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THE FIRST DEAL MIGHT BE THE LAST: BUILDING LONG TERM RELATIONSHIPS IN THE VENTURE CAPITAL COMMUNITY

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Abstract

Previous analysis of venture capital activity in Silicon Valley has highlighted the role of venture capital syndication as a mechanism through which venture capitalists (VCs) build trusting relationships within the investment venture capital community. But what are the dynamic properties of the resulting network? This paper analyzes the dynamics of syndicated deals in technology sectors. The results suggest that VCs build reputation by committing to provide future funds in a staged deal and honoring their commitment. Reputation increases cooperation, in terms of access to 'deal flow'. The commitment to provide future funding, however, is expensive in terms of the opportunity costs associated with a reduction in the number of new startups in which they can participate. The reputation system is enforced by established VCs, who have more exposure to the 'deal flow'.

I. Introduction

Scholars in entrepreneurship and finance have tackled the analysis of two seemingly unrelated practices in the funding of new startups. On the one hand, researchers have become increasingly interested in understanding the network of relationships created when two or more VCs fund a new venture together via an investment syndicate. On the other hand, work has been done to explain why VCs stage the funding of the portfolio companies in which they invest. Most of the times, however, an investment is both staged and syndicated. This paper is a first attempt to integrate both ideas within the same framework of analysis.

Stage financing is a usual practice within the VC community. In a staged deal investors usually demand the right to participate, pro-rata, in future issuances of equity securities of the company. Investors may, however, decline participation. Unexpected circumstances may preclude further investment in the company. Some of these circumstances will be completely unrelated to the attractiveness of the company itself. It may happen, for example, that the company's struggles to rise new financing are due to investors' lack funds, or changes in investors' risk profile. This situation leaves the entrepreneur exposed to future funding risk (Berk et al. [2004]). Entrepreneurs try to protect themselves against such eventualities. They may, for example, screen for 'deep pocket' investors to assure the availability of future funding. Entrepreneurs may

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also try to include a 'pay-per-play' provision in the term sheet and the certificate of incorporation. This provision penalizes investors if they fail to invest in a future round of financing. In effect, investors failing to participate in a given round may suffer the lost of anti-dilution rights; they may lose also the right to participate in future round, lose seats on the board, or see their preferred stock converted to common stock. The extent to which the pay-per-play provision will be activated or waived depends on the balance of power in the board. If the board is controlled by venture capitalists reluctant to invest more funds, they more likely will waive activation of the provision.

Syndication is another usual practice within the VC community. In a syndicated investment, a lead investors seeks the participation of other investors; in this case, other VCs. The lead investor requests the participation of other investors to achieve risk sharing and portfolio diversification, or because she does not have the necessary expertise in a given sector. Alternatively, the lead investor may invite other VCs to participate as a exchange for some previous deal in which she was the one invited to participate (Ferrary [2003]). Researchers have found evidence of the value added by VC syndicates to the portfolio companies in which they invest. In particular, Brander et al. (2002) find that companies backed by larger syndicates are more likely to perform better (go public). There is some evidence, however, that suggests that an important component of the value added by the venture capitalists is, mainly, the reduction in startups' mortality rates: the value of taking the company from the startup stage to the IPO. In particular, Ber and Yafeh, (2004) find that VC backed firms are more likely to undergo an IPO, but no more likely to perform better after the IPO. A similar idea can be also found in Campo-Rembado (2005), it which it is shown that the size of a VC syndicate is positively related to the occurrence of new VC funding rounds, but has no effect on the likelihood of IPO once the effect of refinancing is accounted for.

In order to raise new capital in the future, entrepreneurs try to attract established VCs to invest today. The benefits of having an influential investor are well understood (Hsu, [2004]). The investor provides legitimacy to the new venture, exposure, contacts, clients, suppliers and, of course, financial capital. All of these factors increase the new venture's likelihood of survival. In a future round, the investor may provide financial capital directly, by increasing her equity stake in the venture. Alternatively, the established investor can facilitate the inflow of new capital, by 'shopping' the portfolio company among other VCs. Acting in this way, well-connected investors centralize the 'deal flow'. They play the role of middlemen between the population of companies that seek financing, and the population of 'less' connected VC partnerships who seek investment opportunities. The so-called 'second tier' VCs have obvious incentives to work with 'first tier' VCs. Law firms, angel investors, and some consulting practices also perform the role of middleman between providers and seekers of capital. The practice of syndication among VCs creates a network of connections within the VC community that has been studied by Bygrave (1987, 1988). Researchers have found that a given VC's embeddedness in the network has strong effects on the VC's portfolio companies. More precisely, a VC's embeddedness has strong positive effects (Hochberg et al., [2004]) on the likelihood of refinancing and the unconditional likelihood of IPO (unconditional because it is not conditional on the occurrence of new VC rounds). Furthermore, previous funding relationships between the entrepreneurs and a established VC, helps the former to raise new funding (Shane&Cable, [2002]).

While we understand the effects of the VCs' network structure on startups' survival and startups' performance, the literature is practically mute when it comes to describe the micro processes through which VCs achieve a given network position and a given level of reputation and legitimacy. My purpose is to investigate these particular aspects of venture financing. Why, and how, do VCs invest in reputation capital? How expensive is it to be trustworthy? The paper conjectures that VCs add value to their portfolio companies by assuring a timely supply of capital, and that VCs are efficient doing so because (1) deals are usually staged and syndicated, (2) VCs are interested in building and maintaining reputation capital, and (3) failure to contribute previously committed funds is detrimental to building trusting relationships.

The paper analyses first time 'encounters' between VCs in first and second round syndicated deals. In particular, the paper looks at the participation in the second round of any two pair of VCs that participated together in the first round. The analysis uses the sample of VC syndicates obtained from SDC Platinum VentureXpert database, for the IT and biotechnology industries, in the period 1980-2004. First, it analyzes firm level data to find the relationship between VCs' network degree, VCs' propensity to honor the syndicate agreement (which is proxied by the rate of participation in second rounds), and VCs' investment intensity in new startups. Second, it analyzes dyad level data (a dyad is defined as a link between two VCs who have participated in a first round syndicated deal) to find the relationship between dyad members' propensity to honor the syndicate agreement, and the intensity of *future* collaboration between them.

The findings are summarized as follows. First, it has been found that the VC faces a trade-off between (1) participating in first rounds of new startups and (2) participating in second rounds of those startups in which she already invested in the first round. The more the VC participates in second rounds, the less she participates in first rounds. Second, it was found that 'participation in second round' (which I assume here to be a proxy for 'honoring the syndicate agreement') is a strong predictor of the intensity of future collaboration between dyad members. In other words, those dyads in which both members participate in the second round of the first deal are more likely to work together in the future.

The findings suggest that VCs build reputation by committing to provide new funds in the future and honoring their word. The commitment to provide future funding is expensive in terms of the opportunity costs associated with a reduction in the number of new startups in which they can participate. However, by honoring the syndicate agreement, VCs strengthen the bonds with the other member of the syndicate, and they share more projects with them in the future.

The research topic covered in this paper is relevant for three different reasons. First, it addresses the question of *what exactly do VCs do well*. It is generally accepted that VCs contribute intangible capital to the portfolio companies that they fund, and that, because of that, VC backed startups perform better than non-VC backed startups. The evidence presented here suggests that, through the use of the social network structure, VCs are especially efficient in allocating financial resources there where they are needed.

Second, it addresses the question of how this network of relationships among VCs is built from scratch. The paper attempts to put different pieces together in order to build a reasonable theory.

Those VCs that are situated in central network positions have better exposure to the 'deal flow'. Therefore, VCs aim to achieve and maintain a central network position by building reputation. One way to build reputation capital is to honor the syndicate agreements in which they participate. Ex-post first round, syndicate members may be trapped into a hold up situation. For example, one case is that in which there are abundant new investment opportunities, and non lead members prefer to allocate their funds into new startups. Ex-ante the first round, the lead syndicate investor rationally anticipates this, and may decide not to form the syndicate. The reputation mechanism, however, seems to enforce a cooperative equilibrium in which second round funding is guaranteed from those syndicate members who are interested in building reputation.

Third, the syndication mechanism guarantees VCs' participation in second rounds, but disincentives VCs' from participation in first rounds. Therefore, while syndication reduces the rate of mortality of established startups, it may degrade the rate of creation of new startups. The degree of VC syndication is endogenously determined by socioeconomic institutional variables and by the supply/demand for VC. It remains to be seen whether, as conjectured here, the degree of VC syndication is a determinant of entrepreneurial activity and innovation.

The paper proceeds as follows. In the next section, I illustrate the potential hold up situation among syndicate members with a simple example. Next, I provide a non exhaustive review of the literature and the development of the hypothesis. Methodology and empirical results follow in sections IV and V. Discussion and conclusion in section VI.

II. An Example

In this section I describe a stylized example in which, because of capital constraints, a lead VC request the participation of a second VC in order to fund a project. The non-lead VC retains the option to abandon the project, while the lead VC finds it costly to do so. For example, in terms of reputation, it is expensive for a established VC to abandon a profitable project because of a liquidity shock. After all, entrepreneurs 'purchase' VC reputation when they shop their business plans (Hsu [2004]). The main point of this example is that, through repeated interaction between the lead and non-lead VC, the later does not exercise the option to abandon, and the gap in returns between the non-lead VC and the lead VC narrows, which allows the lead VC to maintain the central network position. Syndication, which, in this example, is a consequence of the existence of capital constraints, allows the lead VC to preempt non-cooperative behavior, and guarantee future round participation.

Assume that players **A** and **B** begin with an endowment of $1. An investment opportunity exists that requires an investment of $4/3 in total. An important observation here is that the lead VC **A**, who is aware of the investment opportunity, cannot go alone because does not have enough funds. Assume that the project is structured such that the company will receive a first round of financing of $2/3 and a second round of financing of $2/3. Player **A** is the more established player and the one that can request participation from player **B**. If player **A** decides to form the syndicate in the first period, then each player disburses $1/3 in the first round and acquire 50% of the company's equity (for simplification, I assume that players purchase equity and not preferred stock, and that the entrepreneur surrenders 100% of the firm).

In the second period, there is an outside investment opportunity (a first round in another wave of startups) that yields a return η. Players **A** and **B** decide whether they want to fund the company in the second round, or invest in the outside opportunity. If the company does not raise a second round of financing, it liquidates and yields zero payoffs to the VCs. On the other hand, if the company can raise a second round, then the company goes public with a valuation π and VCs can cash out. In the second period, each player has an amount of \$1-\$1/3=\$2/3 remaining in capital reserves.

If player **B** foregoes the second round, but player **A** does not, then player **B** ends up owning only 25% of the company, and player **A** owning 75%. Player **B**'s payoff in the second period is

$$\Pi_{B,2} = \pi/4 + 2\eta/3$$

while player **A**'s second period payoff is

$$\Pi_{A,2} = 3\pi/4 - \$2/3$$

If player **A**'s foregoes the second round, but player **B** does not, then player's **B** second period payoff is

$$\Pi_{B,2} = 3\pi/4 - \$2/3$$

while player **A**'s second period payoff is

$$\Pi_{A,2} = -C + \pi/4 + 2\eta/3$$

where C is the cost born by the *lead* VC in terms of reputation for not supporting the company. If both VCs decide to participate in the second round, then players' payoffs are (for both)

$$\Pi_2 = \pi/2 - \$1/3 + \eta/3$$

If none of the players decide to invest in the second round, both players invest \$2/3 (the remaining capital) in the new wave of startups, realizing a net gain of $2\eta/3$ in the case of player **B** and a net gain of $2\eta/3 - C$ in the case of player **A**. The information is summarized in the following payoff table

Second period payoff matrix	Non lead investor participates in second round	Non lead investor foregoes in second round
Lead investor participates in second round	$\pi/2 - \$1/3 + \eta/3$; $\pi/2 - \$1/3 + \eta/3$	$3\pi/4 - \$2/3$; $\pi/4 + 2\eta/3$
Lead investor foregoes in second round	$\pi/4 - C + 2\eta/3$; $3\pi/4 - \$2/3$	$2\eta/3 - C$; $2\eta/3$

The lead investor A will find it always optimal to invest in the company's second round as long

as the following holds

[1] $\eta < 9\pi/8 - 1 + 3C/2$, for $C>\pi/4$
$\eta < 3\pi/4 - 1 + 3C$, for $C<\pi/4$

Note that, for

[2] $3\pi/4 - 1 < \eta$

the pair of strategies (lead VC participates, non lead VC doesn't participate) is a Nash equilibrium of the second period subgame. In this situation, first period payoffs are given by

$\Pi_{A,1} = 3\pi/4 - 1$
$\Pi_{B,1} = \pi/4 + 2\eta/3 - 1/3$

Inequality [2] implies that

$\Pi_{A,1} < \Pi_{B,1}$

Therefore, for attractive enough second period investment opportunities, η, and costly enough 'lead VC' reputation effects, C, so that inequalities [1] and [2] are satisfied, the pair of strategies (lead VC participates, non lead VC doesn't participate) is an equilibrium of the second period subgame under which the non-lead VC outperforms the lead VC.

In the simple game above described, player **A** cannot fund the project by herself, at least within the restrictive rules of the game. Therefore, in a one shot (albeit two periods) game as the one described, player **A** accepts to organize a syndicate and resigns to underperform **B**. However, things change if we consider a supergame in which players **A** and **B** meet repeatedly. If player **B** consistently outperforms player **A**, then investors will prefer to invest in player **B**'s funds rather than in player **A**'s funds. Player **A**'s cost of capital will soar, and she will lose her central network position: entrepreneurs will send their business plans to player **B** because they know that **B** is 'deep pocket' now.

It is plausible then to envision that **A** will punish **B** every time **B** decides not to participate in a second round. Therefore, depending on **B**'s time discount factor, it would be feasible to construct an equilibrium in which **B** participates in second rounds because she is interested in a long term relationship with **A**, and, as a result, the difference in performance between **A** and **B** narrows, and **A** can maintain the central netowork position. A formal specification of the repeated game with endogenous financial contracting between **A**, **B** and the entrepreneur, and stochastically arriving investment opportunities is actually work in progress.

III. Literature Review and Hypothesis Development

The availability of capital has been shown to have strong effects on the intensity of innovation (Fazzari et al., [1988], Himmelberg et al. [1994], Lerner and Tsai [2002]). Young startups in innovative sectors, like IT and biotechnology, do not have the financial resources to bootstrap

their growth, which exposes them to fluctuations in capital markets (Baker et al. [2003], Berk et al. [2004], Bhide [1992], Carpenter and Petersen [1988], Davila et al. [2000], Hotz-Eakin et al. [1994]).

Due to uncertainty, information asymmetry, and the possibility of opportunistic behavior by the entrepreneur, VCs stage their investments (Gompers [1995]). Because of limited fund size, the participation in a company's multiple rounds of financing diverts capital resources from investing in new startups. The first hypothesis establishes the relationship between a VC's propensity to support the portfolio companies (participate in the second round of financing) and the VC's portfolio size, where portfolio size is defined as the cumulative number of companies in which the VC has invested:

***H1**: The **propensity to support portfolio companies** (invest in second rounds) has a negative effect on portfolio size.*

From the sequence of investment syndicates it is possible to build a dynamic network in which the nodes represent the VCs and a link between two nodes represents the participation of both VCs in a common syndicated deal. Established VCs are supposed to occupy a central position in the network. Established VCs have a better access to the 'deal flow' of investment opportunities. Therefore, it should be expected that the higher the number of connections (degree) of a given VC (node), the higher the size of that VC's portfolio size:

***H2**: **Network degree** has a positive effect on portfolio size.*

VC syndication has been a topic of active research in the last decade. Syndication has been considered a mechanism employed by VCs to achieve risk sharing and portfolio diversification. Lerner (1994) finds that, in earlier rounds, established VCs syndicate with each other, while in later rounds, they consider also syndication with less established players, which leads to 'improved-selection' as the main driver of VC syndication. By contrast, Brander et al. (2002) analyze a sample of Canadian biotechnology startups and conclude that the driver is the 'value added' by members of the syndicate (industry knowledge, experience with a particular type of security, etc.). For basic references and further discussion see also Bygrave (1988), Sorenson and Stuart (1999) or Manigart et al. (2002).

In the case of a syndicated investment, the members of the syndicate usually sign a legally binding document known as syndication agreement. The syndication agreement specifies (1) required information disclosures between syndicate members, (2) parties' rights, and (3) funding commitments in future rounds (Hopp and Rieder [2004]). However, as Wright and Lockett (2003) point out, it is not the threat of legal enforcement that legitimates the agreement. Rather, the agreement works because of the impact on reputation that results from infringement of some of its clauses.

Greif (1993) describes the existence of an economic institution, the coalition, which allowed Maghribi traders in the 11th century to employ overseas agents, despite extreme uncertainty and risk of opportunistic behavior. The coalition was 'an economic institution in which expectations, implicit contractual relations, and a specific information-transmission mechanism supported the

operation of a reputation mechanism'.

When VCs sign a syndicate agreement, they know in advance that it will be challenging to legally enforce the terms of the agreement. In the same fashion that Maghribi traders in the 11th century relied on reputation as an enforcing mechanism, the venture capital community relies on members' incentives to keep reputation in order to facilitate collaboration with other members. If a VC signs a syndicate agreement and does not honor it, for example because she refuses to commit new funds when required by the syndicate lead member, then we should observe a decrease in the propensity to work with the member that infringed the agreement. In other words, the VC would suffer a disconnect from the 'deal flow'

Previous analysis of the effects of VC syndicate properties on startup performance yielded two interesting results, only summarized here (Campo-Rembado [2005]). First, it was found that the size of the syndicated first round (number of members), has a positive and significant effect on the propensity to go through new VC rounds, but no effect on the propensity to go public (conditional on the occurrence of new VC funding rounds). Second, the continuity of syndicate members between first and second rounds, has negative effects on the propensity to go public, even after controlling for the size of the second syndicated round; furthermore, it has positive effects on the propensity to fail. These results are driven not only by startup intrinsic value, but also by (1) the effects that VC activity has on the startup's intrinsic quality (the 'value-added' hypothesis), and (2) the effects that VC syndication has on the startup's ability to raise new capital.

In effect, the results are easily explained using the 'value-added' hypothesis. As Brander et al. (2002) suggest, the addition of members to a syndicate increases the pool of intangible capital that is accessible by the startup. Therefore, syndicate size helps the young startup to build an organization and a technological project, helping it to attract future funding. Similarly, the addition of 'new' investors in second round (investors that did not participate in the first round) helps the startup to mature and build an IPO ready company.

Alternatively, this paper conjectures that the size of the syndicate increases the effectiveness of the syndicate as an economic institution and the threat of punishment in case of infringement, thus facilitating the occurrence of new rounds of financing. Participation of first round syndicate members in a second round of financing is driven not only by the attractiveness of the investment, but also by the threat of punishment by the other syndicate members. By contrast, new members in a second round are driven uniquely by investment attractiveness. Therefore, one could argue that the higher the continuity of syndicate members between first and second round, the worse the chances of the company to go public: if the company were attractive, new members would bid high to participate, and the first round lead member would waive first round members' commitment to participate in the second round.

In principle, both alternatives are possible. The second alternative, however, is based on building trust, social embeddedness, and reciprocation (Ferrary [2003]). Under this second alternative, a VC will have additional incentives to honor a syndicate agreement in order to build a trusting relationship with other VCs. If the participation of VCs in a second round helps them establish a reputation as trustable partners, then we should observe that the decision to honor the

syndicate agreement should be positively correlated with the ex-post intensity of joint collaboration among those VC.

The importance of honoring the syndicate agreement will depend on the previously established reputation of the VC. For example, when two big VC partnerships work together, it should not matter too much whether they honor the syndicate agreement or not. Due to their size, none of the parties needs of the other party to run a profitable practice. A similar argument leads us to conclude that the importance of honoring the syndicate agreement between two small VC partnerships should not be decisive neither. Both parties lack the power to incentive the other party to do so. The following hypothesis follows

> ***H3: Size asymmetry*** *between parties in a syndicate agreement will magnify the importance of honoring the syndicate agreement as a predictive factor of ex-post intensity of joint collaboration.*

When the number of second round participants is high enough, the importance of honoring the agreement should diminish. First, the VC partnership that did not honor the agreement can be easily 'forgiven' because its capital was not so urgently needed. Second, the allocation of trust and liabilities should become more and more complex as the number of syndicate members increase. Therefore:

> ***H4****: The* ***number of participants in the second round*** *of financing should ameliorate the importance of honoring the syndicate agreement as a predictive factor of ex-post intensity of joint collaboration.*

IV. Methodology and Data

This paper uses the record of VC deals in the IT and biotechnology industries, in the period 1980-2004. The data was obtained from SDC Platinum VentureXpert database. The sample population includes only those deals in which (1) the company received at least two rounds of financing during the period, and (2) the first round was syndicated.

In the first part of the paper I analyze, using firm level data, the relationship that exists between portfolio size, network degree, and propensity to support portfolio companies (participate in second rounds). In the second part of the paper I analyze, using dyad level data, the relationship between propensity to support portfolio companies, and the propensity to collaborate with the other dyad member in future deals.

IV.a. Analysis of Portfolio Size

The sample population is the set of VC firms that satisfy the following conditions: (1) participated in at least two first round syndicated deals in the period 1980-2004, and (2) portfolio companies went through a second round.

The unit of analysis is the VC firm. The dependent variable is **'Portfolio size'**, which measures the number of *first round deals* in which the VC has participated. The independent variables are

'(average) second round participation', which is computed as the ratio of the number of companies in which the VC participated in first and second round, over the number of first round deals, and **'Network degree'**, which measures the total number of first round unique syndicate partners.

As control variables, I include variables in which the *average* is computed by averaging over different first round deals (**(average) Syndicate size in 1st round, (average) Syndicate size in 2nd round, (average) Syndicate Continuity, (average) Investing intensity before 1st round, (average) Investing intensity between 1st and 2nd round, (average) Investing intensity after 2nd round, (average) Months between 1st and 2nd, (average) Months between 2nd and current, (average) Company state, (average) Industry, (average) VC firm state, (average) Same state company-VC**).

I also include variables in which the *average* is computed by averaging over first round dyads (**Other party (average) Investing intensity before 1st round, Other party (average) Investing intensity between 1st and 2nd round, Other party (average) Investing intensity after 2nd round**), **Other party (average) VC firm state, Other party (average) Same state company-VC**).

Syndicate size is transformed using the log(x+1) functional form; *Syndicate continuity* is measured as the ratio of 'repeaters' in second round over the total number of different participants considering 1st and 2nd rounds together; *Investment intensities* are defined as per-month number of deals (not necessarily first round); The *industry dummy* variable takes the value of 1 for a given company when that company is in the IT industry; *State* dummy variables take the value 1 for a given company or VC when that company or VC are in California or Massachusetts.

Summary statistics and correlations are displayed in tables I and II below.

Table I about here

Table II about here

The models use simple OLS specifications.

IV.b. Analysis of Persistence

The sample population is the set of dyads of VC partnerships that satisfy the following conditions: (1) both VCs participate together in a first round syndicated deal in IT or biotechnology in the period 1976-2004; (2) the startup they fund in first round goes through a second round of financing. An example helps to illustrate. A given company CO goes through rounds 1 and 2. The size of the syndicate in first round is N1. The N1(N1-1)/2 possible different

dyads formed by first round participants will be included in the sample population.

The dyad of VC partnerships is the unit of analysis. When the dyad F1/F2 of VC partnerships (or F2/F1) appears in different syndicated deals, only the 'earliest deal' is considered in the final sample population. Therefore, there are no repeated dyads. The 'earliest deal' is defined as the one with an earliest first round, but other criteria are also possible. One might argue, for example, that the 'earliest deal' is the one with the earliest second round, because it is the second round which defines the independent variable.

The dependent variable (**Intensity of Joint Syndication after the 2nd round**), is defined as the log ratio of the number of joint deals by the dyad members, over the time elapsed between second round and July 2004. The dependent variable captures the average number of joint deals per month (any round), where a 'joint deal' is a syndicated deal in which the two members of the dyad participate.

The dichotomous independent variable (**Joint 2nd round**) registers the participation of the dyad members F1/F2 (or F2/F1) in the second round of the 'earliest deal'. It takes the value of 1 when both members participate. The independent variable captures whether both dyad members 'stay' for the second round or not. The independent variable is intended to capture the decision of the dyad members to stay, but it also captures the decision of the lead syndicate member to invite the non-lead syndicate members in a second round, or the decision of the company to invite the non-lead syndicate members.

As control variables, I include (log) **Syndicate size** in first and second rounds, **Syndicate continuity**, measured as the ratio of 'repeaters' in second round over the total number of different participants considering 1st and 2nd rounds together; (log) **Aggregate investing intensity**, defined as the sum of the log investing intensity of both dyad members; (log) **Difference in investing intensity**, measured as the absolute log difference of investing intensities; **Firms in same state dummy**; and **Firm and company in same state dummy**, which takes the value 1 when at least one of the partnerships in the dyad F1/F2 is in the same state as the target portfolio company. Summary statistics and correlations are displayed in tables IV and V below.

Table IV about here

Table V about here

The econometric specification is a random COMPANY effects, fixed YEAR effects, fixed SUBSECTOR effects model. For a given dyad of VC partnerships f1-f2 that has the earliest registered first joint round in company CO, the specification reads as

[INTENSITY OF JOINT SYNDICATION AFTER THE SECOND ROUND] $_{f1\text{-}f2}$ =

α_1 [JOINTT SECOND ROUND DUMMIE] $_{f1\text{-}f2}$ +
α_2 [SYNDICATE SIZE 1st round] $_{CO}$ +
α_3 [SYNDICATE SIZE 2nd round] $_{CO}$ +
α_4 [SYNDICATE CONTINUITY] $_{CO}$ +
α_5 [AGGREGATE INVESTING INTENSITY] $_{f1\text{-}f2}$ +
α_6 [DIFFERENCE IN INVESTING INTENSITY] $_{f1\text{-}f2}$ +
α_7 [FIRMS IN SAME STATE] $_{f1\text{-}f2}$ +
α_8 [FIRM AND COMPANY IN SAME STATE] $_{f1\text{-}f2}$ +
α_9 [COMPANY RANDOM EFFECT] $_{CO}$ +
α_{10} [YEAR FIXED EFFECT] $_{CO}$ +
α_{11} [SUBSECTOR FIXED EFFECT] $_{CO}$ + $\varepsilon_{f1\text{-}f2}$

V. Results

V.a. Analysis of Portfolio Size

Results are displayed in table III below

Table III about here

Looking at models I to VI, we observe that **'(average) second round participation'** has a negative effect on **'Portfolio Size'**. Those VCs who tend to support the portfolio companies in which they have invested previously, tend to invest in a smaller number of first rounds. Null hypothesis 1 can be rejected.

'Network degree' has a very strong positive effect on **'Portfolio Size'**. Those VCs who tend to work more with other VCs tend to invest in a higher number of first rounds. Since the regression controls for the intensity of investment, this result is not likely to be due to firm level heterogeneity. Null hypothesis 2 is rejected.

The interaction effect in model III shows that those VCs that (1) support portfolio companies in which they already have invested, and (2) simultaneously have a high level of connectivity with other VCs, tend to have a higher portfolio size. The introduction of the interaction effect in model III increases dramatically the level of significance of the first coefficient **'(average) second round participation'**.

The effect of investment intensity (ex post 2nd round) is as expected. Those VCs who are more active, tend to invest in more first rounds. The effect of investment activity between 1st and 2nd round, however, is somewhat surprising. Those VCs who invest in a high number of first rounds during the period of time that elapses between the 1st and the 2nd round of the earliest deal, tend to reduce their participation in first rounds later on. This finding illustrates the idea that startups have to be nurtured. Those VCs that invest intensively in first rounds, must participate later on in second rounds, and do not have enough resources (human and financial capital) to participate

in further first rounds. This finding, therefore, reinforces one of the central ideas of the paper, that VCs have limited resources and must allocate them between new startups and existing portfolio companies.

Interestingly, the effect of **'(average) Syndicate size in 1st round'** is negative and statistically significant, while the effect of **'(average) Syndicate size in 2nd round'** is positive and statistically significant. Those VCs who participate in over subscribed first round deals, tend to have smaller portfolios. Those VCs who participate in over subscribed second rounds, tend to have bigger portfolios.

Finally, those VCs who invest in local startups tend to have bigger portfolios (see model VI). Those VCs who specialize in IT, tend to have bigger portfolios, although the coefficient is not statistically significant.

V.b. Analysis of Persistence

Results are displayed in table VI below

Table VI about here

Model I is the baseline model without interaction terms. The baseline model shows the existence of a strong relationship between joint participation in the second round, and future collaboration. This result suggests that the formation of syndicate networks is characterized by structural 'persistence'. Those VCs who have the chance to work together beyond the first round of financing show higher levels of cooperation among themselves than those VCs who do not commit further funds. The simplest story behind these result is that those VCs who commit beyond the first round are 'deep pocket' partnerships, and henceforth it is only natural that these VCs work more together. To reject this hypothesis, models II and IV display the effect of the interaction terms. Model II suggests that null hypotheses 3 and 4 can be rejected. On the one hand, size asymmetry between VC partnerships magnifies the relevance of honoring the syndicate agreement. On the other hand, the size of the second syndicated round (number of syndicate members) diminishes the relevance of honoring the agreement. The analysis of the interaction terms yields a deeper level of complexity than the 'deep pockets' story above. In particular, we observe that participation in the second round of financing has the biggest effect when the interaction is between a 'deep pockets' VC and a small VC.

Model III suggest some industry heterogeneity. In particular, it must be remarked the difference between biotechnology and software (base case), being the importance of honoring the agreement less relevant in the former than in the later.

In addition to the main results, the control variables yield also interesting observations. In particular, Model III reveals that while the aggregate level of activity is positively correlated with the ex-post intensity of joint syndication, the difference in the level of activity is negatively

correlated with ex-post intensity of joint syndication. The first result is trivial, the more deals the members of the dyad subscribe, the higher the average number of joint syndicated deals. The second result highlights the fact that homophile drives the structure of relations within the VC community. In conclusion, big VCs tend to work with big VCs (Lerner [1994]).

VC partnerships registered in the same state collaborate more; when at least one VC partnership and the company are registered (incorporated) in the same state, the intensity of ex-post joint collaboration diminishes. Again, the first result is trivial (Sorenson&Stuart [1999]). The second result is somewhat intriguing; it suggests that VC partnerships invest in out-of-state first round deals, but not necessarily in successive rounds.

Notably, from models I, II, III and IV, we can deduct a second 'regression to the mean' phenomenon in the behavior of VC partnerships. A high level of investing activity during the time that elapses between 1st and 2nd round is related with a diminished level of ex-post joint collaboration.

VI. Conclusions

The decision to repeatedly participate in successive rounds of financing must consider a variety of factors, such as the attractiveness of the venture, the portfolio diversification disadvantage, the sequence and capitalization of funds raised by the VC partnership, the investment climate, etc. Even in the case in which the venture promises to yield above average risk adjusted returns, the VC might decide not to participate in new rounds of financing because of liquidity constraints. The VC might also be legally forbidden from participating if the VC's investment memorandum specifies explicitly that successive funds cannot participate in the same company (otherwise VCs might be tempted to throw 'good money after bad money')

The results presented here suggest that, in order to decide whether to participate in a second round or not, VCs also consider (1) the effect that their decision will have on the other VCs with whom they are trying to build a trusting relationship, and (2) the opportunity cost of foregone first round investments.

Implications for practitioners. The research presented in this paper is a first attempt to understand the dynamics and micro processes that explain the evolution of the social network among VCs. By understanding how VCs think, how they relate with each other, how they establish and maintain contacts, and how they contribute to deliver funds there where they are needed, entrepreneurs should be able to reduce the cost of raising financing. For example, an entrepreneur might be better off shopping the deal with a 2nd tier VC that has worked in the past with a well established VC, rather than going straight to the established VC. However, the level of development of the paper does not allow, at this point, to prescribe definitive strategies for entrepreneurs.

Implications for scholars. It is not enough to understand what effects network position has on startups' performance. It is necessary also to understand how the network is created. This area of research is, as far as I know, widely unexplored in the context of VC.

Implications for policy makers. If the degree of syndication and 2nd round participation are endogenous, what are then the socioeconomic variables that affect the equilibrium values? Further analysis is deemed necessary to understand the welfare implications of policies that try to impact the level of syndication and, indirectly, the level of VC's support to portfolio companies.

The paper has a number of limitations. First, none of the empirical models control for the level of capital under management. Although the models control for the level of activity in terms of the per period number of deals, I believe that results would be more credible after controlling for dollar fund size. Second, the model could consider the occurrence of join syndicated deals as the arrivals of a Poisson process, and estimate the parameters of the process, instead of computing raw per-period investment intensities. Third, it should be interesting to relate startup's performance with heterogeneity in syndicate composition, not only syndicate size.

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Table I. Summary Statistics, VC Firm Level Data

Summary Statistics					
	Sample	Min	Max	Mean	StDev
Porfolio size (number of portfolio companies)	1367	1.00	134.00	6.88	11.02
(average) 2nd round participation	1367	0.04	1.00	0.55	0.28
Network degree	1367	1.00	288.00	16.27	24.24
(average) Syndicate size (1st round)	1367	0.69	2.83	1.26	0.34
(average) Syndicate size (2nd round)	1367	0.22	2.77	1.25	0.40
(average) Syndicate continuity	1367	0.13	1.00	0.53	0.19
(average) Investing Intensity (before 1st)	1367	0.69	4.83	1.65	0.85
(average) Investing Intensity (between 1st and 2nd)	1366	0.01	1.68	0.24	0.21
(average) Investing Intensity (after 2nd)	1367	0.00	0.92	0.10	0.13
Other party (average) Investing Intensity (before 1st)	1367	0.69	6.69	3.13	1.19
Other party (average) Investing Intensity (between 1st and 2nd)	1366	0.02	3.43	0.60	0.54
Other party (average) Investing Intensity (after 2nd)	1367	0.00	1.88	0.33	0.28
(average) Months between 1st and 2nd	1367	0.00	78.33	13.07	6.28
(average) Months betweeen 2nd and current date	1367	2.00	323.00	99.00	79.53
(average) Company state	1367	0.00	1.00	0.47	0.38
(average) Industry dummie	1367	0.00	1.00	0.89	0.25
(average) VC firm state	1367	0.00	1.00	0.35	0.48
Other party (average) VC firm state	1367	0.00	1.00	0.39	0.27
(average) Same state Company-VC	1367	0.00	1.00	0.40	0.40
Other party (average) Same state Company-VC	1367	0.00	1.00	0.35	0.26
Valid N (listwise)	1366	.	.	.	.

Table II. Bivariate Correlations, VC Firm Level Data

Level of significance is shown in below estimate.

Pearson Correlation (Sig. (2-tailed))	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX
I Porfolio size (number of portfolio companies)	1.00																			
	(.)																			
II (average) 2nd round participation	-0.18	1.00																		
	(0)	(.)																		
III Network degree	0.96	-0.22	1.00																	
	(0)	(0)	(.)																	
IV (average) Syndicate size (1st round)	0.12	-0.26	0.28	1.00																
	(0)	(0)	(0)	(.)																
V (average) Syndicate size (2nd round)	0.06	0.29	0.15	0.55	1.00															
	(0.02)	(0)	(0)	(0)	(.)															
VI (average) Syndicate continuity	-0.19	0.71	-0.21	-0.15	-0.11	1.00														
	(0)	(0)	(0)	(0)	(0)	(.)														
VII (average) Investing Intensity (before 1st)	0.73	-0.31	0.72	0.10	-0.05	-0.28	1.00													
	(0)	(0)	(0)	(0)	(0.06)	(0)	(.)													
VIII (average) Investing Intensity (between 1st and 2nd)	0.53	-0.13	0.49	-0.04	-0.07	-0.14	0.67	1.00												
	(0)	(0)	(0)	(0.19)	(0.01)	(0)	(0)	(.)												
IX (average) Investing Intensity (after 2nd)	0.63	-0.13	0.56	-0.05	-0.08	-0.13	0.71	0.72	1.00											
	(0)	(0)	(0)	(0.05)	(0)	(0)	(0)	(0)	(.)											
X Other party (average) Investing Intensity (before 1st)	-0.01	-0.17	-0.05	-0.15	-0.23	-0.10	0.15	0.17	0.17	1.00										
	(0.76)	(0)	(0.07)	(0)	(0)	(0)	(0)	(0)	(0)	(.)										
XI Other party (average) Investing Intensity (between 1st and 2nd)	-0.07	-0.12	-0.11	-0.19	-0.17	-0.10	0.04	0.24	0.08	0.71	1.00									
	(0.01)	(0)	(0)	(0)	(0)	(0)	(0.13)	(0)	(0)	(0)	(.)									
XII Other party (average) Investing Intensity (after 2nd)	-0.05	-0.11	-0.10	-0.19	-0.16	-0.09	0.05	0.16	0.11	0.66	0.80	1.00								
	(0.04)	(0)	(0)	(0)	(0)	(0)	(0.06)	(0)	(0)	(0)	(0)	(.)								
XIII (average) Months between 1st and 2nd	0.01	-0.11	0.04	0.14	0.05	-0.12	-0.04	-0.29	-0.14	-0.17	-0.23	-0.20	1.00							
	(0.8)	(0)	(0.14)	(0)	(0.08)	(0)	(0.1)	(0)	(0)	(0)	(0)	(0)	(.)							
XIV (average) Months betweeen 2nd and current date	0.16	-0.06	0.25	0.44	0.32	-0.04	0.05	-0.14	-0.23	-0.43	-0.34	-0.29	0.19	1.00						
	(0)	(0.02)	(0)	(0)	(0)	(0.1)	(0.05)	(0)	(0)	(0)	(0)	(0)	(0)	(.)						
XV (average) Company state	0.13	-0.05	0.13	0.05	0.13	-0.14	0.10	0.05	0.05	0.06	0.00	0.05	0.05	0.10	1.00					
	(0)	(0.05)	(0)	(0.09)	(0)	(0)	(0)	(0.09)	(0.09)	(0.04)	(0.87)	(0.07)	(0.09)	(0)	(.)					
XVI (average) Industry dummie	0.03	-0.08	0.03	-0.03	-0.07	-0.06	0.01	0.07	-0.05	0.15	0.19	0.13	-0.16	-0.05	0.01	1.00				
	(0.23)	(0)	(0.34)	(0.24)	(0.01)	(0.03)	(0.79)	(0.01)	(0.05)	(0)	(0)	(0)	(0)	(0.09)	(0.83)	(.)				
XVII (average) VC firm state	0.19	-0.02	0.17	0.01	0.08	-0.07	0.20	0.16	0.19	0.10	0.04	0.09	-0.06	0.00	0.47	0.02	1.00			
	(0)	(0.49)	(0)	(0.65)	(0)	(0.01)	(0)	(0)	(0)	(0)	(0.19)	(0)	(0.04)	(0.94)	(0)	(0.52)	(.)			
XVIII Other party (average) VC firm state	0.13	-0.02	0.12	-0.01	0.06	-0.09	0.14	0.11	0.14	0.06	-0.03	0.02	-0.03	0.02	0.51	0.06	0.40	1.00		
	(0)	(0.43)	(0)	(0.6)	(0.02)	(0)	(0)	(0)	(0)	(0.03)	(0.33)	(0.39)	(0.23)	(0.58)	(0)	(0.04)	(0)	(.)		
XIX (average) Same state Company-VC	0.04	0.02	0.00	-0.11	-0.01	-0.02	0.01	0.03	0.05	0.10	0.08	0.11	-0.06	-0.07	0.14	0.08	0.46	0.13	1.00	
	(0.17)	(0.39)	(0.88)	(0)	(0.61)	(0.48)	(0.83)	(0.26)	(0.08)	(0)	(0)	(0)	(0.03)	(0.01)	(0)	(0)	(0)	(0)	(.)	
XX Other party (average) Same state Company-VC	0.05	0.02	0.02	-0.08	0.02	-0.04	0.00	0.02	0.04	-0.03	-0.05	-0.04	-0.08	-0.04	0.30	0.06	0.24	0.36	0.30	1.00
	(0.08)	(0.41)	(0.47)	(0)	(0.44)	(0.11)	(0.98)	(0.37)	(0.19)	(0.21)	(0.06)	(0.17)	(0)	(0.17)	(0)	(0.02)	(0)	(0)	(0)	(.)

Table III: Portfolio Size, VC Firm Level Data

The dependent variable is the VC's accumulated portfolio size, measured as the total number of startups in which the VC has participated. The independent variables are 'Network degree', which measures the accumulated number of syndicate partners, and '(average) 2nd round participation', which equals the ratio of companies in which the VC participated in a 2nd round after having participated in the company's first round, over the total number of first round deals. The t-ratio is shown beside the coefficient. All models use a standard OLS specification.

Dependent Variable: Porfolio size (number of portfolio companies)

Independent Variables	Model I		Model II		Model III		Model IV		Model V		Model VI	
	coeff	t-ratio	coeff	t-ratio	coeff	t-ratio	coeff	t-ratio	coeff	t-ratio	coeff	t-ratio
(average) 2nd round participation	-3.056	-1.84			-2.857 ***	-5.40	-1.098 *	-2.11	-1.091 *	-2.09	-1.038 *	-2.00
Network degree			0.437 ***	111.84	0.346 ***	36.07	0.437 ***	111.84	0.437 ***	108.72	0.435 ***	107.96
(average) 2nd round participation * Network degree					0.194 ***	10.27						
Syndicate Characteristics												
(average) Syndicate size (1st round)	-0.888	-0.89	-4.820 ***	-21.16	-5.414 ***	-17.79	-5.282 ***	-16.74	-5.283 ***	-16.50	-5.137 ***	-15.99
(average) Syndicate size (2nd round)	3.489 ***	3.70	0.205	1.11	0.649 *	2.28	0.694 *	2.35	0.686 *	2.31	0.612 *	2.05
(average) Syndicate continuity	3.308	1.68	0.259	0.78	1.470 *	2.48	1.351 *	2.20	1.329 *	2.15	1.386 *	2.25
VC Firm Characteristics												
(average) Investing Intensity (before 1st)	7.316 ***	19.84	-0.138	-1.04	-0.326 *	-2.52	-0.152	-1.14	-0.153	-1.13	-0.129	-0.95
(average) Investing Intensity (between 1st and 2nd)	-1.425	-0.92	-1.022 *	-2.12	-0.308	-0.66	-0.982 *	-2.04	-1.019 *	-2.03	-1.079 *	-2.16
(average) Investing Intensity (after 2nd)	23.385 ***	9.55	9.266 ***	11.92	8.394 ***	11.15	9.287 ***	11.96	9.332 ***	11.26	9.448 ***	11.30
Other party (average) Investing Intensity (before 1st)	-0.865 ***	-3.50	0.010	0.13	-0.015	-0.20	0.007	0.10	0.010	0.12	-0.014	-0.17
Other party (average) Investing Intensity (between 1st and 2nd)	0.004	0.01	0.010	0.05	-0.092	-0.43	0.003	0.02	0.003	0.01	0.031	0.14
Other party (average) Investing Intensity (after 2nd)	-1.485	-1.21	0.200	0.52	0.250	0.68	0.168	0.44	0.158	0.41	0.083	0.21
Time												
(average) Months between 1st and 2nd									-0.003	-0.28	0.001	0.10
(average) Months betweeen 2nd and current date									0.000	0.14	0.000	0.11
Location and Industry												
(average) Company state											0.101	0.50
(average) Industry dummie											0.396	1.57
(average) VC firm state											0.044	0.26
Other party (average) VC firm state											-0.028	-0.10
(average) Same state Company-VC											0.457 *	2.52
Other party (average) Same state Company-VC											0.301	1.13
Constant	-7.320 ***	-5.35	4.887 ***	11.05	6.388	14.23	4.924 ***	11.14	4.970 ***	10.29	4.145 ***	7.39
R2	0.585		0.959		0.962		0.959		0.959		0.96	
F	190 ***		3193 ***		2882 ***		2910 ***		2459 ***		1699 ***	
df	1365		1365		1365		1365		1365		1365	

*** p<.1%; ** p<1%; * p<5%

Table IV. Summary statistics, Dyad Level Data

Summary Statistics					
	Sample	Min	Max	Mean	StDev
Intensity of Join Syndication After 2nd Round	12843	0.00	1.09	0.05	0.10
Join Second Round (2nd)	12843	0.00	1.00	0.41	0.49
Syndicate Size (1st round)	12843	0.69	2.83	1.56	0.53
Syndicate Size (2nd round)	12843	0.00	3.09	1.19	0.81
Syndicate Continuity	12843	0.00	1.00	0.47	0.28
(Aggregate) Investing Intensity (before 1st)	12843	1.39	10.42	4.09	1.83
(Aggregate) Investing Intensity (between 1st and 2nd)	12796	0.00	4.00	0.62	0.53
(Aggregate) Investing Intensity (after 2nd)	12843	0.00	2.48	0.36	0.34
(Difference in) Investing Intensity (before 1st)	12843	0.00	5.40	1.22	1.03
(Difference in) Investing Intensity (between 1st and 2nd)	12796	0.00	2.76	0.29	0.31
(Difference in) Investing Intensity (after 2nd)	12843	0.00	1.54	0.19	0.21
Firms in Same State	12843	0.00	1.00	0.27	0.45
Firm and Company in Same State	12843	0.00	1.00	0.56	0.50

Table V. Bivariate Correlations, Dyad Level Data

Level of significance is shown in below estimate.

Pearson Correlation (Sig. (2-tailed))	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
I Join Second Round (2nd)	1.00											
	(.)											
II Syndicate Size (1st round)	-0.11	1.00										
	(0)	(.)										
III Syndicate Size (2nd round)	0.50	0.35	1.00									
	(0)	(0)	(.)									
IV Syndicate Continuity	0.64	-0.12	0.41	1.00								
	(0)	(0)	(0)	(.)								
V (Aggregate) Investing Intensity (before 1st)	0.12	-0.07	-0.02	0.08	1.00							
	(0)	(0)	(0.089)	(0)	(.)							
VI (Aggregate) Investing Intensity (between 1st and 2nd)	0.20	-0.08	0.08	0.12	0.58	1.00						
	(0)	(0)	(0)	(0)	(0)	(.)						
VII (Aggregate) Investing Intensity (after 2nd)	0.15	-0.16	0.02	0.10	0.51	0.63	1.00					
	(0)	(0)	(0.021)	(0)	(0)	(0)	(.)					
VIII (Difference in) Investing Intensity (before 1st)	-0.01	-0.07	-0.03	0.02	0.37	0.25	0.27	1.00				
	(0.351)	(0)	(0)	(0.097)	(0)	(0)	(0)	(.)				
IX (Difference in) Investing Intensity (between 1st and 2nd)	-0.10	-0.02	-0.04	-0.05	0.34	0.61	0.42	0.46	1.00			
	(0)	(0.021)	(0)	(0)	(0)	(0)	(0)	(0)	(.)			
X (Difference in) Investing Intensity (after 2nd)	0.02	-0.09	0.00	0.03	0.34	0.42	0.69	0.42	0.57	1.00		
	(0.092)	(0)	(0.731)	(0.002)	(0)	(0)	(0)	(0)	(0)	(.)		
XI Firms in Same State	0.05	-0.11	-0.01	0.03	0.01	0.01	0.02	-0.02	-0.04	-0.02	1.00	
	(0)	(0)	(0.273)	(0)	(0.223)	(0.107)	(0.007)	(0.008)	(0)	(0.019)	(.)	
XII Firm and Company in Same State	0.06	-0.11	0.01	0.04	0.04	0.02	0.03	0.02	-0.01	0.00	0.16	1.00
	(0)	(0)	(0.519)	(0)	(0)	(0.008)	(0)	(0.032)	(0.352)	(0.747)	(0)	(.)

Table VI: Intensity of Joint Syndication After 2nd Round, Dyad Level Data

The dependent variable is the dyad members' intensity of join participation in syndicated deals, measured after the occurrence of the second round of the earliest deal in which both dyad members participated. The independent variables is a dummy variable that takes the value of 1 when both dyad members participate in the second round of the earliest deal in which both dyad members participated. Models I-V use year fixed effects, company random effects specifications. The t-ratio is shown beside the coefficient. Wald ratios are shown for random effect estimates.

Dependent Variable: Intensity of Join Syndication After 2nd Round

	Model I		Model II		Model III		Model IV		Model V	
Independent Variables	coeff	t-ratio	coeff	t-ratio	coeff	t-ratio	coeff	t-ratio	coeff	t-ratio
Join Second Round (2nd)	0.024 ***	12.44	0.038 ***	6.77	0.059 ***	11.06	0.033 ***	9.27	0.045 ***	7.28
Interaction terms										
2nd * Difference in Investing Intensity (before 1st)			0.003 **	2.59	0.004 **	3.09			0.003 *	2.17
2nd * Syndicate Size (2nd round)			-0.011 ***	-3.65	-0.016 ***	-5.56			-0.010 ***	-3.4
2nd * Bio							-0.023 ***	-3.82	-0.020 ***	-3.29
2nd * Internet							-0.013 **	-2.58	-0.014 **	-2.7
2nd * Semiconductors							-0.017 **	-2.94	-0.014 *	-2.43
2nd * Communications							0.003	0.5	0.004	0.86
2nd * Hardware							-0.014 **	-2.82	-0.011 *	-2.08
2nd * Software							-		-	
Controls										
Syndicate Size (1st round)	0.004	1.19	0.006	1.76	0.002	0.46	0.004	1.17	0.006	1.69
Syndicate Size (2nd round)	-0.008 ***	-3.83	-0.006 **	-2.95	-0.003	-1.31	-0.008 ***	-3.8	-0.006 **	-2.92
Syndicate Continuity	0.027 ***	5.49	0.019 ***	3.46			0.026 ***	5.23	0.018 ***	3.39
(Aggregate) Investing Intensity (before 1st)	0.000	-0.26	0.000	-0.14	0.012 ***	23.8	0.000	-0.29	0.000	-0.2
(Aggregate) Investing Intensity (between 1st and 2nd)	-0.008 **	-2.85	-0.008 **	-2.92			-0.008 **	-2.8	-0.008 **	-2.86
(Aggregate) Investing Intensity (after 2nd)	0.184 ***	44.49	0.183 ***	44.48			0.183 ***	44.26	0.183 ***	44.32
(Difference in) Investing Intensity (before 1st)	0.001	0.829	-0.001	-0.761	-0.006 ***	-6.87	0.001	0.91	0.000	-0.46
(Difference in) Investing Intensity (between 1st and 2nd)	-0.007 *	-2.15	-0.007 *	-1.98			-0.007 *	-2.23	-0.007 *	-2.08
(Difference in) Investing Intensity (after 2nd)	-0.133 ***	-26.21	-0.133 ***	-26.19			-0.133 ***	-26.13	-0.133 ***	-26.15
Firms in Same State	0.003	1.86	0.003	1.85	0.004 **	2.51	0.003	1.85	0.003	1.83
Firm and Company in Same State	-0.003 *	-2.13	-0.003 *	-2.09	-0.002	-1.27	-0.003 *	-2.16	-0.003 *	-2.12
Fixed Industry-Sector Effects	incl.		incl.		incl.		incl.		incl.	
Fixed Year Effects	incl.		incl.		incl.		incl.		incl.	
Random Company Effect (Variance, Scaled Indentity)	0.004 ***		0.004 ***		0.004 ***		0.004 ***		0.004 ***	
Wald Z	25.21		25.23		26.08		25.23		25.24	
Residual	0.004 ***		0.004 ***		0.004 ***		0.004 ***		0.004 ***	
Wald Z	67.31		67.30		67.67		67.31		67.30	

*** p<.1%; ** p<1%; * p<5%