

**Corporate venture capitalists, strategic alliances, and the governance of newly
public firms**

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Abstract

This paper examines the effect of corporate venture investments on the governance structures of venture backed IPOs. One of the main differences between CVCs and traditional venture capitalists (TVCs) is that the former often invest for strategic reasons and enter into various types of strategic alliances with their portfolio firms that last well beyond the IPO. We argue that the presence of such strategic alliances will have a significant impact on the governance structure of CVC backed firms when they go public and in the years following the offering. Using a sample of venture backed IPOs, we test several hypotheses regarding the role of CVCs in the governance of newly public firms. We find that strategic CVC backed IPOs have more outsiders on the board than a carefully selected sample of matching firms. In addition, the CEOs of such firms yield less power. We do not find any differences between the governance structures of purely financial CVC backed IPOs and their matching firms.

I. Introduction

This paper examines the role that corporate venture capitalists (CVCs) play in the establishment of governance structures of venture backed IPOs. CVCs differ from traditional venture capitalists (TVCs) in a number of ways. CVCs are the venture arms of industrial corporations. As such, they have different organizational and compensation structure from their traditional counterparts. More importantly, CVCs have different investment objectives. They often invest for strategic reasons, financing startups that provide strategic benefits to the CVC parent companies. Thus, corporate ventures are in a unique situation: the venture capitalist (CVCs) enters into a strategic alliance (including equity ownership) with the startup and these strategic alliances last for years after the startup goes public. Given the nature of these alliances and the importance of an initial public offering for the governance structure of IPO firms, we investigate whether CVC backed IPOs, and more importantly the IPOs with strategic CVC investments, have different governance systems than IPOs backed by TVCs.

Using a sample of venture backed IPOs from 1992 until 1999, we document some significant differences between the governance systems of strategic CVC backed IPOs and these of a control sample of TVC backed IPOs. We find that strategic CVC backed IPOs have significantly more outsider directors on their boards than their control firms. The CEOs of such firms have on average less power, as measured by CEO ownership stake, than CEOs of the control sample. On the other hand, we do not find significant differences in board composition and CEO power between purely financial CVC investments and their control sample.

In our opinion, this study makes several contributions. First, it adds to the literature on venture capital and corporate governance (see Baker and Gompers (2003)). We investigate an issue that has not been fully explored in the literature: how different VCs impact the governance structures of their portfolio firms that are about to go public. We document some important effects of strategic CVC investments and associated strategic alliances on the governance mechanisms in IPO firms. We also extend the scarce literature on corporate venture capital.

Second, the paper is related to a strand of corporate finance literature that focuses on strategic alliances (see Allen and Phillips (2000), Chan, Kensinger, Keown, and Martin (1997), Fee, Hadlock, and Thomas (2005), and Pablo and Subramaniam (2004)). Unlike previous studies, we examine a special type of strategic alliances – alliances between private equity investors (CVCs) and newly public firms. In these relationships, CVCs invest in their portfolio firms while they are still private and the relationship extends after the IPO. Such relations present an excellent opportunity to test certain theories in the literature on alliances.

Third, the paper also sheds some light on the issue of the governance of alliances. While previous studies only focus on equity stakes, we undertake a more comprehensive examination which includes board structure, CEO power, and entrenchment/antitakeover mechanisms. CVCs present a good opportunity to study issues of governance in strategic alliances because they are not only investors in startups before the IPO, but they also have the opportunity to affect their governance structure.

The paper is organized as follows: Section II sets forth the hypotheses we are going to test, Section III describes the data used in the analysis, Section IV presents the empirical results, and Section V concludes.

II. Testable hypotheses

In this section, we present several hypotheses regarding the role of CVCs in the governance of newly private firms. Corporate venture capitalists, though in the same type of business, are different from traditional venture firms on a number of dimensions. They have different investment objectives and incentives as well as different organizational and compensation structure. Thus, we argue that CVCs will have different incentives than TVCs to structure the governance systems of their startups that go public. More specifically, we examine what governance mechanisms CVCs use and how these differ between CVC backed and TVC backed IPOs.

A distinguishing feature of VCs is that they hold large equity stakes and obtain significant control rights in the startups they finance. This is a way for them to manage the significant risks and uncertainties associated with venture investments. Previous studies (see Lerner (1995), Kaplan and Stromberg (2003, 2004)) document that the strength of VC control rights is reversely proportional to the startup's performance. VCs gradually relinquish these rights as the startup's performance improves and it nears an IPO. The IPO represents a shock to the governance systems of startups and VCs, as major pre-IPO investors, have significant power in setting up these governance systems. Because of reputational concerns, VCs have an incentive to set up effective corporate governance before the startups go public.

Like other VC investors, CVCs repeatedly access the IPO market – they bring companies to the IPO market and rely on reputation to sell these to investors. If the management of CVC backed IPO firms exploits investors, CVCs may find it difficult to sell IPOs to these investors in the future. To preserve their reputational capital, CVCs have an incentive to implement good governance systems in the startups they finance.

In some cases, CVCs have an additional incentive to establish effective governance mechanisms that curb managerial entrenchment and private benefits of control. Unlike TVCs, CVCs often invest for strategic reasons. As a result, they enter into strategic alliances with their portfolio firms, which tend to last for a number of years after these companies go public. These alliances can take on various forms: a) supplier or customer relations, b) product development agreements; c) joint research agreements; d) marketing and distribution agreements; e) licensing agreements, etc.

Strategic alliances in high-uncertainty industries, like the ones in which CVCs usually invest, could be plagued by all sorts of problems. Contracts in such settings are usually incomplete because the parties cannot anticipate all contingencies. This, in turn, could lead to opportunistic behavior. For example, one of the parties in the alliance may exploit the other by not exerting enough effort, underinvesting, or disproportionately appropriating the joint surplus created in the course of the relation. Thus, some additional mechanisms are required in order for an alliance to stay intact. According to the literature on incomplete contracting (see Klein, Crawford, and Alchian (1978), Grossman and Hart (1986), Hart (1988, 2001)), equity ownership and the control rights associated with it can mitigate potential hold-up problems between the parties in the alliance, which in our case are the CVC parents and the startups. A distinctive feature of CVC strategic investments

is that CVCs hold equity stakes in the companies. CVCs thus have an incentive to establish effective governance systems that would help govern the strategic relations after the startup goes public. CVCs, being investors in the startup for a number of years, are also better informed about the prospects of the firms they fund.

Given the difference in investment strategies between CVCs and TVCs, we conjecture that there will be differences in the governance systems of CVC backed and TVC backed IPOs. More importantly, we argue that such differences will be especially pronounced when comparing *strategic* CVC investments to TVC backed IPOs. Unlike other incidences of strategic alliances, CVCs, because of their involvement in the startups, are in a unique position to affect the governance systems of their portfolio companies before those go public. Given the significance of an IPO for corporate governance, CVCs may set up certain governance mechanisms before the offering to ensure that their interests are protected. On the other hand, we do not expect any differences between the governance systems of CVC backed IPOs in which CVCs invest purely for financial reasons and those of TVC backed IPOs, since in these cases CVCs do not have any additional incentive to implement specific governance mechanisms.

We propose several hypotheses which we test in the next section. The first one is related to the time it takes TVCs and CVCs to unwind their equity holdings in their portfolio firms. Since in the cases of strategic investment CVCs have an incentive to continue monitoring their portfolio firms, we conjecture that they will hold equity positions for longer period of time after the offering than TVCs. We test the following hypothesis:

H1: In the cases of strategic investments, CVCs will hold equity positions in CVC backed IPOs for longer period of time than TVCs or CVCs with purely financial investments.

We also expect that CEOs would be yielding less power in strategic CVC backed IPOs. This is another protective mechanism that CVCs may use against managerial entrenchment. We measure CEO power by CEO equity holdings and tenure. Related to the argument for a less powerful CEO, we also expect strategic CVC backed IPOs to have more independent directors on the board than other VC backed IPOs. More outsiders on the board will constrain the power of the CEO, limit managerial entrenchment, and thus protect CVCs' interests in the strategic alliances. In addition, we expect there to be fewer gray directors (outside directors that receive some type of compensation from the firm) in strategic CVC backed IPOs.

H2: CVC backed IPOs with strategic CVC investments will have more outsiders on the board and lower CEO power (lower ownership and shorter tenure) than TVC-backed IPOs or CVCs with purely financial CVC investments.

Since managerial opportunism could endanger the benefits of long-term strategic relations, we argue that CVCs will also try to curtail managerial entrenchment and consumption of private benefits by the management. We expect strategic CVC backed IPOs to have fewer arrangements protecting management from removal. Arrangements such as staggered boards, limits to shareholder amendments of the bylaws, supermajority requirements, poison pills, and golden parachutes could be used by a company's

management to entrench themselves. We call these collectively entrenching protections. It is possible that firms use a number of other protections. However, Bebchuk, Cohen, and Ferrell (2005) show that these five arrangements are one of the most important and have a significant effect on firm value. Thus, we test the following hypothesis:

H3: CVC-backed IPOs with strategic CVC investments have fewer entrenching protections than TVC-backed IPOs or CVCs with purely financial CVC investments.

It should be noted that it is possible that strategic CVC backed IPOs have stronger entrenching protections. For example, in the cases of strategic alliances, CVCs may also want to prevent acquisition from competitors. The entrenching provisions we examine also serve as antitakeover protections. It is well known that certain fraction of IPO firms get acquired in the years after the offering. Such a scenario may be undesirable for CVCs because it terminates a valuable relation. Thus, CVCs may actually set up stronger defensive mechanisms at the time of IPO. Field and Karpoff (2002) do not find a significant effect associated with the presence of VCs, they do not distinguish between CVCs and TVCs. Moreover, they do not distinguish between strategic and financial CVC investments. It will be interesting to see which argument is supported by the data.

III. Data

The data for this study comes from Thompson Financial's VentureXpert database and Ritter's IPO database. We use a sample of VC backed IPOs for the period 1992-1999. There are 130 IPOs with CVC participation (CVC backed IPOs), 78 of which we

classify as strategic CVC investments and the remaining 52 as purely financial CVC investments. The classification is based on information provided in the offer prospectus, annual reports, and other corporate filings. Since TVC backed IPOs are more than their CVC backed counterparts, we randomly select a control group of 130 TVC backed IPOs that have the same four-digit SIC and have gone public within two years of their respective CVC backed IPOs.

For each IPO in our sample we collect data on ownership and board structure and antitakeover defenses from the IPO prospectus and the proxy statements for the five years after the IPO.

IV. Empirical results

Table 1 and Table 2 present summary statistics for the strategic and financial CVC backed IPOs, respectively. We can see that CVCs have higher equity ownership in the cases of strategic investments than in the cases of financial investments. In our sample, the equity ownership of CVCs and TVCs in their portfolio companies continues until year 5 after the IPO of those firms. However, the median equity holdings of TVCs are essentially 0 after year 2, while the median CVCs holding in financial investments is 0 starting in year 2. On the other hand, the median equity holding of CVCs in strategic investments is 5.05% in year 3, although the test of difference in medians between CVC and TVC holdings in that year does not show significant difference.

Therefore, the results from Tables 1 and 2 do not provide any support for H1.

IV.A. Board structure

The results in Table 1 suggest that strategic CVC backed IPOs have larger boards (median of 7) than their control firms (median of 6) in the year of the offering. On the other hand, the board size of financial CVC backed IPOs (median of 6) is not significantly different than that of their control firms (median of 6). The difference in board sizes between strategic CVC backed IPOs and their control firms persists through the first year after the IPO. After that, the board sizes of financial CVC backed IPOs and strategic CVC backed IPOs are not different from these of their respective control samples.

We also find that strategic CVC backed IPOs have more outsiders on their boards. As Table 1 shows, the difference in medians between strategic CVC backed IPOs and their control firms is significant in the year of the offering and the first two post-IPO years. The median percentage of outsiders on the board is 75%, compared with 67% for the control sample. Financial CVC backed IPOs have similar number of outsiders on their boards as their control firms. We do not find any difference between CVC backed IPOs and their TVC backed matching sample regarding the CEO being also a chairman of the board. We also do not find any difference with respect to gray directors between CVC backed IPOs (both strategic and financial) and their control samples.

Next, in the spirit of Baker and Gompers (2003), we consider the board structure as a result of bargaining between CEOs and outside investors. Table 3 presents OLS regressions with the fraction of outside directors as a dependent variable. The independent variables include several CEO characteristics (age, tenure, chairman of the

boards, founder) and several firm characteristics (size, age, research intensity, cash flows). In constructing these variables we closely follow Baker and Gompers (2003).

Model 1 includes a dummy for strategic CVC investments. The coefficient on the strategic dummy is positive and significant at the 10% level. In addition, and consistent with the findings of Baker and Gompers (2003), we document that the fraction of outsiders on the board is decreasing in CEO tenure and cash flows as a fraction of sales. I

In Model 2 we include a dummy equal to one if there is a strategic CVC investment and the CVC has a board seat. We argue that in such cases CVCs are most likely to have significant saying in the establishment of corporate governance mechanisms before the offering. Again, the regression results indicate that strategic CVC backed IPOs with a board seat have larger fraction of outsider directors. The coefficient on the strategic dummy is 0.060 and is significant at the 5% level.

Lastly, in Model 3 we include a dummy equal to one if there is a strategic CVC investment and the CVC is the leading VC. We determine the leading VC based on the size of the equity stake prior to IPO. Like the cases with board presence, these are the cases in which CVCs will have a saying in the establishment of startups' governance structures. The results suggest that strategic CVC backed IPOs in which the CEO is the leading VC and has entered into an alliance with the firm have significantly larger fraction of outside directors than other VC backed IPOs. Again, as in the other two models, the fraction of independent directors is decreasing in CEO tenure and cash flows as a fraction of sales.

Thus, the results in this subsection provide support for H2.

IV.B. CEO power

We document that in general CEOs of CVC backed IPOs have significantly lower equity holdings than CEOs in a control sample of TVC backed IPOs. A CEO of a CVC backed IPO holds on average of 8.55% prior to IPO and 6.67% following the offering. The average holdings of a CEO of a comparable firm are 14.37% and 10.52%, respectively. This difference in CEO holdings is especially strong in the cases of strategic CVC backed IPOs. The average pre- and post-IPO holdings of the CEO of such an IPO are 7.97% and 6.40%, respectively. The average holdings of a CEO of a comparable firm are 15.82% and 11.16%, respectively. The difference persists through the first year following the IPO. The CEO of a strategic CVC backed IPO holds on average 5.73%, while the CEO of a matching firm holds on averages 9.36%. The holdings of CEOs in financial CVC backed IPOs are also smaller than those of their TVC backed control firms, although the differences are not that pronounced as in the cases of strategic CVC investments.

We do not find any significant difference in CEO tenure between financial and strategic CVC backed IPOs and their control samples. Overall, the findings in this subsection provide support for H2.

IV.D. Managerial entrenchment

Currently working on it.

V. Conclusion

The paper studies how differences in investment strategies between TVCs and CVCs result in different governance mechanisms employed by VC backed IPOs. We hypothesize that strategic investments by CVCs would entail a certain type of governance structure which reflects the nature of strategic alliances between CVC parents and startups. Consistent with the strategic alliance hypotheses, we find that strategic CVC backed IPOs have more outsiders on the board than their control firms. In addition, CEOs of such IPOs have significantly lower share holdings. We do not find any significant differences between the board composition and CEO holdings of financial CVC IPOs and their matching firms.

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Table 1. Strategic CVC Backed IPOs – Summary Statistics

The table presents summary statistics for the sample of strategic CVC backed IPOs. Strategic CVC IPOs are IPOs which have a strategic relationship with their CVC investor. ***, **, * represent statistically significant differences between strategic CVC IPOs and their matching firms at the 1%, 5%, and 10% based on nonparametric Mann-Whitney test.

Variables	Year -1	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Ownership							
CVCs	20.23% (16.40)	16.02% (12.20)	12.64% (10.30)	9.34% (6.60)	7.56% (5.05)	5.91% (0.0)	2.49% (0.0)
TVCs (strategic CVC backed IPOs)	27.37% (26.25)	21.31% (21.15)	14.92% (12.60)	7.11% (2.00)	4.84% (0.0)	3.83% (0.0)	3.23% (0.0)
TVCs (matching TVC backed IPOs)	36.03% (33.85)	25.76% (23.20)	17.66% (15.25)	10.03% (6.08)	7.23% (0.0)	6.24% (0.0)	5.31% (0.0)
Board size							
Strategic CVC IPOs		6.99*** (7.0)	6.95** (7.0)	6.61 (7.0)	6.52 (6.0)	6.75 (7.0)	6.46 (6.0)
Matching TVC IPOs		6.13 (6.0)	6.31 (6.0)	6.33 (6.0)	6.51 (6.0)	6.76 (7.0)	6.78 (7.0)
Number of venture directors							
CVC directors		0.92 (1.0)	0.83 (1.0)	0.55 (0.0)	0.47 (0.0)	0.29 (0.0)	0.20 (0.0)
TVC directors		1.82 (2.0)	1.64 (1.0)	1.33 (1.0)	1.03 (1.0)	0.90 (1.0)	0.74 (1.0)
TVC directors – matching firms		1.81 (2.0)	1.52 (1.0)	1.08 (1.0)	0.92 (1.0)	0.80 (1.0)	0.49 (0.0)
CEO ownership							
Strategic CVC IPOs	7.97%*** (5.60)	6.40%*** (4.40)	5.73%*** (3.80)	5.03% (3.30)	4.58% (3.00)	4.42% (3.25)	3.69% (3.20)
Matching TVC IPOs	15.82% (10.20)	11.16% (7.00)	9.36% (5.83)	5.61% (3.80)	4.18% (3.12)	4.11% (2.95)	3.99% (2.20)
CEO tenure – years							
Strategic CVC IPOs		3.77 (3.0)	4.64 (4.0)	4.91 (5.0)	5.12 (5.5)	5.03 (5.5)	5.58 (4.0)
Matching TVC IPOs		4.51 (3.0)	5.42 (4.0)	5.14 (5.0)	5.29 (5.0)	5.91 (5.0)	5.29 (5.0)
% outside directors							
Strategic CVC IPOs		71.94%*** (75.0)	73.24%*** (75.0)	74.70%*** (75.0)	71.78% (71.43)	71.59% (75.0)	72.72% (75.0)
Matching TVC IPOs		65.67% (66.67)	66.17% (66.67)	69.02% (71.43)	69.39% (71.43)	69.74% (71.43)	72.45% (75.0)

Table 2. Financial CVC Backed IPOs – Summary Statistics

The table presents summary statistics for the sample of financial CVC backed IPOs. Financial CVC IPOs are IPOs which have no strategic relationship with their CVC investor. ***, **, * represent statistically significant differences between strategic CVC IPOs and their matching firms at the 1%, 5%, and 10% based on nonparametric Mann-Whitney test.

Variables	Year -1	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Ownership							
Financial CVC IPOs	15.81% (12.25)	11.18% (8.65)	8.45% (6.60)	4.80% (0.00)	3.15% (0.0)	2.11% (0.0)	1.37% (0.0)
TVC IPOs	33.14% (29.60)	24.24% (23.00)	14.00% (12.30)	7.48% (2.85)	5.53% (0.0)	4.49% (0.0)	2.18% (0.0)
Matching TVC IPOs	36.18% (33.70)	26.32% (26.05)	14.38% (10.20)	8.82% (3.75)	6.65% (1.84)	4.64% (0.0)	2.58% (0.0)
Board size							
Financial CVC IPOs		6.48 (6.0)	6.74 (6.0)	6.68 (6.50)	6.90 (6.0)	6.72 (6.0)	6.84 (6.0)
Matching TVC IPOs		6.11 (6.0)	6.36 (6.0)	6.06 (6.0)	6.25 (6.0)	5.88 (6.0)	5.96 (6.0)
Number of venture directors							
CVC directors		0.50 (0.0)	0.45 (0.0)	0.37 (0.0)	0.43 (0.0)	0.25 (0.0)	0.16 (0.0)
TVC directors – CVC IPOs		2.08 (2.0)	1.76 (2.0)	1.33 (1.0)	0.97 (1.0)	0.80 (1.0)	0.71 (1.0)
TVC directors – matching TVC IPOs		1.90 (2.0)	1.58 (1.0)	1.24 (1.0)	1.12 (1.0)	0.88 (1.0)	0.60 (0.0)
CEO ownership							
Financial CVC IPOs	9.42%** (4.97)	7.07%* (3.59)	5.66%* (3.60)	4.62% (3.70)	4.59% (3.95)	4.74% (3.98)	4.12% (3.19)
Matching TVC IPOs	12.20% (7.60)	9.57% (6.25)	7.94% (4.75)	6.55% (4.25)	5.73% (3.14)	4.77% (2.85)	4.27% (3.01)
CEO tenure (years)							
Financial CVC IPOs		3.44 (2.0)	4.24 (3.0)	4.65 (4.0)	5.05 (5.0)	5.03 (5.0)	5.58 (5.0)
Matching TVC IPOs		4.38 (3.0)	5.27 (4.0)	5.70 (5.0)	5.75 (5.0)	5.12 (4.5)	5.78 (5.5)
% outside directors							
Financial CVC IPOs		69.19% (71.43)	68.26% (66.67)	70.94% (71.43)	71.38% (71.43)	74.57% (75.0)	75.09% (78.0)
Matching TVC IPOs		67.14% (66.67)	69.98% (71.43)	67.46% (71.43)	73.49% (74.6)	72.13% (75.0)	75.69% (80.0)

Table 3. Board composition and strategic CVC investments

The table presents the results of an OLS regression of the fraction of outsiders on the company's board on a number of explanatory variables. t-stat is reported in the brackets.

OLS	% outsiders on the board		
	Model 1	Model 2	Model 3
Strategic	0.041 [1.93]		
Strategic and board seat		0.060 [2.58]	
Strategic and leading CVC			0.075 [2.83]
CEO characteristics			
CEO age	0.001 [0.73]	0.001 [0.67]	0.001 [0.69]
CEO tenure	-0.007 [-1.90]	-0.007 [-1.93]	-0.007 [-1.98]
CEO is a chairman	0.035 [1.60]	0.036 [1.68]	0.036 [1.66]
CEO is a founder	0.021 [0.81]	0.022 [0.84]	0.024 [0.90]
Firm characteristics			
Log (Firm size)	0.013 [1.05]	0.015 [1.14]	0.014 [1.09]
Firm risk	-0.415 [-0.69]	-0.462 [-0.75]	-0.377 [-0.62]
R&D intensity	0.105 [1.69]	0.117 [1.92]	0.105 [1.68]
Cash flow/Sales	-0.001 [-2.93]	-0.001 [-2.85]	-0.001 [-2.71]
Firm age	0.001 [0.14]	0.001 [0.16]	0.001 [0.02]
Intercept	0.561 [6.28]	0.560 [6.26]	0.564 [6.27]
N	231	231	231
Adjusted R ²	0.04	0.05	0.05