

This PDF is a selection from a published volume from the National Bureau of Economic Research

Volume Title: Entrepreneurship: Strategy and Structure

Volume Author/Editor: Thomas Hellman and Scott Stern, editors

Volume Publisher: Journal of Economics and Management Strategy 18(3), Fall 2009 (Blackwell Publishing)

Volume URL: <http://www.nber.org/books/hell07-1>

Conference Date: September 14-15, 2007

Publication Date: September 2009

Title: Specialization and Success: Evidence from Venture Capital

Author: Paul Gompers, Anna Kovner, Josh Lerner

URL: <http://www.nber.org/chapters/c3048>

# The Impact of Litigation on Venture Capitalist Reputation\*

Vladimir Atanasov  
School of Business  
College of William and Mary  
vladimir.atanasov@business.wm.edu

Vladimir Ivanov  
University of Kansas  
vivanov@ku.edu

Kate Litvak  
University of Texas School of Law  
KLitvak@law.utexas.edu

18 November 2007

**Abstract:** Venture capital contracts give VCs enormous power over entrepreneurs and early equity investors of portfolio companies. A large literature examines how these contractual terms protect VCs against misbehavior by entrepreneurs. But what constrains misbehavior by VCs? We provide the first systematic analysis of legal and non-legal mechanisms that penalize VC misbehavior, even when such misbehavior is formally permitted by contract. We hand-collect a sample of over 177 lawsuits involving venture capitalists. The three most common types of VC-related litigation are: 1) lawsuits filed by entrepreneurs, which most often allege freezeout and transfer of control away from founders; 2) lawsuits filed by early equity investors in startup companies; and 3) lawsuits filed by VCs. Our empirical analysis of the lawsuit data proceeds in two steps. We first estimate an empirical model of the propensity of VCs to get involved in litigation as a function of VC characteristics. We match each venture firm that was involved in litigation to otherwise similar venture firm that was not involved in litigation and find that less reputable VCs are more likely to participate in litigation, as are VCs focusing on early-stage investments, and VCs with larger deal flow. Second, we analyze the relationship between different types of lawsuits and VC fundraising and deal flow. Although plaintiffs lose most VC-related lawsuits, litigation does not go unnoticed: in subsequent years, the involved VCs raise significantly less capital than their peers and invest in fewer deals. The biggest losers are VCs who were defendants in a lawsuit, and especially VCs who were alleged to have expropriated founders.

---

\* We would like to thank the Kaufmann Foundation and the Center for Research in Entrepreneurial Activity at the University of Kansas for their generous financial support for this project and Bernard Black, Hugh Colaco, Jorge Farinha, Vladimir Gatchev, Thomas Hellmann, Yael Hochberg, Cliff Holderness, Josh Lerner, Craig Lewis, Mike Long, Ron Masulis, Ramana Nanda, Jack O'Reilly, Diana Pop, Scott Stern, David Stolin, Christopher Vizas, and participants at the NBER Entrepreneurship Conference, Annual Meetings of the Canadian Law and Economics Association, Batten Young Scholar Conference, Washington Area Finance Conference, FMA and FMA-European meetings, and seminars at Toulouse Business School and the University of Kansas for helpful comments and suggestions.

## *1. Introduction*

The view that contracting has its limits and often reputation serves as a disciplining device is well understood and accepted in finance and economics (see Fama [1980], Crocker and Reynolds [1993], and Banerjee and Duflo [2000]). However, there is little empirical evidence on whether parties that behave opportunistically in a repeated game setting with incomplete contracts (where reputation matters the most) suffer negative reputational consequences, and how big the negative effects are.<sup>1</sup> Our goal with this paper is to fill this void in the literature by investigating whether opportunistic behavior leads to reputational losses.

The focus of our study is the venture capital industry. We choose this industry because in our opinion it represents an excellent example of a setting with repeated interaction where reputation matters a lot. The repeat players are the VCs and the pool of entrepreneurs.<sup>2</sup> The industry is plagued by uncertainty and information asymmetries and contracts set in such an environment are necessarily incomplete (Williamson [1985]). Venture capitalists invest in startup companies which are associated with significant uncertainty and lack of information. The pervasive uncertainty and informational asymmetries between the VC and their investors, and between VCs and entrepreneurs, are managed with complex contracts and incentive structures. Still, as the incomplete contracts literature postulates, no contract can prevent unforeseen contingencies to cause future

---

<sup>1</sup> In a study of Indian business groups, Gopalan, Nanda, and Seru [2007] find that the first bankruptcy in a business group leads to a loss in reputation as evidenced by the drop in the amount of external finance raised, investments and profits, and an increased likelihood of bankruptcy of other healthy members of the group. However, in their sample loss of reputation is not necessarily due to opportunistic behavior.

<sup>2</sup> Although any individual entrepreneur is rarely a “serial” entrepreneur (Bengtson [2006]), at any point in time there are multiple entrepreneurs competing for VC financing. Thus information about opportunistic behavior of a VC with respect to one entrepreneur would be available to future entrepreneurs.

conflicts between the parties involved. Incomplete contracting might lead to ex post opportunism (Williamson [1985], Goldberg [1985], Masten [1988]) and/or ex ante investment distortions (Tirole [1986], Hart and Moore [1988]).

Moreover, the contracts between VCs and entrepreneurs are notably one-sided. VCs have huge power over portfolio companies. A large literature examines the provisions of these contracts, and explains them as protecting VCs against the risk of misbehavior by entrepreneurs (e.g., Hellmann, 2001; Kaplan and Stromberg, 2003 (KS hereafter)). In these studies, the VC is viewed as the principal, the entrepreneur is the agent, and the contract protects the principal.

But what protects the entrepreneur against misbehavior by VCs? VCs are not angels. "[T]hese guys eat their own young" warns one entrepreneur on a popular website, referring to Sequoia Capital, one of the very top and presumably most reputable VC firms.<sup>3</sup> Perhaps this is why contracts between VCs and their investors provide significant protections to investors (Litvak, 2007). In contrast, the contracts between VCs and entrepreneurs do little to protect entrepreneurs against VCs; in important ways they invite VC misbehavior.

The question of what constrains VCs has been all but ignored in the literature. Instead, good behavior is usually assumed. For example, KS explicitly state that VCs "receive few or no private benefits of control", while Gilson and Black (1998) assume a market for VC reputation, which constrains VCs to honor an unwritten implicit contract to let successful entrepreneurs take their company public and thus retain control. In the presence of such one-sided contracts, reputation is one of the key mechanisms that can mitigate VC opportunism. The information provided by lawsuits offers one avenue for policing VC

---

<sup>3</sup> Rebecca Buckman, "Web Site Puts the 'Vent' Into Venture Capital", Wall Street Journal, Aug. 7, 2007.

reputation. However, apart from theoretical discussion and a few anecdotes in a single paper (Cumming and Macintosh, 2004), there has been no examination of lawsuits involving VCs, their frequency, their outcomes, and how they may affect VC reputation.

We begin here to study VC litigation and its effect on the market for VC reputation. We hand-collect a large sample of lawsuits involving VCs, many filed by entrepreneurs, many making facially plausible claims of VC expropriation. The mere existence of this number of lawsuits suggests that VC behavior is a potential problem.

We use the hand-collected dataset of lawsuits to achieve three central goals. The first is to analyze and describe the previously unexplored world of lawsuits involving VCs and study the relationships, contracts, and conflicts of interest which caused the lawsuits. We analyze the nature and time distribution of lawsuits and relate it to broad economic conditions surrounding litigation, prior litigation and performance history of the VC, and to the changes in law that affect litigation in the VC industry – most notably, the Private Securities Litigation Act of 1995, which was adopted to control class actions involving public companies, but also (and apparently unintentionally) sharply limits the ability of entrepreneurs to sue VCs in federal court. We study the litigants' choices of courts, legal claims, factual accusations; the rates of early dismissals and appeals; the identities of parties involved in VC-related litigation; the success of each category of litigants and each type of claim, and so forth.

We find that VC-related litigation is common, complex, and involves multiple diverse parties; that VCs themselves are active in filing law suits and appeals; that most participants are sophisticated in their choice of legal fora and claims; that both famous and rookie VCs are sued; and that a large portion of VC-related litigation involves claims of exploitation of

founders and early equity investors by VCs through asset transfers, dilution, freezeout, and other such schemes permitted by the letter of the contract, but not by its spirit. Our analysis of lawsuits complements the work of KS in important ways. We show that the large contractual powers of VCs documented by KS lead in many cases to extreme conflicts and alleged abuse culminating in entrepreneur-initiated lawsuits.

Second, we ask what factors predict a VC's propensity to be involved in litigation in general, and in certain types of law suits in particular. Not all law suits are created equal – some involve claims of much more egregious VC misconduct than others; some are more likely to be frivolous than others; and some are more likely to include a VC as one of many deep pockets (rather than allege specific misconduct by a specific VC) than others. Accordingly, we study predictors of different types of law suits.

Third, we study the reputational effects of lawsuits involving VCs. Lawsuits are extreme events which result from a fundamental breakdown in communication or contractual arrangements. By looking at such extreme events, even if most lawsuits do not lead to any direct financial penalties for the VCs, limited partners, entrepreneurs, and other VCs may infer that something is wrong at the organizational level of the VC partnership and will avoid such VCs. We use two principal proxies for reputation. First, VCs raise a series of funds, and thus regularly return to investors to raise new funds. The size of future funds may proxy for the VC's reputation with investors. Second, the number and quality of deals which VCs invest in serve as proxy for the VC's reputation with entrepreneurs.

We document that although VCs win the vast majority of cases brought against them, being sued is associated with reputational consequences. VCs who have been involved as defendants in lawsuits raise significantly smaller funds after the lawsuits and invest in a

smaller number of deals. The negative effects on VC fundraising and deal flow are especially strong when VCs are involved in shareholder oppression lawsuits or eventually lose, either at the motion to dismiss or trial stage.

Some caveats and cautions. First, we can assess only association, not causation. One can tell a variety of non-causal stories which are consistent with our results. For example VCs who suffer an exogenous hit to their reputations could both attract lawsuits and raise smaller funds. Second, we do not assess here the merits of the lawsuits. Still, our evidence suggests that VC misbehavior is potentially a serious concern, and that lawsuits may be one means through which reputations are policed.

The remainder of the paper is organized as follows. Section 2 provides some background on VC litigation, investments, and fund raising and develops our hypotheses. Section 3 discusses the lawsuit data. We present the results of our litigation propensity models in Section 4 and our pre-versus-post lawsuit analysis of VC fund raising and peer reputation in Section 5. Section 6 concludes. Appendix A describes in more details a few examples of lawsuits involving VCs, while Appendix B provides more details on the data manipulations.

## *2. Background and Hypotheses*

### **2.1. VCs and litigation**

How could VCs end up embroiled in litigation? This could happen for several reasons. One of them is opportunistic behavior on the part of VCs. Venture capitalists usually enjoy significant power and control within their portfolio firms. They sit on the board of directors, hold the majority of voting rights, have substantial liquidation rights, and

frequently use anti-dilution clauses and vesting provisions when contracting with entrepreneurs. Informal control rights involve rights attached to VCs' participation in future financing rounds. One example is the right of first refusal, which effectively gives current VCs control over the identity of the firm's future investors, the size of their stake in the company, and the timing and terms of future investments. In KS's study of VC contracts with entrepreneurs, when the startup does well, control is shared (not equally, but significantly) among VCs, founders, and other parties. When the startup's performance deteriorates, control shifts to VCs.<sup>4</sup>

Furthermore, VCs have the power to hire and fire CEOs and replace founders. Hellmann and Puri (2002) find that VC-backed firms are more likely and faster to replace the founder with an outside CEO than similar non-VC-backed firms. Kaplan and Stromberg (2004) find that VCs are more likely to intervene (for example, recruit new management or take some other action which the entrepreneur is likely to view as a conflict) as VC control increases. In many cases, founder compensation contracts provide that when founder is fired, her stock options evaporate and even her vested stock can repurchased by the VCs at cost (or even at zero). Most employment contracts provide no protection against termination. Finally, the structure of VC investment, commonly in preferred shares with significant liquidation preferences and redemption rights, puts them in a superior position to common stockholders in acquisitions or liquidations.

These contractual and non-contractual features allow VCs to mitigate the uncertainty, moral hazard, and informational asymmetries associated with investing in startup firms. These same features, however, may also lead to opportunistic behavior on the part of VCs.

---

<sup>4</sup> Lerner (1995) also finds that VCs add more members to the board when the performance of the startup deteriorates.



The preferred equity holdings and other contract features generate conflicts of interests between the VC and founders (Fried and Ganor, 2005), while the control rights attached to preferred equity give VCs an opportunity to advance their interests at the founders' expense. Contractual rights could also allow VCs to directly expropriate common shareholders (founders and other early investors, such as "angels"), using financial transactions such as dilution and freeze-outs. We call these oppressive transactions "equity tunneling."<sup>5</sup>

Another possibility involves expropriation of firm assets. VCs often hold stakes in a number of firms in the same or related industries. In addition, VCs tend to encourage their portfolio firms to enter into strategic relationships with one another, the so-called "Keiretsu network" (see Lindsey, 2003). Thus, they could arrange for one portfolio firm to purchase intellectual property, services, or other assets from another portfolio company at a price that advantages the buyer. We call this "asset tunneling" (Ueda, 2004; Dushnitsky and Shaver, 2007). If the VC holds different ownership stakes in different portfolio firms, it has an incentive to transfer assets from the firms with low ownership to the firms with high ownership. These incentives are very similar to those of the controlling shareholder of a business group (pyramid). Asset tunneling might be profitable even when the VC has the same ownership in all firms. First, the VC's payoff from an investment in a company may be non-linear in firm value because of the option features of the securities they hold (e.g. convertible preferred shares). This makes the VC's payoff convex in firm value (the VC is better off having one super-performing firm and one poor-performing firm than two mediocre performing firms). Second, combining assets from several portfolio firms might produce difficult-to-value synergy. Unless VCs are meticulous in compensating founders of

---

<sup>5</sup> For a taxonomy of tunneling, see Atanasov, Black, and Ciccotello (2007).

each contributing firm for such asset transfers (which they have little financial incentive to be), these transfers are likely to benefit one firm, at the (relative) expense of the others.

VCs could also become involved in litigation when a portfolio firm goes bankrupt. A significant portion of VC-backed startups get liquidated. Creditor lawsuits against shareholders are common when a firm goes into bankruptcy, and VCs are a tempting deep-pocketed target. In addition, VCs can be defendants in class-action lawsuits initiated by shareholders in VC-backed IPO firms. Typically, these class-action suits are directed towards underwriters and company directors and officers. However, sometimes VCs are also named as defendants.

VCs might also initiate litigation if they feel they were victims of misbehavior of other VCs, large equity investors of their portfolio firms, or banks. VCs may also sue their limited partners for unfulfilled capital call obligations; many partnership agreements give VCs the right to use courts to collect defaulted contributions. Last, VCs can get involved as plaintiffs or defendant in intellectual property lawsuits.

## **2.2. Prior Literature**

The academic literature on litigation involving VCs is sparse. There are several theoretical papers that deal with the possibility of VC opportunistic behavior. Ueda (2004) models potential expropriation on the part of the VCs and suggests that banks could mitigate this conflict. Landier (2001) models a situation where both the VC and entrepreneur hold each other up. Yosha (1995) and Bhattacharya and Chiesa (1995) develop models where a financier has the incentive to support the spillover of interim knowledge across firms in her portfolio since that increases the likelihood of breaking even on each individual investment.

Cumming and MacIntosh (2004) offer a descriptive treatment of VC litigation and a few anecdotes. There are also a smattering of practitioner articles, offering advice to VCs and their lawyers (see Bartlett and Garlitz, 1995; Christopher, 2001; Etzel, 2002; Fellers, 2002; LeClaire, Kendall, and Taft, 2005; and Padilla, 2001). The common thread in these articles is litigation arising from "down rounds" – that is, financing rounds where the price per share is lower than in previous rounds. Down rounds, especially insider down rounds (where the only investors are VCs who have invested in previous rounds), usually create significant dilution of founders and other common shareholders. Other early-round investors can also be diluted, especially if there is a pay-to-play provision involved.<sup>6</sup> However, other transactions, including freeze-outs and asset transfers can also lead to lawsuits.

### **2.3. The role of reputation**

VCS *could* behave opportunistically toward founders. Their formal contracts with entrepreneurs provide the ability to do so, and few contractual constraints. As we will see, background legal rules also provide few constraints -- VCs are often sued, but rarely lose. Yet if opportunistic behavior were too widespread, venture capital could not flourish as it has, nor could formal contracts be written, in equilibrium, in the strongly pro-VC manner that one observes. So there must be informal constraints on VC behavior.

One central mechanism that limits opportunistic behavior by VCs is reputation -- with investors, other VCs, acquirers of VC backed firms, investors in VC-backed IPOs, current and potential entrepreneurs, and current and potential employees of VC-backed firms.

---

<sup>6</sup> A pay-to-play provision provides that investors who do not participate in a given financing round lose their liquidation preferences or anti-dilution protections, and sometimes also forces non-participants to convert their preferred stock into common stock.

### *2.3.1. Reputation with Investors in VC Funds*

Because venture funds are organized as limited partnerships, VCs have to go back to investors to raise capital for new funds (they usually raise a new fund every 2-3 years). More reputable VCs are able to raise more capital, raise it faster, and negotiate better terms with their limited partners (for example, they might be able to charge higher management fees and/or take a bigger cut of the profits of the fund). Kaplan and Schoar (2005) find that more experienced VC funds tend to perform better.

However, the need to preserve reputation with investors will not directly constrain VC opportunism directed at angel investors and founders. After all, what is good for the VC is generally good for investors in the VC fund as well. Investors should care about VC mistreatment of entrepreneurs only if the VCs' actions adversely affect future deal flow, by more than the gain in the current deal.

### *2.3.2. Reputation with Other VCs*

VCs often syndicate investments with other VCs. A VC with a better reputation among other VCs will presumably find it easier to syndicate its own investments, and will receive better syndication offers from other "lead" VCs. For example, Lerner (1994) finds that reputable VCs tend to syndicate with other reputable VCs.

The need to preserve reputation with other VCs will constrain some VC activities that might harm entrepreneurs. Consider equity dilution. If all VCs from Round 1 participate pro rata in Round 2, all can happily set a low Round 2 price that dilutes common shareholders. However, if some Round 1 VCs do not participate in Round 2, or participate less than pro rata (call these "nonparticipating VCs"), they will be diluted too, and will be acutely aware of the fairness of the Round 2 price. The need to satisfy nonparticipating VCs on fairness will

help to ensure fairness vis-à-vis common shareholders as well. The same is true for asset tunneling if, as will often be the case, different VCs have different stakes in the asset seller and the asset buyer.

However, the need to preserve reputation with other VCs will not always constrain VC opportunism directed at angel investors and founders. What is good for one VC is often good for other VCs who invest in the same company. In this situation, other VCs will object to mistreatment of entrepreneurs by a lead VC only if they will suffer a reputation loss with entrepreneurs or other VCs whose expected cost outweighs their gain in the current deal. An indirect channel is also possible -- if a VC deals opportunistically with an entrepreneur this time, other VCs may worry that they will suffer similar treatment the next time.

Finally, the tightness of VC community may play against a complaining founder, instead of against the misbehaving VC, if the merits of complaints are hard to estimate and if VCs tend to support their own and distrust “trouble-makers.” The “no lunch in this town” gossip that one can often hear in founder circles indicates that the fear (warranted or not) of VCs’ implicit collusion not to fund complaining founders may restrict the flow of information about VC misbehavior and thus induce more misbehavior.<sup>7</sup>

### *2.3.3. Reputation with Acquirers and IPO Investors*

VCs exit from investments by selling them to acquiring companies or to public markets through an IPO. For both markets, a chief worry of buyers is the seller's superior information about the portfolio company's true value. A reputation for sharp dealing with entrepreneurs could spill over and affect a VC's ability to sell portfolio companies.

---

<sup>7</sup> The recently launched website, [thefunded.com](http://thefunded.com), gives some illustrations of founder gossip. Notably, founders are willing to share information only anonymously and in the way that makes it difficult to link a discussed VC to a particular online commentator.

There is empirical evidence on the importance of reputation during VC exits through IPO. Brav and Gompers (1997) show that VC-backed IPOs do not suffer the long-run underperformance that is found in other IPOs. Lin and Smith (1998), find that more reputable VCs are less likely to sell overpriced shares in an IPO. Baker and Gompers (2003) find that IPOs backed by reputable VCs have more independent boards and less powerful CEOs than non-VC-backed IPOs and IPOs backed by less reputable VCs. Wongsunwai (2007) finds that startups backed by high-quality VCs have more independent boards and after they go public they have lower abnormal accruals and are less likely to experience a financial restatement.

#### *2.3.4. Reputation with Entrepreneurs*

A reputation for dealing fairly with entrepreneurs can generate future high-quality deal flow or better financing terms. For example, Black and Gilson (1998) argue that a central part of VC contracting with entrepreneurs is an implicit contract to return control to a successful entrepreneur by exiting through IPO, rather than through selling the company, if both options are available. Hsu (2004) shows that entrepreneurs are willing to accept lower valuations in order to secure financing from reputable VCs.

Another effect of VC reputation is proposed by Bachmann and Schindele (2006). In their model, if a VC who has a reputation for not stealing entrepreneurs' ideas, entrepreneurs will be willing to expend more effort on developing these ideas which results in better startup performance. In addition, trustworthy VCs may be better able to resolve contentious issues that arise between entrepreneur and investors. They will be like good managers who are able to resolve issues without the need to resort to litigation, which could be very costly for both the startup and the VCs.<sup>8</sup>

---

<sup>8</sup> We thank Scott Stern for suggesting this possibility.

## **2.4. Interactions between VC Reputation and Litigation**

In the prior sub-section, we discussed a number of channels through which a market for reputation could constrain VC incentives to behave opportunistically. But reputation markets can work only if the markets include repeat players, or if information about reputation can be credibly transferred to new entrants. Other VCs are repeat players. So, perhaps, are acquirers of VC-backed firms. Buyers of shares in VC-backed IPOs can observe the performance of past IPOs with the same VC sponsors. Investors in VC funds are repeat players, but they will be concerned about reputation only indirectly, and may have little direct access to information about VC misbehavior.

In contrast, entrepreneurs, and employees in VC-backed firms, are often one-timers. Some entrepreneurs will use experienced VC lawyers, who are repeat players, and may know VC reputations, but not always. Moreover, the top VC law firms often represent VCs, and will be reluctant to tell stories on clients or potential clients.

For the market for VC reputation to work reasonably well, one therefore needs to identify an information transmission mechanism or mechanisms, which will credibly signal VC misbehavior and warn off future entrepreneurs and employees. Litigation by founders of a VC-backed firm against VCs can be one such mechanism -- we make no claim that it is the only one. Standard signaling theory posits that for a signal to be credible, it must be costly. Litigation is highly costly for founders who sue VCs, who must incur legal expenses, emotional stress, and the near-certainly that they will never again obtain VC funding for a future venture. Founders may wrongly feel aggrieved, simply because their business idea failed, without any fault on the VC's part. But there is a very good chance that they feel seriously aggrieved, or they wouldn't sue, and a respectable chance that there is substance to

their grievance. Thus, litigation has the potential to convey a signal to others -- entrepreneurs, employees, other VCs, and so on -- to be careful when dealing with the defendant VC.<sup>9</sup>

The signal is surely noisy. The plaintiff's version of the facts is available in the court complaint, and will sometimes be persuasive by itself. In the internet era, realistic public access to complaints -- rather than theoretical access, if you knew the case number and wanted to take a trip to the courthouse, obtain the file, and manually copy the complaint -- is gradually becoming more common -- indeed, that access made this research project possible. But the other side of the story will often be harder to obtain from the public record. Litigation success is surely a marker for VC misbehavior, but a plaintiff loss conveys much less. A complaint may be factually accurate, depict highly opportunistic behavior, and yet the plaintiff will still lose the case, perhaps at an early stage. Repeat litigation against the same VC will thus provide a stronger signal than a single suit.

Litigation by other parties does not send as clear a signal. When a firm fails and creditors sue, they often sue all of the shareholders, not only the VCs, and their complaints often do not involve the type of behavior that would compromise a VC's reputation with entrepreneurs or other VCs. Class action shareholder lawsuits after a company goes public typically claim faulty disclosure by the company, not tunneling by the VC.

---

<sup>9</sup> Entrepreneurs will also likely informally share information about VC misbehavior, independent of litigation. VCs will similarly chat about behavior by other VCs. One can imagine an extreme case in which entrepreneurs and other VCs pay no attention to litigation in forming opinions about a VC's reputation. Litigation would then be a byproduct of VC misbehavior -- some founders will sue, others will only complain to their buddies. Litigation would then not directly send a signal of misbehavior -- that information would be communicated in other ways -- but would still be associated with misbehavior. More plausibly, both channels will operate. Entrepreneurs and VCs will communicate informally, but litigation will be a subject of conversation, and will strengthen the credibility of informal complaints. Our empirical predictions are the same whether litigation directly conveys information about misbehavior, or is only associated with misbehavior that is communicated in other ways.



We therefore formulate the following two hypotheses about VC reputation and litigation by entrepreneurs:

*Hypothesis 1: More reputable VCs are less likely to face lawsuits, especially lawsuits by founders claiming equity or asset tunneling.*

*Hypothesis 2: Lawsuits alleging tunneling by VCs will be associated with a drop in VC reputation, which will be reflected in reduced fundraising and lower quantity and quality of deal flow.*

These two hypotheses are tested against the null that litigation has no effect on VC reputation. Maybe most of the lawsuits are frivolous, filed by disgruntled entrepreneurs or other investors. Since most of the entrepreneurs tend not to be repeat players, they might be trying to extract whatever money they can from the VCs with the lawsuits.<sup>10</sup> Also, even if a lawsuit has some merit, its importance for the VC's reputation might be dampened significantly by the success of VC's other investments and its rapport with investors and other VCs.

### *3. Data and Summary Statistics of Lawsuits*

To test for the effect of tunneling on VC reputation, we use a sample of lawsuits involving VCs over the period 1976-2007. Our principal search strategy is to collect lawsuits from Westlaw by searching for complaints and judicial opinions which use search terms such as "venture capital" together with terms such as "dilution," "freeze out," "founder" etc."

In particular, we perform the following searches in Westlaw. First, we search the database "Federal & State Cases, Combined" for terms like "atl5(venture capital!);"

---

<sup>10</sup> Bengtsson (2006), for example, finds that 92% of the entrepreneurs involved in early-stage firms that received first round VC financing in the period 1991-2003 are one-time entrepreneurs.

“name(kpmg) and venture capital!” (yields 110 cases). Then, we search the database “filings-all” for terms “TI(“venture capital”)", which yields 260 filings; for terms “TI(“name of the company”)", which yields 246 relevant results; for terms “TI(“venture partners”)", which yields 337 filings, 39 relevant cases. Then, we search the source “Dock-All” for terms “venture capital”, getting 863 dockets, of which 415 contain relevant records. Overall, we found about 700 relevant records in Westlaw, of which by now we have read and coded 186 opinions.

This search procedure avoids the usual problem of collecting cases from PACER or Lexis.<sup>11</sup> The standard procedure of collecting cases from Lexis produces only judicially-resolved cases. Such searches do not include ongoing litigation, as well as cases that were voluntarily dismissed, settled, removed to a different court, and so forth. In contrast, we look at both resolved and unresolved cases, including very recent ones. Our searches are also superior to searches in PACER because PACER contains only federal cases.

This search does have several weaknesses. For example, because we are searching by the names of VC firms, not names of individual venture capitalists, we may not capture shareholder suits where a venture capitalist serves as a director, but the VC firm is not sued. The VC firm will indemnify the director, so VC directors are tempting targets.

We read each case and excluded those that do not involve litigation by or against a venture capital firm. The defendant's name is not dispositive, because some non-VC firms include the term "venture," "venture partners," or even "venture capital." We also cannot fully rely on matching the names with VentureXpert because many of firms marked as

---

<sup>11</sup> Information on the exact searches we ran is available from the authors on request. We ran some early searches on Lexis as well, but it turned out that once we had searched Westlaw, there was little need to also search Lexis as well. We also searched court records in jurisdictions likely to have significant numbers of VCs and thus VC lawsuits, but this proved to be an extremely inefficient way to gather information.

“venture” by VentureXpert are in fact private equity, not venture firms. We then match the firm against the VentureXpert database (by hand, since many names are similar but not identical). If a firm is not included in VentureXpert, but it appears likely from the complaint or judicial opinion that the firm is a VC firm, we search Google for the firm name and verify whether the firm is indeed a venture capital firm. Consequently, we drop nine lawsuits which involve companies which are clearly not VCs.<sup>12</sup> Sometimes, this process leads to alternate VC firm names which let us match the firm with VentureXpert. If we have a case involving a VC firm that is not included in VentureXpert, we retain that case for the analysis of litigation alone, but we cannot use it for the analysis of litigation propensity and post-litigation changes in VC behavior. From VentureXpert, we collect data on VC age, investment and industry focus, number of funds, fund size, portfolio firms, and syndication partners (see the Appendix for more details).

To account for time-series variations in the VC industry, which are well documented in the literature (for example, see Gompers and Lerner, 2000), we scale the size of VC funds by the total amount of committed VC capital in the year in which a particular fund is raised. For each firm in our sample we compute firm size as the sum of the scaled fund sizes in the pre-litigation. We then use pre-litigation firm size and firm founding year to find matching peer-companies which are not involved in litigation (see the Appendix for more details on the matching procedure).

Even some very reputable firms, such as Kleiner Perkins, Charles River Ventures, Sevin Rosen Associates, and New Enterprise Ventures are involved in different litigation cases with some of their portfolio firms. Also, there are different types of VCs in our sample:

---

<sup>12</sup> For example, "Mia Venture Capital" turns out to be a small "boiler room" brokerage' "Midwest Venture Partners" invests in real estate, and so on.

traditional VCs (like Kleiner Perkins and Charles River Ventures), corporate VCs (E\*Trade and Heizer Corporation), and venture arms of financial companies (Prudential Ventures and Citigroup). The cases involve startups from various industries and geographical locations. Most of our cases are concentrated in the late 1990s and particularly the early 2000s.

Tables 1 and 2 report the main characteristics of the particular lawsuits in our sample. We outline some interesting patterns in the analysis below and provide more details about a few typical lawsuits in Appendix A.

Parties. When VCs are involved in litigation, they are usually defendants (73%, or 130 cases). Among parties who bring suits against VCs are: other equity investors of VC-backed startups (20 cases, or 22% of all suits where VCs are defendants); startups themselves (24 cases, or 26%) (these in effect consist of a blend of founders and other equity investors); founders (13 cases, or 14%); non-founder employees of startups (8 cases, or 9%); other VCs (9 cases, 10%); banks (1 case) (a creditor of a VC-backed startup), and limited partners of venture funds run by VCs (2 cases, or 2%).

A surprising result is that VCs originate or co-originate 27% of all VC-related litigation (47 of 177 cases). When VCs sue, they unsurprisingly go for deep pockets. In 34% of VC-initiated cases, VCs sued their own startup companies; in 25% of cases, they sued other VCs. VCs rarely sue founders (1 case) and limited partners of their venture funds (2 cases).

When founders are involved in litigation, they are almost always plaintiffs. Only one case in our sample involves a defendant founder; that founder was closely affiliated with VCs and was sued together with VCs by another founder.

VCs like to sue, but they even more like to appeal: while they initiate 27% of lawsuits, they file a whopping 50% of all appeals in our sample (19 appeals out of 38 total appeals). VCs are particularly likely to appeal cases in which they are plaintiffs – they appeal 17% of cases they file, but only 9% of cases filed against them. In contrast non-VCs appeal 43% of cases that they file and 43% of cases filed against them by VCs.

Overall, VCs sue and appeal surprisingly often; when they sue, they understandably seek deep pockets.

Outcomes. Plaintiffs in VC-related litigation usually fail, at least in cases that end up in court (it is possible that meritorious cases settle without a formal showing in court). VCs won only 21% of cases that they brought in and that reached resolution. Non-VCs win 28% of resolved cases they bring. A large number of cases are dismissed at the outset: 19% of VC-initiated law suits and 22% of non-VC-initiated law suits ended up dismissed for either procedural or substantive reasons.

Tunneling Allegations. About half (47%) of all VC-related law suits involve allegations of tunneling (see Appendix A for more detailed descriptions of typical tunneling lawsuits). Curiously, both VC and non-VC plaintiffs are likely to allege tunneling: VCs do it in 32% cases they bring; non-VCs do it in 52% of cases.

Among non-VC plaintiffs, the largest category claiming tunneling is the startup itself (26%) (mostly founders, other employees, and earlier equity investors); equity investors directly (22%); founders (14%), and employees (9%). Within the universe of tunneling cases brought against VCs, most popular allegations are wrongful transfers of assets, conducted in a variety of creative ways (16%); sales of companies on terms unfavorable to founders and

other equity investors (19%); expropriation of profitable opportunities (12%); dilution (7%), and freezeouts (6%). Nearly half (40%) involve hard-to-classify, creative tunneling schemes.

When VCs themselves claim being victims of tunneling, the most common alleged perpetrators are usually the startup itself (34%) (usually some combination of founders or current managers and other equity investors); other VCs (25%); and other equity investors (6%). Popular methods include sales of companies on unfavorable terms (20% of all tunneling cases brought by VCs), expropriation of profitable opportunities (20%), dilution (20%), and other creative tunneling methods (53%).

Legal Claims. VCs' favorite legal claims are intentional tort (usually fraud) (40% of all cases filed by VCs); breach of contract (13%); non-intentional tort (usually negligent action, like negligent misrepresentation) (9%); violation of corporate laws (9%), followed by intellectual property, securities, and employment claims (7% each).

Among legal claims brought against VCs, the most popular are intentional tort (38%) (usually fraud, misrepresentation, or interference with contractual relations); violation of securities laws (17%) (usually fraud in connection with the sale of securities, where VC is attached only because of its large holding in a company); non-intentional tort (usually negligent action, like negligent misrepresentation) (11 %); and violations of corporate laws (often breach of fiduciary duty by VC-appointed directors), employment law (7% each), and bankruptcy and breach of contract claims (5% each).

The dominance of the intentional tort claim in cases against VCs is important, but unsurprising. Contracts between VCs and founders (and other parties in portfolio companies) give VC a very large amount of discretion. Founders (or at least their lawyers) are well aware that they are betting on VCs' good will, and that their stake in the company can be easily

wiped out if VC chooses to do so. When this happens, traditional contract and corporate claims are normally not available for founders, who instead are left to rely on claims of fraud. Fraud and other intentional tort cases brought by founders and non-VC equity investors in startups are not very successful: 20% of them are dismissed before trial, and VCs eventually win 94% of those that reach resolution in court.

What is more surprising, intentional tort is also the single most common claim raised by VCs. The implication is that there is enough vagueness in venture capital contracts that VCs themselves find themselves unable to bring a simple breach of contract or corporate claim when the relationship goes sour. 20% of intentional tort cases raised by VCs are dismissed before trial (same number as for such cases brought against VCs), and VCs ultimately lose 94% of their intentional tort cases.

Litigation. There is ample evidence of forum shopping. Overall, most cases are brought in federal courts (60%), but in some states, plaintiffs are substantially more likely to seek federal courts than in other states. In NY, 80% of cases in our sample were brought in federal courts, likely because New York federal courts are known for their high quality, while state courts are slow and inefficient. Similarly, all of our FL cases were brought in federal courts, as are most IL cases (88%), again likely reflecting the comparative quality of federal and state courts in those states. In contrast, only two of the 21 DE cases were brought in federal courts (both securities); DE chancery court is substantially better for business litigants than federal court. CA, MA, and TX are more even – 60%, 54%, and 60% of their VC-related cases are brought in federal courts.

VCs seem to dislike NY – only one of the 47 cases that they filed is in New York (federal securities claim); at the same time, NY is second only to CA for non-VC plaintiffs,

capturing 12% of law suits. One possible explanation is that NY cases are disproportionately securities, which is an uncommon claim for VC plaintiffs. This explanation is wrong – most cases brought by non-VC plaintiffs in NY (63%) are not securities cases. This further supports the conclusion that plaintiffs choose NY federal courts over state courts for the quality, not because they are constrained by the legal theory they bring. Almost half of all NY cases brought against VC include the breach of contracts and torts claims – traditionally state law doctrines that could be litigated in state courts.<sup>13</sup>

The Effect of PSLRA. Despite its title, the Public Securities Litigation Reform Act of 1995 (PSLRA) applies to private companies as much as it applies to public ones. Federal courts explicitly mention PSLRA in 12% of all federal securities cases brought after the adoption of statute; all those cases were dismissed on procedural grounds (and because of PSLRA). However, the effect of PSLRA on VC-related litigation is unclear. The rate of procedural dismissals of federal securities cases remains roughly the same before and after the passage of the PSLRA. Oddly, the rate of all dismissals of federal securities cases has *declined* by about 40%. One explanation is that the quality of post-PSLRA cases is higher, either because weak cases are not filed at all or because weak cases are now brought in state courts instead.

Outcomes. Our sample contains 118 (67%) cases that reached judicial resolution and 59 cases (33%) that are either still ongoing or have been dropped or settled without ever reaching a judicial decision. In most cases, plaintiffs lose. If we remove cases that have not yet reached resolution, VCs win 17% of cases). VCs are more successful in defending cases

---

<sup>13</sup> It is possible that non-VC litigants in NY chose federal courts partly because plaintiffs and defendants reside in different states, but it is not clear why this rationale shouldn't also apply in CA, MA, TX, and PA, where cases are more evenly split between state and federal courts.



brought against them (winning 18% of resolved cases) than in securing a victory for their own suits (winning 9% of resolved cases).

#### *4. Probabilistic Models of VC litigation*

In this section we examine the likelihood that a VC will end up involved in litigation. We are interested in the characteristics of VCs that get sued, and more importantly, whether reputation reduces the likelihood of a lawsuit, as Hypothesis 1 implies. Since we have various types of lawsuits in our sample – shareholder oppression, operation tunneling, change in control transactions, securities class actions, suits for fraud and breach of contract, etc. – we also try to determine what types of VCs get embroiled in these various lawsuits.

We use two econometric techniques when we model the likelihood of litigation. First, we employ a probit model where the dependent variable is equal to one if the VC participates in a lawsuit and zero otherwise. To estimate the model we need VC firms that do not engage in lawsuits. For each lawsuit-VC combination, we select a peer VC firm, matched on age and cumulative assets under management which does not get involved in lawsuits (see Appendix B for exact matching procedure). This analysis allows us to test Hypothesis 1. Second, we rank VC lawsuits according to the severity of the alleged VC misbehavior, and use an ordered probit model to explain what factors determine whether VCs get involved in more innocuous lawsuits, such as bankruptcy or class-action suits, as opposed to expropriation type of lawsuits.

In all of these models we use a set of control variables which may explain the likelihood and intensity of litigation. First, since in the probit model we use matching firms as the set of firms without litigation, and since we match on VC age and funds under management, we use a third proxy for VC reputation – the median fraction of portfolio firms

that go public for all the funds raised prior to the year of litigation. Hypothesis 1 predicts that more reputable VCs will be less likely to engage in litigation and in more severe types of lawsuits. Second, we use dummy variables for the stage and industry focus of our sample firms. *Stage* is a dummy equal to one if the VC firm specializes in early-stage firms, and zero otherwise. We expect that VCs focusing on early-stage firms will be more likely to get involved in litigation since uncertainty in those firms is higher, contracts are more incomplete, and the success rates are relatively low compared to more mature firms. In such an environment, the likelihood of VC opportunism (or the disagreement on whether VC's behavior constitutes opportunism) might be very high. In addition, Fluck, Garrison, and Myers (2005) model the entrepreneur-VC relationship and one of the predictions from their model is that later stage syndication resolves the VC hold-up problem by assuring the entrepreneur more favorable terms in later rounds. Since there are fewer investors financing early-stage companies, VCs might be tempted to behave opportunistically.

In addition, we use the past deal flow as a control variable, since we expect firms with more deals to be more likely to get involved in litigation. *Prior deal flow* is the number of companies the VC firm's funds invested in prior to the year of litigation, scaled by the total number of VC backed companies in the year each fund was established. We also use various industry dummies in the models. *Diversified* is a dummy equal to one if the VC firm makes diversified investments (across industries and stage), and zero otherwise. Lastly, we also include year and location dummies. Information on VC industry and stage preferences and location comes from VentureXpert.

Table 3 presents summary statistics for the VCs in our litigation sample and their matching firms. The sample VCs and the corresponding matching firms are very similar in

terms of firm age (the average difference is 0.1). The sample VCs tend to be larger (on average by 30%) in terms of aggregate fund size prior to the litigation. This, however, works against our finding any significant results with respect to Hypothesis 2, since the sample VCs will be more likely to have larger funds under management and deal flow after the litigation. There are no significant differences with respect to stage or diversified industry preferences.

#### **4.1. What determines a VC's involvement in litigation?**

Table 4 presents the estimates of a probit and ordered probit model of VC litigation. The first two models use the full sample. We find that more reputable firms are less likely to participate in a lawsuit. The coefficient on *Percentage IPOs* is negative and significant at the 10% level. In economic terms, the coefficient estimate suggests that high reputation reduces the likelihood of litigation by roughly 36%. In addition, we document that VC firms that focus on early-stage investments are more likely to get sued. The coefficient on the *Stage* dummy is 0.385, which is significant at the 5% level. The marginal effects imply that focus on early-stage investments increases the likelihood of litigation by approximately 15%. Conversely, if a VC firm has a larger deal flow, it is more likely to get embroiled in a lawsuit. In Model 2, the coefficient on *Prior deal flow* is 2.90, which is significant at the 1% level (t-stat=4.87). These results continue to hold when we include time dummies (Model 2).

In Model 3 we include only VCs (and their corresponding matching firms) that are defendants in lawsuits. Most of the results continue to hold in this sub-sample. The coefficient on *Percentage IPOs* decreases, but it is still significant at the 10% level. This suggests that more reputable VCs are also less likely to end up in a lawsuit as defendants, which is presumably the more costly type of lawsuit compared to a lawsuit in which the VC is a plaintiff. Likewise, the coefficient on *Prior deal flow* remains positive and statistically

significant, suggesting that VCs with a lot of deals are more likely to get involved in litigation.

Lastly, in Model 4 we include only VCs that are involved in tunneling-type lawsuits. The evidence suggests that reputation does not matter for these lawsuits. Again, the coefficients on *Stage* and *Prior deal flow* are positive and significant, suggesting that firms focusing on early-stage startups and investing in a lot of startups are more likely to engage in tunneling-type transactions. However, the coefficient on *Percentage IPOs*, although negative, is not significant anymore. As mentioned above, there is a wide variety of VCs involved in these types of lawsuits, both highly reputable and less reputable. This fact has significant implications for the theories predicting that reputation constrains opportunistic VC behavior (see, for example, Bachmann and Schindele, 2006).

The last model in Table 4 represents an ordered probit model, where we rank the types of lawsuits from relatively innocuous (e.g., when the VC is the plaintiff) to more severe misbehavior (e.g., financial or operational tunneling). The results are similar to the results from the probit model. It appears that more reputable VCs are less likely to get involved in tunneling type of transactions. The coefficient on the reputation proxy is negative and statistically significant. Thus, the evidence in Table 4 suggests that reputation does prevent VC opportunism, as well as expropriation-type behavior such as dilution, asset transfer, and freeze-out. This finding supports Hypothesis 1.

### ***5. Impact of litigation on VC fundraising and deal flow***

We next examine the impact of litigation on the reputation and performance of the VCs involved in the lawsuits. Our Hypothesis 2 predicts that VCs involved in litigation would suffer reputational consequences and those would be more severe the more egregious

the actions of VCs are. We use two proxies for VC reputation in our analysis – the size of funds raised and the number of companies in which each VC invests (deal flow). We test for significant changes in those measures after the litigation. The last test involves changes in VC performance following the litigation. Our performance measures are the fraction of portfolio firms that go public or have what we call “a successful exit” (an IPO or an acquisition). We perform a cross-sectional analysis using matching firms. Each reputation and performance variable is adjusted by the value of the corresponding reputational or performance measure of the control firm. For the tests in this section we use the sub-sample of lawsuits which commenced in or before year 2004. The reason is that we want to allow VCs time to raise new funds after the lawsuit. Since VCs raise new funds every 2-3 years (see Fenn, Liang, and Prowse (1997)), we decided to stop at year 2004. This yields a sample of 158 unique lawsuit-VC observations.

### **5.1. Post-litigation funds raised**

One important issue in the empirical analysis in this section is the fact that some sample VCs and control firms do not raise any funds after the litigation. This is important information that should be taken into consideration. There are various reasons why these firms do not have funds after the lawsuits, one of them being the impact of the lawsuit. At any rate, this presents us with the dilemma of whether we should keep these observations in the sample or throw them away. We deal with this issue in two ways. First, if a sample VC or a matching firm does not have any funds after the litigation year, we assign a value of zero to the funds raised variable. In our sample, the fraction of firms that do not have funds after litigation is higher for the matching firms. By setting these fund sizes to zero, we introduce

bias that works against finding any support for Hypothesis 2.<sup>14</sup> Second, we repeat our analysis using only those VCs and *corresponding* matching firms that have post-litigation information. Consequently, we exclude all cases where a sample firm has post-litigation observations and its control firm does not, or vice versa. For robustness we present results in Panel A for matching based on VC firm age and funds under managements and in Panel B for matching based on VC firm age and percent investments going IPO.

The results of the test for changes in funds raised by each of the VCs in our sample following the litigation are presented in Table 7. They do provide support for the negative reputation effect of lawsuits. First, looking at the full sample we find that on average VCs embroiled in litigation experience a decrease in the size of funds raised after the year of the lawsuit. The result is significant at the 1% level for both means and medians. For example, before the lawsuit the scaled difference in funds under management between VCs in our sample and matching firms is 0.0675, while after the lawsuit this difference decreases significantly to -0.0043 (p-value of t-test for equality of means is 0.01).

Next, we focus on the sub-sample of lawsuits in which VCs are defendants, which has 128 unique lawsuit-VC observations. This is where we expect the effect of litigation to be the strongest. We find that the difference in post-litigation funds raised between sample VCs and control firms is larger (-0.0065) than that for the whole sample (-0.0043). The difference in both means and medians pre- and post-litigation remains statistically significant. When we consider cases where the VC is defendant and it lost the case, the differences are even bigger and again statistically significant. The difference in post-litigation funds raised between sample VCs and control firms is now -0.0095, although the sample size drops to 24

---

<sup>14</sup> More of the control firm-adjusted post-litigation fund measures for our sample firms will be positive, thus making it less likely to observe significant changes from the pre-litigation levels.

observations and the p-values of the tests decrease. We examine cases of VC expropriation, and find similar results.

Lastly, we separately investigate the cases where the VC is the plaintiff. For this subsample, we find that there is a significant difference in the means of pre- and post-litigation fund size, but not for medians. This finding is not particularly surprising, since in these cases it is usually the VC that is been expropriated in some form or another by entrepreneurs or other investors. Consequently, the evidence in Panel A in Table 7 suggests that VCs involved in litigation suffer reputational consequences. This supports Hypothesis 2. The results in Panel B are qualitatively similar to Panel A, which affirms that our findings are robust to the matching methodology.

## **5.2. Post-litigation deal flow quantity**

Next, we turn our attention to the effect of litigation on the deal flow of VCs in our sample. Hypothesis 2 asserts that as a consequence of the negative publicity associated with lawsuits fewer startups will be willing to accept financing from VCs involved in litigation. Thus, VCs might lose valuable deal flow. To measure changes in pre- and post-litigation deal flow, we compare the control firm-adjusted number of companies that receive financing from each VC in our sample before and after the year of litigation. Again, we scale these measures by the total number of companies financed by the whole universe of VCs during each year in which a particular VC in our sample raises a fund. As in the previous sub-section, we have some sample firms without any deals after the lawsuit year. We treat those in the same way – set the number of deals to zero or exclude the firms without post-litigation deals from the analysis.

The results of the number of deals analysis are presented in Table 8. Similar to Table 7 we present results from matching based on age and funds under management in Panel A and age and percent deals going IPO in Panel A. Again, the evidence suggests that VCs involved in litigation suffer significant decreases in deal flow. For example, in Panel A in Table 8 the pre-litigation deal flow for the full sample is 0.0903 compared to -0.0024 after litigation (p-value of the Wilcoxon signed rank test is 0.01). When we focus only on VCs that are defendants, we also find that these VCs experience a significant decline in deal flow. We find a similar effect on deal flow for VCs which lose in court or engage in various expropriation activities. Overall, the results in Panel A of Table 8 suggest that VCs involved in lawsuits seem to lose deal flow following the litigation. This provides further support for Hypothesis 2.

Lastly, we try to determine the changes in fund size and deal flow using a regression model. In Table 9, we first regress the control firm-adjusted change in funds under management on a set of control variables (Models 1-3). We include a measure of firm reputation (*VC Age*), preferred investment stage (*Stage*), state of location, industry preference (*Diversified*), a dummy variable for tunneling, and a dummy for firms with multiple lawsuits. We can see that the coefficient on prior firm reputation (as measured by firm age) has a negative sign. From the other variables, Multi-Lawsuit is negative and significant, suggesting that firms with multiple lawsuits are viewed more negatively by VC investors.

Models 4-6 of Table 9 present a regression of the control firm-adjusted change in deal flow on a set of control variables. The results from the regression estimation suggest that prior firm reputation has also a negative impact on changes in deal flow. The coefficient on



*VC Age* is negative and significant at conventional levels. So is the coefficient on *Multi-Lawsuits*.

### **5.3. Post-litigation deal flow quality**

Lastly, we test for possible changes in the quality of VC deal flow prior to and after the year of litigation. Hypothesis 2 predicts that the lawsuits will have a negative effect on the quality of deals which VCs involved in lawsuits invest in. We measure deal flow quality by the proportion of portfolio firms that go public or are acquired. Our first measure is the control firm-adjusted fraction of firms that make it to an IPO, which we calculate prior to and after the litigation and test for differences. The second measure is the fraction of portfolio firms that go public or are acquired. We call this measure “successful exits”. Again, we compare the value of the control firm-adjusted measure before and after the litigation and test for significant differences. Due to the fact that we need to have investments in order to be able to calculate these ratios, here we use only the sample VCs and corresponding matching firms that have pre- and post-litigation investments.

The results of the quality of deal flow analysis are presented in Table 10. Unlike the results in previous sub-sections, we find no difference in quality of deal flow prior to and after the litigation when we match on firm age and funds under management (Panel A). Most of the control-firm adjusted pre-litigation measures are positive and larger than the post-litigation ones, but the differences are insignificant. Most of the post-litigation medians are larger than the pre-litigation ones, but again the differences are not significant. There is some evidence for a reduction in quality of fund flow in Panel B, where we match by age and performance, but the results are only means and not medians. Overall, there is no convincing support for Hypothesis 2.

## 6. Conclusion

This paper makes several contributions to the literature. First, it presents the first systematic study of VC-related litigation, based on a large hand-collected set of lawsuits. Contrary to the popular image of the VC industry as a self-governing community that uses informal means of dispute resolution and avoids litigation as means of redressing wrongs, we document that VCs are involved in litigation quite often. Even more surprisingly, VCs initiate about a quarter of all lawsuits in which they are involved. VC litigation is extensive and sophisticated. We show that both VC and non-VC litigants engage in forum-shopping, seeking the most efficient courts available to them by law.

Second, this is the first study that seeks to document the downside of the current pattern of VC contracting, where VCs receive very large amount of discretion in exchange for a mere promise not to misbehave. We cannot measure the extent of VC misbehavior itself, but we can study the tip of the iceberg – litigation – showing allegations of widespread VC misbehavior.

Finally, we are first to investigate the channels through which legal and non-legal environments interact in reducing incentives for VC misbehavior. We show that while founders rarely succeed suing VCs in court, their lawsuits have consequences far beyond the formal damages award. When VCs are sued, other industry participants react – defendant VCs experience difficulties in raising capital and finding sufficient number of new deals.

Overall, we present evidence that a VC industry uses a complex web of legal and non-legal mechanisms to ameliorate the possible abuse of contractual discretion by VCs. Neither law alone nor reputation alone is enough; it's the combination of the two that seems

to give strength to the system. We cannot tell how well the system deters misbehavior, but we can tell that at least some misbehavior is punished.

For future research we intend to analyze the type of portfolio companies that are involved in the lawsuits. It would be interesting to know what the firm characteristics are and what happens with these portfolio firms. Are any syndication partners involved? Does the VC involved in the litigation come in early or late? Does the presence of a serial entrepreneur reduce or increase the probability of litigation? Answers to questions like these would further extend our knowledge of why and how VCs get involved in litigation and what is the impact on portfolio firms as well.

## *Appendix A. Examples of Lawsuits*

Examples of alleged VC misbehavior with regard to founders. The facts are as alleged in complaints, not as proven in court. Many cases include a combination of claims.

### **Founder Dilution**

*Goldman v Pogo.com, Inc., 2002 WL 1358760 (Del.Ch., 2002)*

Founder was a president and CEO of e-gaming company; owned 29% of voting shares. VCs pushed founder to resign as a president and CEO. Firm needed money; VCs on the board chose funky securities, converted, did a reverse stock split; all of this reduced the founder's stake from 13% to 0.1%. VCs then refused to redeem founder's stock in violation of prior agreement.

*Keith v. Black Diamond Advisors, 48 F. Supp. 2d 326 (S.D. NY, 1999)*

Founders operated a company doing sub-prime mortgage lending. VCs promised money and expertise. Founders and VCs formed a new company; half interest went to VCs, half to founders. VCs planned dilution, enlarged board, took away control; persuaded one founder to give up his option to buy another founder's interest, so the remaining founder lost even more control.

*Marmon v. Arbinet-Thexchange, 2004 Del. Ch. LEXIS 44*

Plaintiff was a consultant for the startup and received stock as compensation. Then, he became a president and board member. While another man was a chairman, the startup received five rounds of financing. Founder/consultant wanted to see financial info because he was told of mismanagement, unauthorized loans to executives, and dilutive financing. CEO who suggested dilutive financing was an interested party: he was also CEO of firm that owns 5% of proposed VC. Severe dilution followed, without the knowledge of common, along with additional series of dilutions.

### **Asset Stripping and Dilution**

*Albers v. Edelson Technology Partners L.P. , 201 Ariz 47 (2001).*

The startup is 42% owned by founders and rest by two venture capitalists. The startup has exclusive license on use of a patent owned by its parent corporation (where VCs are not invested). VCs have their representatives on the startup's board of directors. VCs failed to develop and use a patent; promised to invest more money and didn't; waited until late and forced cheap purchase of stock, diluting voting and econ power of founders.

*Cooper v. Parsky, 140 F.3d 433 (2d Cir., 1998)*

A founder of a large oil refinery company put his stock in voting trust, to be voted by company's board; he also had 5-year employment agreement (terminable for cause). The founder was fired without cause in violation of his employment contract, sued and won. While the founder was illegally fired, his stock was voted in a way that left company with no assets; all assets were channeled to another entity controlled by VCs. After series of asset-stripping transactions with related entities, VCs left the founder with nothing.

*Bowers v. Allied Capital Corp.* 1991 WL 335252 D.Me., 1991

Founders owned a car-recycling operation. VCs conspired to mislead creditors and suppliers that company is in a bad financial state, to put company in bankruptcy, while withholding funding. The purpose was to avoid paying founders under an "earn-out formula."

### **Sale of Company on Terms Unfavorable to Founders**

*Kennedy v. Venrock Associates*, 348 F.3d 584 (7th Cir. 2003)

The startup was based in IL, but incorporated in Maryland. VCs received preferred stock; founders received common. The startup had a 5-member board: 1 VC, the rest were not affiliated (founders claim that one more director was "aligned with VC"). The board turned down an acquisition offer; proposed (and shareholders approved) to reincorporate in DE. DE law gives shareholders less protection than Maryland law, which governed the startup before. After reincorporation in DE, VCs gained control over the majority of the board. The board approved bridge loans that gave VCs preference in liquidation; didn't seek other financing. The board approved the sale of the startup for stock; turned down alternatives. In DE, a simple majority of shareholder vote is required to approved sale; in Maryland, that would be two-thirds. The buyer of the startup is now in bankruptcy. Holders of common stock gets nothing; not enough for creditors and preferred.

### **Firing of Founder in Violation of Employment Agreement**

*Olsen v. Seifert*, 1998 Mass. Super. LEXIS 592

One of the three founders of the startup alleges that another founder (who holds more senior position in firm) lured him into relinquishing his board seat, then fired him, took away unvested stock. When the company received VC funding (preferred), the plaintiff founder signed a stock purchase agreement, where his stock (purchased at symbolic price) would vest over several years. The agreement provided that in the event of a merger/acquisition, more of the plaintiff founder's stock would vest. Defendant founder agreed to sell company to Lucent; in two days, fired plaintiff founder and repurchased unvested stock. If plaintiff founder were fired after the merger, his stock would have vested.

*Talton v. Unisource Network Serv.*, 2001 U.S. Dist. LEXIS 14049

The company had multiple rounds of VC financing; VCs and the plaintiff founder sit on the board. The company has various problems with funding and attempts to sell; the founder alleges plot to terminate her employment. The founder is induced to invest personal money to keep the company afloat; after that, VCs offered to put in more in exchange for subordination of the founder's securities. The founder agreed, and then got fired. The founder sues for fraud and other similar offenses.

*Kroutik v. Momentix, 2003 Mass. Super. LEXIS 112*

Founder formed a startup; obtained several rounds of financing from three different VCs. After two rounds, the founder was moved from being a president and CEO to being a "chairman and founder". Eventually, VCs fired the founder; he sued for breach of contract and wrongful termination; the startup counterclaimed breach of fiduciary duty. Settled: the startup is to pay the founder; the founder is to return a key laptop with all contents. The founder returned a laptop, but erased data; the startup did not pay. The startup is now defunct; everyone lost money.

### **Asset Stripping, Dilution, Sale on Terms Unfavorable to Founders.**

*Erickson v. Horing, 2001 WL 1640142 (D. Minn., 2001)*

VC wanted to invest in the startup; misrepresented that they had experience in relevant field, and promised an IPO. VCs persuaded founders to sell their interests in the startup for interests in another company and promised exactly the same rights. However, during the merger, all prior rights disappeared. Founders got diluted and lost control, partly because VCs falsely claimed that two of 7 board members resigned, which allowed VCs gain control. Then, VCs stripped assets, sold the startup at very bad price to interested 3d party, and abandoned IPO promises. Result: VCs took out everything from firm, transferred to themselves, and common is left with nothing.

## *Appendix B. Data Manipulations*

We start with the lawsuit data from Westlaw and manually match the names in the list of plaintiffs and defendants to the list of all VC firms in the VentureXpert database. Out of 241 identifiable VC parties in the 186 lawsuit sample, we match 134 VC firm names with the VentureXpert universe. We then search on Google whether the remaining parties are VCs. We confirm that parties to seven lawsuits are not VCs. Of the remaining 179 lawsuits, two lawsuits have missing filing and disposition date and we drop them from further analysis. This leaves us with the final sample of 177 lawsuits.

Our analysis requires information on the year when a complaint is filed. Westlaw provides information on the filing year for 73 cases. The remaining 104 cases have data on disposition dates only. For these cases we assume that the filing date is two years before the disposition date. The reason we choose two years is because for the 73 cases where we have information on both filing and disposition year the average difference is 1.3 years and it is reasonable to expect that these cases are on average resolved quicker than the rest of the sample.

One deficiency of the VentureXpert dataset is that there are no numeric variables which uniquely identify a VC firm; only string variables containing the name of a VC firm or fund are available. The VC firm names are not consistent across time. For example Hambrecht and Quist (H&Q) is acquired by JP Morgan. Following the acquisition some H&Q funds are mapped to JP Morgan, some are still kept as funds of H&Q. To solve this problem for the VC firms in our lawsuit sample, we create our own meta-firm names which map different versions of a firm name to a single string. We then extract the funds which correspond to each version of a firm name with the meta-firm name and aggregate them. As

we will see later, this process makes the firms in our sample on average bigger than the firms in the VentureXpert universe, because VentureXpert may record funds belonging to the same VC company as belonging to different VC firms.

After dealing with VC firm names, we then download date for the founding date of each VC firm company in the VentureXpert universe. We replace founding date with the date when first investment is made when founding dates is missing or the founding date is later than first investment date. We follow the same procedure for fund founding dates. Due to dubious data quality we drop all funds which are reported as founded earlier than 1960.

For the 134 VC firms appearing in our lawsuit sample which are also covered in VentureXpert, ten firms do not have any funds listed before the filing date of the lawsuit and we drop them from the pre-post lawsuit analysis. We match each of the remaining 124 firms which appear in 135 lawsuits and result in 174 unique lawsuit-firm combinations to all remaining firms in the VentureXpert universe in order to find a suitable peer company. Following Kaplan and Schoar (2005) we find the best matching firm based on the age of the VC company (defined as year of filing of lawsuit minus year of founding) and the cumulative size of funds under management from the year of founding of the firm to the year of filing of the lawsuit. The exact matching procedure is as follows:

1. Download all funds in VentureXpert database. For each year in the period from 1960 to 2006, calculate total fund size in a year as the sum of the assets of all funds which are founding in this year. This variable substitutes a variable in VentureXpert which measures the total dollar commitments to VC funds in a year. This variable is of poor quality in the earlier years and there are funds which have assets more than ten times larger than the total funds committed to



the industry in a year as measured by this variable. By calculating our own total fund size variable we ensure that no fund will have rescaled fund size larger than 1, where rescaled fund size equals fund dollar assets divided by the sum of the assets of all funds founded in the same year.

2. Take each firm-lawsuit observation of our 124 firm/174 firm-lawsuit sample. Compute firm age as filing year – founding year.
3. Pull all funds which correspond to the same firm name in VentureXpert and calculate the cumulative assets under management of the firm pre-lawsuit as the sum of scaled fund sizes for all funds which were founded from the founding of the firm till the year of filing the lawsuit. We lose two firms from our sample, because all of their funds pre-lawsuit have missing data on fund size and we cannot compute firm scaled size.
4. After calculating firm age and firm pre-lawsuit scaled size, we find all firms in the VentureXpert universe which are founded within three years of the sample firm, where we replace the founding year of all firms founded before 1960 to equal 1960
5. Within this narrowed-down peer universe, we look at how many firms have the same founding year. If there are more than 10 such firms, we choose the best matching company to be the one closest in scaled size. If there are less than 10 firms founded in the same year, we look at firms founded within one year. If there are more than 10 of them, we choose the best matching company as the company closest in size. If there are less than 10 we increase sequentially the window to within two years and then within three years. Last, if there are less

than 10 companies founded within three years of the sample firm, we just take the closest firm in scaled size anyway.

After finishing the matching procedure, we have 122 companies and 172 unique firm-lawsuit combinations. The matching procedure matched firm age very well (the average age of the best matches is within two months of the average age of the sample firms), but because of our mapping of multiple firm names in VentureXpert to a single meta-firm name for our sample firms but not for the rest of the universe, the sample firms are on average 30% larger than the best matches. This difference is larger for the older firms.

The procedure for matching on age and pre-litigation fund performance is similar. Here instead of matching on funds under management as a second matching criterion, we use the performance of the last fund raised prior to the year of litigation. Performance is measured as the fraction of portfolio firms that go public for that particular fund. Once we select 10 or more control firms based on age, then we select the closest one in terms of performance. This procedure also yields relatively precise matching in terms of performance, with the median difference being 0 and the mean difference equal to -0.019.

## References

- Atanasov, Vladimir, Bernard Black, and Conrad Ciccotello, 2007, Unbundling and measuring tunneling, working paper, available at SSRN:  
<http://ssrn.com/abstract=1030529>
- Bachmann, Ralph, and Ibolya Schindele, 2006, Theft and syndication in venture capital finance, working paper.
- Baker, Malcolm, and Paul Gompers, 2003, The determinants of board structure at the initial public offering, *Journal of Law and Economics* 46, 569-598.
- Banerjee, A., and E. Duflo, 2000, Reputation Effects and the Limits of Contracting: A Study of the Indian Software Industry", *Quarterly Journal of Economics*, 115, 989 - 1017.
- Bartlett, Joseph M. and Kevin R. Garlitz, 1995, Fiduciary duties in burnout/cramdown financings, *Journal of Corporation Law* 20, 595-626.
- Bengtsson, Ola, 2006, Repeated relationships between venture capitalists and entrepreneurs, working paper.
- Bhattacharya, Sudipto, and G. Chiesa, 1995, Proprietary information, financial intermediation, and research incentives, *Journal of Financial Intermediation* 4, 328-357.
- Christopher, Alistair, 2001, VC and the law: Potential legal hurdles involved in funding the next big thing, *Venture Capital Journal*.
- Crocker, K., and K. Reynolds, 1993, The Efficiency of Incomplete Contracts: An Empirical Analysis of Air Force Engine Procurement", *RAND Journal of Economics*, 24, 127146.
- Cumming, Douglas, and Jefferey Macintosh, 2004, Boom, bust and litigation in venture capital finance, *Willamette Law Review*, 40, 867-906
- Dushnitsky, Gary, and Myles Shaver, 2007, Limitations to inter-organizational knowledge acquisition: The paradox of corporate venture capital, working paper.
- Etzel, Barbara, 2002, VCs, fearing lawsuits, want indemnification: Shareholders whose equity fell in down rounds may look to recover financially, *Investment Dealers Digest*.
- Fama, E., 1980, Agency Problems and the Theory of the Firm", *Journal of Political Economy*, 88, 288-307.

- Fenn, George, Nellie Liang, and Stephen Prowse, 1998, The private equity market: An overview, *Financial Markets, Institutions & Instruments* 6(4).
- Fellers, Charles, 2002, VCs mired in litigation of their own making, *Venture Capital Journal*.
- Fluck, Zsuzsanna, Kedran Garrison, and Stewart Myers, 2005, Venture capital contracting and syndication: An experiment in Computational Corporate Finance, NBER Working Paper No. W11624, available at SSRN: <http://ssrn.com/abstract=807613>
- Fried, Jesse, and Mira Ganor, 2005, Agency costs of VC control in startups, UC Berkeley Public Law Research Paper No. 784610
- Gopalan, R., V. Nanda, and A. Seru, 2007, Reputation and spillovers: Evidence from Indian business groups, *Journal of Financial Economics*, forthcoming.
- Gorman, Michael, and William Sahlman, 1989, What do venture capitalists do?, *Journal of Business Venturing* 4, 231-248
- Hellmann, Thomas, and Manju Puri, 2002, Venture capital and the professionalization of start-up firms: Empirical evidence, *Journal of Finance* 57, 169-197.
- Hsu, David, 2004, What do entrepreneurs pay for venture capital affiliation, *Journal of Finance* 59, 1805-1844.
- Kaplan, Steven, and Antoinette Schoar, 2005, Private equity performance: Returns, persistence, and capital flows, *Journal of Finance* 60, 1791-1823.
- Kaplan, Steven, and Per Stromberg, 2003, Financial contracting meets the real world: an empirical analysis of venture capital contracts, *Review of Economic Studies* 70, 281-316.
- Kaplan, Steven, and Per Stromberg, 2004, Characteristics, contracts, and actions: evidence from venture capitalist analyses, *Journal of Finance* 59, 2177-2210.
- Krishnan, C.N.V., R. Masulis, and A.K. Singh, 2006, Does venture capital reputation affect subsequent IPO performance?, working paper.
- Landier, Augustin, 2001, Start-up financing: Banks vs. venture capital, working paper.
- LeClaire, John, Michael Kendall, and Kingsley Taft, 2005, WatchMark ruling clarifies pay-to-play, *Venture Capital Journal*.
- Lerner, Josh, 1994, The syndication of venture capital investments, *Financial Management* 23, 16-27.

- Lerner, Josh, 1995, Venture capitalists and the oversight of private firms, *Journal of Finance*, 50, 301-318.
- Lin, Timothy, and Richard Smith, 1998, Insider reputation and selling decisions: The unwinding of venture capital investments during equity IPOs, *Journal of Corporate Finance* 4, 241-263.
- Lindsey, Laura, 2003, The venture capital keiretsu effect: An empirical analysis of strategic alliances among portfolio firms, working paper.
- Padilla, Jose M., 2001, What's Wrong with a Washout?: Fiduciary Duties of the Venture Capitalist Investor in A Washout Financing, *Houston Business and Tax Law Journal* 1, 269-306.
- Ueda, Masako, 2004, Banks versus Venture Capital: Project Evaluation, Screening, and Expropriation, *Journal of Finance* 59, 601-621
- Wongsunwai, Wan, 2007, Does venture capitalist quality affect corporate governance?, working paper.
- Yosha, Oved, 1995, Information disclosure costs and the choice of financing source, *Journal of Financial Intermediation* 4, 3-20.

**Table 1**  
**Characteristics of Lawsuits Involving VCs**

We collect lawsuits by searches in West Law, business media, and PACER. The total number of lawsuits in our current sample is 172.

<b>Characteristic</b>	<b>Number of lawsuits</b>
<i>Defendant/Plaintiffs Composition:</i>	
VCs Among Defendants	130
Founders Among Defendants	1
VCs Among Plaintiffs	42
Founders Among Plaintiffs	14
<i>Alleged Tunneling Method:</i>	
Freezout	4
Dilution	8
Acquisition on Unfavorable Terms	19
Misappropriation of Business Opportunity	10
Asset Transfer	22
<i>Where Case Brought: (State Name/No. of Federal Suits):</i>	
CA	31/19
NY	25/21
DE	21/2
MA	16/7
FL	11/10
PA	10/5
TX	10/6
IL	8/7
All federal (no bankruptcy)	106
All state	63
Bankruptcy	8
<i>Class Actions</i>	17
<i>Lawsuit Outcome:</i>	
VC Won at Trial or Pre-Trial Motion (Partly Won)	20 (27)
VC Lost at Trial or Pre-Trial Motion	27
Case Dismissed on Procedural Grounds	13
Case Dismissed on Substantive Grounds	26
Case Ongoing	59
Total Cases Appealed	38
Cases Appealed by VC	19
Total Number of Cases Substantively Coded	177
Total Number of Relevant Cases Found	464

**Table 2**  
**Distribution of Cases by Types of Claims**

	Non-VC Plaintiff		VC Plaintiff	
	Frequency	Percent	Frequency	Percent
Contract	11	7.28	1	6.25
Corporate	12	7.95		
Employment	10	6.62		
IP	10	6.62	3	18.75
Securities	22	14.57	2	12.5
Tort Intentional	58	38.41	6	37.5
Tort Non-Intentional	16	10.6	1	6.25
Bankruptcy	6	3.97		
Other	6	3.97	3	18.75
Total	151	100	16	100

**Table 3**  
**Summary statistics for sample VCs and their matching firms**

The table presents summary statistics for the VCs in our litigation sample and their matching firms. The sample includes observations in the period 1976-2007. Information on stage preference and diversified industry preference are taken from VentureXpert. All dollar values are in converted into year 2000 dollars.

Variables	Sample VCs					Matching firms				
	Mean	Median	Std	Min	Max	Mean	Median	Std	Min	Max
Age (years)	18.3	14	18.4	1	94	17.3	13	14.6	1	84
Num. of funds pre-litigation	8.6	5	10.2	1	62	5.3	3	5.3	1	25
Avg. fund size pre-litigation (mill.)	355.1	87.4	1,037.1	0.01	11,929.2	401.9	104.6	1,360.6	0.13	25,511.1
Aggregate fund size pre-litigation (mill.)	3,059.5	726.7	5,589.2	0.16	32,440.3	2,135.9	569.4	4,039.1	0.52	25,680.9
Stage preference (1 if early; 0 if late)	0.5	0	0.5	0	1	0.3	0	0.5	0	1
Diversified (1 if early; 0 if late)	0.1	0	0.3	0	1	0.2	0	0.4	0	1
Num. obs.			172					172		



**Table 4**  
**Probit model of VC litigation**

The table presents the results of a probit model of VC litigation. The sample includes VC firms involved in lawsuits as well as their matching firms. Models 3 and 4 include only VC firms (and their corresponding matching firms) that are defendants. Models 5 and 6 include only VC firms (and their corresponding matching firms) that are defendants and engage in expropriation-type activities. The dependent variable is equal to one if the VC firm is involved in a lawsuit, and zero otherwise. It is measured as of the year of litigation. Stage is a dummy equal to one if the firm focuses on early-stage firms, and zero otherwise. State is a dummy equal to one if the firm is located in CA or MA, and zero otherwise. Percentage IPOs is the median fraction of portfolio companies that go public for all the funds the firm has raised before the year of litigation. Prior deal flow is the number of companies the VC firm's funds invested in prior to the year of litigation, scaled by the total number of VC backed companies in the year each fund was established. Diversified is a dummy equal to one if the firm invests in several industries, and zero otherwise. Industry classification from VentureXpert is used. The models are estimated with robust standard errors. Robust *t*-statistics is in the parenthesis.

Variables	Probit model				Ordered probit model	
	Full sample		VC defendant only	VC defendant and tunneling	Dependent variable:	
	(1)	(2)	(3)	(4)	(5)	
Intercept	0.072 [0.51]	0.084 [1.18]	0.068 [0.06]	-0.840 [-0.88]		0
Stage	0.385 [2.52]	0.469 [2.92]	0.536 [3.01]	0.656 [1.94]	0.433 [3.01]	1
State	0.026 [0.17]	0.026 [0.16]	-0.064 [-0.35]	0.020 [0.05]	-0.005 [-0.04]	2
Percentage IPOs	-0.894 [-1.85]	-1.167 [-2.08]	-1.113 [-1.72]	-0.515 [-0.40]	-1.146 [-2.22]	3
Prior deal flow		2.900 [4.87]	3.059 [4.30]	4.961 [4.20]	1.649 [4.48]	
Diversified	-0.498 [-2.10]	-0.378 [-1.47]	-0.364 [-1.20]	-0.125 [-0.21]	-0.388 [-1.65]	
Industry dummies	Yes	Yes	Yes	Yes	Yes	
Year dummies	No	Yes	Yes	Yes	Yes	
Num. obs.	344	344	280	90	344	
Pseudo R <sup>2</sup>	0.06	0.12	0.12	0.19	0.05	

**Table 7**  
**Changes in fundraising following litigation**

The table presents results of univariate tests for changes in pre- and post-litigation funds raised. The sample includes only lawsuits that commence by the end of year 2004. For each sample VC, the aggregate funds raised before and after the year of litigation are calculated. The dollar amount of each fund raised (pre- or post-litigation) is scaled by the total amount of VC commitments in the year of the fund. From the aggregate funds raised by each sample VC we subtract the aggregate funds raised (pre- or post-litigation, scaled by VC commitments in the year of the fund) by its corresponding matching firm. Matching firms in Panel A are the closest firms without a lawsuit to each sample firm by age and funds under management, in Panel B by age and performance (percent of investments going IPO). Mean and Median is the mean and median of this difference. The tunneling sample includes lawsuits involving dilution, freeze-out, control transfer, and asset transfer. *t*-test for equality of means and Wilcoxon signed rank test for equality of medians are used. p-values are reported in parenthesis.

*Panel A. Matching by Age and Funds under Management*

	Whole Sample			Only firms where VC and matching firm have both pre and post data		
	Num. Obs.	Mean	Median	Num. Obs.	Mean	Median
Full sample	158			57		
Pre-litigation		0.0675	0.00004		0.1202	0.0003
Post-litigation		-0.0043	0.00		-0.0145	-0.0027
p-value of test pre=post		(0.01)	(0.01)		(0.01)	(0.01)
VC defendant	128			54		
Pre-litigation		0.0656	0.00001		0.0980	0.0001
Post-litigation		-0.0065	0.00		-0.0136	-0.0027
p-value of test pre=post		(0.01)	(0.01)		(0.01)	(0.01)
VC defendant and tunneling	41			19		
Pre-litigation		0.0686	0.00027		0.1052	0.0003
Post-litigation		-0.0058	0.00		-0.0168	-0.0033
p-value of test pre=post		(0.01)	(0.01)		(0.02)	(0.02)

**Table 7 (Cont.)***Panel B. Matching by Age and Performance*

	Whole Sample			Only firms where VC and matching firm have both pre and post data		
	Num. Obs.	Mean	Median	Num. Obs.	Mean	Median
Full sample	124			41		
Pre-litigation		0.1299	0.0071		0.0943	0.0129
Post-litigation		0.0055	0.00008		0.0047	0.0009
p-value of test pre=post		(0.01)	(0.01)		(0.01)	(0.01)
VC defendant	99			33		
Pre-litigation		0.1250	0.0072		0.0881	0.0089
Post-litigation		0.0040	0.00006		-0.0005	0.0004
p-value of test pre=post		(0.01)	(0.01)		(0.02)	(0.01)
VC defendant and tunneling	41			12		
Pre-litigation		0.1271	0.0157		0.0992	0.0168
Post-litigation		0.0059	0.0004		-0.0001	0.0007
p-value of test pre=post		(0.01)	(0.01)		(0.02)	(0.02)

**Table 8**  
**Post-litigation quantity of deal flow**

The table presents results of univariate tests for changes in pre- and post-litigation deal flow. The sample includes only lawsuits that commence by the end of year 2004. For each sample VC, the aggregate number of companies financed before and after the year of litigation is calculated. The number of investments made by each fund raised (pre- or post-litigation) is scaled by the total number of firms financed by VCs during the year of the fund. From the aggregate number of investments made by each sample VC we subtract the aggregate number of investments (pre- or post-litigation, scaled by the total number of firms financed by VCs in the year of the fund) made by its corresponding matching firm. Matching firms in Panel A are the closest firms without a lawsuit to each sample firm by age and funds under management, in Panel B by age and performance (percent of investments going IPO). Mean and Median is the mean and median of this difference. The tunneling sample includes lawsuits involving dilution, freeze-out, control transfer, and asset transfer. *t*-test for equality of means and Wilcoxon signed rank test for equality of medians are used. *p*-values are reported in parenthesis.

*Panel A. Matching by Age and Funds under Management*

	Whole Sample			Only firms where VC and matching firm have both pre and post data		
	Num. Obs.	Mean	Median	Num. Obs.	Mean	Median
Full sample	158			41		
Pre-litigation		0.0903	0.0068		0.0943	0.0129
Post-litigation		-0.0024	0.00		0.0047	0.0009
p-value of test pre=post		(0.01)	(0.01)		(0.01)	(0.01)
VC defendant	128			33		
Pre-litigation		0.0854	0.0067		0.0881	0.0089
Post-litigation		-0.0033	0.00		-0.0005	0.0004
p-value of test pre=post		(0.01)	(0.01)		(0.02)	(0.01)
VC defendant and tunneling	41			12		
Pre-litigation		0.0766	0.0205		0.0992	0.0168
Post-litigation		-0.0008	0.00		-0.0001	0.0007
p-value of test pre=post		(0.01)	(0.01)		(0.02)	(0.02)

**Table 8 (Cont.)***Panel B. Matching by Age and Performance*

	Whole Sample			Only firms where VC and matching firm have both pre and post data		
	Num. Obs.	Mean	Median	Num. Obs.	Mean	Median
Full sample	124			41		
Pre-litigation		0.0786	0.0064		0.1006	0.0204
Post-litigation		0.0035	0.00		0.0036	0.0005
p-value of test pre=post		(0.01)	(0.01)		(0.01)	(0.01)
VC defendant	99			33		
Pre-litigation		0.0812	0.0066		0.1037	0.0265
Post-litigation		0.0034	0.00		0.0023	0.0005
p-value of test pre=post		(0.01)	(0.01)		(0.01)	(0.01)
VC defendant and tunneling	41			12		
Pre-litigation		0.0637	0.0241		0.0586	0.0252
Post-litigation		0.0076	0.0008		0.0011	0.0014
p-value of test pre=post		(0.01)	(0.01)		(0.05)	(0.06)

**Table 9**  
**Determinants of changes in fund size and deal flow**

The table presents an OLS regression of control firm-adjusted post-litigation fund size and deal flow. The sample includes only VC firms that participate in lawsuits. Control firms are selected based on age and fund under management prior to litigation or on age and performance of the last fund prior to litigation. VC Age is the log of the age of the VC firm as of the year of litigation. Percentage IPOs is the median (across all funds prior to litigation) fraction of portfolio firms going public. Stage is a dummy equal to one if the VC firm focuses on early-stage firms, and zero otherwise. Multi-stage is a dummy variable equal to one if the VC firm has participated in previous lawsuits. Tunneling is a dummy variable equal to one if the lawsuit alleges that the VC firm engages in expropriation-type activities. Plaintiff is dummy variable equal to one if the VC firm is a plaintiff in the lawsuit. Diversified is a dummy equal to one if the VC firm invests in several industries, and zero otherwise. Industry classification from VentureXpert is used. The models are estimated with robust standard errors. Robust *t*-statistics is in the parenthesis.

Variables	Changes in fund size			Changes in deal flow		
	<u>Matching:</u> Age & funds under mgmt		<u>Matching:</u> Age & perf	<u>Matching:</u> Age & funds under mgmt		<u>Matching:</u> Age & perf
	Full sample	Sample period 1976-2003 and VC defendant	Sample period 1976-2003 and VC defendant	Full sample	Sample period 1976-2003 and VC defendant	Sample period 1976-2003 and VC defendant
	(1)	(2)	(3)	(4)	(5)	(6)
VC Age	-0.113*** [-6.19]	-0.107*** [-4.25]	-0.017 [-0.64]	-0.088*** [-6.616]	-0.089*** [-4.66]	-0.037 [-1.44]
Percentage IPOs	0.094 [0.80]	0.168 [0.95]	-0.417** [-2.08]	0.034 [0.42]	0.016 [0.15]	-0.460* [-1.77]
Stage	0.005 [0.19]	0.019 [0.52]	-0.001 [-0.03]	0.025 [0.16]	0.034 [1.28]	0.046 [0.90]
Multi-lawsuit	-0.106*** [-2.91]	-0.155*** [-2.96]	-0.144** [-2.15]	-0.050** [-2.08]	-0.074* [-1.94]	-0.152** [-2.21]
Tunneling	-0.003 [-0.11]	0.022 [0.50]	0.038 [0.85]	0.007 [0.32]	0.043 [1.46]	0.076 [1.42]
Plaintiff	0.051 [1.10]			0.060* [1.96]		
Diversified	-0.299*** [-3.85]	-0.336*** [-2.95]	0.195*** [2.71]	-0.075** [-2.30]	-0.054 [-1.11]	0.186** [2.54]
Constant	0.621*** [7.39]	0.621*** [5.70]	-0.069 [-1.00]	0.275*** [7.09]	0.261*** [5.05]	-0.046 [-0.48]
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Num. obs.	172	99	99	172	99	99
Adjusted R <sup>2</sup>	0.60	0.65	0.36	0.49	0.56	0.43

**Table 10**  
**Post-litigation quality of deal flow – fraction of successful exits**

The table presents results of univariate tests for changes in pre- and post-litigation performance. Performance is measured as the fraction of portfolio firms taken public (IPOs). The sample includes only lawsuits that commence by the end of year 2003 and only sample VCs and corresponding matching firms that raise funds before and after the litigation. For each sample VC, the fraction of portfolio firms going public or being acquired are calculated for funds raised before and after the year of litigation. From the fraction of IPOs for each sample VC we subtract the fraction of IPOs (pre- or post-litigation) for its corresponding matching firm. Matching firms in Panel A are the closest firms without a lawsuit to each sample firm by age and funds under management, in Panel B by age and performance (percent of investments going IPO). Mean and Median is the mean and median of this difference. The tunneling sample includes lawsuits involving dilution, freeze-out, control transfer, and asset transfer. *t*-test for equality of means and Wilcoxon signed rank test for equality of medians are used. p-values are reported in parenthesis.

*Panel A. Matching by Age and Funds under Management*

Sample	Num. Obs.	Mean	Median
Full sample	58		
Pre-litigation IPOs		0.0170	0.0043
Post-litigation IPOs		-0.0042	0.00
p-value of test pre=post		(0.19)	(0.14)
VC defendant	54		
Pre-litigation IPOs		0.0123	0.0004
Post-litigation IPOs		-0.0039	0.00
p-value of test pre=post		(0.26)	(0.27)
VC defendant and tunneling	19		
Pre-litigation IPOs		0.0283	0.0047
Post-litigation IPOs		0.0158	0.0572
p-value of test pre=post		(0.36)	(0.69)

**Table 10 (Cont.)***Panel B. Matching by Age and Performance*

Sample	Num. Obs.	Mean	Median
Full sample	41		
Pre-litigation IPOs		-0.0086	-0.0064
Post-litigation IPOs		-0.0779	-0.0076
p-value of test pre=post		(0.07)	(0.48)
VC defendant	33		
Pre-litigation IPOs		0.0214	0.0327
Post-litigation IPOs		-0.0708	-0.0107
p-value of test pre=post		(0.04)	(0.21)
VC defendant and tunneling	12		
Pre-litigation IPOs		0.0128	0.0200
Post-litigation IPOs		-0.1006	-0.0054
p-value of test pre=post		(0.13)	(0.48)