrangements

I characterize an *unbiased* independent director as one who places equal weight on the financial interests of the entrepreneur and the VC, and a *biased* independent director as one who favors the interests of one party over the other. Since Startup's aggregate welfare equals the sum of the entrepreneur's interest and the VC's interest, an unbiased independent director will favor strategies that maximize the firm's aggregate welfare.

It immediately follows that ID-arbitration with an unbiased independent director leads to the most efficient outcome. In competing for the independent director's support the entrepreneur and VC converge upon the welfare maximizing strategy. Intuitively this is easiest to see in settings, like baseball salary arbitration, where the firm can choose from a continuum of possible strategies. For example, a firm may need to decide how much money to invest in a new technology. In these settings both the entrepreneur and VC will propose the independent director's preferred outcome and there will be no dispute to arbitrate. I prove convergence over a continuous action space in Appendix 1.

In the hypothetical described in Section III the firm must choose from a discrete set of possible actions. This modifies the analysis slightly; however, the parties still converge towards the efficient outcome. To illustrate, an unbiased independent director will prefer the Low-risk strategy (1st choice), over the No-risk strategy (2nd choice), and over the High-risk strategy (3rd choice). The entrepreneur recognizes that the High-risk strategy is the independent director's least preferred outcome. Consequently, the entrepreneur will not propose the High-risk strategy, even though it is her first choice, since she knows that the independent director will vote against it regardless what the VC proposes. In fact, proposing the High-risk strategy could result in the No-risk strategy being pursued. The No-risk strategy is the entrepreneur's least preferred outcome. To avoid this result the entrepreneur will compromise and propose the Low-risk strategy – the independent director's 1st choice and the entrepreneur's 2nd choice – instead. The entrepreneur's strategic compromise causes the parties to converge towards the independent director's preferred outcome.⁷⁰ I provide a game theory analysis of this discrete action space bargaining game in Appendix 2.

What is important to recognize is that ID-arbitration with an unbiased independent director causes the parties to converge directly upon the efficient outcome. This result does not require renegotiation. Also, the parties do not need to draft a detailed contract specifying this action ex ante. ID-arbitration is consistent with incomplete contracting assumptions. Instead of contractual specification the parties rely on the independent director being able to identify the desirable action at the time a choice needs to be made. Under ID-arbitration the parties can adjust to a rapidly changing business environment without advance contractual specification and without opportunistic behavior by a controlling party.

⁷⁰ Technically in the discrete action game there are two Nash Equilibria (the VC is indifferent between proposing the No-risk and Low-risk strategies). See discussion in Appendix 2.

Furthermore, ID-arbitration can prevent opportunistic conduct without resorting to costly litigation. Fiduciary obligations under corporate law might be an alternative way to prevent opportunistic conduct; however, for reasons discussed in Section VII, fiduciary obligations place a weak constraint on opportunistic conduct by either party. That ID-arbitration is the most common board arrangement may be a direct consequence of the courts' inability to effectively police opportunistic conduct. Regardless the reason, ID-arbitration suggests a private solution to the problem of opportunism.

Despite its benefits, ID-arbitration is potentially limited by various considerations. First, the independent director needs sufficient information to be able to identify the efficient strategy. Second, the independent director should not collude with (i.e. accept bribes from) the primary parties. Third, the independent director may be biased for various reasons. However, even if the independent director makes mistakes, turns out to be biased or otherwise colludes with one of the primary parties, the result is no worse than E-control or VC-control. This follows since the independent director does not have sufficient board seats to holdup the firm or unilaterally control the choice of action. The worst that can happen is the independent director will support the entrepreneur's (or VC's) proposal even though it is inefficient.

If the independent director is unbiased, ID-arbitration can improve ex post and ex ante efficiency compared to alternative governance arrangements. The next subsection considers the independent director's incentives.

C. Independent Director Motivations

Independent directors may be motivated by several considerations. Business norms or a significant relationship with one of the two parties may cause an independent director to favor one side over the other. For example, commentators argue that VCs, who are repeat players and have extensive professional networks, may use their position to informally control the selection and behavior of independent directors.⁷¹ Alternatively, independent directors may be motivated by financial interests. Independent directors in VC-backed firms are often given a small share of common stock for their services. Since entrepreneurs also hold common stock the independent director's equity position may help align his interests with those of the entrepreneur. Independent directors, however, typically hold a very small share of common stock and this may be insufficient to bias the independent director in a significant way (or it may simply offset the natural bias in favor of VCs). Finally, independent directors also may be influenced by considerations of fairness or altruism.⁷²

While I acknowledge that each of the above considerations may influence independent director behavior, I focus on two considerations – loyalty and re-election – related to the independent director's appointment. First, independent directors may feel a sense of loyalty to whichever party nominated them for the position. Loyalty is often used to explain the motivations of directors in publicly-held firms.⁷³ Second, an independent director may desire to be appointed to the board of other startup firms in the future. This is analogous to the incentive for political re-election. A politician must perform well in her current job and satisfy important

⁷¹ See Fried and Ganor *supra* note ____.

⁷² See e.g. Lynn A. Stout, *On The Proper Motives of Corporate Directors (Or, Why You Don't Want to Invite Homo Economicus to Join Your Board)*, 28 *Del. J. Corp. L.* 1 (2003).

⁷³ See Bebchuk and Fried *supra* note ____.

constituents if she hopes to be elected to additional positions in the future. Similarly, an independent director's performance on Startup's board may impact whether he is appointed to other firms in the future.⁷⁴ Independent directors obtain some benefit from serving on a startup's board, both the immediate financial compensation paid to the director, and probably more importantly, the access to valuable contacts and information about the relevant industry that the director gains from the experience. To continue receiving such benefits a potential independent director must satisfy the corporate constituencies that have the power to nominate (and potentially to remove) independent directors.

Under both the loyalty and the re-election motives, the independent director's interests are shaped by the nominating party (or parties). In VC-backed firms, which party – the entrepreneur, the VC, or possibly both – has the power to select independent directors? According to Kaplan and Stromberg's empirical study, independent directors board seats "are to be filled by individuals mutually agreed upon by the VCs and the founders/entrepreneurs."⁷⁵ Kaplan and Stromberg, however, do not explain the evidence for this view, and some legal scholars disagree with their characterization. Smith, for example, examines corporate charters from a large sample of VC-backed firms. He concludes, based on an alternative interpretation of formal contract language, that independent director board seats will *either* be controlled by the entrepreneurs or by the VCs, depending on who holds more equity at the time.⁷⁶ Fried and Ganor, while not questioning Kaplan and Stromberg's formal interpretation, suggest that VCs may nonetheless have substantial informal control over the selection of independent directors.⁷⁷

The answer to this unresolved empirical question affects incentives. If independent directors are typically nominated or otherwise chosen by a firm's VC investors, then independent directors have an incentive to favor the interests of the VC when forced to settle disputes between the two parties.⁷⁸ Conversely, if entrepreneurs typically control independent director appointments, this would create an incentive to favor the interests of the entrepreneur.

On the other hand, if independent director board seats are filled by "mutual agreement" then the independent director would have an incentive to be impartial. The independent director would feel loyalty to both parties and would want to avoid developing a bad reputation among either entrepreneurs or VCs. This point is confirmed by data on arbitrator selection in other contexts. For example, Bloom and Cavanagh record data on arbitrator selection in employment

⁷⁴ See Blair & Stout *supra* note 6 at 315 (arguing that a director's reputation may affect her likelihood of being appointed to other boards).

⁷⁵ See Kaplan & Stromberg *supra* note 4 at 287.

⁷⁶ See *infra* 94. Smith's data is based primarily on corporate charters rather than voting rights agreements.

⁷⁷ Fried & Ganor *supra* note 9 at 988. *Also see* Utset *supra* note 29 at 105 (VCs are likely to have de facto control over the selection of independent directors due to the VCs' extensive professional networks).

⁷⁸ Future appointments to other firms may not involve the same entrepreneur or the same VC investors. Consequently, I am assuming independent directors develop a reputation among the broader community of entrepreneurs and VCs based on his performance as a director of Startup. For example, if the independent director consistently favors the VC's interests, this increases (decreases) the likelihood that *other* VCs (entrepreneurs) will want to appoint this individual. My analysis assumes at least some minimal ability of the community of entrepreneurs and VCs to communicate among themselves regarding the characteristics of a potential independent director. This communication need not be perfect; however, for the reputational affects to be meaningful it must be loosely correlated with the independent director's traits.

disputes involving New Jersey fire and police officers. The final arbitrator is selected from a list of seven potential arbitrators. The employer and employee can each veto up to three names from the list. Bloom and Cavanagh find that arbitrators who consistently favor one side to a dispute are more likely to be vetoed by the disfavored side in future arbitrations, and are consequently less likely to serve as an arbitrator in the future.⁷⁹ Similarly, independent directors appointed by ‘mutual agreement’ have an incentive to resolve disputes in an impartial manner. If an independent director develops a bad reputation among the broader community of entrepreneurs or among VCs, he is unlikely to be appointed to serve on future boards.

V. DATA ON STARTUP BOARDS AND INDEPENDENT DIRECTOR APPOINTMENTS

If independent directors perform the arbitration role that I suggest, we should see evidence of this in the selection of independent directors.⁸⁰ In particular, we should see various steps taken to ensure that independent directors are unbiased. I predict that independent directors will be mutually nominated by consent of the firm’s entrepreneurs *and* VCs. I expect this to show up both in formal appointment rights and in the actual selection of independent directors.⁸¹

These predictions are consistent with empirical evidence from VC contracts. I consider data from a sample of VC-backed firms located in Silicon Valley. After describing the data source, I present summary statistics on the use of independent directors. Then, I describe how independent directors are selected, through formal appointment rights and informal appointment practices. Finally, I provide additional data on reputational ties and background qualifications for the independent directors in my sample. This data illustrates numerous safeguards that entrepreneurs and VC investors use to ensure a relatively unbiased independent director.

⁷⁹ David E. Bloom & Christopher L. Cavanagh, An Analysis of the Selection of Arbitrators, 76(3) The American Economic Review 408 (1986).

⁸⁰ In this article I focus on appointment rights and other issues related to the selection of independent directors. My theory, however, also predicts *which* firms are likely to use ID-arbitration. Startup firms are more likely to use ID-arbitration when participation constraints preclude the use of either E-control or VC-control. The VC’s participation constraint depends on the amount invested, while the entrepreneur’s participation constraint depends on her alternative employment opportunities. Neither party will enter into the contract if their participation constraint is violated. Thus, I predict that, *ceteris paribus*, startup is more (less) likely to use ID-arbitration relative to E-control (VC-control) as the amount invested by the VC increases. On the other hand, the entrepreneur’s outside employment opportunities should have the reverse effect: startup is more (less) likely to use ID-arbitration relative to E-control (VC-control) as the value of the entrepreneur’s alternative employment opportunities increases. I test these hypotheses in a separate article. See Broughman *supra* note 19. I find that VC’s demand more control when there is greater uncertainty or risk regarding the firm’s financial viability and as the VC invests more money into the project. The VC’s participation constraint has the predicted effect, suggesting that ID-arbitration is sometimes used to ensure the VC’s participation. I do not, however, test the entrepreneur’s participation constraint, since data on the entrepreneur’s outside employment opportunities is unavailable.

⁸¹ I assume the entrepreneur and VC know how the independent director will vote (implicit in this assumption is that the independent director will not make any errors if asked to arbitrate). In reality, however, there may be some uncertainty regarding the independent director’s behavior. Uncertainty, while reducing the benefits of ID-arbitration, does not change the basic implications of my theory. See Broughman *supra* note 19 at 14-16.

A. Data Source

I use hand collected data from 54 VC-backed firms located in Silicon Valley and sold to an acquirer in 2003 or 2004.⁸² To gather additional information about independent director qualifications, among other issues, follow-up surveys were sent to each entrepreneur two years after the original interview. Entrepreneurs from 32 out of the original 54 completed the follow-up survey.

Data was collected on the allocation of cash-flow rights and control-rights. I document board control and director appointments following each round of financing and at the sale of the firm. Since board composition is separately negotiated in each round of financing, the financing contract is the relevant unit of analysis and each firm may represent several data points.

My sample is limited to Silicon Valley firms sold in 2003 or 2004. Factors unique to the Silicon Valley VC market, to acquired firms, or to this time period could limit the generalizability of my findings. Silicon Valley is a closely-knit community where reputational considerations are particularly important.⁸³ Firms in the sample population were sold several years after the tech bubble collapsed. And, I do not observe firms that elected to remain independent. Each of these considerations may have affected the allocation of board control and the use of independent directors. Consequently, my data on independent director appointments may reflect factors unique to the sample population.

These concerns limit the interpretations that can be drawn from the data, but they do not undermine my basic results. The data are used primarily to illustrate governance practices relating to the selection of independent directors. I do not use regressions to statistically test my predictions, and thus I do not need to worry about selection bias effecting coefficient estimates. Rather, my concern is whether the documented governance practices are reflective of startup firms generally. In most cases, the allocation of board seats was determined years before the firm was sold, at a time when the parties may have contemplated an IPO or other form of exit. Also, the allocation of board control and the use of independent directors in my sample is similar to other empirical studies of startup firms, from outside Silicon Valley and from other time periods.⁸⁴ This suggests that the use of independent directors is not unique to my sample.

The primary benefit of using this dataset is that it contains detailed quantitative and qualitative data on the background and selection of each independent director. This type of data

⁸² This data collected with Jesse Fried in connection with a separate research project. Details on the sample frame and methodology can be found in Broughman and Fried *supra* note 4. A brief summary of our data gathering efforts follows. We first obtained from VentureReporter.net a list of all VC-backed companies located in Silicon Valley (broadly defined to include the entire San Francisco Bay Area) that were sold to an acquirer in 2003 or 2004. For each firm we identified current business addresses for the entrepreneurs (i.e. founders or senior executives) of the subject firm. The original sample included 193 firms that met our criteria. We were able to find business addresses for a founder or CEO from 141 of the 193 businesses. We mailed letters soliciting an interview from entrepreneurs at each firm, and promised to keep the information confidential, hiding the identity of the entrepreneur and the startup firm. Entrepreneurs from 57 of the 141 firms agreed to be interviewed – a response rate of 40.4%. For the current project three firms had to be removed due to incomplete data, leaving a relevant sample of 54 firms.

⁸³ See e.g. Mark C. Suchman, & Mia L. Cahill, *The Hired Gun as Facilitator: Lawyers and the Suppression of Business Disputes in Silicon Valley*, 21 *Law & Social Inquiry* 679 (1996); Black and Gilson *supra* note 27.

⁸⁴ See Kaplan and Stromberg *supra* note 4. Also see *VentureOne Deal Terms Report*, 3rd Edition (Dow Jones, 2005)

is not available from frequently used VC datasets – VentureOne and VentureXpert – and to my knowledge no other study has collected similar data.

B. Summary Statistics

The sample firms are primarily from the biotech, telecommunications, software, and internet sectors. This concentration of IT related businesses is representative of VC financing in general. The firms received on average \$45 million in VC financing over 5 years of operation and 3 rounds of financing. At the time of the sale, the VC's aggregate liquidation preferences were on average 1.25 times the amount invested. These results are summarized in Table 4.

I divide directors into three categories: (i) VC, (ii) entrepreneur, and (iii) independent director. This classification is based on which party – VCs holding preferred stock or entrepreneurs holding common stock – has the right to appoint each director.⁸⁵ Independent directors (at least formally speaking) are appointed by holders of both classes of stock. Panel C reports the mean allocation of board seats for all rounds of financing (n=154), and separately for the first round of financing (n=54). The first round of financing may be more relevant to my setting since it involves only one class of preferred stock⁸⁶, and the resulting board configuration does not depend on the allocation of control in prior rounds of financing. Regardless of whether I focus exclusively on the first round, however, the results show a similar use of independent directors.

A startup board has an average of 5.5 directors (the first round board is slightly smaller). For all rounds of financing, VCs hold on average 43.9% of the board seats, entrepreneurs hold 33%, and the remaining board seats, 23.1% of the total, are held by independent directors. The first round results are similar, except entrepreneur representation (38.6%) is somewhat higher and VC representation (36.4%) somewhat lower. In both cases, however, independent directors constitute about one quarter of the board. For purposes of comparison I include the allocation of board seats reported by Kaplan and Stromberg. Their results are similar to mine, suggesting that the use of independent directors is not unique to Silicon Valley or other features of my sample.

Table 4 (panel C) also shows the allocation of control for each financing round, divided into four categories: (i) VC-control, (ii) E-control, (iii) Deadlock, and (iv) Arbitration. VC-control and E-control occur when the respective party holds more than 50% of the board seats. Deadlock occurs when the entrepreneurs and VCs each hold exactly 50% of the board seats. Arbitration occurs when neither the VCs nor the entrepreneurs control more than 50% of the board seats and one or more independent directors hold the tie-breaking vote. Arbitration is a generalization of the simple three member board – ID-arbitration – theorized above. Arbitration is by far the most frequent category, representing 64.3% of all financing rounds and 70.3% of first round financings. E-control and VC-control account for most of the remaining financing rounds, with Deadlock rarely used.

[Insert Table 4 about here]

⁸⁵ Angel investors are classified based on their equity holdings. See *supra* note ____.

⁸⁶ First round financings avoid complications related to possible conflicts among different classes of VC investors. See Bartlett *supra* note 53 (describing conflicts among different classes of preferred stock).

C. Selection of Independent Directors

My sample includes a total of 84 independent directors, many of whom sit on the firm's board through multiple rounds of financing. The next section explains how these individuals were selected, and provides additional data on reputational ties and background qualifications for the independent directors.

1. Appointment Rights

In VC-backed firms board seats are allocated on a class-specific basis. This is specifically negotiated in each round of financing and is typically specified in the corporate charter and in a voting rights agreement.⁸⁷ The charter determines how many board seats are elected by each series of preferred and common stock. The charter, however, is generally not the decisive document for the selection of independent directors. While the charter may address the issue, more specific language is typically included in the voting rights agreement. The following provision is a typical example from a voting rights agreement:

In any election of directors of the Company to elect the [Independent] Directors, the Investors and the Founders shall each vote at any regular or special meeting of stockholders (or by written consent) such number of voting securities of the Company then owned by them ... as may be necessary to elect two (2) directors **unanimously approved** by each of the [other directors of the Company].

The “other directors of the company” include all of the directors appointed by the entrepreneurs and appointed by the VCs. This provision effectively ensures that any independent director will be mutually appointed by preferred and common stockholders.⁸⁸ In other voting agreements the independent director must be “approved by a majority of the Common Stock voting separately as a class and a majority of the Preferred Stock voting separately as a class.” Each of these provisions formally ensures that the entrepreneurs and VC investors *both* approve the selection of an outside director, before she can be appointed to the board.

Unfortunately, only a small number of firms from my sample shared their full set of contractual documents, including voting rights agreements.⁸⁹ Each such firm included a voting agreement with language similar to the above, ensuring a “mutually” appointed director.

To make sure this practice is widely used I also consider published resources documenting VC contracting terms. The National Venture Capital Association (‘NVCA’) provides on their website a set of model legal documents “intended to reflect current practices and customs”.⁹⁰ These documents were prepared by lawyers specializing in VC financing from 28 of the nation's most prominent law firms, and also involved input from partners at 25 different VC firms.⁹¹ The standard term sheet provided by NVCA includes a voting agreement

⁸⁷ See *Venture Capital & Public Offering Negotiation*, edited by Michael J. Halloran (Aspen 2008) at ___.

⁸⁸ Kaplan and Stromberg *supra* note 4 at ___ (describing the outside directors in their study as mutually appointed).

⁸⁹ Other than corporate charters, which we were able to obtain from the Secretary of State's office for each state of incorporation, we did not request or receive contractual documents from most the entrepreneurs participating in the research. Three entrepreneurs, however, volunteered to provide all of their firm's contractual documents, each of which included a voting agreement with language similar to the above.

⁹⁰ See legal documents available at <http://www.nvca.org/model_documents/model_docs.html> The NVCA claims that all of their legal documents were updated July 2007. I last visited the site in January 2008.

⁹¹ See *id.* Under “Who Drafted These Documents”

as part of the set of legal documents executed in connection with a round of VC financing. Furthermore, the voting agreement provided by NVCA uses language very similar to the provision above, requiring that any outside directors be ‘mutually acceptable’ to a majority of the Founders and VCs voting separately. Other industry publications are consistent with NVCA on this issue.⁹²

To be sure, there is some confusion regarding the appointment of independent directors, since the standard charter provision does not mirror the language used in the voting agreement. The charter typically authorizes the holders of common and preferred stock to elect any remaining directors by voting on an as-converted basis.⁹³ As pointed out by Smith, this is not the same as mutual appointment, since at any given time either the entrepreneurs or the VCs will hold a majority of equity on an as-converted basis.⁹⁴ He concludes, based on an examination of charter provisions from over 300 VC-backed firms, that independent directors are typically appointed *either* by the entrepreneurs or the VCs, depending on who holds more equity at the time. Smith argues that “a company would not want both this charter provision and the foregoing voting agreement because the two provisions conflict.”⁹⁵

The fact that the provisions differ, however, does not necessarily imply that a company would not desire both. It is important to recognize that the voting rights agreement has the higher vote threshold – either unanimous approval or a majority of each class of stock voting separately - and consequently compliance with it implies compliance with the charter. Any director elected by unanimous agreement or by a majority of each class voting separately will also satisfy the typical charter requirement, since she will necessarily have the support of a majority of all outstanding equity voting together.

Putting a more stringent threshold in the voting agreement makes practical sense. This practice gives the parties flexibility to amend the bylaws or the voting agreement at a later date (e.g. to add or remove additional directors) without having to file an amended charter with the state. Under standard contractual interpretation, the more specific language contained in the voting agreement will govern over the general language contained in a typical corporate charter. Smith admits that voting agreements, which are not generally included in his sample, could modify his interpretation.⁹⁶ Voting agreements with this type of language appear to be the norm, and consequently formal appointment rights often (though not necessarily always) require a *mutually* appointed independent director.

This interpretation is supported by qualitative evidence from the interviews I conducted. Out of all the interviews I did not find a single observation in which the selection of an independent director was decided by a contested vote count. I asked each subject how the

⁹² See Halloran *supra* note __ at chapter 12 (sample voting agreement specifies mutual appointment, and the authors even describe the outside director as a ‘tie-breaker.’). Levin (1998) at page 33 (describes the use of a neutral or independent director as a compromise between the entrepreneur and the VC investors, and notes that the independent director can even be appointed by a designated third party if the entrepreneur and VC cannot agree on an individual).

⁹³ See Smith *supra* note 21.

⁹⁴ See *Id.*

⁹⁵ See *Id.* at 335.

⁹⁶ See *Id.* at 334 -336.

independent directors at his or her firm were selected. No one claimed that the VCs (or the entrepreneurs) were entitled to select the independent director on the account of how many shares that party held on an as-converted basis. Rather, the parties consulted each other and made sure everyone approved the director selected. In fact, in many cases the identity of the independent director was specifically negotiated over as part of the financing, and the name(s) of the independent director(s) are sometimes included directly in the voting agreement. This point further emphasizes that independent director selection is bargained over.

It also, however, raises a separate concern. Regardless the contractual nomination rights, one party may have more bargaining power or influence over independent director selection.⁹⁷ Consequently, some independent directors may not truly be independent. The VCs, for example, have extensive professional networks and influence in the relevant industry; and may be able to use these sources of power to ensure that the selected director favors the VCs. The data described above records the *formal* classification of board seats, and may understate the true extent of VC control. To address this issue I also record board classification on a *de facto* basis. The *de facto* coding looks beyond the formal appointment rights and considers which party actually nominated the director and whether either party had a prior relationship with the director. I reclassify an independent director as a VC (entrepreneur) if the director was nominated exclusively by the VCs (entrepreneurs). On the other hand, if both parties played a significant role in the selection of the director or both had a prior relationship with the individual, I continue to classify the director as *independent*.

As expected the percentage of independent directors decreases under the *de facto* coding. On a *de facto* basis both the VCs and the Entrepreneurs gain board seats. Also, several firms that were classified as Arbitration under the formal coding are reclassified as VC-control or E-control under the *de facto* coding. This is represented in Table 5.

Table 5: Formal and De Facto Appointments

Mean	<i>All Rounds (n=154)</i>			<i>First Round (n=54)</i>		
	<i>Formal</i>	<i>De Facto</i>	Δ Mean	<i>Formal</i>	<i>De Facto</i>	Δ Mean
Board Seats	5.5	5.5	0	4.6	4.6	0
% VC Seats	43.9	46.6	+2.7	36.4	39.4	+3.0
% E Seats	33.0	34.6	+1.6	38.6	39.5	+0.9
% ID Seats	23.1	18.8	-4.3	25.0	21.1	-3.9
<i>% Firms</i>						
VC-Control	24.7	33.1	+8.4	9.3	16.7	+7.4
E-Control	7.1	9.8	+2.7	14.8	18.5	+3.7
Arbitration	64.3	50.6	-13.7	70.3	59.2	-11.1
Deadlock	3.9	6.5	+2.6	5.6	5.6	0

⁹⁷ The mere fact that an independent director is agreed to by both parties does not automatically ensure that the director is *independent*. To illustrate, the entrepreneur may agree to the appointment of an outside director whose interests are closely aligned with the VCs (i.e. perhaps the director is a close friend of the VC). The entrepreneur may agree to this director in order to obtain other terms beneficial to the entrepreneur. The *de facto* coding described in Table 5 addresses this concern.

If VCs dominate the actual appointment of independent directors, ID-arbitration may be a largely symbolic structure⁹⁸ that does not operate any differently than pure VC- control. On the one hand, the data suggests that VCs have slightly more influence than entrepreneurs over the selection of independent directors. Under *de facto* control the percent of board seats held by VCs increases by 2.7% compared to a 1.6% increase for entrepreneurs and the percent of boards under VC-control increases by 8.4%, compared to a 2.7% increase for E-control.

These data show that independent directors are not always perfectly impartial, and this bias tends to favor the VCs. On the other hand, the vast majority of the formally coded independent directors remain independent under the *de facto* coding. And, ID-arbitration remains the most common board configuration, representing over half the observations, even under the *de facto* coding.

2. Relational Ties to the Independent Director

It is impossible to directly measure the effect of reputation on independent director selection. Two facts, however, suggest that independent directors face a significant reputational constraint. First, independent directors are typically from the same community as the entrepreneur and VC investor. Over two-thirds of the independent directors in my sample population were located in Silicon Valley (broadly defined to include the entire San Francisco Bay Area), the same general area as the sample firms. Second, entrepreneurs and VCs typically have some prior relationship to the firm's independent directors. Both of the primary parties knew the independent director(s) in over 70% of the sample observations.⁹⁹

These geographic and network ties constrain the independent director's discretion. Since all the parties are typically located in the same area it is easier for reputations to form. The preexisting relationship between the independent director and a firm's entrepreneurs and VCs, gives the independent director additional incentive to use her discretion in a reasonable manner, assuming she plans to continue working with both parties in the future.

Also, an independent director with strong ties to both of the primary parties may be less susceptible to side payments (i.e. bribes). Side payments are an obvious concern in any three-party distributional game. For example, the VC may offer various explicit or implicit rewards to the independent director if she is willing to support the VC's position. Such payments could undermine the benefits of arbitration, since the independent director may simply sell her discretion to the highest bidder.¹⁰⁰ Bribes of this sort are legally prohibited, as a violation of the director's fiduciary duty of loyalty. Perhaps more important this type of collusion is also limited by reputational considerations. An independent director who tends to favor one side over the other may develop a bad reputation in the disfavored community. Given the mutual appointment rights described above, such an independent director may be blocked from future board appointments by the disfavored group. The independent director could lose whatever benefits she expects to gain by serving as a director for future firms. This process only works to the extent that the primary parties are able to observe the independent director's conduct, and

⁹⁸ See e.g. Mark C. Suchman, *The Contract as Social Artifact* 37(1) LAW & SOCIETY REVIEW 91 (2003).

⁹⁹ This is coded for each round of financing, and it may double count directors who appear in multiple rounds.

¹⁰⁰ See Jean Tirole, *Hierarchies and Bureaucracies: On the Role of Collusion in Organizations*, 2 J LAW ECON ORGAN 181 (1986) (explaining the risk of collusion in contracts with more than 2 parties).

communicate this to other parties. Such communications are presumably more effective when the independent director is from the same community as the entrepreneur and VC and when the parties have a preexisting relationship.

If the independent director has an ongoing relationship with both of the primary parties, the reputational constraint can be effective even if the individual does not plan to serve as a director for future firms. If either of the primary parties is upset with the independent director's decision, they can directly sanction her by harming the relationship. In this respect, a truly 'independent' director – one that neither party knew before hand – or a director from outside the community, may be less valuable, since she would be harder to constrain through reputational ties. Ideally, the primary parties want an impartial or neutral director, but not a disconnected or outside party.¹⁰¹ The data supports this reputational account.

These reputational results may be more pronounced in Silicon Valley. In Silicon Valley it may be easier to find an independent director with an ongoing relationship with both of the primary parties. Silicon Valley has a high concentration of entrepreneurial activity and reputational ties are particularly important.¹⁰² To the extent that reputational bonds are less effective in other locations, it may be harder to prevent collusion and harder to align the independent director's interests. The data from Kaplan and Stromberg (displayed in table 4 above), however, illustrates that independent directors are used with similar frequency outside Silicon Valley.

3. Industry Experience

In the follow-up surveys, I asked each entrepreneur about the background/prior experience of the independent directors sitting on Startup's board. Entrepreneurs were asked to rate on a 1 to 5 scale each independent director's (i) prior experience in the relevant industry, and (ii) prior experience with venture capital. The results are summarized in table 6. Significant industry experience is an important criteria in selecting an independent director, seemingly more important than having prior experience in venture capital.

¹⁰¹ Interestingly, strong reputational ties to the independent director can help constrain the behavior of the primary parties even if the independent director does not hold a tie-breaking seat on the board. As described above the relational tie between the primary parties may be insufficient to support an effective reputational sanction, and it may be difficult to communicate the underlying conduct to third parties. Having an independent director sitting on the board effectively creates a third party observer, who is in an ideal position to observe misconduct. Furthermore, if the independent director has an ongoing relationship with both parties and is from the same community she may be able to sanction such instances of misconduct.

This can be viewed as arbitration-by-reputation. This paper focuses on arbitration-by-voting. Voting has the advantage that it creates a formal prohibition on the undesired conduct, since it would fail to achieve board authorization. By contrast, arbitration-by-reputation relies on the strength of relational ties to create an effective sanction, and can apply to firm actions that do not require explicit board authorization. In this account, the independent director can help broker a trusting relationship between the two primary parties, similar to Uzzi's account of a third-party intermediary who could connect two unembedded parties. See Brian Uzzi, *Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness*, 42 ADMINISTRATIVE SCIENCE QUARTERLY 35 (1997). The ability of an independent director to help embed the relationship between the entrepreneur and the VC is similar to Suchman and Cahill's account of law firms in Silicon Valley. See Suchman and Cahill 83.

¹⁰² See Suchman and Cahill, *supra* note 83.

Table 6: Independent Director Experience

	<i>No Prior Experience</i>		<i>Very Experienced</i>			Average Rating
	(1)	(2)	(3)	(4)	(5)	
Industry Experience (n=30)	0.0%	6.7%	13.3%	23.3%	56.7%	4.3
VC Experience (n=29)	6.9%	34.5%	24.1%	20.7%	13.8%	3.0

Industry experience is important for effective arbitration. Independent directors need sufficient experience in the relevant industry to identify the desired outcome. An inexperienced director is more likely to make errors, even if she is unbiased and has desirable incentives. The independent director needs to understand the consequences of different actions and predict the effect on the entrepreneur and VC investor. The primary parties address this concern by appointing independent directors with significant experience in the relevant industry.

To sum up, independent directors are typically selected by mutual agreement of the entrepreneur and VC, have ongoing relational ties to both parties, and have significant experience in the relevant industry. Collectively, this paints a picture consistent with my theory of ID-arbitration.

VI. ALTERNATIVE THEORIES OF THE INDEPENDENT DIRECTOR

In this section I consider other theories that might explain the use of independent directors. I show that these theories, which are often based on the publicly-held firm, cannot explain the use of independent directors in privately-held VC-backed firms, and in particular cannot explain the independent director's voting rights.

A. Monitoring Role

Independent directors are expected to monitor management on behalf of a firm's stockholders (the "monitoring" role). This explanation dominates most of the legal,¹⁰³ the economic,¹⁰⁴ and the business literature.¹⁰⁵ The independent director's role as monitor includes selecting the firm's CEO, providing incentives to management, and representing the interests of the stockholders in strategic decisions.

The monitoring role is based on a separation between ownership and control in publicly-held firms, first recognized by Berle and Means.¹⁰⁶ In a publicly-held firm, stockholders are

¹⁰³ See Frank Easterbrook and Daniel Fischel, *The Economic Structure of Corporate Law* (1991); Robert C. Clark, *CORPORATE LAW* (1986); Oliver Williamson, *Corporate Governance*, 93 *YALE LAW JOURNAL* 1197 (1984); Ronald J. Gilson & Reinier Kraakman, *Reinventing the Outside Director: An Agenda for Institutional Investors*, 43 *STANFORD LAW REVIEW* 863 (1991).

¹⁰⁴ See Baysinger & Butler *supra* note 3; Hermalin & Weisbach *supra* note 7.

¹⁰⁵ See Harvard Business Review of Corporate Governance (2000)

¹⁰⁶ See Adolf A. Berle & Gardiner C. Means, *THE MODERN CORPORATION AND PRIVATE PROPERTY* (Macmillan, 1932). This argument has been extended by Michael C. Jensen & William H. Meckling, *Theory of the firm: managerial behavior, agency costs and ownership structure*, 3 *JOURNAL OF FINANCIAL ECONOMICS* 305 (1976).

diffuse and lack incentives to directly monitor management.¹⁰⁷ As a consequence, the owners are extremely weak relative to management. In this setting, independent directors are supposed to mitigate the agency problem by acting as representatives of the common equity holders.

By contrast, in private startup firms investors are not separated from control (or at least much less so). Investments in a startup firm are concentrated among a relatively small number of parties and such investors often demand board seats and other governance rights in connection with their investment.¹⁰⁸ VCs can sometimes use this power to replace the CEO and other key executives.¹⁰⁹ Since the investors in startup firms monitor management directly, under the dominant theory there is no need for independent directors. The monitoring function, performed by independent directors in publicly held firms, is performed directly by the VC investors in startup firms.

Even the definition of an independent director is different in these two settings.¹¹⁰ An independent director in a publicly traded firm needs to be independent of management, but not necessarily independent of the firm's shareholders. It may even be desirable to compensate a public-company independent director with large amounts of common stock, as this may further align her interests with the group she is supposed to represent.¹¹¹ By contrast, in a VC-backed startup an independent director should not be directly affiliated with either the entrepreneurs or the VC investors. Independent directors for a startup firm are typically selected by the mutual agreement of the firm's entrepreneurs and VCs. This distinction further emphasizes that the same theory cannot apply to independent directors in both settings. The monitoring role cannot explain the use of independent directors in private startup firms.

B. Advisory Role

In addition to monitoring, directors are sometimes said to provide strategic advice to management (the "advisory" role).¹¹² This explanation receives less attention in the economic

¹⁰⁷ This level of shareholder dispersion is limited to large publicly traded firms in the US and the UK. Outside of these countries, even publicly traded firms have relatively concentrated ownership. See Andrei Shleifer & Robert W. Vishny, *A Survey of Corporate Governance*, 52(2) THE JOURNAL OF FINANCE 737 (1997).

¹⁰⁸ See Sahlman *supra* note 12; Michael T. Hannan, M. Diane Burton & James N. Baron Hannan, *Inertia and Change in the Early Years: Employment Relationships in Young High Technology Firms*, 5 INDUSTRIAL AND CORPORATE CHANGE 503 (1996).

¹⁰⁹ See Thomas F. Hellmann & Manju Puri, *Venture Capital and the Professionalization of Start-up Firms: Empirical Evidence*, 57 JOURNAL OF FINANCE 169 (2002)(showing that firms financed by venture capital are twice as likely to replace the CEO compared to non-VC-Backed firms); Hannan *supra* note 108 (showing that approximately 40% of founder CEO of VC-backed firms are replaced within 40 months of formation).

¹¹⁰ There are several distinct conceptualizations and legal standards for the 'independent' or 'outside' director. For example, the SOX legal standard is based on the individual's *status* with respect to the firm and its senior management (i.e. SOX), while Delaware's 'disinterested' director standard is based on the particular transaction event. Thus an individual may count as 'disinterested' for one transaction but not another. Also, the individual's ties to non-management constituencies may be relevant for some conceptualizations of 'independence' but not others. For a discussion of different categories of board independence see Rodrigues, Usha. 2007. "The Fetishization of Independence" (March 2007), Available at SSRN: <http://ssrn.com/abstract=968513>; Donald C. Clarke, *Three Concepts of the Independent Director*, 32 DELAWARE JOURNAL OF CORPORATE LAW 73 (2007).

¹¹¹ See Jeffrey N. Gordon, *Independent Directors and Stock Market Prices: The New Corporate Governance Paradigm* (August 2006) Available at SSRN: <http://ssrn.com/abstract=928100>.

¹¹² See Myles L. Mace, *DIRECTORS: MYTH AND REALITY* (1971).

literature; however, it may be fairly important in startup firms, given that the top executives in startup firms generally have less experience than their counterparts in publicly-held firms. To the extent that the business literature provides an explanation for independent directors in private firms it generally emphasizes the advisory role.¹¹³

The advisory role cannot explain the independent director's voting rights. Provision of advice is not unique to the position of director. If a firm wants advice from a particular individual it could hire her as a consultant or employee rather than appointing her to the board, or the firm could even create a separate advisory board without voting rights, a practice sometimes used in startup firms. What the advisory role cannot explain is why the individual needs to be given a stake in the firm's governance arrangements. Why does she need to have *voting rights*, and more particularly, why are independent directors typically given the tie-breaking vote on the firm's board? If the advisory role were the only explanation for the use of independent directors we would not expect independent directors to hold the tie-breaking vote so frequently. My point is not to argue against the advisory role or other non-governance explanations,¹¹⁴ but rather to emphasize the need for an alternative governance-based theory.

C. Directors as Mediators

Blair and Stout propose an alternative theory of board-level mediation. They argue that the board of directors for a publicly-held firm functions as a "mediating hierarchy", balancing the interests of different corporate constituencies (i.e. employees, creditors, shareholders, etc.).¹¹⁵ The board essentially mediates disputes among competing interests within the firm. However, under the mediating hierarchy the firm's competing interests are not represented directly on the board. Directors do not serve any particular constituency, but rather the interest of the firm as a whole. The 'mediating hierarchy' explains why the board as a whole should have decision-making authority, but it cannot explain why independent directors often hold a tie-breaking board seat in startup firms.

The mediating hierarchy theory is not intended to explain governance practices in startup firms. Blair and Stout's theory of board mediation is expressly limited to publicly-held firms:

¹¹³ See e.g. R.H. Ford, *Outside Directors and the Privately-Owned firm: Are They Necessary?* 13 ENTREPRENEURSHIP THEORY AND PRACTICE 49 (1988); Bart Clarysse, Mirjam Knockaert, & Andy Lockett, *Outside Board Members in High Tech Start-ups*, 29 SMALL BUSINESS ECONOMICS 243 (2007); Vance H. Fried, Garry D. Bruton, & Robert D. Hisrich, *Strategy and the Board of Directors in Venture Capital-Backed Firms*, 13(6) JOURNAL OF BUSINESS VENTURING 493 (1998).

¹¹⁴ Closely related to the advisory role, independent directors can also bring status to the firm and serve as a link to external resources, see e.g. Clarysse *supra* note 113. If prominent individuals serve as independent directors of a firm they may signal to other market participants that the firm is a high quality business, helping the firm attract key employees, attract new investments, and so forth, see e.g. Toby E. Stuart, Ha Hoang & Ralph C. Hybels, *Interorganizational Endorsements and the Performance of Entrepreneurial Ventures*, 44 ADMINISTRATIVE SCIENCE QUARTERLY 315 (1999); David H. Hsu, *What Do Entrepreneurs Pay for Venture Capital Affiliation?* 59(4) Journal of Finance 1805 (2004). This status-based explanation, however, is not unique to the position of director. If a firm wants an individual to serve as a link to external resources it does not need to appoint her to the board or give her voting rights. This explanation, similar to the advisory role, does not address the director's voting rights. While non-governance explanations like this may help explain the benefits that independent directors provide to a firm, they cannot explain the director's role in governance and as a result are outside the focus of this paper.

¹¹⁵ See Blair & Stout *supra* note 6.

directors of public corporations with widely dispersed share ownership are remarkably free from the direct control of any of the groups that make up the corporate "team," including shareholders, executives, and employees. ... In contrast, in a closely held firm, stock ownership is usually concentrated in the hands of a small number of investors who not only select and exercise tight control over the board, but also are themselves involved in managing the firm as officers and directors.¹¹⁶

While this may be an accurate characterization for many small businesses, it hides potential conflicts that can occur within closely-held firms when the owner and manager are not the same party or when there is heterogeneity among the group of owners (both of which occur in venture capital). In these cases the various corporate constituencies may wish to share control with a third-party independent director. Blair and Stout do not address private contractual devices that can be used to select a director who is *independent* of the firm's other constituents.¹¹⁷ My analysis, while similar to Blair and Stout in some respects, shows that firms do not need to go public to find an independent director as arbitrator.

While the mediating hierarchy cannot explain the use of independent directors in private VC-backed firms, it can help explain the balancing of competing interests that a startup's independent directors must consider. In this respect, my theory of ID-arbitration can be seen as a partial extension of Blair and Stout's theory to VC-backed firms. Yet, the resulting analysis when applied to startup firms must account for the board representation of entrepreneurs and VC investors. My theory accounts for these non-independent directors by modeling the *ex ante* financing contract, in which the entrepreneur and VC compete for board representation.

VII. ALTERNATIVE SOLUTIONS:¹¹⁸ CORPORATE LAW

Fiduciary obligations under corporate law could, at least in theory, function as an alternative solution to the problem of intra-firm opportunism. Preventing such abuses is one of

¹¹⁶ *See Id.* at 281.

¹¹⁷ Blair and Stout argue that the parties within a firm may decide to go public in order have an independent board mediate their conflicts. *See id.* at 281. In this sense the mediate hierarchy can be seen as part of the corporate contract (a necessary part for public-held firms). My analysis shows that firms do not need to go public to take advantage of independent director arbitration. In fact, independent directors in a publicly traded firm may be *less* independent than their counterparts in private startups due to the enormous influence that public company CEOs have over board composition and director nomination. *See e.g.* Lucian A. Bebchuk & Jesse M. Fried, *PAY WITHOUT PERFORMANCE: THE UNFULFILLED PROMISE OF EXECUTIVE COMPENSATION* (2004).

¹¹⁸ In addition to legal obligations, some writers argue that reputational considerations may help constrain opportunistic conduct in VC-backed firms. Even though the party with control of the board has the ability to act opportunistically, it may refrain from doing so if there is a sufficient reputational sanction attached to such conduct. *See e.g.* Black and Gilson *supra* note 27; Gordon Smith *Venture Capital Contracting in the Information Age*, 2 J. SMALL & EMERGING BUS. L. 133 (1998); Atanasov, Vladimir A., Ivanov, Vladimir I. and Litvak, Kate, "The Effect of Litigation on Venture Capitalist Reputation" (April 15, 2008). Available at SSRN: <http://ssrn.com/abstract=1120994> (arguing that shareholder litigation can damage a VC's reputation even if the VC ultimately wins the lawsuit). One problem with reputation is it also points in other directions. The VC, for instance, also cares about its reputation among the limited partners (i.e. institutional investors) who invest in VC funds. Failing to act opportunistically in certain instances, will hurt the financial return received by such parties. Reputation could actually push the VC to act even *more* opportunistically than it would otherwise.

the conceptual justifications for imposing fiduciary obligations on the board.¹¹⁹ In the analysis above I sidestep this issue by assuming that none of the three strategies would constitute a breach of the board's fiduciary duties, and consequently directors vote their self-interest even if this harms other parties. It is a positive legal question, however, whether such behavior is actually consistent with the director's fiduciary obligations.

Fiduciary obligations require the director to serve the best interests of the corporation, potentially reducing the scope for opportunistic behavior. To illustrate, a board under VC-control may wish to sell the firm immediately to benefit preferred stock. Yet, this action may be deemed a violation of the board's fiduciary obligations, since it may reduce the expected value realized by common stockholders. Similarly, entrepreneurs in control may be prohibited from taking certain actions that harm preferred stockholders. In the extreme, all ex post inefficient outcomes could be deemed a violation of the board's fiduciary obligations. Under this (unrealistic) characterization, fiduciary obligations would accomplish what contract could not – effectively prohibiting opportunistic conduct that cannot be specified ex ante.¹²⁰ This section considers two questions: (i) does corporate law actually behave in this way; and (ii) given limited information do we even want judges to attempt this role.

A. Positive Analysis: Fiduciary Conflicts between Preferred and Common

In practice there are several reasons why fiduciary obligations are not an effective constraint on opportunistic conduct between entrepreneurs and VC investors.¹²¹

First, most of the disputes that may arise between entrepreneurs and VCs are protected from judicial review by the business judgment rule. The business judgment rule is a presumption in favor of a corporation's board of directors.¹²² The business judgment rule effectively prevents courts from reviewing business decisions unless the board engaged in self-dealing.¹²³ While technically there is a conflict between preferred and common, this is unlikely to be treated as self-dealing, since the controlling party is merely acting in the interests of its equity position in the startup firm. Most of the conflicts described in this paper – such as the decision of how much to invest in research and development – would presumably be protected by the business judgment rule. While it is technically possible for a plaintiff to overcome the business judgment rule, the standard of review makes it extremely difficult for plaintiffs to succeed.

¹¹⁹ For an economist rationale for fiduciary obligation see Oliver Hart, *An Economist's View of Fiduciary Duty*, 43(3) UNIVERSITY OF TORONTO LAW JOURNAL 299 (1993).

¹²⁰ Fiduciary law is often premised on the inability of the parties to bargain at arms' length. See Victor Brudney, *Contract and Fiduciary Duty in Corporate Law* 38 B.C.L. Rev. 595 (1997). Also see Easterbrook & Fischel *supra* note 103 at 90.

¹²¹ But see Atanasov, Ivanov, and Litvak *supra* note 118 (documenting litigation involving VC investors). While entrepreneurs rarely win fiduciary suits against VC directors, the authors suggest that these lawsuits provide some disciplinary effect on VCs. In particular, they find that VCs involved in litigation suffer a reputational penalty in future years of operation. See *id.*

¹²² *Smith v. Van Gorkom*, 488 A.2d 858 (Del. 1985).

¹²³ The business judgment rule applies to negligence cases implicating the fiduciary duty of care and does not apply to conflict of interest claims implicating the fiduciary duty of loyalty. In practice, however, this distinction often blurs, since both types of cases involve agency conflicts. The fact that the entrepreneur and VC have divergent interests with respect to the choice of strategy is unlikely to be a sufficient conflict to avoid business judgment protection.

Second, assuming plaintiffs can overcome (or avoid) the business judgment rule, it is unclear whether the board even owes a fiduciary obligation to non-controlling classes of equity. Fiduciary obligations generally require directors to serve the “best interests of the corporation”. This requirement is often interpreted to mean that directors should attempt to maximize shareholder value, equating the ‘interests of the corporation’ with the interests of its equity claimants.¹²⁴ In VC-backed firms, where there are multiple classes of equity, however, it is unclear what this obligation entails.¹²⁵ Do fiduciary obligations require the board to maximize the aggregate value of all classes of equity, or can the board favor the interests of one class of shareholders over another?

The conflict between the entrepreneur and the VC described above is essentially a conflict between common stock and preferred stock. There are two basic scenarios where this conflict arises in VC-backed firms: (i) a board controlled by common stockholders takes actions which allegedly harm preferred stockholders, and (ii) a board controlled by preferred stockholders takes actions which allegedly harm common stockholders. In both settings, Delaware law generally allows the controlling party to cause the firm to take actions which benefit it at the expense of non-controlling classes of equity. Fried and Ganor refer to this as a “control-contingent approach to fiduciary duties”¹²⁶ Their interpretation is illustrated by two Delaware decisions authored by Chancellor Allen.

The first case – *Equity-Linked Investors, L.P. v. Adams*¹²⁷ - involved a firm, Genta Corporation, managed by a common-controlled board. Genta faced a choice between liquidating and continuing to operate as an independent entity. Liquidation would yield a payoff less than the preferred shareholders’ liquidation preferences, meaning common stockholders would receive nothing. Remaining independent offered common shareholders the possibility of upside gain, but it would put the preferred shareholders’ investment at greater risk. The board, seeking to benefit common shareholders, obtained debt financing to enable Genta to continue operating. The preferred sought to block the deal in court.¹²⁸ The court rejected the preferred shareholders’ claim:

While the facts out of which this dispute arises indisputably entail the imposition by the board of (or continuation of) economic risks upon the preferred stock. . . and while this board action was taken for the benefit largely of the common stock, those facts do not constitute a breach of duty. . . . The special protections offered to the preferred are contractual in nature. . . . [G]enerally it will be the duty of the board, where discretionary judgment is to be exercised, to prefer the interests of common stock—as the good faith judgment

¹²⁴ For arguments explaining why corporate fiduciary protections are not extended to other stakeholders see e.g. Jonathan R. Macey, *An Economic Analysis of the Various Rationales for Making Shareholder the Exclusive Beneficiaries of Corporate Fiduciary Duties*, 21 STETSON L.R. 23 (1992); William J. Carney, *Does Defining Constituencies Matter?* 59 U. CIN. L.R. 385 (1990).

¹²⁵ See e.g. Macey *supra* note 124 at ___ (noting that a dual class capital structure involving preferred and common stock complicates fiduciary analysis).

¹²⁶ Fried & Ganor *supra* note 9 at 990.

¹²⁷ 705 A.2d 1040 (Del. Ch. 1997).

¹²⁸ The preferred stockholders argued that the deal constituted a sale of control, and was therefore subject to *Revlon* duties, requiring the board to put the company up for auction. Had the company been put up for auction, the court noted, the preferred shareholders’ underwater liquidation preferences would have allowed them to outbid any competitors, seize control, liquidate the company, and wipe out the common.

of the board sees them to be—to the interests created by the special rights, preferences, etc., of preferred stock, where there is a conflict.¹²⁹

Equity-Linked is consistent with other Delaware cases allowing boards to favor the interests of common stockholders over preferred stock, as long as they respect the contractual protections bargained for by the preferred shareholders.¹³⁰ VCs holding preferred stock cannot expect fiduciary protection if they lose control of the board.

Interestingly, common stockholders do not receive much more judicial protection when the tables are turned. The second case - *Orban v. Field* – involved Office Mart, a firm managed by a preferred-controlled board. Office Mart’s board arranged for the sale of the firm to Staples for a price less than the VC’s preferred stock liquidation preferences, and consequently providing no payout to common stock. Common stockholders sued Office Mart’s board for breach of the duty of loyalty owed to common stockholders. The court recognized that this transaction potentially harmed common stockholders, but nonetheless ruled for the preferred-controlled board. The court found no breach of duty, noting that “the common stockholders had no legal right to a portion of the merger consideration under Delaware law or the corporate charter.”¹³¹ The court also noted, however, that plaintiff failed to claim that the merger was not in the “best interests of the corporation,”¹³² implicitly suggesting that a common shareholder might be able to prevail by showing that the board’s action was not in the firm’s best interest.¹³³ Due to the relative infrequency of litigation involving firms under preferred-control¹³⁴, the law is not fully settled in this area.¹³⁵ Nonetheless, *Orban* shows that a preferred-controlled board does “not owe a fiduciary duty specifically to the common shareholders and that it has wide discretion to benefit the preferred shareholders instead.”¹³⁶ The court’s ‘control-contingent’ approach to fiduciary duties, illustrated by *Equity Linked* and *Orban*, makes it difficult for an injured party, lacking board control, to claim fiduciary protection.¹³⁷

Third, fiduciary claims may need to be brought as derivative lawsuits as opposed to direct lawsuits.¹³⁸ Under derivative litigation any judgment would go to the entire firm. This can be a significant problem for entrepreneurs suing VC investors, since the entire judgment may go to

¹²⁹ *Equity Linked* at page 1042.

¹³⁰ Gordon Smith, *The Critical Resource Theory of Fiduciary Duty*, 55 VAND. L. REV. 1399, 1471 (2002) (noting that the preferred stock relationship is not fiduciary in nature); *Jedwab v. MGM Grand Hotels, Inc.*, 509 A.2d 584, 594 (Del. Ch. 1986) (“[W]ith respect to matters relating to preferences or limitations that distinguish preferred stock from common, the duty of the corporation and its directors is essentially contractual and the scope of the duty is appropriately defined by reference to the specific words evidencing that contract . . .”).

¹³¹ *See Orban* at page *24.

¹³² *See Orban* footnote 23 (at page *26).

¹³³ *See* discussion in Fried & Ganor *supra* note 9 at 992.

¹³⁴ Preferred-control is unusual outside of venture capital. *See Id.* And, litigation involving such firms was very rare. *See Atansov, Ivanov, and Litvak supra* note 118.

¹³⁵ For an alternative interpretation *see Dilillo v. Ustman*, 2001 Cal. App. Unpub. LEXIS 1527.

¹³⁶ *See* Fried and Ganor *supra* note 9 at 992.

¹³⁷ It is important to note that neither case turned on the magnitude of the harm

¹³⁸ *See Kennedy v. Venrock Assoc.*, 348 F.3d 548 (7th Cir. 2003)(illustrating the problem derivative litigation creates for plaintiffs).

the preferred shareholders when the firm is worth less than the liquidation preferences. Even though the entrepreneur may have been harmed by losing the option value of her common stock, the derivative form of fiduciary litigation will not recognize this damage.

B. Normative Analysis: Judges as Arbitrators

Though corporate law in Delaware and other US jurisdictions does not constrain opportunistic conduct, it is a separate issue whether we think it should or even can perform this role effectively. Recognizing the risk of opportunistic conduct, some writers argue for stronger legal protections.¹³⁹ Fried and Ganor, for example, propose that the contracting parties be able to opt into a heightened fiduciary obligation. In particular they advocate a *balancing approach*:

directors would violate their fiduciary duty to the corporation and its shareholders if they take steps that favor one (or more) classes of shares over one or more other classes of shares, and the cost they impose on the adversely affected class(es) exceeds the benefit to the favored class(es).¹⁴⁰

This standard basically asks the directors to maximize the aggregate value of all classes of equity. If judges are able to adjudicate this standard it would certainly reduce opportunistic conduct, since the controlling party would be required to pursue the ex post efficient outcome.

One limitation of this remedy is the informational demands that it places on judges. The types of disputes likely to be heard under a heightened fiduciary obligation include several business decisions: which investment to pursue, whether to sell the firm, or whether to receive a new round of financing. Courts are not well suited to adjudicate such matters.¹⁴¹ Unlike the hypothetical conflict described above, the various alternatives available to a startup firm do not come with assigned probabilities and payoffs. Rather, there are likely to be legitimate disagreements about the best course of action. Determining the best strategy requires experience with startup firms and familiarity with the relevant industry. None of which are traits possessed by most judges.

By contrast, independent directors are well suited for this role. Unlike judges, independent directors typically have significant industry experience, and familiarity with the relevant business issues.¹⁴² When disagreements between the entrepreneur and the VC arise, the independent director as tie-breaker is likely to be playing a role very similar to the balancing approach advocated by Fried and Ganor. This essentially becomes a question of whether judges or independent directors are more qualified to adjudicate such disputes. Due to their business experience, independent directors have certain advantages over judges in adjudicating disputes between entrepreneurs and VC investors.

¹³⁹ Bratton also recognizes the problem with the current state of legal protections offered in startup firms, noting the vulnerability of preferred stockholders. His proposed remedy is stronger enforcement of the contractual duty to act in good faith, and does not involve any change in fiduciary standards. See Bratton *supra* note 9 at 933. Contractual standards such as good faith could reduce some forms of opportunism.

¹⁴⁰ See Fried and Ganor *supra* note 9 at page 1023.

¹⁴¹ Other than weighing costs and benefits to several parties, a difficult task, there is no clear legal standard to apply. In Lon Fuller's terminology a heightened fiduciary obligation creates a polycentric problem, poorly suited for judicial adjudication. See Lon L. Fuller, *The Forms and Limits of Adjudication*, 92 HARV. L. REV. 353 (1978).

¹⁴² See discussion in section V.

A second limitation of a more robust fiduciary obligation is it may frustrate the parties' ex ante interests. The threat of judicially imposed fiduciary obligations may violate the VC's or the entrepreneur's ex ante participation constraint. In some instances this could prevent investment from occurring ex ante. The VC, for example, may require board control to ensure a sufficient monetary return; however, if the VC's decisions are subject to increased judicial scrutiny through fiduciary obligations, the VC's monetary returns could be compromised. Ex post efficiency does not necessarily ensure ex ante participation. This problem is even worse if the court is likely to make adjudicative errors, potentially making it even harder to ensure ex ante participation. Fried and Ganor avoid this problem, since their proposal only calls for heightened fiduciary obligations if the parties opt into this arrangement.

Finally, a stronger fiduciary obligation could undermine the benefits of ID-arbitration, by replacing the independent director's decision with the decision of a state-appointed judge. An action reached under ID-arbitration could still be challenged as a breach of fiduciary obligation. This is particularly troubling. The court would not simply be reviewing controlling-party opportunism, but rather would be second guessing the vote of the independent director. Corporate law in Delaware and other states recognizes this concern. Conflict of interest transactions ratified by a majority of independent directors are subject to less judicial scrutiny.¹⁴³

VIII. CONCLUSION

In this paper I propose a new theory to explain the governance role of independent directors in startup firms financed by venture capital. Recent studies show that independent directors are frequently used in VC-backed firms, and typically occupy a tie-breaking seat on the board. This practice cannot be explained by the current corporate governance literature, which relies on diffuse ownership and passive investment – features unique to the publicly traded firm.

To develop an alternative theory, I model a financing contract between an entrepreneur and a VC investor. The contract is inherently incomplete and cannot fully align the interests of the entrepreneur and VC. As a result, the allocation of board seats becomes particularly important. If either party controls the board, it can use this position opportunistically, causing the firm to pursue actions which benefit it at the expense of the firm's aggregate welfare. By contrast, sharing board control with an unbiased independent director can prevent this form of opportunistic behavior. The independent director effectively becomes an arbitrator, settling disputes that arise between the primary parties. Arbitration by an independent director replaces controlling party opportunism with arbitrator discretion, and is beneficial to the extent that the parties can find an unbiased director. Consistent with this prediction, I show data from 54 Silicon Valley firms illustrating several mechanisms that the entrepreneur and VC use to ensure the selection of an unbiased independent director. These practices suggest that the parties do not need additional legal protections against opportunistic conduct. Indeed, heightened fiduciary protections against opportunism may interfere with ID-arbitration and frustrate the will of the parties.

¹⁴³ See e.g. *Puma v. Marriott* 283 A.2d 693 (Del. Ch. 1971); *In Re Wheelabrator Technologies, Inc. Shareholders Litigation* 663 A.2d 1194 (Del. Ch. 1995); 8 Del.C. § 144. See also MBCA Subchapter F § 8.61(b); ALI Principles of Corporate Governance § 502.

APPENDIX 1: PROOF OF CONVERGENCE – CONTINUOUS ACTION SET¹⁴⁴

The Firm must choose an action, a , from a compact action set, $A = [\bar{a}_E, \bar{a}_V]$. To illustrate the conflict between the parties I assume that the VC's utility U_V is increasing in a while the entrepreneur's utility U_E is decreasing in a for all $a \in A$. As a result the endpoints of the action set, \bar{a}_E and \bar{a}_V , represent maximizing values for $U_E(a)$ and $U_V(a)$ respectively.

Under ID-arbitration the entrepreneur (E) and VC will each propose an action, denoted by a_E and a_V respectively. If $a_E = a_V$ there is no disagreement and the Firm will pursue this action; however, if $a_E \neq a_V$ the ID must choose between the two proposals.

To model the ID's choice, I assume that an ID considers the interests of E and VC, with relative weight $\tau \in [0, 1]$ assigned to E and $(1 - \tau)$ to VC. We can describe ID's preference ordering as a linear combination of E and VC's respective utility. Let $g(\tau, a) = \tau U_E(a) + (1 - \tau)U_V(a)$. ID's preferred outcome, $\bar{a}_{ID} \in A$, can be expressed as:

$$\bar{a}_{ID}(\tau) = \operatorname{argmax}_{a \in A} g(\tau, a) \quad (\text{A1})$$

If asked to arbitrate, ID will select the proposal, $a_{ID} \in \{a_E, a_V\}$, which maximizes g :

$$a_{ID}(a_E, a_V, \tau) = \begin{cases} a_E & \text{if } g(\tau, a_E) > g(\tau, a_V) \\ a_V & \text{if } g(\tau, a_E) < g(\tau, a_V) \end{cases} \quad (\text{A2})$$

If $g(\tau, a_E) = g(\tau, a_V)$ the ID is indifferent between the two proposals. In which case, she will flip a coin to decide which proposal to endorse. The parameter τ measures the relative importance of ID's reputation among entrepreneurs as opposed to investors. If $\tau = 1/2$ we can say that the ID is unbiased or impartial. By contrast if $\tau > 1/2$ the ID is biased to favor E, and if $\tau < 1/2$ the ID is biased to favor VC.

To obtain ID's endorsement both E and V will propose actions converging upon the ID's preferred outcome. E has an incentive to set $a_E = \bar{a}_{ID}$, since any alternative proposal would make E worse off, either because $a_E > \bar{a}_{ID}$, or if $a_E < \bar{a}_{ID}$ because E's proposal would lose at arbitration to some $a_V > \bar{a}_{ID}$ where $g(\tau, a_E) < g(\tau, a_V)$. For similar reasons V also has an incentive to set $a_V = \bar{a}_{ID}$. In equilibrium $a_E = a_V = \bar{a}_{ID}$ and there is no disagreement to be arbitrated. The following proposition shows convergence towards ID's preferred action.

Proposition: *If E and VC can observe τ and renegotiation is unavailable, then in a firm under ID-arbitration E and VC both will propose ID's preferred action (i.e. $a_E = a_V = \bar{a}_{ID}$).*

Proof: Let $f_E(a_V)$ and $f_V(a_E)$ be best response correspondences for E and V respectively, given the other party's proposal. I begin with E's best response. If $a_V \leq \bar{a}_{ID}$ no proposal less than a_V can defeat a_V , by definition of g . So, E's best response is to choose $a_E = a_V$ or a proposal that would lose to a_V . This implies that $f_E(a_V \leq \bar{a}_{ID}) = [a_b, a_V]$. Alternatively, if $a_V > \bar{a}_{ID}$ E wants to choose the smallest proposal that defeats a_V . Such a proposal, however, does not exist, since for any $a_E < a_V$ where $g(\tau, a_E) > g(\tau, a_V)$ there exists $\varepsilon > 0$ such that $g(\tau, a_E - \varepsilon) > g(\tau, a_E)$. This follows since A is a compact action set. Thus, $f_E(a_V > \bar{a}_{ID}) = \emptyset$. Still, for any a_E that beats a_V it is clear that $a_V > \bar{a}_{ID}$ is suboptimal for V. Similar arguments show that $f_V(a_E \geq \bar{a}_{ID}) = [a_E, a_y]$ and $f_V(a_E < \bar{a}_{ID}) = \emptyset$, and, similarly, for any a_V that beats a_E it is clear that $a_E < \bar{a}_{ID}$ is suboptimal for E. From above we know that E's best response to $a_V = \bar{a}_{ID}$ is given by $f_E(\bar{a}_{ID}) = [a_b, \bar{a}_{ID}]$, while V's best response to $a_E = \bar{a}_{ID}$ is given by $f_V(\bar{a}_{ID}) = [\bar{a}_{ID}, a_y]$. It follows that $a_E = a_V = \bar{a}_{ID}$ is a Nash equilibrium because \bar{a}_{ID} is an element of the best response correspondence for both candidates. Now I show uniqueness (i.e. $a_E = a_V = \bar{a}_{ID}$ is the only Nash equilibrium). Suppose there is a Nash equilibrium other than $a_E = a_V = \bar{a}_{ID}$. Since $f_E(a_V > \bar{a}_{ID}) = \emptyset$ and $f_V(a_E < \bar{a}_{ID}) = \emptyset$, it follows that the only other possible candidates for Nash equilibria must satisfy $a_V < \bar{a}_{ID} < a_E$. This relationship in conjunction with $f_E(a_V < \bar{a}_{ID}) = [a_b, a_V]$ and $f_V(a_E > \bar{a}_{ID}) = [a_E, a_y]$ implies that $a_E > a_V$ and $a_E < a_V$. This contradiction implies that $a_E = a_V = \bar{a}_{ID}$ is the unique Nash equilibrium.

¹⁴⁴ This proof follows the analysis in Broughman supra note ____.

Appendix 2: Discrete Action Space

I model the incentives for three types of independent directors – (i) VC-Bias, (ii) E-Bias, and (iii) Unbiased – corresponding respectively to whether the independent director is selected by the VC, by the entrepreneur, or by their mutual agreement. The following table illustrates the independent director’s preference ordering for each type of director.

Table A1: Independent Director Preference Ordering

Independent Director Bias	First Choice	Second Choice	Third Choice
VC-Bias	No-risk	Low-risk	High-risk
Unbiased	Low-risk	No-risk	High-risk
E-Bias	High-risk	Low-risk	No-risk

The independent director’s preferences determine the outcome of the structured bargaining game.

I assume the entrepreneur and VC can observe the independent director’s type. Consequently, they can predict how the independent director will vote for any pair of strategy proposals. Thus, they can calculate each party’s expected payoff for each strategy pair, and solve for Nash equilibrium.

The boxes in Table A2 show the strategy endorsed by an unbiased independent director. This game includes two sets of Nash equilibrium: (VC=Low-risk; E=Low-risk) and (VC = No-risk, E = Low-risk). The VC is indifferent between proposing the Low-risk and No-risk strategies because it knows that the entrepreneur will propose the Low-risk strategy in either case. Neither party has an incentive to change their proposal given the other party’s action. In either case the firm will pursue the Low-risk strategy. This result is the efficient outcome.

Table A2: Bargaining Game (Unbiased ID)

		VC Proposal		
		No-Risk	Low-Risk	High-Risk
E proposal	No-Risk	N (40, 120)	L (60, 110)	N (40, 120)
	Low-Risk	L (60, 110)	L (60, 110)	L (60, 110)
	High-Risk	N (40, 120)	L (60, 110)	H (75, 75)

Under ID-arbitration the entrepreneur and VC give up the right to unilaterally select the course of action, and, in so doing, they effectively commit to an outcome determined by the independent director’s preferences. When the independent director is unbiased, the parties converge directly upon the efficient result.

If the independent director is biased in favor of either the entrepreneur or the VC, the benefits of ID-arbitration disappear. The independent director effectively gives the favored party an additional board seat, collapsing ID-arbitration into either VC-control if the VC is the favored party, or E-control if the entrepreneur is the favored party.

Table 4: Descriptive Statistics

This table provides descriptive statistics for a sample of 54 VC-backed firms sold in 2003 or 2004. Panel A shows industry distribution. The industry for each company is determined by the sector classification provided by www.links.v.com. Panel B reports the mean and median period of operation, number of financing rounds, amount invested, sale price, and liquidation preferences ('LP') for the sample firms. Panel C shows the allocation of board seats and board control in my sample firms, and in Kaplan and Stromberg's 2003 study of VC contracts. The data records the fraction of board seats held by entrepreneurs (common stockholders), VCs (preferred stockholders), and independent directors. Panel C also records the fraction of firms under VC-control, E-control, ID-arbitration, and Deadlock. Data is presented for all rounds of financing and for the first round separately.

Panel A: Industry Distribution of Companies

	<i>Sector</i>				
	Biotech	Telecom	Software	Internet	Other IT
Sample firms (n=54)	8	13	12	10	11

Panel B: Financing Overview

	# obs.	Mean	Med.	SD
Years of Operation	54	5.26	5	2.17
Number of Financing Rounds	54	3	3	1.08
Amount Invested (millions \$)	54	45.37	31	45.8
Sale Price (millions \$)	49	54.62	24.25	105.49
Aggregate LP (millions \$)	51	48.10	36	38.95
LP divided by amount invested	51	1.25	1	0.62

Panel C: Allocation of Board Seats and Board Control

<i>Mean</i>	<i>Broughman and Fried</i>		<i>Kaplan and Stromberg</i>	
	All Rounds (n=154)	First Round (n=54)	All Rounds (n=201)	First Round (n=95)
Board Seats	5.5	4.6	6.0	5.7
% VC Seats	43.9	36.4	41.4	37.0
% Entrepreneur Seats	33.0	38.6	35.4	38.5
% Independent Director Seats	23.1	25.0	23.2	24.5
<i>% Firms</i>				
VC-Control	24.7	9.3	25.4	11.6
E-Control	7.1	14.8	13.9	20.0
Arbitration	64.3	70.3	60.7	68.4
Deadlock ¹⁴⁵	3.9	5.6	n/a	n/a

¹⁴⁵ Kaplan and Stromberg do not separately code for *Deadlock*. Rather, they classify all firms where neither the VCs nor and the founders/entrepreneurs control the board as 'Shared control'. See *supra* note 4.