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## Is Venture Capital a Local Business? A Test of the Proximity and Local Network Hypotheses<sup>\*</sup>

## Robert Wuebker<sup>1</sup>, William Schulze<sup>2</sup>, and Roman Kräussl

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#### Abstract

Venture capital (VC) investment has long been conceptualized as a local business, in which the VC's ability to source, syndicate, fund, monitor, and add value to portfolio firms critically depends on their access to knowledge obtained through their ties to the local (i.e., geographically proximate) network. Consistent with the view that local networks matter, existing research confirms that local and geographically distant portfolio firms are sourced, syndicated, funded, and monitored differently. Curiously, emerging research on VC investment practice within the United States finds that distant investments, as measured by "exits" (either initial public offering or merger & acquisition) out-perform local investments. These findings raise important questions about the assumed benefits of local network membership and proximity. To more deeply probe these questions, we contrast the deal structure of cross-border VC investment with domestic VC investment, and contrast the deal structure of cross-border VC investments that include a local partner with those that do not. Evidence from 139,892 rounds of venture capital financing in the period 1980-2009 suggests that cross-border investment practice, in terms of deal sourcing, syndication, and performance indeed change with proximity, but that monitoring practices do not. Further, we find that the inclusion of a local partner in the investment syndicate yields surprisingly few benefits. This evidence, we argue, raises important questions about VC investment practice as well as the ability of firms to capture and lever the presumed benefits of network membership.

**JEL Classifications:** E20, E65, N14, O52, P52 **Keywords:** Venture Capital, Internationalization, Networks

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Venture capital (VC) investment has long been conceptualized as a local business, and the scholarly canon provides three complimentary reasons why this ought to be so. First, agency issues between the VC and the entrepreneurial firm are severe. Venture capitalists attempt to mitigate uncertainty and the threat of adverse selection by relying on networks of trusted partners to refer or source promising deals; conduct intensive due diligence including on-site visits and in-person reference checking; and build investment syndicates with other VC firms. The ability to tap local networks for deal sourcing and syndication, as well as the non-trivial expense of due diligence processes, suggest that the cost of investment will be sensitive to the distance between VCs, as well as the firms in which they plan to invest (Gompers, 1995; Sorenson and Stuart, 2001; Hochberg, Ljungqvist and Lu, 2010; Guler & Guillén, 2010a).

Second, VCs provide portfolio firms with more than capital (Hsu, 2004). They add value by facilitating access to key technical and management talent (Hellman and Puri, 2002), providing advice and coaching (Gorman and Sahlman, 1989) facilitating entry into new markets (Hsu, 2006), brokering strategic alliances (Lindsey, 2008), and shepherding the firm through the initial public offering or trade sale process (Barry, et al., 1990; Brav and Gompers, 1997). VCs intensively monitor portfolio firms post-investment by taking positions on the board of directors and by tying additional investment to the achievement of performance objectives (Gompers, 1995). These value-added services are more difficult and more costly to provide at a distance.

Third, research confirms that the demography of the VC industry is characterized by geographic concentration or clustering of in terms of both location and patterns of investment. Chen, Gompers, Kovner, and Lerner (2010) and Cumming and Dai (2010) find that more than half of all U.S.VCs are located in three metropolitan areas (San Jose, Boston, and New York) and that more than half of all VC investment (and 54% of all investment rounds) are made in companies located in these regions. Patterns of investment also reflect a strong local bias. Chen et al (2010) estimate that VCs are approximately six times more likely to invest in a firm located in their local CSA (combined statistical area) than in more distant locations.

Against this backdrop, two developments are surprising. The first is that recent research on VC investment practice within the United States found that distant investments, as measured by "exits" (IPO or merger and acquisition) out-perform local investments. While Chen et al (2010) speculate this out-performance is the product of a higher "hurdle rate" on non-local investment, the fact they also find that returns decline with repeated investment in non-local regions is curious given existing assumptions about the how VCs add value to portfolio firms, as well as the presumed benefits of privileged access to network-derived local knowledge. Second, the rising trend in cross-border VC investment (rising from 4% of total VC investment in 1995 to a high of 19% in 2006) is incommensurate with core assumptions of the proximity and network hypotheses, both of which favor local investment. Existing research, however, sheds little light on how investment practice varies with distance. Are cross-border deals structured the same as local deals? Do non-local partners perform the same functions as local partners?

To more deeply probe these questions, we explore the effect of proximity and local networks on investment practice and VC returns by contrasting cross-border VC investment with domestic VC investment, and cross-border investments that include a

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local partner with those that do not. We develop and test hypotheses about the effect of cross-border risk on three dimensions of investment practice (deal sourcing, deal structuring, and deal monitoring) and investment performance using data from 139,892 rounds of venture capital financing in the period 1980-2009. If the proximity hypothesis is correct, deal structure should change when borders are crossed. If network theory is correct, VCs will have incentive to include local partners in the investment syndicate in an effort to improve information quality, mitigate distance-related risk, mitigate country-related risk, add value to the target firm, reduce monitoring costs and enhance firm performance. It follows that cross-border deals that include local partners should become more like local deals. Contrary evidence would then raise important theoretical questions about presumed benefits of network membership, as well as the member firm's ability to lever network-derived advantages in both local and distant markets.

#### THEORY AND HYPOTHESES

To date, social network theory has played a prominent role in the exploration of VC investment in the fields of management (Guler & Guillén, 2010a), finance (Hochberg, Ljungqvist & Lu, 2007) and sociology (Sorenson & Stuart, 2001). Social networks are viewed as playing as crucial role in locating and evaluating investment opportunities, forming investment syndicates, providing value-added services such as finding managerial talent and establishing relationships with critical suppliers and customers, and providing oversight. VC's develop and sustain networks of professional relationships by referring deals to friends, inviting them to join investment syndicates, sharing ideas and knowledge about emerging technologies, and engaging in other acts of reciprocity. Continued reciprocity, as well as increased frequency of information

exchange, are viewed as sources of increased social stature (Podolny, 2005), and as credible signals of firm quality and partner integrity (Jensen and Roy, 2003). Those who are centrally located, and are thus advantaged with respect to the quantity information flows, are thought to be in a position to obtain information earlier and/or of better quality than those who are located less proximally within the local VC network. Social network theory thus views proximity as a relational construct that moderates the firm's ability to leverage the benefits of network membership (Burt, 1992; Podolny, 2005).

The role of geographic proximity in social network theory is, however, a bit more ambiguous. The notion that geographic proximity is important is readily evident in the theory: geographic proximity greatly facilitates the frequency of exchange and acts of reciprocity. Valuable knowledge—that is, information that is costly to exchange-is also viewed as being deeply embedded into a context that can only be understood and appreciated by those experienced in it. Notions of geographic proximity are frequently evoked in theory (e.g., local and home; Sorenson & Stuart, 2001; Hochberg et al, 2010), and different types of network-based advantage are recognized as being more readily transferable (or location-specific) than others. Guler & Guillén (2010a) for example, posit that network-derived marketing and information brokerage advantages are locationspecific while others, such as social status, may be more readily transferred across markets and locations. In the main, geographic proximity is viewed as facilitating the firm's ability to lever network benefits, and so moderates the relationship between network membership and performance.

However, geographic proximity plays a different role in financial and economic theory. Financial theory, for example, directly relates distance with risk. Both theoretical

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work (Bergemann and Hege, 1998; Kanniainen and Keuschnigg, 2004) and empirical evidence (Gompers, 1995; Sorenson and Stuart, 2001; Brander, Amit and Antweiler, 2002; Chen, Gompers, Kovner and Lerner, 2010; Hochberg, Ljungqvist and Lu, 2010) confirm that risk is strongly associated with distance from the home office. Firms that are more distant from the home office receive less favorable terms, smaller rounds of investment, and less total capital investment (Gompers, 1995; Bengtsson & Ravid, 2010). Distance from the home office is associated with larger syndicate sizes (Sorenson & Stuart, 2001) and also reduces the likelihood of that the distant investor will take a seat on the board of directors (Gompers, 1995). Bengtsson and Ravid (2010) find that "contractual harshness," which is defined as the extent to which U.S. VC investment contracts include cash flow contingencies that favor investors; e.g., anti-dilution clauses, also rises sharply when the VC and the target company are located in different states.

Geographic proximity, on the other hand, is not only viewed as directly reducing risk and transaction cost, but is also thought to greatly facilitate the VC firm's ability to add value to its portfolio firms by, as noted earlier, providing access to needed physical and managerial resources, making advice and counsel readily available, and so forth. Geographic proximity thus indirectly enhances VC firm performance. Theory, then, suggests that proximity should be both directly and indirectly related to investment practice and performance outcomes, whereas network effects should be indirectly related to the same.

In this paper, we test this supposition by extending this line of reasoning to the cross-border context, an environment in which the effect of distance-associated risk, or proximity, on VC investment should be readily evident. While a combination of travel

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and technology could, in principle, reduce the effect of within-nation distance-related risk, the cross-border context adds layers of investment risk that technology and travel cannot ultimately ameliorate. Such sources of risk include fluctuation in currency values, new (changing) regulatory environments, capital market quality, and sovereign risk. The cross-border context also places into relief the importance of the local VC network since the offshore investor is necessarily disadvantaged relative to local investors from a network perspective. Theory, however, strongly suggests these disadvantages can be ameliorated through alliance with local investors.Hence, we anticipate that the crossborder context will contour deal sourcing, structuring, and monitoring practices, as well as the performance of cross-border venture capital investment in a manner that allows us to tease apart their direct and indirect effects, and so reveal information about whether and how these effects are made manifest.

One straightforward solution for mitigating risk in VC investments is to alter deal sourcing practice by, for example, investing in entrepreneurial firms that are in later stages of development. For early-stage firms to grow to maturity, infusions of human capital (in the form of VC attention and additional human resources) along with financial capital are often required (Hellmann and Puri, 2000). In later stages of investment, less time, attention, and capital is required of the VC, as much of the risk associated with the technology or with the viability of the business model has been resolved (Gompers, 1995). Information asymmetry between investors and entrepreneurs is also most pronounced in young firms and early-stage investments (Bergemann and Hege, 1998; Kanniainen and Keuschnigg, 2004), and are reduced with maturity. Cross-border risk can also be reduced by investing in target firms located in larger and/or more stable

economies (e.g., Germany), and/or in nations that have better quality (i.e., less risky) capital markets (e.g., United Kingdom) (Balcarcel, Hertzel, and Lindsey, 2009). The proximity hypothesis thus suggests that cross-border investments will tend to be in more mature, later stage companies when compared with domestic investments.

Hypothesis 1: Cross-border investments will tend to be made in older firms and/or those that are at later stages of development than domestic VC investments.

The network hypothesis asserts that VCs develop and structure networks to help promote the exchange of information, resources, and expertise. Offshore VCs who establish relationships with local VCs have the opportunity to learn about economic conditions in the target market, and to observe how their partners navigate in the local entrepreneurial landscape (Guler & Guillén, 2010a). Partnership with local VCs might then allow the offshore VC to identify promising investment opportunities in younger firms and in those that are at earlier stages of development. Partnership with local VCs may also yield long-term dividends by facilitating eventual deal exit via merger or acquisition of the target firm by other local firms or investors (Chemmanur, Hull, and Krishnan, 2010). Finally, relationships with a local partner may facilitate investment by reducing the investor's exposure to political, legal, or regulatory sources of risk.

Hypothesis 2: Cross-border investments that include a local venture firm in the syndicate are likely to be in younger firms and or firms at earlier stages of development than cross-border investments made by syndicates that exclude a local partner.

Another common way to mitigate risk in VC investment is to add additional investors to the financing round (Admati and Pfleiderer, 1994). Syndication reduces risk by amortizing the cost of a failed investment across a larger group of investors. The presence of more investors may also serve as a positive signal about the underlying quality of the investment (Brander et al., 2002). Building on insights from previous empirical work in a U.S. setting (Lerner, 1994; Sorenson and Stuart, 2001; Hochberg et al., 2007) scholars have suggested that the greater risk of cross-border VC investment should lead to increased syndicate size (Guler and McGahan, 2006).

*Hypothesis 3: The number of syndicate partners in cross-border deals will be higher than in domestic investment syndicates.* 

The network hypothesis suggests that offshore syndicate have incentive to change the composition of the investment syndicate by choosing to recruit a local VC as a member. First, and as noted earlier, local VCs are embedded in networks that provide numerous information advantages to its members, advantages that are simply not available to outsiders. Improved information may allow the investment syndicate to identify more attractive investment opportunities and/or to better evaluate the quality of its management team. Local partners may also be more knowledgeable about local market conditions as well as the effects of technological change on the target firm's capabilities. Outside firms might also seek local partners in an effort to overcome legal or regulatory barriers, and/or to reduce their associated costs. The prospect that partnership with offshore investors will increase the local VC's access to financial resources and offshore investment opportunities also gives it incentive to join the cross-border syndicate. The proximity of the local VCs to the target firm also reduces the transaction costs of sourcing and structuring the investment in ways that mitigates distance-related risk. It is not immediately clear, however, whether the local VC's role in the syndicate is as substitute for an offshore partner – in which case syndicate size should *not* grow – or if they are viewed as a complement to information resources provided by existing partners and/or as a mechanism for diversifying risk, in which case syndicate size *should* grow. Since it seems likely that local partners will provide the most financial benefit to syndicate members when the local investor serves as a substitute for another (off-shore) investor, we posit that cross-border syndicates that include a local partner are likely to be smaller than domestic syndicates.

# *Hypothesis 4: Cross-border investment syndicates that include local partners will be smaller than cross-border syndicates that do not include a local partner.*

After having made the investment in an entrepreneurial firm, VCs can continue to mitigate risk by engaging in intensive monitoring and oversight by varying: (1) the amount and timing of capital infusions and (2) representation on the board of directors of the entrepreneurial firm.

Providing capital to an entrepreneurial firm in tranches over time—known as staging—may be the most potent monitoring and risk reduction mechanism that VCs can employ (Sahlman, 1990). The delivery of financing in discrete stages, whether at the time of initial investment, as well as over subsequent financing rounds, facilitates periodic re-evaluation of the entrepreneurial firm. Monitoring can also be increased by reducing the

amount of time between funding rounds. As noted by Gompers (1995) this keeps the entrepreneur on a "tight leash" and reduces potential losses. In a random sample of 794 U.S. VCs, Gompers (1995) finds that staging is a potent mechanism for monitoring: firms that do not perform well are cut off from subsequent financing. Chemmanur et al (2010) draw from data about cross-border VC investment in emerging economies and conclude that staging appears to substantially offset the larger monitoring costs associated with investment in distant economies. Building on these insights, we propose that the amount of capital provided by an investment syndicate per round in cross-border deals will be lower when compared to domestic deals. We also expect that the time between financing rounds will be shorter for cross-border investments:

Hypothesis 5: Cross-border deals are characterized by (a) smaller amounts of capital per round, and (b) shorter time between rounds when compared to domestic deals.

However, the network advantages of local partnership ought to provide information advantages that mitigate the agency costs associated with cross-border investment. Local partnerships (and increased flow of local knowledge) might also help the investment syndicate adapt better to changing institutional and competitive conditions, and to shape the flow of needed resources to altered circumstances (Chemmanur et al, 2010; Balcarcel et al, 2009). As a result, we anticipate that local partnership will loosen the financial leash such that we observe increased funding per round and an increase in the period between rounds. These relationships should be readily observed in syndicates that have significant cross-border investment experience, and so are better able to manage distance-related risk.

Hypothesis 6: The presence of local investors in a cross-border investment syndicate round is associated with (a) larger amounts of capital per round, and (b) increased time between rounds as compared to cross-border deals that lack a local partner.

In work examining the oversight of entrepreneurial firms in a sample of U.S. venture deals, Lerner (1995) finds that VC board representation is greater both when the need for oversight is higher; e.g., during the transition to a new chief executive officer, and when it is more convenient (less costly) for the investing firm to do so. Consistent with these conjectures, Lerner (1995) also shows that organizations with offices within five miles of the VC firm are twice as likely to have VC board members as those more than five hundred miles away. Given distance, attention, and the impact of travel on board representation in previous research (Gompers, 1995; Cumming and Dai, 2010; Sorenson & Stuart, 2001) the proximity hypothesis suggests that the likelihood of the VC taking a board seat should be lower in cross-border deals when compared to domestic deals:

*Hypothesis 7: The likelihood of a venture capitalist taking a board seat is lower in cross-border deals than in domestic deals.* 

The notion that board representation is the key communication conduit between VCs and their portfolio firms is an implicit element of both the proximity and network hypotheses. Board service allows the VC to directly engage with firm management, and to gain a deeper understanding of firm strategy, as well as the nature of the problems it faces (Hochberg et al, 2007). VCs also add value by facilitating the flow of information between the target firm and members of the VC's network (Hsu, 2004). Such knowledge should be valuable in cross-border contexts, in which "local knowledge" may have played an important role in deal sourcing and syndicate formation (Chemmanur et al, 2010). However, local knowledge is, by definition, difficult to transfer, which makes direct engagement with portfolio firms relatively more important for cross-border investments than for domestic investments (Sorenson and Stuart, 2001; Guler and McGahan, 2007).

*Hypothesis 8: The likelihood of a venture capitalist taking a board seat is higher in cross-border deals when the investment syndicate includes a local partner.* 

We now consider the performance implications of the proximity hypothesis. It is not clear whether proximity and performance necessarily go hand in hand. After all, if VC is indeed a primarily local business, and most investment is local, then competition for local investment opportunities among venture capital firms might give them incentive to accept lower returns, or take on relatively greater risk, when investing in local firms (Chen et al, 2010; Cumming and Dai, 2010). It also gives them incentive to invest in distant markets, providing the promised returns exceed the costs and risks associated with more distant investment. The paradoxical implication is that returns from distant investments, which have a higher hurdle rate, might then be stronger for VC firms than local investments. Chen et al. (2010) test this proposition using a sample of hand-collected data on branch offices in United States Combined Statistical Areas (CSA) over the period 1975 to 2005 and find non-local investments outperformed investments that were made closer to a home office. In further tests, the authors documented that the observed difference in performance was equally attributable to early and late-stage investments, which reduces the probability that superior performance was the product of VC firms "cherry picking" distant investments that are nearing exit. Accordingly, we hypothesize that VCs will require higher hurdle rate for distant investments in order to overcome the increased cost and risk associated with sourcing, adding value to, and monitoring a distant portfolio firm, and so should experience relatively greater returns:

Hypothesis 9: Cross-border VC investments are more likely to have successful outcome (IPO or merger and acquisition) than domestic investments.

The curious, and ironic, implication of this line of reasoning is that if an offshore investment is indeed sufficiently attractive to justify foreign investment, it is also possible that it does *not* require the sort of intensive local monitoring or short financial leash that the proximity hypothesis suggests is needed. Competition among both local and offshore VCs for attractive investment opportunities may also give offshore investors incentive to "sweeten the deal" by reducing the intensity of monitoring or to rely upon less intrusive mechanisms (e.g., periodic management reports, Twitter traffic, and so on) to monitor performance. It follows that offshore investors may have incentive to eschew local partners when investment opportunities are most attractive, but, as both the proximity and network hypothesis suggest, to add them when attractive offshore investment opportunities are difficult to identify or evaluate, and/or when added risk justifies more intense supervision. The somewhat surprising implication is that we might then expect VCs to use the identical deal structure for attractive investments, regardless of location, but to increase monitoring and strive to add value when they undertake less optimal investments. In such cases, local syndicate partners may be recruited in an effort to reduce the transactions cost of supervision and/or to better add value to the portfolio firm. Accordingly, we anticipate that returns for offshore VC investments that involve a local partner will be lower than offshore investments that do not involve a local syndicate partner:

*Hypothesis 10: Cross-border VC deals that include a local partner in the deal will perform worse than cross-border deals that do not involve a local partner.* 

#### SAMPLE AND METHODOLOGY

The data for our study are mainly drawn from the VentureXpert database, which provides detailed information on VC investment including the dates of financing rounds, the amount invested, the VC firms participating in the investment, and information on the entrepreneurial firm including its stage of development, location, and industry. VentureXpert is the only VC investment database endorsed by the National Venture Capital Association (NVCA) and has been used extensively in research on VC investment (e.g. Sorenson and Stuart, 2001; Guler and Guillén, 2010a, b; Hochberg et. al. 2007, 2010).

Two well-known shortcomings of VentureXpert are that information about fund performance data is incomplete, and the database does not include information that positively identifies which member of the investment syndicate joined the board of the target firm on the date of investment. To obtain performance data, drew on two SDC databases: SDC Global New Issues and SDC Mergers and Acquisitions. We also use Pratt's Guide to Venture Capital Investment and Thomson Venture One to obtain information about venture firm location (when missing). None of the available databases, however, positively identify the newly appointed board member, forcing us to rely on a coarse measure—whether a syndicate member took a board seat in a particular financing round—to test our propositions.<sup>1</sup>

Our sample excludes data for financing rounds allocated to buyouts, bridge loans, and acquisitions, as well as corporate venture capital (CVC) investments. Previous studies examining CVC find that the motives for investment differ from that of professional VC, often investing for strategic reasons only partially related to investment returns, and that CVC organizations often have a different organizational form and incentive structures as compared to traditional VC firms, and these differences are likely to influence patterns of investment, approaches to monitoring and governance, and ultimately performance (Gompers and Lerner, 1998; Hellmann, 2002).

<sup>&</sup>lt;sup>1</sup> While some researchers have used a process of elimination to identify the lead investor in certain circumstances, this data is only valid under conditions that our questions exclude. Also, reliability of the resulting data cannot be positively verified. For example, while we may be able to identify the board member in cross-border deals in which syndicate size equals two, we cannot do so in syndicates that have more than two members, or in domestic investments, or in a variety of other situations.

For the purposes of this study, we restrict analysis to VC investments made between 1980 and 2009, and to investments made in the USA and EU-15. Investments prior to 1980 have been excluded due to data quality concerns (Kaplan et al., 2002). We restricted our focus to the USA and EU-15 for two reasons. First, deal-level data for investments in these developed nations is relatively complete and performance data is both available and verifiable, allowing for reliable analysis. Deal-level data about investments in lesser-developed economies is less complete-many fields are missing and performance data is less reliable and often unobtainable. Second, variance in levels of economic development could introduce a potential confound in our research design since venture investment in developed and developing nations are likely to have different motivations. For example, it seems reasonable to assume that most VC investment in developed nations is financially motivated. Venture investment in developing nations, on the other hand, is viewed as an engine of economic growth, and so is often subsidized by government or international institutions like the World Bank. The Israeli government, for example, heavily subsidizes R&D investment by private firms and, for a period in the 1990's, and even created a tax haven for offshore investors; i.e., investment proceeds were not taxed by Israel or the investor's home nation (Lach, 2002). We also reason that the USA and EU are relatively homogeneous with respect to information technology, transportation, quality of legal and other regulatory institutions, and quality of their capital markets, thereby enhancing the quality of our tests of hypotheses concerning investment practice and, most importantly, venture performance.

Our sample includes 70,020 entrepreneurial firms that received a total of 139, 892 rounds of financing during the sample period 1980-2009. Nearly half of these

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entrepreneurial firms (34,674) are located in the U.S., leaving 35,346 ventures located in the rest of the world, underscoring the international representation in our sample. Over a period of 29 years, a total of 13,297 different VC firms undertook rounds of investment. The sample is balanced between VC firms based in the U.S. (7,146) and outside the U.S. (6,151).

We test our core hypotheses using negative binomial and Probit regression, a form of logistic regression that effectively transforms the model so that the fitted values are bounded within the range of probabilities. In our probit models, we follow Hoetker (2007) and use a maximum likelihood estimation method (MLS) to explore the value and statistical significance of the marginal effect of explanatory variables. Lastly, and as suggested by Wiersema and Bowen (2009), we estimate the practical significance of our probit results by calculating the marginal impact of a unit change  $x_{ki}$  on the probability that  $y_i$  equals 1 (given by  $\beta_k F(z_i)$ , where  $\beta_k$  is the parameter attached to  $x_{ki}$ ).

We use five dependent variables and eleven independent variables in our Probit and negative binomial regression models. Our main dependent variable, *Cross-Border Deal*, is a dummy variable that identifies whether the deal is a cross-border deal (1) or a domestic deal (0). A deal is classified as cross-border if the national affiliation of any member of the investment syndicate differs from the national affiliation of the target firm. In domestic deals, the national affiliation of the target firm and all syndicate members is identical. *Local Investor* is a dummy variable (1/0) that indicates whether the home nation of the syndicate member is the same as the national affiliation of the target firm. We code *Age* of the target firm at first investment in years. We followed Gompers (1995) and coded rounds described as "early" or "seed" in VentureXpert as *Early Stage* investment.

Syndicate *Size is* the total number of partners involved in each round of investment. Syndicate size is used as an IV in our probit regressions (all of which use cross-border investment as the DV) and as a DV in tests concerning syndicate size (H3 & H4). *Prior International Investment* is measured as the average number of international investments that had been undertaken by syndicate members prior to the date of investment in the target firm. We control for international investment experience because those who know more about offshore markets may source or structure cross-border deals differently than those with less international experience.

We use *Time* between rounds (in days) and round *Amount* (in thousands of constant USD) to examine characteristics of investment staging. *Board Seat* is a dummy variable that takes the value of 1 if a syndicate member takes a seat on the board of entrepreneurial firm and 0 otherwise. We also use board seat as a DV in our tests of H7 & H8. While it is customary for the lead investor—the partner who organized the syndicate and makes the largest financial investment—to take a board seat in early investment rounds (Series A and so on), this is not necessarily true in later stages. For example, some syndicate members may already be represented on the board due to earlier investment in the target firm – in which case their participation in the current round is a consequence of their earlier commitment to the portfolio firm—or because existing investors (e.g., the founder and VCs) are able to resist requests for added board seats as a condition of investment. Firms may be able to resist such requests if the investment is small, if ownership had already been diluted to the point where added investment does not merit a

board seat, or if further dilution would not be in the investors' interests. For example, it may not be in the investor's interest to further reduce the executive team's (ownership) incentive to bring the firm to a stage where investors can exit via IPO or M&A. We also use dummy variables that detail whether or not the target firm successfully exited through *IPO* or merger and acquisition (M&A) and use these as dependent variables in our tests of H9 & H10.

We use a series of dummy variables to control for year, industry, and country effects. Our sample includes data from investments in 69 industries and 16 nations over a 29 year period (See Tables IV and V). We tested the robustness of our results for crossborder investment by running our regressions over time in three to five year windows, and rolling the same windows across the period 1980-2009. We also test the robustness of our claims concerning cross-border risk by replacing our country dummy variable with Country Risk Premium and with Political Risk in our models. We follow Damodaran (2006) and use a nation's long-term equity risk premium as our proxy for Country Risk Premium, a measure which we derive using Moody's county rating, estimates of the nation's default spread, and estimates of the relative market volatility for each nation (see Appendix 1). We measure *Political Risk* using the Political Risk Index which is available from Political Risk Services, a commercial information services firm (www. prsgroup.com). The Political Risk Index consists of 12 components measuring various dimensions of the political and business environment facing firms operating in a country. The data is updated monthly and reported in their <u>International Political Risk Guide</u>. We use data from December reports for 1984 (first year available) to 2009. Since information is not available for all time periods, our samples are left-censored. Our sample for Country Risk Premium includes 46,211 observations. Our sample for Political Risk includes 108,406 observations.

#### RESULTS

Descriptive statistics for our sample are reported in Table I and correlations in Table II. Tests (available on request) confirm the data is multivariate normal. Hausman tests confirm the use of robust standard errors adequately compensated for threats related to serial correlation.

#### [Insert Table I and II About Here]

Turning to Table I, we see that nearly 12 percent of the deals in our sample were cross-border investments and 93% of all deals include local investors. It follows that approximately 7% of all investment rounds were made by syndicates that did *not* include a local investor. The age of the target firm receiving venture financing is just over five years and approximately 10% of the rounds of investment were in firms in the early stages of development. The median syndicate size was 2 and members of the investment syndicate had made, on average, one or two cross-border investments prior to investing in the focal firm. Investment experience varied widely, from 0 to 125. While the latter statistic seems high, it is attributable to biotech investment, which is distinctive due to the high number of relatively small rounds of investment that characterizes investment in this industry. The average ground amount was \$370,000 and the median interval between rounds is roughly three months (99 days). Consistent with earlier research, we find VCs take a board seat in just over half (53%) of their rounds of investment in portfolio firms.

fourteen percent merged or were acquired, statistics that are consistent with recent research on exit performance (Chen et al, 2010; Chemmanur et al, 2010).

Inspection of the correlation table (Table II) revealed no anomalies. Apart from a high correlation between cross-border investment and local investor (.53), no other correlation exceeded 0.22, which suggests that the threat of multicollinearity is low. The correlation between cross-border investment and country risk premium is positive, (0.09;  $p \le .001$ ), corroborating our assumption that cross-border investment is financially riskier than domestic investment.

#### [Insert Tables III through V About here]

Table III summarizes cross-border investment by year for the period 1980 to 2009. Table III confirms that cross-border investment has become increasingly common over the period, rising to a high 23% of total VC investment in 2002 before tapering in the wake of 9/11 to about 15% of total annual VC investment from 2003 until the global banking crisis of 2008. Table IV describes the pattern of VC investment by industry. Not surprisingly, computer software dominated, capturing 15% of the sample and 12% of cross-border investment. The overall pattern of cross-border investment looks much like domestic investment: the same 10 industries appear in the top 12 of both lists. Inspection of the industry dummy variable coefficients indicates that patterns of cross-border investment materially differed in only two of the 69 industries represented in the sample. Specifically, about 1% fewer cross-border investments were made in business services and computer peripherals than were made in domestic investments.

Table V describes VC investment by nation. The greatest number and amount of investments were made in the USA, followed by the United Kingdom and France.

Results confirm the patterns of cross-border investment differed from domestic investment for six out of 16 nations, with proportionally fewer cross-border investments made in the most active VC markets, which include the Netherlands, Sweden, Germany, France, the United Kingdom, and the United States.

#### [Insert Tables VI through VII About Here]

Table VI compares the means of our independent variables for domestic and cross-border investments. Regression results for all hypotheses are presented in Table VII. The corresponding marginal effects for the probit regressions are reported in Table VIII. Finally, the results of our time series analysis and robustness tests are presented in Tables IX and Table X.

Our first set of hypotheses is concerned with deal sourcing and selection. Consistent with H1, we find that cross-border investments are indeed made in older firms  $(0.01; p \le .001)$  that are less likely to be in early stages of development (-0.22; p \le .001). Specifically, the average age of the cross-border target firm at first investment was 8.5 years as compared to 4.65 for domestic firms. Also, 10.7% of domestic deals were in early stage companies as compared to 7.5% of cross border deals.<sup>2</sup> Model 2 of Table VII indicates that syndicates that include a local partner tend to invest in younger (-0.00; p ≤ .001) and earlier stage (0.42; p ≤ .001) companies. However, the practical significance of these findings (Table VIII: model 2) is quite low: investments involving local investors do not materially differ in age from those that do not (0.00; p ≤ .001), and the involvement of a local investor increases the probability of earlier stage investment by only 2.5% (p ≤ .001). We conclude H1 is supported but that support for H2 is weak.

 $<sup>^{2}</sup>$  Other tests (not reported) show that 71% of cross-border deals were in late stage investments as compared to 58% of domestic deals.

We now turn to questions concerning investment practice. Consistent with received wisdom about distance-related risk and syndicate size, negative binomial regression results for H3 (Table VII: model 3 & 4) indicate that cross-border investment syndicates are larger than domestic syndicates (0.17; p $\leq$  .001). Interestingly, but contrary to H4, syndicate size *rises* when local partners are included (0.19; p $\leq$  .001). Specifically, the average size of a cross-border syndicate that includes a local investor is 2.2 as compared to 1.5 for cross-border syndicates that exclude local investors. Accordingly, we accept H3 but reject H4.Together, these results hint that diversification of risk may be more critical to investors than the provision of improved (and less costly) supervision by a local partner.

Results for hypotheses concerning round amount and timing are similarly contrary to received wisdom. Cross-border and domestic investment rounds do not differ in amount and the interval between rounds is longer for cross-border investments (0.00; p $\leq$ .001). Specifically, and as shown in Table VI, the average interval between cross-border round is 421 days compared to 365 days for domestic rounds of investment. We therefore reject H5. The involvement of a local partner (H6) has no influence on the round amount. Curiously, the participation of a local investor in the syndicate is negatively related to time between rounds (0.00; p $\leq$  .001) but, as indicated in Table VIII, which reports the marginal effects for each relationship, the difference (less than 1 day) is not materially significant. We reject H6. Collectively, results for H1 to H6 indicate the local partner has a marginal influence on stage of investment (H2), but not on any other dimension of deal sourcing or structure (H1& H3 to H6).

Results for H7 and H8 tell an intriguing story. Interestingly, and consistent with the view that cross-border investments are risky and hence require more stringent monitoring, results (Table VII: model 7) indicate that syndicate members are more likely to take a board seat in cross-border investments than in domestic investments (0.13;  $p \le 1$ .001). However, results for H8 (Table VII: model 8) indicate a reduced probability they will do so if a local investor is involved (-0.99;  $p \le .001$ ). The marginal effects reported in Table VIII confirm this finding is material: the probability that a given syndicate member will take a board seat when a local investor is involved is reduced by 36%. While this result is perplexing, it is probable that this outcome is the product of mechanical relationships among the variables. Recall that we, unfortunately, are unable to identify which syndicate member took the board seat. Hence, our regression merely estimates the probability that a given syndicate member will take a board seat. It follows that since the median size of a cross-border syndicate that includes a local investor is three, as compared to a syndicate size of two for those that exclude local investors, the probability that a given member will take a board seat should necessarily fall by about  $1/3^{rd}$  – which is what our marginal effects table shows.<sup>3</sup> We reject H7 but are concerned that the results for H8 may not be reliable. Results for H7 combined with results for H1 and H3 to H6, further confirm that the local investor does not appear to play an active role in the investment syndicate.

Finally, and perhaps most provocatively, the data indicate that cross-border investments are significantly more likely to exit than domestic investments. Specifically, cross-border investments are more likely exit via IPO (0.16;  $p \le .001$ ) or M&A (0.14;  $p \le$ 

<sup>&</sup>lt;sup>3</sup> Interestingly, we suspect our results for H8 would have been interpretable if H4 had been supported. This outcome

.001) than domestic investments. These findings are material: Table VIII (models 9 to 12) shows the average cross-border investment is about 3.1% more likely to exit via IPO and 3.2% more likely to exit via M&A than a domestic investment. Curiously, the participation of a local investor in the cross-border deal is does not influence the probability of IPO and is negatively related to exit via M&A (-0.17; p $\leq$  .001). In fact, the involvement of the local investor reduces the probability of exit via M&A by 2.2%, a material difference. We infer support for H9 and H10.

#### PRACTICAL SIGNIFICANCE AND ROBUSTNESS

Since the data used in this study includes venture capital investments executed between 1980 and 2009, it stands to reason that ebbs and flows in rates of venture capital investment over this 29 year period – a period marked by one boom (1996) and three financial crisis (1987, 2001, 2008) may affect the observed relationships with performance. Investment practice may also have changed over this time span. Accordingly, we tested all our models using three to five year windows, and split the data into recognized investment phases. These include 1980 to 1987 (which is when financial conditions changed due the subprime bond crisis), 1988 to 1992 (the close of biotechnology window), 1993 to 1996 (pre-dot.com), 1997 to 2001 (the dot.com era), and 2002 to 2007 (the mortgage crisis) and 2007 to 2009.

We observe little practical difference in relationships across these periods, and so report the five-year windows in Table IX. The number of observations confirm crossborder investment has become increasingly common, but show little evidence of changing cross-border investment practice over the period. Effect sizes are relatively consistent in magnitude and sign between 1991 and 2009 (Panel A). There is also little change in deal structure over the entire period. The main effects for round amount and timing seat are stable across the period (Panel B). However, it appears that syndicates were less likely to take a board seat cross-border investments in the period 2006-2009 (-0.30; p $\leq .001$ ) as compared to earlier periods (1986-1990; 1996-2000) when syndicate members were more likely to take a board seat with cross-border investment (Panel C). The data also indicate that the relationship between cross-border investment and IPO is stable and significant (Panel D shows a positive relationship from 1990 to 2009) but that the relationship between cross-border investment and IPO is of the relationship is significant (0.12; p $\leq .001$ ) in only one time period: 2001-2005. On the whole, we conclude model 1 through 6 suggest that our main findings reliably reflect established investment practice.

We also test the sensitivity of our results to country-specific risk by substituting *Country Risk Premium* and *Political Risk* for our country dummy variables. Although the sample is truncated (results are only available for the period 1996-2009) Table X indicates that the effects do not materially differ from those reported in Table VII with respect to direction or significance. (Differences in effect sizes are not directly interpretable due to changes in sample size.) We conclude our results are robust with respect to time period and country specification.

#### DISCUSSION

In this paper, we examined the influence of geographic proximity and local networks on cross-border venture capital investment. Our results are surprising. Results indicate that deal sourcing and deal structure change as our hypotheses suggest: crossborder invests do tend to be in older, later-stage companies and syndicates do tend to be larger. However, and contrary to received wisdom about the effect of distance-related risk on staging, monitoring, and governance, investment rounds are about the same size and the time between rounds is longer, not shorter. Moreover, distance does not appear to deter board membership. Syndicates are more likely to take a board seat in cross-border investments than in domestic investments. Finally, and as hypothesized, cross-border investment is positively related to performance. Specifically, investments have a materially increased probability of exit via IPO. Results concerning M&A appear to be time-period dependent and so may lack conclusion validity.

Interestingly, results concerning the network hypothesis found no support. We contrasted cross-border investments that involved a local partner with those that did not, and found no difference with respect to target investment firm age or risk, and only a small marginal difference for stage of investment. Specifically, it appears that syndicates that include local partners are about 2.5% more likely to invest in earlier stage companies than cross-border syndicates that do not involve a local partner. Cross-border syndicates that include local partners are larger than those that do not, but these partners do not appear to influence round size or timing. The availability of a local partner appears to reduce the probability that a syndicate member will take a seat on the board of the local firm, although we cannot rule out that this outcome is an artifact of mechanical relationships between board governance and syndicate size. Finally, local partners do not appear to not help, and perhaps harm, firm performance. Syndicates involving local partners are no more likely to exit via IPO than those that do not, but those that involve

local partners were less likely to via M&A than cross-border deals that do not involve a local partner in at least one recent five-year period.

On the whole, then, we find little evidence to suggest that local partners play a positive role in investment practice. The data are consistent with the view that VCs primarily manage risk through deal selection and syndication practice, but do not use staging as an important tool for risk management. The role of the local partner in the syndicate appears to be largely functional. That is, they appear add to or complement the resources and services provided by the syndicates (e.g., larger rounds, larger board size) as opposed to serving as a substitute source of resources and services.

Several findings are surprising. For example, deal staging has long been viewed as one of the most powerful and effective monitoring tool available to investors, yet we find no evidence this tool is employed by cross-border investors. The core implicit assumption of the proximity hypothesis is that local VCs are able to add value to the portfolio firm, thereby enhancing the probability of success. Domestic investments should then out-perform cross-border investments. None of our results support this conclusion. Thus, and contrary to network theory, we find no evidence to suggest that partnering with a local investor yields any material benefit to syndicate members.

So what should we make of these results? In the main, we believe the data support the conclusion that VC generates positive returns through deal sourcing and through management of risk, not through value-added activities like monitoring. Changes to syndicate size, and the positive relationship between cross-border investment and the likelihood that a syndicate member will take a board seat, also point to a concern for the management of risk, as opposed to efforts to improve the operating performance of portfolio firms. The fact that the participation of the local investor did not alter investment practice as hypothesized is also intriguing, since it is not only at odds with received wisdom about the value of local information but also raises important questions about the ability of local investor to leverage network benefits.

The paper has several weaknesses. The first, and most vexing to us, is that we lack any measure of the centrality of the local partner within the local network. Network theory recognizes that benefits are more readily available to those firms that are centrally located and have high status – which is usually measured as a function of fund size or number of prior investments. Thus, the fact we are unable to identify the lead partner— and use that information to create stronger network measures—is a severe handicap. Because we treated all local members alike, it is possible that our study simply failed to capture the detail needed to test the theory. The fact we were able to control for a dimension of experience, as indicated by the average number of prior international investments by individual syndicate members, does, however, somewhat ameliorate this concern.

Another limitation of the study is that it relies on a coarse metric for distance—the cross-border setting. While we think it is quite reasonable to conclude that crossing a border exposes increases distance-related risk to the point where the theorized changes in deal sourcing, structure, monitoring, and performance should be observed, it remains that the cross-border context itself may be distinctive, thereby altering the effects of distance-related risk. Existing studies of distance-related risk were conducted in the USA, a context in which law and regulation are unchanged and the language is common. An advantage of USA samples is that one can more precisely isolate the effects of distance.

Bengtsson & Ravid (2010), for example, find that contractual harshness varies in 5, 10, 20, and 100-mile increments. On the other hand, the dataset we use also includes the EU-15, a region that shares a common business language, currency, and regulation, and so should have a relatively uniform effect on investment practice. The strong positive correlation between cross-border investment and country-financial risk is also reassuring and lends support to our claim that cross-border risk and financial risk have similar effects. Evidence that our results are robust with respect to specification (i.e., country, country risk premium, and political risk) also lends credence to our findings.

While it is clear that the existing study has important limitations, the fact remains that our dataset is encompasses a 29-year period and bases its measure on a very large sample of transactions that occurred over this period. Our estimates of effect sizes are therefore highly reliable, and the risks of Type I and Type II error are empirically nil. The lack of support for some hypotheses then poses a strong challenge to the received wisdom that, in many cases, predicted the opposite outcome.

These results create a conundrum for existing theory and research. The local business/network hypothesis asserts that VCs differentiate on the basis of their ability to add value to portfolio firms. If true, we would expect them to use the same playbook abroad. Evidence that they generate returns through deal selection and risk management, and not via value-added activities, then raises important questions about the generalizability of the theory on the whole, and about the merits of the value-added proposition in particular. These results, along with Chen et al (2010) and Chemmaneur et al (2010), provide mounting evidence that the conventional wisdom about VC investment

merits further scrutiny. The need for more research, using finer-grained data in large samples is clear, as is the need for better theory about the VC investment phenomena.

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	Mean	SD	Median	Max	Min	Obs
Cross-Border Round	0.12	0.32	0	1	0	139892
Local Investor	0.93	0.25	0	1	0	139892
Target Age First Investment	5.11	12.16	1	107	0	139892
Early Stage	0.10	0.30	0	1	0	139892
Country Risk Premium	0.0068	0.0042	0	0.08	0	42611
Syndicate Size	2.38	2.24	2	33	1	139892
Prior International Investment	1.47	4.11	0	125	0	139892
Round Amount	369.52	266.73	306	999	0.2	139892
Time Between Rounds (Days)	288.45	605.01	99	14912	0	139892
Board Seat	0.53	0.50	1	1	0	139892
IPO	0.16	0.36	0	1	0	139892
M&A	0.14	0.34	0	1	0	139892

#### **TABLE I: SUMMARY STATISTICS**

#### 10 11 1 2 3 4 5 6 7 8 9 12 Cross-Border Round 1.00 1 Local Investor -0.53 1.00 2 Target Age First Investment (Years) 0.10 -0.05 1.00 3 Early Stage -0.03 0.03 -0.11 1.00 4 Country Risk Premium 0.09 -0.08 0.03 0.04 1.00 5 Syndicate Size -0.07 0.10 -0.10 -0.04 -0.06 1.00 6 7 Prior International Investment 0.22 0.01 0.01 0.02 0.01 -0.11 1.00 Round Amount -0.05 0.02 -0.05 0.11 0.00 -0.12 -0.01 8 1.00 Time Between Rounds (Days) 0.00 0.04 0.03 -0.11 -0.03 0.03 0.03 -0.03 9 1.00 **Board Seat** -0.09 0.13 -0.03 -0.04 -0.10 0.15 0.15 -0.08 0.07 10 1.00 11 IPO -0.05 0.02 0.02 -0.02 0.01 0.07 -0.01 0.03 0.11 0.11 1.00 12 M&A -0.13 0.08 -0.05 -0.01 -0.04 0.09 -0.06 -0.01 0.02 0.14 -0.06 1.00

**TABLE II: CORRELATION TABLE** 

n=139,892. Pairwise correlations greater than .01 are significant at  $p \le 0.05$  or better

Round Year	Number of Rounds	Number of Cross- Border Rounds	New Portfolio Firms Receiving Cross- Border Investment	Amount of Venture Investment (Thousand USD)	Amount of Cross- Border Investment (Thousand USD)	Cross- Border Investment as % of Total Investment
1980	592	7	7	743	4	0.54
1981	967	14	12	1,593	10	0.64
1982	1,392	28	24	2,055	34	1.65
1983	1,729	50	25	3,768	87	2.31
1984	1,913	53	23	4,243	107	2.51
1985	1,857	57	23	4,055	112	2.75
1986	2,067	54	27	5,762	110	1.9
1987	2,394	51	26	8,401	140	1.67
1988	2,370	37	14	9,263	184	1.99
1989	2,553	77	47	12,326	218	1.77
1990	2,280	90	47	9,078	261	2.88
1991	1,897	91	40	4,837	402	8.31
1992	2,298	107	57	9,027	354	3.92
1993	2,047	111	52	7,141	415	5.82
1994	2,198	136	76	9,066	315	3.48
1995	2,922	158	90	14,798	574	3.88
1996	4,422	334	193	26,659	1,613	6.05
1997	4,936	262	185	31,594	1,688	5.34
1998	6,437	468	350	52,520	5,332	10.15
1999	8,348	897	708	107,473	14,268	13.28
2000	12,129	1,720	1,128	164,649	23,376	14.2
2001	9,125	1,548	788	79,074	15,050	19.03
2002	6,035	1,034	502	62,620	14,634	23.37
2003	7,465	1,421	773	73,659	11,839	16.07
2004	8,040	1,567	823	69,189	9,907	14.32
2005	7,961	1,492	811	70,615	11,216	15.88
2006	9,039	1,423	902	98,278	18,534	18.86
2007	9,344	1,328	905	120,386	18,696	15.53
2008	8,964	1,190	698	114,502	14,620	12.77
2009	6,172	786	421	4,004	93	2.31
Total	139,892	16,591	9,777	1,181,378	164,193	8.04

## TABLE III: VENTURE CAPITAL INVESTMENT 1980-2009

#### TABLE IV: INVESTMENT BY INDUSTRY

#### ALL DEALS (FULL SAMPLE)

#### **CROSS-BORDER DEALS ONLY**

		Frequency	Percent	Cumulative		Frequency	Percent	Cumulative
1	Computer Software	21,538	15.2%	0.32	Computer Software	1,932	11.6%	100
2	Internet Ecommerce	6,141	4.3%	0.47	Financial Services	1,067	6.4%	97.05
3	Financial Services	6,091	4.3%	0.58	Biotech-Human	861	5.2%	96.76
4	Biotech-Human	6,077	4.3%	1.17	Business Services	723	4.3%	95.52
5	Business Services	4,718	3.3%	1.24	Transportation	653	3.9%	91.61
6	Semiconductors/Other Electronics	4,544	3.2%	1.76	Internet Ecommerce	624	3.7%	90.79
7	Medical Therapeutics	4,485	3.2%	2.18	Manufacturing	597	3.6%	88.04
8	Data Communications	4,481	3.2%	6.48	Consumer Products	523	3.1%	87.73
9	Internet Content	4,029	2.8%	6.84	Wireless Communications	493	3.0%	87.46
10	Wireless Communications	3,492	2.5%	10.17	Semiconductors/Other Electronics	458	2.7%	85.84
11	Manufacturing	3,486	2.5%	12.02	Chemicals and Materials	447	2.7%	85.66
12	Med/Health Services	3,190	2.3%	12.32	Internet Content	437	2.6%	84.89
13	Consumer Products	2,925	2.1%	14.3	Industrial Equipment	432	2.6%	82.46
14	Transportation	2,872	2.0%	14.54	Pharmaceutical	405	2.4%	80.88
15	Internet Communications	2,837	2.0%	15.8	Food and Beverage	392	2.3%	80.47
16	Commer. Comm.	2,794	2.0%	16.46	Consumer Services	368	2.2%	79.84
17	Pharmaceutical	2,647	1.9%	17.51	Data Comm.	332	2.0%	78.24
18	Chemicals and Materials	2,620	1.9%	32.72	Construction	326	2.0%	77.13
19	Internet Software	2,583	1.8%	33.63	Entertainment and Leisure	322	1.9%	75.59
20	Consumer Services	2,565	1.8%	34.65	Internet Communications	306	1.8%	74.12
21	Medical Diagnostics	2,503	1.8%	36.72	Retailing Related	269	1.6%	70.54
	Industries not shown indivision sample	idually repres	ent less than 1	.8% of the full	sample, and less than 1.6%	of the cross-l	border	

	Rounds	Percentage	Cumulative
United States	107,448	76.81	100
United Kingdom	9,902	7.08	23.19
France	6,328	4.52	7.52
Germany	3,761	2.69	10.21
Sweden	2,377	1.7	16.11
Netherlands	1,851	1.32	13.02
Finland	1,783	1.27	3
Spain	1,371	0.98	14.41
Italy	1,080	0.77	11.62
Denmark	1,075	0.77	1.72
Belgium	860	0.61	0.95
Ireland	821	0.59	10.85
Portugal	574	0.41	13.43
Austria	472	0.34	0.34
Luxembourg	113	0.08	11.7
Greece	76	0.05	10.26
Total	139,892	100	

**Table V: Total Number of Rounds By Nation** 

#### TABLE VI: T-TEST OF MEANS

	Domestic	<b>Cross-Border</b>	Difference	<b>T-Statistic</b>	N (0/1)
Local Investor	0.982	0.580	0.402	104.920	139892/16591
Target Age First Investment	4.650	8.500	-3.850	-28.120	139892/16591
Early Stage	0.107	0.075	0.032	14.480	139892/16591
Country Risk Premium	0.000	0.001	0.001	-14.920	46211/11102
Syndicate Size	2.440	1.931	0.509	37.280	139892/16591
Prior International Investment	1.970	6.231	-4.260	-53.020	139892/16591
Round Amount	288.202	290.443	-2.241	-0.459	139892/16591
Time Between Rounds (Days)	365.827	420.998	-55.171	-8.247	139892/16591
Board Seat	0.546	0.416	0.130	32.042	139892/16591
IPO	0.163	0.110	0.053	19.670	139892/16591
M&A	0.153	0.020	0.133	89.600	139892/16591

		TABLE VII: HYPOTHESIS TESTS										
		Selection an	d Structuring		Moni	toring & Gover	nance		Perfor	mance		
	Cross-Border	Cross-Border			Cross-Border							
	Investment	Investment	Syndicate Size	Syndicate Size	Investment	Board Seat	Board Seat	IPO	IPO	M&A	M&A	
	(1)	(2)	(4)	(5)	(6)	(7)	(8)	(9)	(11)	(10)	(12)	
Cross Border Round	-	-	0.172***	0.104***	-	0.127***	0.860***	0.164***	0.169***	0.141***	0.371***	
	-	-	[0.008]	[0.007]	-	[0.019]	[0.039]	[0.021]	[0.048]	[0.035]	[0.065]	
Local Investor	-2.361***	-2.383***	0.377***	-0.176***	-2.325***	0.024	0.784***	-	-0.04	-	0.320***	
	[0.025]	[0.028]	[0.011]	[0.010]	[0.027]	[0.017]	[0.034]	-	[0.040]	-	[0.044]	
Target Age First Investment (Years)	0.006***	0.010***	-0.004***	-0.001***	0.006***	0.003***	0.003***	0.010***	0.010***	0	0	
	[0.000]	[0.002]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	
Early Stage	-0.220***	-0.590***	-0.185***	-0.015**	-0.219***	-0.040***	-0.035***	-0.357***	-0.356***	-0.046***	-0.046***	
	[0.025]	[0.067]	[0.007]	[0.006]	-	[0.013]	[0.013]	[0.017]	[0.017]	[0.016]	[0.016]	
Syndicate Size	0.103***	0.103***	-	-	0.103***	0.066***	0.066***	0.004*	0.004*	0.024***	0.023***	
	[0.003]	[0.003]	-	-	[0.003]	[0.002]	[0.002]	[0.002]	[0.002]	[0.002]	[0.002]	
Prior International Investment	0.031***	0.031***	-0.045***	-0.021***	0.031***	0.068***	0.071***	0.002**	0.002***	-0.006***	-0.006***	
	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	
Round Amount	-0.000***	-0.000***	-0.001***	-0.000***	0	0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	
Time Between Rounds (Days)	0.000***	0.000***	0.000***	0.000***	0.000***	-0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	
Board Seat	0.023	0.023	0.290***	0.126***	0.021	-	-	0.896***	0.896***	0.388***	0.381***	
	[0.017]	[0.017]	[0.005]	[0.004]	[0.017]	-	-	[0.012]	[0.012]	[0.011]	[0.011]	
Local * Target Age First Investment	-	-0.004**	-	-	-	-	-	-	-	-	-	
	-	[0.002]	-	-	-	-	-	-	-	-	-	
Local * Early Stage	-	0.424***	-	-	-	-	-	-	-	-	-	
, <u>,</u>	-	[0.072]	-	-	-	-	-	-	-	-	-	
Local * Syndicate Size	-	-	-	0.189***	-	-	-	-	-	-	-	
5	-	-	-	[0.001]	-	-	-		-	-	-	
Local * Round Amount	-	-	-	-	0	-	-	-	-	-	-	
	-	-	-	-	[0.000]	-	-		-	-	-	
Local * Time Between Rounds (Days)	-	-	-	-	-0.000***	-	-		-	-	-	
	-	-	-	-	[0.000]	-	-		-	-	-	
Local * Cross Border Investment	-	-	-	-	-	-	-0.991***		-0.04	-	-0.167**	
	-	-	-	-	-	-	[0.041]	-	[0.051]	-	[0.072]	
Country Controls	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Industry Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Year Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Constant	1.378***	1.400***	37.881***	3.575***	1.318***	-3.037***	-3.804***	-0.415***	-0.379**	-0.415***	-7.292	
	[0.307]	[0.309]	[0.654]	[0.590]	[0.312]	[0.118]	[0.123]	[0.142]	[0.148]	[0.142]	[156.129]	
Observations	139,892	139,892	139,892	139,892	139,892	139,892	139,892	139,892	139,892	139,892	139,892	
Standard errors in brackets:												
*** p<0.01, ** p<0.05, * p<0.1					44							

				TABLE VIII	: MARGINA	L EFFECTS		1	
	Selection an	d Structuring	Monito	oring and Gov	emance		Perfo	mance	
	Cross-	Cross-	Cross-						
	Border	Border	Border						
	Investment	Investment	Investment	Board Seat	Board Seat	IPO	M&A	IPO	M&A
	(1)	(2)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Cross Border Round	-	-	-	-0.011*	0.303***	0.031***	0.023***	0.032***	0.067***
	-	-	-	[0.006]	[0.011]	[0.004]	[0.006]	[0.010]	[0.014]
Local Investor	-0.518***	-0.527***	-0.505***	-	0.298***	-	-	-0.007	0.039***
	[0.009]	[0.010]	[0.010]	-	[0.011]		-	[0.007]	[0.004]
Target Age First Investment (Years)		0.000***	0.000***	0.001***	0.001***	0.002***	0	0.002***	0
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Early Stage	-0.008***	-0.015***	-0.007***	-0.015***	-0.014***	-0.051***	-0.007***	-0.051***	-0.007***
, , , , , , , , , , , , , , , , , , , ,	[0.001]	[0.001]	[0.001]	[0.005]	[0.005]	[0.002]	[0.002]	[0.002]	[0.002]
Syndicate Size	0.004***	0.004***	0.004***	0.027***	0.026***	0.001*	0.004***	0.001*	0.004***
5	[0.000]	[0.000]	[0.000]	[0.001]	[0.001]	[0.000]	[0.000]	[0.000]	[0.000]
Prior International Investment	0.001***	0.001***	0.001***	0.027***	0.028***	0.000**	-0.001***	0.000***	-0.001***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Round Amount	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Time Between Rounds (Days)	-0.000***	-0.000***	0	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Board Seat	0.001	0.001	0.001	-	-	0.153***	0.057***	0.153***	0.056***
	[0.001]	[0.001]	[0.001]	-	-	[0.002]	[0.002]	[0.002]	[0.002]
Local * Target Age First Investment		-0.000**	-	-	-	-	-	-	-
	-	[0.000]	-	-	-	-	-	-	-
Local * Early Stage	-	0.025***	-	-	-	-	-	-	-
	-	[0.006]	-	-	-	-	-	-	-
Local * Round Amount	-	-	0	-	-	-	-	-	-
	-	-	[0.000]	-	-	-	-	-	-
Local * Time Between Rounds (Day	-	-	-0.000***	-	-	-	-	-	-
· · · · · ·	-	-	[0.000]	-	-	-	-	-	-
Local * Cross Border Investment	-	-	-	-	-0.363***	-	-	-0.007	-0.022***
	-	-	-	-	[0.012]	-	-	[0.008]	[0.009]
Country Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	139,892	139,892	139,892	139,892	139,892	139,892	139,892	139,892	139,892
Standard errors in brackets:				45					
*** p<0.01, ** p<0.05, * p<0.1									

Panel A	Cross- Border Investment 1980-1985	Cross- Border Investment 1986-1990	Cross- Border Investment 1991-1995	Cross- Border Investment 1996-2000	Cross- Border Investment 2001-2005	Cross- Border Investment 2006-2009
Cross Border Round	(1)	(2)	(3)	(4)	(5)	(6)
	-	-	-	-	-	-
Local Investor	-3.514***	-3.213***	-3.080***	-1.492***	-3.165***	-3.142***
	[0.190]	[0.146]	[0.142]	[0.038]	[0.065]	[0.074]
Target Age First Investment						
(Years)	-0.004	0.006	0.005	0.007***	0.006***	0.004***
	[0.009]	[0.006]	[0.004]	[0.001]	[0.001]	[0.001]
Early Stage	0.21	0.005	-0.101	-0.218***	-0.220***	-0.265***
	[0.171]	[0.173]	[0.170]	[0.048]	[0.039]	[0.058]
Syndicate Size	-0.01	-0.007	0.077***	0.086***	0.149***	0.182***
	[0.020]	[0.019]	[0.026]	[0.007]	[0.006]	[0.008]
Prior International Investment	0.006	0.018	0.052***	0.044***	0.034***	0.020***
	[0.027]	[0.025]	[0.010]	[0.003]	[0.002]	[0.003]
Round Amount	0	0.000**	0	0.000***	0.000***	0.000***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Time Between Rounds (Days)	0	0	0	-0.000***	0	-0.000***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Board Seat	0.027	0.270*	0.014	0.288***	-0.039	-0.299***
	[0.192]	[0.144]	[0.117]	[0.034]	[0.027]	[0.034]
Constant	0.996*	0.346	2.735**	1.033***	2.083***	2.790***
	[0.572]	[0.847]	[1.109]	[0.279]	[0.207]	[0.240]
Observations	7,739	10,764	10,768	36,259	38,619	33,487

Panel B	Syndicate Size	Syndicate Size	Syndicate Size	Syndicate Size	Syndicate Size	Syndicate Size
	1980-1985	1986-1990	1991-1995	1996-2000	2001-2005	2006-2009
	(7)	(8)	(9)	(10)	(11)	(12)
Cross Border Round	-0.075	-0.272***	-0.182***	0.111***	0.137***	0.172***
	[0.055]	[0.053]	[0.053]	[0.015]	[0.011]	[0.014]
Local Investor	-0.886***	-0.899***	-0.591***	-0.076***	-0.039**	-0.062***
	[0.041]	[0.041]	[0.054]	[0.018]	[0.020]	[0.023]
Target Age First Investment						
(Years)	-0.003**	-0.001	-0.001	-0.001***	-0.001**	-0.001***
	[0.001]	[0.001]	[0.001]	[0.000]	[0.000]	[0.000]
Early Stage	0.033*	0.062***	0.038*	-0.036***	-0.091***	-0.024
	[0.017]	[0.017]	[0.020]	[0.012]	[0.016]	[0.016]
Syndicate Size	-	-	-	-	-	-
	-	-	-	-	-	-
Prior International Investment	-0.074***	-0.068***	-0.019***	-0.017***	-0.020***	-0.023***
	[0.011]	[0.007]	[0.004]	[0.001]	[0.001]	[0.001]
Round Amount	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Time Between Rounds (Days)	0	0	-0.000*	0	0	0
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Board Seat	0.053***	0.104***	0.070***	0.080***	0.140***	0.168***
	[0.019]	[0.014]	[0.014]	[0.008]	[0.009]	[0.010]
Constant	-13.5	28.497***	2.114	3.947	-14.882***	7.886
	[9.152]	[8.837]	[9.399]	[5.495]	[4.827]	[7.148]
Observations	8,450	11,664	11,362	36,269	38,625	33,512

	TABLE IX: Year Effects							
Panel C	Board Seat	Board Seat	Board Seat	Board Seat	Board Seat	Board Seat		
	1980-1985	1986-1990	1991-1995	1996-2000	2001-2005	2006-2009		
	(13)	(14)	(15)	(16)	(17)	(18)		
Cross Border Round	-0.162	0.028	0.252***	0.148***	-0.077***			
	[0.129]	[0.106]	[0.089]	[0.033]	[0.023]			
Local Investor	-	-	-	-	-			
	-	-	-	-	-			
Target Age First Investment								
(Years)	0.011***	0.007***	0.016***	0.009***	0.002***			
	[0.002]	[0.002]	[0.001]	[0.001]	[0.001]			
Early Stage	0.152***	0.084**	0.037	-0.053**	-0.118***			
	[0.045]	[0.037]	[0.037]	[0.023]	[0.029]			
Syndicate Size	0.023***	0.025***	0.088***	0.066***	0.087***			
	[0.006]	[0.004]	[0.007]	[0.004]	[0.005]			
Prior International Investment	0.135***	0.135***	0.065***	0.059***	0.065***			
	[0.010]	[0.008]	[0.005]	[0.002]	[0.002]			
Round Amount	0.000**	0.000*	0	0	0.000***			
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]			
Time Between Rounds (Days)	-0.000**	0	0	-0.000***	-0.000***			
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]			
Board Seat	-	-	-	-	-			
	-	-	-	-	-			
Constant	-1.275***	-1.697***	-6.767	-1.314***	-1.363***			
	[0.231]	[0.292]	[113.595]	[0.197]	[0.170]			
Observations	8,370	11,623	11,305	36,269	38,619			

	IPO	IPO	IPO	IPO	IPO	IPO
			1991-			
Panel D	1980-1985	1986-1990	1995	1996-2000	2001-2005	2006-2009
	(19)	(20)	(21)	(22)	(23)	(24)
Cross Border Round	0.006	0.013	0.372***	0.256***	0.200***	0.094**
	[0.107]	[0.105]	[0.091]	[0.044]	[0.034]	[0.047]
Local Investor						
	-	-	-	-	-	-
Target Age First Investment	0.009***	0.006***	0.003**	0.009***	0.009***	0.009***
	[0.002]	[0.002]	[0.001]	[0.001]	[0.001]	[0.001]
Early Stage	-0.201***	-0.141***	- 0.419***	-0.500***	-0.646***	-1.058***
Durly Stuge	[0.039]	[0.037]	[0.041]	[0.033]	[0.065]	[0.140]
Syndicate Size	0	0.007	-0.005	0.005	-0.002	-0.059***
Synchedice Size	[0.005]	[0.004]	[0.007]	[0.004]	[0.005]	[0.008]
Prior International Investment	0.043***	0.007	0.001	-0.002	0.002*	0.011***
Thor memational investment	[0.043	[0.006]	[0.004]	[0.001]	[0.002]	[0.002]
Round Amount	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
Round Amount	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
	[0.000]	[0.000]	[0.000] -	[0.000]	[0.000]	[0.000]
Time Between Rounds (Days)	-0.000***	0	0.000***	0.000***	-0.000***	-0.000***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Board Seat	0.973***	0.954***	0.957***	0.818***	0.782***	0.793***
	[0.045]	[0.030]	[0.029]	[0.019]	[0.029]	[0.039]
Constant	-0.612***	-0.994***	-5.901	-1.799***	-2.176***	-2.309***
	[0.190]	[0.218]	[152.346]	[0.254]	[0.255]	[0.301]
	0.400	11 (00	11 215	26.044	20.264	22,402
Observations	8,409	11,609	11,315	36,244	38,364	33,403

	M&A	M&A	M&A	M&A	M&A	M&A
Panel F	1980-1985	1986-1990	1991-1995	1996-2000	2001-2005	2006-2009
	(25)	(26)	(27)	(28)	(29)	(30)
Cross Border Round	0.195	0.119	-0.001	0.074	0.118*	0.161
	[0.141]	[0.134]	[0.137]	[0.063]	[0.064]	[0.104]
Local Investor	-	-	-	-	-	-
Target Age First Investment	-0.001	-0.005**	-0.003**	-0.004***	0.001	0.003***
	[0.004]	[0.002]	[0.002]	[0.001]	[0.001]	[0.001]
Early Stage	0.149***	-0.034	-0.023	-0.009	-0.199***	-0.289***
	[0.053]	[0.043]	[0.040]	[0.027]	[0.047]	[0.059]
Syndicate Size	0.016**	0.013**	0.030***	0.017***	0.036***	0.033***
	[0.006]	[0.005]	[0.007]	[0.004]	[0.004]	[0.006]
Prior International Investment	0.052***	-0.003	-0.028***	-0.011***	-0.008***	0.003
	[0.009]	[0.007]	[0.005]	[0.002]	[0.002]	[0.002]
Round Amount	0	0.000*	0	-0.000*	0.000***	0.000***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Time Between Rounds (Days)	0	0	0	-0.000**	-0.000**	0
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Board Seat	0.336***	0.440***	0.241***	0.500***	0.409***	0.110***
	[0.058]	[0.035]	[0.029]	[0.018]	[0.024]	[0.033]
Constant	-0.612***	-0.994***	-5.901	-1.799***	-2.176***	-2.309***
	[0.190]	[0.218]	[152.346]	[0.254]	[0.255]	[0.301]
Observations	8,409	11,609	11,315	36,244	38,364	33,403

Political Risk     Inv.       Cross Border Round     -       Cross Border Round     -       Local Investor     -       Target Age First Investment (Years)     0.0       Early Stage     -0.       Voice Accountability     9.0       Political Stability     -0.       Government Effectiveness     -2.       Regulative Quality     -6.       It     [0]       Rule of Law     -2.       Syndicate Size     0.0       Prior International Investment     0.0	Border mestment (1) - -2.278*** [0.022] 0.006*** [0.000] 0.167*** [0.023] 9.040*** [0.136] 0.890*** [0.115] 2.700***	Border Investment (2) - -2.321*** [0.025] 0.007*** [0.001] -0.658*** [0.066] 9.042*** [0.136]	Syndicate Size (3) 0.239*** [0.009] 0.458*** [0.012] -0.004*** [0.000] -0.241*** [0.009]	Syndicate           Size           (4)           0.157***           [0.008]           -0.062***           [0.012]           -0.001***           [0.000]	Border Investment (5) -2.256*** [0.024] 0.006*** [0.000] -0.167***	Board Seat (6) -0.366*** [0.014] -	<b>Board Seat</b> (7) 0.571*** [0.043] 0.901***	<b>IPO</b> (8) 0.129*** [0.020]	M&A (9) -0.552*** [0.032]	<b>IPO</b> (10) 0.157***	<b>M&amp;A</b> (11) -0.608***
Cross Border Round	(1) - -2.278*** [0.022] 0.006*** [0.000] 0.167*** [0.023] 9.040*** [0.136] 0.890*** [0.115]	(2) - -2.321*** [0.025] 0.007*** [0.001] -0.658*** [0.066] 9.042***	(3) 0.239*** [0.009] 0.458*** [0.012] -0.004*** [0.000] -0.241***	(4) 0.157*** [0.008] -0.062*** [0.012] -0.001*** [0.000]	(5) -2.256*** [0.024] 0.006*** [0.000]	(6) -0.366*** [0.014]	(7) 0.571*** [0.043]	(8) 0.129***	(9) -0.552***	(10) 0.157***	(11)
Local Investor -2. [ Target Age First Investment (Years) 0. [ Early Stage -0. [ Voice Accountability 9. [ Voice Accountability -0. [ Government Effectiveness -2. [ Regulative Quality -6. [ Rule of Law -2. [ Control of Corruption 0.5 [ Control of Corruption 0.5 [ Syndicate Size 0.6 [ Prior International Investment 0.6	- 2.278*** [0.022] 0.006*** [0.000] 0.167*** [0.023] 9.040*** [0.136] 0.890*** [0.115]	- -2.321*** [0.025] 0.007*** [0.001] -0.658*** [0.066] 9.042***	0.239*** [0.009] 0.458*** [0.012] -0.004*** [0.000] -0.241***	0.157*** [0.008] -0.062*** [0.012] -0.001*** [0.000]	-2.256*** [0.024] 0.006*** [0.000]	-0.366*** [0.014]	0.571*** [0.043]	0.129***	-0.552***	0.157***	
Local Investor -2. [ Target Age First Investment (Years) 0.( [ Early Stage -0. [ Voice Accountability 9.( Political Stability -0. [ Government Effectiveness -2. [ Regulative Quality -6. [ Rule of Law -2. [ Control of Corruption 0.5 [ Syndicate Size 0.[ Prior International Investment 0.( [ [ Control of Law -2. [ Control of Corruption 0.5] [ Control of Corruption 0.5] [ Contr	- 2.278*** [0.022] 0.006*** [0.000] 0.167*** [0.023] 9.040*** [0.136] 0.890*** [0.115]	- -2.321*** [0.025] 0.007*** [0.001] -0.658*** [0.066] 9.042***	[0.009] 0.458*** [0.012] -0.004*** [0.000] -0.241***	[0.008] -0.062*** [0.012] -0.001*** [0.000]	[0.024] 0.006*** [0.000]	[0.014]	[0.043]				-0.608***
Image: Age First Investment (Years)       0.0         Image: Age First Investment (Years)       0.0         Early Stage       -0.         Image: Voice Accountability       9.0         Voice Accountability       9.0         Image: Political Stability       -0.         Image: Political Stability       -0.         Government Effectiveness       -2.         Image: Regulative Quality       -6.         Image: Political Stability       -6.         Image: Political Sta	[0.022] 0.006*** [0.000] 0.167*** [0.023] 9.040*** [0.136] 0.890*** [0.115]	-2.321*** [0.025] 0.007*** [0.001] -0.658*** [0.066] 9.042***	0.458*** [0.012] -0.004*** [0.000] -0.241***	-0.062*** [0.012] -0.001*** [0.000]	0.006*** [0.000]		L 3	[0.020]	[0 022]		
Image: Age First Investment (Years)       0.0         Image: Age First Investment (Years)       0.0         Early Stage       -0.         Image: Voice Accountability       9.0         Voice Accountability       9.0         Image: Political Stability       -0.         Image: Political Stability       -0.         Government Effectiveness       -2.         Image: Regulative Quality       -6.         Image: Political Stability       -6.         Image: Political Sta	[0.022] 0.006*** [0.000] 0.167*** [0.023] 9.040*** [0.136] 0.890*** [0.115]	[0.025] 0.007*** [0.001] -0.658*** [0.066] 9.042***	[0.012] -0.004*** [0.000] -0.241***	[0.012] -0.001*** [0.000]	[0.000]	-	0 001***		. ,	[0.059]	[0.077]
Target Age First Investment (Years)       0.0         Early Stage       -0.         Voice Accountability       9.0         Political Stability       -0.         Ig       [0]         Political Stability       -0.         Government Effectiveness       -2.         Regulative Quality       -6.         Ig       [0]         Rule of Law       -2.         Control of Corruption       0.9         Syndicate Size       0.0         Prior International Investment       0.5	0.006*** [0.000] 0.167*** [0.023] 9.040*** [0.136] 0.890*** [0.115]	0.007*** [0.001] -0.658*** [0.066] 9.042***	-0.004*** [0.000] -0.241***	-0.001*** [0.000]				-	-	-0.033	0.248***
Image: Constraint of the system       Image: Constraint of the system         Voice Accountability       9.0         Voice Accountability       9.0         Image: Constraint of the system       Image: Constraint of the system         Political Stability       -0.         Political Stability       -0.         Image: Constraint of the system       Image: Constraint of the system         Rule of Law       -2.         Image: Control of Corruption       0.9         Syndicate Size       0.0         Image: Prior International Investment       0.0	[0.000] 0.167*** [0.023] 9.040*** [0.136] 0.890*** [0.115]	[0.001] -0.658*** [0.066] 9.042***	[0.000] -0.241***	[0.000]	0 167***	-	[0.039]	-	-	[0.053]	[0.049]
Early Stage       -0.         [0]       [0]         Voice Accountability       9.0         [0]       [0]         Political Stability       -0.         [0]       [0]         Government Effectiveness       -2.         [1]       [0]         Regulative Quality       -6.         [1]       [0]         Rule of Law       -2.         [1]       [0]         Control of Corruption       0.5         [1]       [0]         Syndicate Size       0.0         [1]       [0]         Prior International Investment       0.0	0.167*** [0.023] 9.040*** [0.136] 0.890*** [0.115]	-0.658*** [0.066] 9.042***	-0.241***			0.002***	0.002***	0.010***	0.001	0.010***	0.001
Image: Control of Corruption       0.0         Political Stability       -0.0         Image: Control of Corruption       0.0         Image: Control of Control of Corruption       0.0         Image: Control of Control o	[0.023] 9.040*** [0.136] 0.890*** [0.115]	[0.066] 9.042***			[0.023]	[0.000]	[0.000]	[0.000]	[0.001]	[0.000]	[0.001]
Voice Accountability       9.0         Image: Control of Corruption       10         Regulative Quality       -0.         Image: Control of Corruption       0.9         Syndicate Size       0.0         Prior International Investment       0.0	9.040*** [0.136] 0.890*** [0.115]	9.042***	[0.0091	-0.042***	9.035***	-0.116***	-0.112***	-0.623***	-0.105***	-0.621***	-0.106***
[C         Political Stability       -0.         [C         Government Effectiveness       -2.         [C         Regulative Quality       -6.         [C         Rule of Law       -2.         [C         Control of Corruption       0.9         [C         Syndicate Size       0.0         [Prior International Investment       0.0	[0.136] •0.890*** [0.115]			[0.008]	[0.136]	[0.015]	[0.015]	[0.029]	[0.021]	[0.029]	[0.021]
Political Stability -0. [Government Effectiveness -2. [Gevernment Effectiveness -2. [Gevernment Effectiveness -2. [Gevernment -2. [Gevern	0.890*** [0.115]	[0.136]	-0.883***	-0.346***	-0.905***	-3.585***	-3.580***	0.388**	-7.209***	0.387**	-7.270***
[C         Government Effectiveness       -2.         [C         Regulative Quality       -6.         [C         Rule of Law       -2.         [C       [C         Control of Corruption       0.9         Syndicate Size       0.0         [Prior International Investment       0.0	[0.115]		[0.067]	[0.063]	[0.115]	[0.113]	[0.113]	[0.169]	[0.288]	[0.169]	[0.291]
Government Effectiveness       -2.         Regulative Quality       -6.         Rule of Law       -2.         Control of Corruption       0.5         Syndicate Size       0.6         Prior International Investment       0.6		-0.910***	-0.575***	-0.202***	-2.698***	0.322***	0.313***	-0.769***	0.209	-0.803***	0.258
[0]         Regulative Quality       -6.         [0]         Rule of Law       -2.         [1]       [1]         Control of Corruption       0.5         [1]       [1]         Syndicate Size       0.6         [1]       [1]         Prior International Investment       0.6	2.700***	[0.115]	[0.063]	[0.059]	[0.090]	[0.105]	[0.105]	[0.165]	[0.291]	[0.166]	[0.292]
Regulative Quality       -6.         Rule of Law       -2.         Control of Corruption       0.9         Syndicate Size       0.0         [0]       [0]         Prior International Investment       0.0		-2.698***	0.063	0.092*	-6.035***	3.539***	3.556***	-0.586***	5.569***	-0.586***	5.626***
[C         Rule of Law         -2.         [C         Control of Corruption         0.5         [C         Syndicate Size         0.6         [Prior International Investment         0.6	[0.090]	[0.090]	[0.051]	[0.047]	[0.114]	[0.088]	[0.088]	[0.129]	[0.302]	[0.129]	[0.304]
Rule of Law     -2.       [0]     [0]       Control of Corruption     0.5       [0]     [0]       Syndicate Size     0.6       [1]     [1]       Prior International Investment     0.6	6.033***	-6.031***	0.373***	0.005	-2.151***	1.227***	1.215***	0.127	4.090***	0.147	4.090***
[Control of Corruption     0.9       Syndicate Size     0.0       [Prior International Investment     0.0	[0.114]	[0.115]	[0.064]	[0.059]	[0.122]	[0.106]	[0.106]	[0.153]	[0.270]	[0.153]	[0.273]
Control of Corruption 0.9 Syndicate Size 0.0 Prior International Investment 0.0	2.147***	-2.151***	-0.053	-0.177***	0.945***	1.590***	1.536***	-0.284*	1.282***	-0.268	1.252***
Image: Syndicate Size     0.0       Syndicate Size     0.0       Image: Syndicate Size     0.0       Prior International Investment     0.0       Image: Syndicate Size     0.0	[0.122]	[0.122]	[0.066]	[0.062]	[0.069]	[0.114]	[0.114]	[0.169]	[0.267]	[0.169]	[0.270]
Syndicate Size 0.0 [0] Prior International Investment 0.0 [0]	0.942***	0.942***	-0.155***	-0.022	0.068***	-0.183***	-0.172***	-0.656***	-2.008***	-0.663***	-1.989***
Prior International Investment 0.0	[0.069]	[0.069]	[0.037]	[0.034]	[0.003]	[0.063]	[0.063]	[0.093]	[0.159]	[0.093]	[0.160]
Prior International Investment 0.0	0.068***	0.068***	-	-	0.051***	0.106***	0.102***	0.002	0.031***	0.003	0.030***
[0	[0.003]	[0.003]	-	-	[0.001]	[0.003]	[0.003]	[0.003]	[0.002]	[0.003]	[0.002]
	0.051***	0.051***	-0.041***	-0.018***	0.000***	0.053***	0.054***	0.002***	-0.010***	0.003***	-0.010***
Round Amount 0.0	[0.001]	[0.001]	[0.001]	[0.001]	[0.000]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]
	0.000***	0.000***	-0.001***	-0.000***	-0.001***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
Γ	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
	0.000***	-0.000***	0.000***	0	-0.235***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.014]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
	0.232***	-0.233***	0.304***	0.119***	-	-	-	0.870***	0.454***	0.872***	0.446***
	[0.014]	[0.014]	[0.005]	[0.005]	-	-	_	[0.015]	[0.013]	[0.015]	[0.013]
Local * Target Age First Investment	-	-0.001	-	-	-	-	_	-	-	-	-
	-	[0.002]	-	-	-	-	_	-	-	-	-
Local * Early Stage	-	0.554***	-	-	-	-	-	-	-	-	-
g.	-	[0.070]	-	-	-	-	-	-	-	-	-
Local * Syndicate Size	-	-	-	0.198***	-	-	_	-	-	-	-
	-	-	-	[0.001]	-	-	_	-	-	-	-
Local * Round Amount	-	-	_	-	0.000***	-	-	-	-	-	-
	-	-	-	-	[0.000]	-	-	-	-	-	-
Local * Time Between Rounds (Days	-	-	_	-	-0.000***	-	-	-	-	-	-
Local Time Detween Round's (Days)	-	-	-	-	[0.000]	-	_	-	-	-	-
Local * Cross Border Investment		_	_	-	-	_	-0.987***			-0.065	0.186**
Local Closs Bolder Investment		_			_		[0.045]			[0.062]	[0.084]
Country Controls		No	No	No	No	No	[0.045] No	No	No	[0.002] No	[0.084] No
Industry Controls		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Controls		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		1 05	1 05	105	105	1 05	1 05	1 05	1 05	1 05	1 05
Constant		2.757***	0.742***	0.636***	2.703***	-3.224***	-4.066***	-1.457***	-5.933***	-1.429***	-6.200***
Constant											
		[0.200]	[0.109]	[0.101]	[0.200]	[0.178]	[0.183]	[0.270]	[0.464]	[0.275]	[0.471]
Observations		100.400	100.407	100.405	100.407	100.407	100.407	100 407	100.205	100.406	100 205
Standard errors in brackets *** p<0.01, ** p<0.05, * p<0.1		108,406	108,406	108,406	108,406	108,406	108,406	108,406	108,385	108,406	108,385

#### TABLE X: ROBUSTNESS TESTS – Political Risk

	Cross-	Cross-			Cross-						
	Border	Border	Syndicate	Syndicate	Border						
	Investment	Investment	Size	Size	Investment	Board Seat	Board Seat	IPO	M&A	IPO	M&A
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Cross Border Round	-	-	-	0.170***	-	-0.545***	0.198*	0.181***	-0.762***	-0.088	-1.004***
eross Border round		-	-	[0.010]	-	[0.016]	[0.104]	[0.025]	[0.047]	[0.159]	[0.196]
Local Investor	-2.870***	-2.865***	0.272***	-0.073***	-2.870***	-	0.600***	-	-	-0.346**	0.053
	[0.039]	[0.044]	[0.010]	[0.016]	[0.042]	-	[0.102]	_	-	[0.156]	[0.169]
Target Age First Investment (Years)	0.006***	0.005**	0.480***	-0.001**	0.006***	0	0	0.008***	0.002**	0.008***	0.002**
ruger rige rust intestitent (reus)	[0.001]	[0.002]	[0.016]	[0.000]	[0.001]	[0.000]	[0.000]	[0.001]	[0.001]	[0.001]	[0.001]
Early Stage	-0.150***	0.074	-0.003***	-0.046***	-0.149***	-0.143***	-0.140***	-0.742***	-0.442***	-0.738***	-0.445***
Early Suge	[0.030]	[0.194]	[0.000]	[0.013]	[0.030]	[0.024]	[0.024]	[0.066]	[0.052]	[0.066]	[0.052]
Country Risk Premium	5.426***	5.441***	-0.246***	-1.984**	5.428***	-13.912***	-14.471***	5.593**	0.749	5.414**	0.665
	[1.759]	[1.760]	[0.014]	[0.979]	[1.759]	[2.016]	[2.029]	[2.264]	[4.837]	[2.265]	[4.904]
Syndicate Size	0.018***	0.018***	-3.192***	[0.777]	0.018***	0.185***	0.188***	-0.031***	0.055***	-0.030***	0.054***
Synthetic Size	[0.005]	[0.005]	[1.016]		[0.005]	[0.005]	[0.005]	[0.006]	[0.005]	[0.006]	[0.005]
Prior International Investment	0.048***	0.048***	-0.047***	-0.021***	0.048***	0.043***	0.045***	0.006***	-0.020***	0.007***	-0.021***
Thos micriational investment	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.002]	[0.001]	[0.002]
Round Amount	0	0	-0.000***	-0.000***	0	0.000***	0.000***	-0.000***	-0.000***	0.000***	-0.000***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Time Between Rounds (Days)	0.000***	0.000***	0.000***	0	0	0.000***	0.000***	0.000***	0.000***	-0.000***	0.000***
Time Between Rounds (Days)	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Board Seat	-0.504***	-0.504***	0.379***	0.159***	-0.504***	-	-	0.686***	0.321***	0.688***	0.320***
Board Seat	[0.018]	[0.018]	[0.008]	[0.008]	[0.018]	-	-	[0.026]	[0.027]	[0.026]	[0.027]
Local * Target Age First Investment	-	0.001	-	-	-	-	-	-	-	-	-
Local Target Age Flist Investment	-	[0.002]	-	-	-		-	-	-	-	-
Local * Early Stage	-	-0.23	-	-	-	-	-	-	-	-	-
Local · Larly Stage	-	[0.196]	-	-	-	-	-	-	-	-	-
Local * Country Risk Premium	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-		-	-	-	-	-
Local * Syndicate Size	-	-	-	0.210***	-	-	-	-	-	-	-
		-	-	[0.002]	-		-	-	-	-	-
Local * Round Amount	-	-	-	-	- 0	-	-	-	-	-	-
	-	-	-	-	[0.000]	-	-	-	-	-	-
Local * Time Between Rounds (Davs)	-	-	-	-	0	-	-	-	-	-	-
Local · Time Between Rounds (Days)	-	-	-	-	[0.000]	-	-	-	-	-	-
Local * Cross Border Investment	-	-	-	-	[0.000]	-	-0.844***	-	-	0.225	- 0.349*
Local Closs Bolder Investment	-	-	-	-	-	-	[0.106]	-	-	[0.161]	[0.202]
Country Controls	-			- No	- No		[0.106] No		- No	[0.161] No	[0.202] No
Industry Controls		No Yes	No Yes	Yes	Yes	No Yes	Yes	No Yes	Yes	Yes	Yes
Year Controls		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		res	res	res	res	res	res	res	res	res	res
Constant	2.482***	2.477***	-0.153**	0.121*	2.482***	-1.132***	-1.741***	-2.888***	-1.733***	-2.549***	-1.787***
Constant											
	[0.127]	[0.128]	[0.068]	[0.066]	[0.128]	[0.109]	[0.149]	[0.226]	[0.170]	[0.274]	[0.239]
Observations	46,211	46,211	46,211	46,211	46,211	46,211	46,211	45,880	44,626	45,880	44,626
Standard errors in brackets											
*** p<0.01, ** p<0.05, * p<0.1											

#### **Appendix 1: Estimated Country Risk Premiums**

To estimate the long term country risk premium, we estimate the default spread for each nation by matching Moody's Country Rating (<u>www.moodys.com</u>) to the equivalent rating for US Corporate and Country Bonds over the period 1980 to 2009. The default spread rating compares the risk of default for different classes of bonds as compared to US Treasury Bonds. We use the default spread as a proxy for the risk premium associated with debt for each nation. We then adjust it by multiplying the default spread by the relative market volatility for each market (SD\_country equity/SD\_Country Bond). The global average of equity to bond market volatility is 1.5. We then add the adjusted bond default spread to historical risk premium for a mature equity market (estimated from US historical data) to estimate the total risk premium of each nation.

Country	Long-Term Rating	Adj. Default Spread	Total Risk Premium	Country Risk Premium
Argentina	В3	600	13.80%	9.00%
Australia	Aaa	0	4.80%	0.00%
Austria	Aaa	0	4.80%	0.00%
Bahamas	A1	60	5.70%	0.90%
Bahrain	Baa1	110	6.45%	1.65%
Barbados	A3	90	6.15%	1.35%
Belgium	Aal	50	5.55%	0.75%
Belize	Caa3	700	15.30%	10.50%
Bermuda	Aaa	0	4.80%	0.00%
Bolivia	В3	600	13.80%	9.00%
Bosnia and Herzegovina	B3	600	13.80%	9.00%
Botswana	A1	60	5.70%	0.90%
Brazil	Ba3	360	10.20%	5.40%
Bulgaria	Ba1	225	8.18%	3.38%
Canada	Aaa	0	4.80%	0.00%
Cayman islands	Aa3	60	5.70%	0.90%
Chile	Al	60	5.70%	0.90%
China	A2	80	6.00%	1.20%
Colombia	Baa2	120	6.60%	1.80%
Costa	Ba1	225	8.18%	3.38%
Croatia	Baa1	110	6.45%	1.65%
Cuba	NR	700	15.30%	10.50%
Cyprus	A2	80	6.00%	1.20%

Country	Long-Term Rating	Adj. Default Spread	Total Risk Premium	Country Risk Premium
Czech Republic	Al	60	5.70%	0.90%
Denmark	Aaa	0	4.80%	0.00%
Dominican Republic	B3	600	13.80%	9.00%
Ecuador	B3	600	13.80%	9.00%
Egypt	Baa3	135	6.83%	2.03%
El Salvador	Baa2	120	6.60%	1.80%
Estonia	Al	60	5.70%	0.90%
Fiji Islands	Ba2	270	8.85%	4.05%
Finland	Aaa	0	4.80%	0.00%
France	Aaa	0	4.80%	0.00%
Germany	Aaa	0	4.80%	0.00%
Greece	Al	60	5.70%	0.90%
Guatemala	Ba1	225	8.18%	3.38%
Honduras	B2	500	12.30%	7.50%
Hong Kong	Aa3	60	5.70%	0.90%
Hungary	A1	60	5.70%	0.90%
Iceland	Aaa	0	4.80%	0.00%
India	Ba2	270	8.85%	4.05%
Indonesia	B2	500	12.30%	7.50%
Ireland	Aaa	0	4.80%	0.00%
Isle of Man	Aaa	0	4.80%	0.00%
Israel	A2	80	6.00%	1.20%
Italy	Aa2	55	5.63%	0.83%
Jamaica	Ba2	270	8.85%	4.05%
Japan	A2	80	6.00%	1.20%
Jordan	Baa3	135	6.83%	2.03%
Kazakhstan	Baa1	110	6.45%	1.65%
Korea	A3	90	6.15%	1.35%
Kuwait	A2	80	6.00%	1.20%
Latvia	A2	80	6.00%	1.20%
Lebanon	В3	600	13.80%	9.00%
Liechtenstein	Aaa	0	4.80%	0.00%
Lithuania	A3	90	6.15%	1.35%
Luxembourg	Aaa	0	4.80%	0.00%
Macao	A1	60	5.70%	0.90%
Malaysia	A3	90	6.15%	1.35%
Malta	A3	90	6.15%	1.35%
Mauritius	A2	80	6.00%	1.20%

Country	Long-Term Rating	Adj. Default Spread	Total Risk Premium	Country Risk Premium
Mexico	Baa1	110	6.45%	1.65%
Moldova	Caal	700	15.30%	10.50%
Monaco	Aaa	0	4.80%	0.00%
Mongolia	B1	400	10.80%	6.00%
Morocco	Ba1	225	8.18%	3.38%
Netherlands	Aaa	0	4.80%	0.00%
New Zealand	Aaa	0	4.80%	0.00%
Nicaragua	В3	600	13.80%	9.00%
Norway	Aaa	0	4.80%	0.00%
Oman	Baa1	110	6.45%	1.65%
Pakistan	B2	500	12.30%	7.50%
Panama	Ba1	225	8.18%	3.38%
Papua & New Guinea	B1	400	10.80%	6.00%
Paraguay	Caal	700	15.30%	10.50%
Peru	Baa3	135	6.83%	2.03%
Philippines	B1	400	10.80%	6.00%
Poland	A2	80	6.00%	1.20%
Portugal	Aa2	55	5.63%	0.83%
Qatar	A1	60	5.70%	0.90%
Romania	Bal	225	8.18%	3.38%
Russia	Baa2	120	6.60%	1.80%
Saudi Arabia	A3	90	6.15%	1.35%
Singapore	Aaa	0	4.80%	0.00%
Slovakia	A2	80	6.00%	1.20%
Slovenia	Aa3	60	5.70%	0.90%
South Africa	A2	80	6.00%	1.20%
Spain	Aaa	0	4.80%	0.00%
Suriname	Ba3	360	10.20%	5.40%
Sweden	Aaa	0	4.80%	0.00%
Switzerland	Aaa	0	4.80%	0.00%
Taiwan	Aaa3	0	4.80%	0.00%
Thailand	Baa1	110	6.45%	1.65%
Trinidad & Tobago	Baa1	110	6.45%	1.65%
Tunisia	Baa2	120	6.60%	1.80%
Turkey	Ba3	360	10.20%	5.40%
Turkmenistan	B2	500	12.30%	7.50%
Ukraine	B1	400	10.80%	6.00%

Country	Long-Term Rating	Adj. Default Spread	Total Risk Premium	Country Risk Premium
United Arab				
Emirates	A1	60	5.70%	0.90%
UK	Aaa	0	4.80%	0.00%
US	Aaa	0	4.80%	0.00%
Uruguay	В3	600	13.80%	9.00%
Venezuela	B1	400	10.80%	6.00%
Vietnam	Ba3	360	10.20%	5.40%

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