Cultural differences and cross-border venture capital syndication

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Abstract
We examine cross-border syndication in investments led by foreign venture capitalists (VCs) focusing on the potential correlation between cultural differences and the formation of VC syndicates. Contrary to the risk-sharing motive, we find that a greater cultural disparity between the countries of investors and their companies is actually associated with smaller VC syndicates. This is driven largely by lesser local investor representation in foreign VC-led syndicates. However, certain cultural disparity-related syndication strategies, such as the involvement of locally experienced foreign VCs or syndicate members from culturally similar countries, are associated with greater presence of local VCs who provide valuable monitoring services. We further show that these culture-linked syndication approaches are significantly correlated with VC financing and monitoring strategies in cross-border investments and their eventual success.
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INTRODUCTION

Syndication is an enduring characteristic of the venture capital (VC) industry with nearly three quarters of VC transactions involving multiple investors. While much of the academic literature focuses on the benefits of syndication to both VC firms and their portfolio companies, syndicate formation itself has received much less attention. We address one important aspect of the broader issue of VC syndication by peeking inside the "black box" to analyze how VC syndicates are formed in cross-border VC investments.

Differences in national cultures are likely to play an important role in cross-border transactions. Convergence in cultural norms, for example, may facilitate negotiations between the parties involved, and their divergence likely to unfavorably affect economic outcomes (Adair, Okumura, & Brett, 2001; Brett & Okumura, 1998). In cross-border VC investments beset by the cultural differences between portfolio companies and their foreign investors, we first analyze the participation and role of local VC partners. Second and more importantly, we highlight how foreign VCs (can) establish valuable syndication relationships when they invest in culturally distant overseas markets. In so doing, we show that carefully crafted syndication strategies related to cultural disparities are significantly associated with VC financing, monitoring, and performance.

The major contribution of this study is threefold. First, it adds to the literature on VC syndication. Most research on VC syndicates is based on companies in North America (Brander, Amit, & Antweiler, 2002; Lerner, 1994; Tian, 2012). In contrast, we analyze cross-border VC syndication focusing particularly on cultural differences among VCs and their portfolio companies. Our focus on culture distinguishes this study from other studies of cross-border VC investments, such as Mäkelä and Maula (2006, 2008), Guler and Guillén (2010), and Meuleman and Wright (2011).

Second, we add to the literature on the relation between international institutional differences and economic decision-making. In the VC context, Bottazzi, Da Rin, and Hellmann (2012) analyze the impact of trust on VCs' cross-border investment decisions, while Cumming, Fleming, Johan, and Takeuchi (2010), Cumming, Fleming, and Schwienbacher (2006), Chemmanur, Hull, and Krishnan (2010), Dai, Jo, and Kassicieh (2012), and Nahata, Hazarika, and Tandon (2014) study the influence of institutional, geographical, and cultural differences on the performance of international venture capital investments. However, none of these studies analyzes culture's association with cross-border VC syndication and its ensuing relation with VC funding, monitoring, and exits.

Finally, a major departure from previous research is our comprehensive use of VC transactions drawn from 37 countries all over the world, during the 1996–2009 timeframe. Most existing studies on domestic and international VC syndication, referred to above, focus on a specific country or a few similar countries (e.g., countries in Asia, the Eurozone, etc.). In contrast, our larger and more varied data set allows us to undertake a richer analysis of cross-border VC syndication practices, although it does not lend to making causal inferences.

The rest of our article is organized as follows. The next section discusses the relevant literature and frames our hypotheses. The subsequent section describes the data, presents summary statistics, and discusses empirical methodology. The penultimate section presents our empirical findings. Finally, the last section concludes.

LITERATURE REVIEW AND HYPOTHESES

A typical and enduring characteristic of the VC industry is syndication among VC firms. In the US, for instance, three-quarters of all start-ups are backed by multiple VCs (Tian, 2012). Not surprisingly then, many international VC investments are syndicated as well, drawing investors from diverse nations.

International VC syndication is important because, while global investing has advantages, it can also significantly increase the risk for VC firms investing in less familiar foreign countries. An important element of cross-border investing is the cultural disparity between the investors and their companies which inevitably marks these relationships. These cultural differences can manifest in the level of confidence in each other, the nature of financial contracting, potentially severe conflicts, and adverse portfolio company performance.[1] In such a scenario, the "risk-sharing hypothesis" would predict a greater propensity for VC syndication (Bygrave, 1987; Chowdhry & Nanda, 1996; Wilson, 1968). One possible way to reduce risk and mitigate the potentially negative impact of cultural diversity is through involvement of a local VC in the syndicate. After all, local investors are likely to be well versed with native cultural and social issues.

Involving local investors in cross-border VC investments may be fruitful for another reason. While foreign firms are likely to incur higher information and transaction costs arising from their lack of familiarity with the host country and therefore suffer from the so-called "liability of foreignness" problem (Hymer, 1960/1976; Kindleberger, 1969; Zaheer, 1995), indigenous firms have tangible advantages due to their easier access to local information, networks, resources, and knowledge. Getting access to such valuable expertise, for example, is one of the primary motivations driving foreign firms into strategic alliances with local partners (Hitt, Dacin, Levitas, Arregle, & Borza, 2000). Furthermore, international joint ventures or cross-border alliances are likely to provide greater flexibility, responsiveness, and adaptability in unfamiliar investment environments (Kogut & Kulatilaka, 1994; Powell, Koput, & Smith-Doerr, 1996).

Local VCs can thus help reduce the information costs involved in cross-border investing; furthermore they may also contribute through monitoring and value-added, two of the most critical activities of VC firms. Recent empirical studies by Dai et al. (2012), Nahata et al. (2014), and Chemmanur et al. (2010) show that local VC participation has positive implications for a portfolio company's performance. Finally, local VCs propensity to invest may also increase if culturally distant transactions are associated with more promising ventures – if cultural disparity is perceived to enhance risk, the bar for cross-border funding of companies may be higher.

All of these explanations would imply a greater likelihood of local VC participation in culturally distant investments made by foreign VCs.

On the other hand, local investors themselves differ culturally from foreign VCs and there are likely to be substantial coordination and cooperation costs associated with such cross-border relationships (Meuleman, Amess, Wright, & Scholes, 2009; Parkhe, 1991; Wright & Lockett, 2003). Specifically, cultural differences limit familiarity and impair trust (Gulati, 1995) which is also corroborated by recent studies such as Chakrabarti, Gupta-Mukherjee, and Jayaraman (2009), Guiso et al. (2009), and Nahata et al. (2014). Furthermore, differences in value systems may result in divergent expectations, culminating eventually in lack of commitment and irresolvable conflicts (Lane & Beamish, 1990), weakened ability to absorb resources (Lane, Salk, & Lyles, 2001; Steensma & Lyles, 2000), and reduced effectiveness of collaboration (Barkema, Bell, & Pennings, 1996; Barkema & Vermeulen, 1997; Lane & Lubatkin, 1998).

Investments in small private companies characterized by substantial adverse selection, intangible assets, and uncertainty are already fraught with high risk. It thus becomes important from the perspective of foreign investors to decide whether to add one more layer of risk – through syndication with culturally distant investors – to the already multiple risks inherent in cross-border investing. Due to potential frictions, the resultant increase in coordination/cooperation costs may outweigh the marginal benefits from involvement of local partners. Therefore, under these circumstances, we would expect syndication with local investors to reduce with cultural distance.

It is therefore an intriguing and ultimately empirical question whether cultural differences are associated with greater or lesser involvement of local VCs in cross-border investing. We explore this issue by testing the following hypothesis (the alternate hypothesis would predict exactly the opposite.):

Hypothesis 1: Ceteris paribus, a higher cultural disparity between VCs and their portfolio companies is associated with an increased likelihood of local VC participation.

While on one hand, partnering with local investors in unfamiliar cultures brings its own set of challenges, on the other, foreign VCs can leverage their expertise and experience in targeting new opportunities. This setting is analogous to March (1991) that distinguishes two broad patterns of learning behavior in organizations. Both exploitation and exploration are important for business gains. While exploitation is connected with refinement and efficient use of skills and knowledge, exploration is associated with experiments, risk-taking, and innovation. VCs need to engage in both exploitative and exploratory activities in significant measure to survive, grow, and remain competitive. When exploiting or exploring these opportunities, a pertinent question is how do foreign VCs minimize the cooperation/coordination costs to make local VC participation more likely? Based on the notion of balancing exploitation and exploration proposed in March (1991) and extended in Lavie and Rosenkopf (2006), albeit in the setting of cross-border alliances, we consider multiple approaches to facilitating syndication.

First, the significant transaction costs of overseas investing could be reduced if foreign lead VCs have prior investment experience in the countries of their portfolio companies. They are more likely to be aware of local business practices and are unlikely to suffer from overall information asymmetry to the extent other foreign VCs (having little investment experience in an overseas country) are likely to. These arguments also find support in the broad literature on strategic alliances and joint ventures, particularly internationally focused. For example, experiences gained by businesses from prior global alliances are likely to influence their subsequent international strategic decisions (Mothe & Quelin, 1998). Also, Hitt et al. (2000) establish the importance of cultural context in their analysis of partner selection in international business alliances while Zutshi and Tan (2009) show that trust is critical for development of enduring cooperative relationships in global transactions. Thus prior business experience gained by foreign VCs in a country is likely to manifest in added confidence in native investors, which in turn is likely to increase local VC participation.

While involving local VCs, particularly in new markets, can be considered an exploratory activity, leveraging their prior experience is akin to exploitation on VCs' part. We consider two more intuitive approaches to exploitation as follows. If foreign lead VCs have little investing experience in portfolio company's country, they might utilize other syndicate members (non-lead non-local VCs) with prior experience in that country or in similar cultures (as the portfolio company's) to reduce potential frictions with local VCs. As Levinthal and March (1993) point out, individuals (and organizations) tend to learn from those nearby and that learning from distant others requires slower diffusion through populations of organizations who collectively span

the distance between remote entities. Investors with prior experience in host or similar cultures can serve as important intermediaries between foreign and local VCs. This helps explain at least in part, the motivation of having in the syndicate, VCs with previous experience in the start-up's nation or similar cultures.

A valid concern is if the cultural similarity is between non-lead VC and the portfolio company, does the cultural disparity between lead and non-lead foreign VCs become a difficult issue to handle? It is important to note however that unlike the VC–portfolio company interaction, relation between VCs is likely to be more long term because of prior joint financing of portfolio companies and the possibility of participation in each other's future deal flow as well (Hochberg, Ljungqvist, & Lu, 2010). Furthermore, their relation is dictated by a relatively more homogeneous outlook toward investing decisions and desire to maintain a cooperative relationship for mutual long-term gain. Thus given the intricacies and tightly networked nature of the VC industry, we expect that the cultural disparity between lead and non-lead foreign VCs even if it exists is unlikely to seriously hinder the workings of the VC syndicate. Although we cannot address these issues directly given this article's scope, we report two interesting findings in our sample.

First, in a few cases there did exist a prior relation between the lead and non-lead foreign VCs preceding the most recent syndicated investment. And second, in a majority of cases, the lead VC had some investment experience in the country of non-lead foreign VC prior to the most recent syndicated deal. In both situations that cumulatively amount to nearly two-thirds of our observations, the concern regarding cultural disparity between the two foreign VCs is ameliorated because the lead VC is somewhat familiar with the foreign culture, either through its own investment experience or through prior relation with the other foreign VC firm. We also note that these are but two examples of direct mechanisms through which the lead VC can gain familiarity with a foreign culture. However, there is a reasonably strong possibility that other channels may also exist through which the lead VC, having gained valuable insights into an alien culture, can alleviate misgivings about involving a culturally distant VC firm in the syndicate.[2] Our second hypothesis, based on the preceding discussion, is as follows:

Hypothesis 2: Ceteris paribus, lead VC's prior investment experience in the country of cross-border investment (host country), syndicate participation by a non-local VC firm that has prior investment experience in the host country or syndicate presence of a non-local VC firm from a culturally similar country (as the host country) is associated with increased local VC participation.

With respect to the preceding discussion, we also explore existence of non-linear relationships. For instance, lead foreign VCs having gained valuable host country experience over a period of time may not be inclined to involve local partners with the same frequency as earlier. This would be suggestive of a non-monotonic relationship between foreign VC's prior investment experience in the host country and local investor participation. Along similar lines, there may be a non-linear relation between the extent of cultural disparity and the likelihood of syndication. We discuss these issues further in the section "Empirical findings".[3]

While we have discussed the possible link between culture and local investor presence in VC syndicates we have not addressed *why* local VCs are involved or more generally, how syndicate structure is related to value creation in companies that are lead funded by distant foreign investors. In the absence of geographical proximity of foreign VCs, local partners can add significant value by mitigating risk through effective monitoring and information collection. While VCs frequently stage their investments to reduce risk (Gompers, 1995; Tian, 2011), close monitoring by local investors is likely to lead to portfolio companies' receiving, on average, greater VC funding per round. Effective local monitoring helps in minimizing the agency problems between insiders and outside investors, particularly foreign VCs. It also frees up valuable time enabling the foreign VCs to focus on other value-added activities. In other words, without the benefit of local investor involvement, particularly in culturally distant nations, foreign VCs are likely to disburse lower amounts per round. This is to maintain their vigilance on portfolio company activities, effectively increasing the staging of investments and the intensity of monitoring.

Local VC involvement may also be related to greater average round amounts for another reason. As mentioned earlier, it is plausible that foreign lead VCs, due to their cultural disparity, are more likely to invest in local companies having greater economic potential. Such promising companies may therefore attract both local VC participation and greater round amounts.

Also, for similar reasons, the presence of non-local VCs with prior investment experience in a portfolio company's country or in a culturally similar country is likely to be associated with reduced staging of investments and higher average round amounts disbursed by a VC syndicate. On one hand, these non-local VCs may prefer to invest in more promising opportunities that also attract greater round amounts. On the other, their relative familiarity with a foreign culture's values and practices is likely to inhibit VC interference in day-to-day operations through excessive monitoring which is also suggestive of higher round-wise funding. The role of local and non-local VCs who are familiar with local cultural practices is to some extent also akin to March's (1991) new recruit who brings in diversity to the team and contributes to exploratory activities, which is precisely what VCs and start-ups specialize in. Our third hypothesis, therefore, is:

Hypothesis 3: Syndicate presence of local VCs, or of non-local VCs with investment experience in the host country, or of non-local VCs from a culturally similar country (as the host country), is associated with reduced investment staging through an increase in the average round amount funded by the VC syndicate in their portfolio companies.

We next ask: if cultural distance and VC syndicate structure have implications for information collection and monitoring, is cultural disparity related to the aggregate financing provided by a VC syndicate to its portfolio companies? For instance, VCs are likely to refrain from making large investments and thereby reduce total funding to their portfolio companies, given the potentially greater agency problems in culturally distant transactions. This is an important issue because VC funding is often crucial to companies' fortunes, particularly when early-stage start-ups are seeking a first-mover advantage in their emerging industries. However, to the extent specific syndicate structures – those having local VC investors, foreign VCs with local investment experience, or foreign VCs with experience in culturally similar nations – help minimize risks or are more likely to be associated with more promising ventures, we expect to find a positive correlation between such syndicate structures and the total amount of venture financing. Our fourth hypothesis is therefore as follows:

Hypothesis 4: Syndicate participation of local VCs, or of non-local VCs with investment experience in the host country, or of non-local VCs from a culturally similar country (as the host country), is

associated with increased aggregate VC funding provided to portfolio companies.

Finally, our fifth hypothesis links culture-related VC syndication strategies to VC success. If select syndicate structures as aforementioned are correlated with more promising companies or if foreign lead VCs devise syndication strategies carefully, and these add value through monitoring and valuable advice, they should materialize in positive performance through profitable exits via IPOs and acquisitions.

Hypothesis 5: Syndicate presence of local VCs, or of non-local VCs with prior investment experience in the host country, or of non-local VCs from a culturally similar country (as the host country) is associated with an increased likelihood of portfolio companies' exit through IPOs and acquisitions.

By testing these hypotheses, we also intend to highlight how foreign VCs take deliberate steps to establish value-enhancing syndication relationships when they invest in overseas markets. Our study thus has relevance for VC firms, who hitherto have been active mostly in domestic investing, but are now trying to diversify into foreign markets. In the following section, we discuss our sample, variables, summary statistics and empirical methodology.

DATA, VARIABLES, SUMMARY STATISTICS, AND EMPIRICAL METHODOLOGY

We obtain the data from the SDC VentureXpert database provided by Thomson Financial. We start with all investments made worldwide in private companies between 1996 and 2009. We stop in 2009 because in order to evaluate companies' performance, we track them through beginning of 2013. These companies received their first round of financing in or after 1996. We then focus on cases in which the lead investors are foreign VCs. The lead investor in the syndicate is defined as the VC firm that invested in the first round and funded the maximum amount in the portfolio company across all rounds of financing.

Our final sample consists of 6433 private companies in which the lead investor is a foreign VC. As shown in Table 1, in some countries foreign investors play an important role in the local VC industry. For instance, in China, Indonesia, Mexico, New Zealand, Philippines, Singapore, Switzerland, and Thailand, more than 50% of VC-backed companies have a foreign lead investor. Furthermore, in Chile, Columbia, and Peru, foreign VCs are the lead investors in all VC-backed companies. On one hand,

Table 1 Distribution of companies lead funded by foreign VCs

Company nation	Lead VC is a foreign VC	Percentage of all VC-backed companies in the local market (%)
Australia	81	12.29
Austria	45	33.09
Belgium	80	28.57
Brazil	58	24.58
Canada	409	9.85
Chile	15	100.00
China	503	52.89
Colombia	7	100.00
Denmark	76	35.51
Egypt	2	33.33
Finland	62	17.71
France	346	24.26
Germany	436	27.42
Greece	2	10.00
India	357	36.43
Indonesia	19	86.36
Israel	208	44.44
Italy	113	40.36
Japan	197	42.83
Malaysia	31	42.47
Mexico	39	88.64
Netherlands	151	36.74
New Zealand	46	54.12
Norway	41	33.33
Peru	3	100.00
Philippines	13	68.42
Portugal	10	16.39
Singapore	106	56.68
South Africa	36	37.50
South Korea	70	3.52
Spain	102	23.50
Sweden	167	30.36
Switzerland	124	58.49
Thailand	26	50.00
Turkey	9	40.91
United Kingdom	628	23.17
United States	1815	7.43
Total	6433	14.70
Excluding USA	4618	23.90

Our sample consists of 6433 cross-border venture capital investments undertaken between 1996 and 2009 and in which the lead VC is a foreign VC. This table reports the number of local companies with a foreign lead VC and their percentage of total VC-backed companies in local markets. The average percentages are computed by aggregating all foreign lead VC-backed companies and dividing by the overall sum of all VC-backed companies in the local markets.

the high frequency of foreign lead VCs in these countries reflects the attractiveness of some economies, such as China, as good investment destinations. On the other hand, it also suggests that the local VC industry in these economies is in the early stages of development, as characterized by less experienced and less professionalized local VC firms.

From the VentureXpert database, we also extract other relevant information on portfolio companies and VCs, including the size of a VC syndicate, the identities of VC investors, VC firms' locations, lead VCs' investment experience in local markets (measured by the cumulative number of companies a foreign VC has previously funded in a local market), portfolio companies' developmental stages, their industries, their locations, total amount of VC investment in portfolio companies, and the number of funding rounds received by each company.

We quantify cultural differences between the countries of foreign lead VCs and those of local VCs (or portfolio companies) using the four widely used original Hofstede measures. Hofstede (1980) in his *Culture's Consequences: International Differences in Work Related Values*, explains how cultures evolve under the influence of factors that include climate, economic development, and history. He originally classified culture into four major dimensions – small vs large power distance, uncertainty avoidance, individualism vs collectivism, and masculinity vs femininity.

The Hofstede framework is one of the most cited cultural frameworks in international business, management, marketing, organizational development, applied psychology and several other business disciplines (Kirkman, Lowe, & Gibson, 2006). While they have been replicated, augmented, and modified, the Hofstede measures have had their share of criticisms as well (for instance, Shenkar & Luo, 2003). Yet it is the most used and recognized framework for measuring cultural disparities, across a wide range of business and management research (Kirkman et al., 2006; Sivakumar & Nakata, 2001). We obtain the data on Hofstede's cultural dimensions from Geert Hofstede's website (www.geerthofstede.nl). We then compute the cultural disparity between the countries of a foreign lead VC and local VCs (or portfolio companies) as the Cartesian distance measured along Hofstede's four original cultural dimensions for the two nations.[4] Specifically,

$$\text{Hofstede cultural distance} = \frac{\left(\sum_{i=1}^{4} \left(C_{\text{Local},i} - C_{\text{Foreign},i}\right)^2\right)^{\frac{1}{2}}}{4}$$

where $C_{\text{Local},i}$ represents a local VC's culture on measure i, and $C_{\text{Foreign},i}$ is a foreign lead VC's culture on measure i.

Similar to Kogut and Singh (1988), we use a composite measure instead of relying on individual cultural dimensions to quantify cultural distance between countries of investors and their portfolio companies.[5] Our focus in this study is on measuring how much culturally apart, on aggregate, the two countries are, and we do not analyze in detail as to which of the cultural dimensions matter more relative to others. However, considering the criticisms of the composite measure by Shenkar (2001), we conduct robustness checks in which cultural distance is based on each of the four separate dimensions. In these tests, we find very similar qualitative results when we use the four individual cultural dimensions

as mentioned above.[6] We discuss these results in greater detail in the section "Empirical Fon" 4.

In all of our analysis, we also control for the geographic distance between the foreign investors and the portfolio companies (or local investors). The physical distance is the distance between the capitals (or the most populated cities if the capital is sparsely populated) of the respective countries of foreign lead VCs and the portfolio companies (or local investors).[7] Additionally in line with Mariotti and Piscitello (1995) and Ahern, Daminelli, and Fracassi (2015), we also include a dummy variable for a shared border between the countries of the lead investor and the portfolio company.

In a VC syndicate, two or more VC firms claim equity stakes in an investment in the same company with a joint payoff. These investments occur either in the same funding round or over a series of points in time. Previous studies such as Lerner (1994), Nahata (2008) and Tian (2012) have defined a few measures of syndication, such as VC syndicate size, or simply an indicator denoting whether or not multiple VCs invested in a portfolio company. Since our focus is on syndication, we design several new measures to investigate in greater detail the structure of syndicates in cross-border VC investments.

The first of these measures is an indicator variable that represents whether or not a foreign lead VC syndicates with a local investor. Our second variable is an indicator representing whether or not a non-lead foreign VC with investment experience in a local market is a syndicate member. Finally, our third dummy variable indicates whether or not a non-lead foreign VC from a culturally similar country is included in the syndicate. Two nations are defined as culturally similar if their cultural distance falls into the lowest quartile of cultural distances between all country-pairs in our sample. These indicator variables allow us to shed light on how syndicates are formed in cross-border VC investments and more importantly on whether there are systematic patterns underlying their formation and their relation with financing, monitoring, and eventual success of private firms.

Table 2, Panel A provides summary statistics on VC syndicate structures. Among the 6433 private companies with foreign lead VCs, about 50% have multiple VCs on board, while the other half are funded by the foreign lead VC alone. The average syndicate size when multiple VCs invest in a company is about 6. Local VCs are included in 59% of the syndicated investments. Foreign VCs (other than lead VCs) with local investment experience are included in VC syndicates in about 36% of the cases. Finally, in

Table 2 Summary statistics

Panel A: Syndicate characteristics	Mean	
Probability of syndication	50.35%	
Number of VC firms in the syndicate	3.90	
Number of VC firms if a syndicated investment	5.96	
Syndicate with local VCs	59.00%	
Syndicate with a foreign VC with experience in the local market	35.75%	
Syndicate with a foreign VC with experience in the similar culture	34.18%	

Panel B: Company characteristics	Freq.	Percent
Industry		
Biotechnology	370	5.75
Communication and Media	945	14.69
Computer Related	2174	33.79
Medical/Health/Life Science	462	7.18
Semiconductor/Other Electronic	417	6.48
Non-High-Technology	2065	32.11
Stage of development when received first investment		
Seed	657	10.21
Early	1509	23.46
Expansion	2632	40.91
Late	416	6.47
Other	1219	18.95

Panel C: Investment and lead VC characteristics	Mean	Median
Total amount received by the portfolio company ($million)	32.15	9.00
Total amount invested by lead VC ($million)	12.70	3.96
Percentage of total amount invested in the company	39.5%	44.0%
Number of rounds received	2.54	2.00
Geographic distance (miles)	5981.58	5901.34
Cultural distance	9.97	13.46
Lead VC experience in the local market (N. of companies previously invested in)	8.84	1.00

Panel D: Exit performance	Freq.	Percent
Successful Exit	1448	22.51
IPO	474	7.37
Acquisition	974	15.14

This table presents summary statistics on the characteristics of syndicates, local portfolio companies, foreign lead VCs, and exit performance in cross-border venture capital investments.

another 34% of the cases, culturally proximate foreign VCs are also syndicate members.

Panel B in Table 2 presents portfolio company characteristics. Not surprisingly, most VC investments are in technology-intensive industries. Nearly 68% of portfolio companies with foreign lead VCs fall into one of the following five technology sectors: computer-related products or services (34%), communication and media (15%), medical/health/life sciences (7%), semiconductors (6%), and biotechnology (6%). We also find that a majority of companies (41%) received their first round of VC financing during their expansion stage. In contrast, only 10%

of the ventures received their first round of financing during the seed stage and 23% during the early development stage.[8]

In Table 2, Panel C, we present summary statistics on VC investments. Companies with foreign lead VCs receive mean aggregate funding of $32 million from their VC syndicates, with foreign lead investors contributing on average 40% of the amount. This aggregate investment is spread over two funding rounds on average. In terms of geographical distance, foreign lead VCs are located about 6000 miles away from their portfolio companies. Similarly, the cultural distance between lead VCs and local portfolio companies is

Table 3 Correlation coefficients

	Prob. (Syndication)	Ln (SynSize +1)	Syn_FL	Ln (TotalAmount)	Ln (RoundSize)	Ln (Cultural Distance)	Ln (Geographic Distance)	Lead VC Local Experience
Ln(SynSize+1)	0.790***							
	0.000							
Syn_FL	0.646***	0.687***						
	0.000	0.000						
Ln (TotalAmount)	0.333***	0.430***	0.265***					
	0.000	0.000	0.000					
Ln(RoundSize)	0.187***	0.219***	0.121***	0.899***				
	0.000	0.000	0.000	0.000				
Ln(Cultural Distance)	−0.133***	−0.167***	−0.094***	−0.074***	−0.044***			
	0.000	0.000	0.000	0.000	0.001			
Ln(Geographic Distance)	−0.204***	−0.248***	−0.157***	−0.023	0.037***	0.276***		
	0.000	0.000	0.000	0.100	0.007	0.000		
Lead VC Local Experience	0.016	0.026**	0.042***	−0.141***	−0.187***	0.002	−0.052***	
	0.189	0.036	0.001	0.000	0.000	0.875	0.000	
Successful Exit	0.084***	0.128***	0.085***	0.127***	0.071***	−0.014	−0.005	0.018
	0.000	0.000	0.000	0.000	0.005	0.248	0.681	0.159

This table reports the correlation coefficients of the variables (some are as natural logarithms) of our key interest. *p*-values are reported beneath the correlations. Significance is marked by * at 10%, ** at 5%, and *** at 1%.

10 on average, with a median of 13. Finally, on average, foreign lead VCs have previously invested in nine companies per local market, but about 50% of foreign lead VCs have either invested in a single local company or none at all.

As shown in Panel D, by the beginning of 2013, 22.5% of our sample portfolio companies had successfully exited, among which 7.4% exited through IPO and 15.1% through acquisitions. The information on successful exits – IPOs and acquisitions – is available in the VentureXpert database, and we carefully supplement it with data from the New Issues database (for IPOs) and M&A database (for company mergers and acquisitions), also from Thomson Financial.

In Table 3, we provide the correlation coefficient matrix for the key variables. We find that cultural distance is significantly negatively correlated with the probability of VC syndication, with VC syndicate size, and with the probability of syndication with local VCs. Moreover, cultural distance is negatively associated with the total amount of financing and the average round amount. In contrast, syndication between foreign lead VCs and local VCs is positively associated with total amount of financing and the average round amount, as well as the probability of successful exits. In the next section, we

perform more rigorous multivariate analyses following these initial univariate findings.

While we begin our analysis with the OLS and probit regressions, an essential component in our analyses is the recognition of potential endogeneity in VC syndication decisions; the classic example being that the investor syndicate may be endogenously chosen to fit the nature of the company or opportunity being financed. For example, as noted in the previous section, the extent of the cultural difference between the lead VC and the company itself is likely not exogenously determined, as foreign VCs from more culturally distant countries may require certain characteristics in the company (a better quality venture or a higher probability of success, for example) to make the investment, which also has ramifications for syndication. But such company characteristics as quality are precisely the ones that are mostly unobservable and largely immeasurable *ex ante*.

Second, the endogeneity in VC syndication practices – in part, an outcome of cultural disparities – also becomes an issue in analysis of company metrics such as average round size, aggregate financing, and success. If cultural distance is not completely random, it becomes difficult to discern the

causal effect of culture-related VC syndication on company characteristics mentioned above.

However, given our focus on cultural disparity between nations, we do not have the luxury of natural, controlled, or quasi-random experiments to address the endogenous nature of VC syndication decisions. Equally so, it is challenging to find valid instruments that ought to be relevant for VC syndication decisions, yet should not be correlated with the error terms in the second-stage models measuring average round size, aggregate financing, and success. Given these challenges, we do not assert a causal influence of culture on syndication or on VC practices such as monitoring, funding, and exits.

Therefore while we cannot rule out the concern about endogeneity, nonetheless we use a carefully motivated instrumental variable in a two-step Heckman selection framework to first model the VC syndicate structure. Then in the second stage, we perform analyses of company characteristics such as average round amount, aggregate financing, and exit performance by also introducing the inverse Mills ratio alongside our other variables. These analyses are presented below.

EMPIRICAL FINDINGS

We conduct our empirical testing in five main steps. First, we investigate whether and how cultural disparity relates to foreign VCs' propensity to syndicate when making cross-border investments. Second, we analyze whether foreign VCs' decision to involve local investors is correlated with cultural distance and if so, identify strategies that lessen risks arising from cultural disparity, thereby increasing local VC involvement. Third, we ask how carefully crafted syndication strategies that include local VC participation, are related to monitoring and aggregate financing of portfolio companies. Fourth, we link culture-related syndication approaches to portfolio company performance. Finally, we investigate the robustness of our results by first using an instrumental variable in a two-step Heckman framework, and second by examining whether the individual cultural dimensions are also correlated with syndication, local VC involvement, monitoring, financing, and performance.

Cultural Distance and VC Syndication

As we mention earlier, most literature has focused largely on performance implications of VC syndication, yet it remains unclear how syndicates are formed in cross-border VC investments, when local VCs become involved, and how syndicate formation or composition are related to VC financing, monitoring, and success.

We first estimate probit regressions of whether a foreign lead VC syndicates at all when it makes cross-border investments; these are reported as the first three specifications in Table 4. The dependent variable equals 1 if the foreign VC syndicates with another investor and 0 otherwise. We also estimate OLS regressions explaining syndicate size – the last three specifications in Table 4. The key independent variable is the natural logarithm of the cultural distance between the foreign VC and the local entrepreneurial company. Specifications (3) and (6) exclude US-based portfolio companies to ascertain robustness of our findings.

We include the natural logarithm of geographic distance between the locations of the foreign lead VC and the portfolio company in all our analyses. As well, the indicator variable for shared border between the countries of lead investor and the portfolio company is included. The regressions also contain other characteristics of entrepreneurial companies such as industry and stage of development indicators.

The legal origin of the countries of the portfolio companies is included through indicator variables capturing English, French, or German law, the omitted variable being Scandinavian law. Beginning with the influential La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1997, 1998) papers, numerous studies have shown that law is an important institutional characteristic that matters for financial decision-making, valuations, and economic growth. Other country-specific institutional variables that we include, drawing on the works of North (1990) and Dunning and Lundan (2008) among others, are proxies for political risk, property rights, and how developed capital markets are (equity market capitalization) in the portfolio company's country; also included as controls are the natural log of GDP and country openness. These five variables are measured in the year of first VC investment in the portfolio company. While we use the political constraint index (Henisz, 2000) as a measure of political risk, the property rights index maintained by the Heritage Foundation (www.heritage.org) is used to proxy for the ability of individuals to accumulate private property in a given country. Data on equity market capitalization and country GDP are obtained from World Development Indicators while we tap the Penn World Tables for the degree of openness of a given country's economy to international trade.

Although equity market capitalization captures, in part, the characteristics of a country's financial

Table 4 Cultural distance and the probability of syndication

Variables	Dependent variable: Probability of syndication			Dependent variable: Ln(SynSize+1)		
	(1)	(2)	(3)	(4)	(5)	(6)
Ln(Cultural Distance)	−0.0529*	−0.0598*	−0.0527	−0.0328***	−0.0359***	−0.0290**
	(0.0311)	(0.0312)	(0.0449)	(0.0110)	(0.0110)	(0.0138)
Lead VC Local Experience	0.2950***	0.2834***	0.2423***	0.1082***	0.1021***	0.0762***
	(0.0464)	(0.0465)	(0.0469)	(0.0164)	(0.0164)	(0.0140)
Lead VC Local Experience	−0.0936***	−0.0911***	−0.0729***	−0.0344***	−0.0330***	−0.0219***
Squared	(0.0134)	(0.0134)	(0.0136)	(0.0045)	(0.0045)	(0.0039)
English	0.0584	0.1207	0.1411*	0.0178	0.0531*	0.0618**
	(0.0803)	(0.0824)	(0.0838)	(0.0292)	(0.0299)	(0.0256)
French	−0.1810**	−0.1570*	−0.0018	−0.0723**	−0.0587*	0.0413
	(0.0914)	(0.0916)	(0.0970)	(0.0331)	(0.0332)	(0.0295)
German	−0.1706*	−0.1223	0.0079	−0.0936***	−0.0656*	0.0378
	(0.0939)	(0.0949)	(0.1009)	(0.0340)	(0.0343)	(0.0307)
Political Risk	0.4527**	0.4200**	0.1287	0.1651**	0.1479**	−0.0146
	(0.1851)	(0.1852)	(0.1902)	(0.0667)	(0.0667)	(0.0576)
Ln(PropertyRights)	0.0782	0.0039	0.0363	0.0841***	0.0424	0.0521**
	(0.0804)	(0.0833)	(0.0861)	(0.0291)	(0.0301)	(0.0263)
Ln(StockMktCap)	0.0603*	0.0543	0.0844**	0.0305**	0.0270**	0.0371***
	(0.0347)	(0.0347)	(0.0360)	(0.0125)	(0.0125)	(0.0109)
Ln(GDP)	0.1534***	0.1264***	0.0369	0.0754***	0.0603***	−0.0076
	(0.0193)	(0.0209)	(0.0300)	(0.0068)	(0.0074)	(0.0090)
Openness	0.0000	−0.0000	−0.0007	−0.0001	−0.0001	−0.0004***
	(0.0005)	(0.0005)	(0.0005)	(0.0002)	(0.0002)	(0.0002)
Japan	−0.5310***	−0.3893***	−0.3480**	−0.1248***	−0.0444	−0.0305
	(0.1282)	(0.1350)	(0.1399)	(0.0440)	(0.0466)	(0.0408)
Korea	−0.0518	−0.0046	−0.0553	−0.0070	0.0186	−0.0343
	(0.1740)	(0.1743)	(0.1772)	(0.0614)	(0.0615)	(0.0524)
Ln(Geographic Distance)		−0.0670***	−0.0084		−0.0376***	−0.0013
		(0.0199)	(0.0213)		(0.0072)	(0.0065)
Shared Border	0.0014	−0.0754	0.2136***	−0.0206	−0.0627***	0.0891***
	(0.0511)	(0.0559)	(0.0685)	(0.0185)	(0.0201)	(0.0210)
Constant	−4.7171***	−3.2849***	−2.2621***	−1.2454***	−0.4438**	0.5761**
	(0.4217)	(0.5986)	(0.7787)	(0.1513)	(0.2161)	(0.2350)
Industry and stage dummies	Included	Included	Included	Included	Included	Included
Observations	6433	6433	4618	6433	6433	4618
Pseudo R-squared	0.1425	0.1438	0.0994			
Adjusted R-squared				0.2393	0.2424	0.1566

In this table, we analyze the determinants of syndication decisions when foreign VCs make cross-border investments. Specifications (1)–(3) are probit regressions in which the dependent variable is the syndication dummy, which is equal to 1 if more than one investor invested in a company and 0 otherwise. Specifications (4)–(6) are OLS regressions in which the dependent variable is the natural logarithm of the number of syndicate investors plus 1. Specifications (3) and (6) are robustness checks excluding the sample of US-based portfolio companies. The independent variables include the natural logarithm of cultural distance, foreign lead VC experience in local markets and its squared term, legal origin dummies, proxy for political risk, the natural logarithm of property rights, the natural logarithm of stock market capitalization, the natural logarithm of country GDP, country openness, Japan and Korea dummies, the natural logarithm of geographic distance, and the shared border dummy. Industry and stage of development dummies are included but not reported. The definitions of these variables are available in the Appendix. Standard errors are reported in the parentheses. Significance is marked by * at 10%, ** at 5%, and *** at 1%.

system (for instance, bank- vs stock market-driven economies), we also recognize the unique institutional features of Japan and South Korea. Specifically, Japan and South Korea are dominated by industrial groups (Keiretsus and Chaebols respectively), and innovative projects may be initiated more within these groups. This institutional feature may thus impact the likelihood of foreign VC firms participating in early stage ventures in these countries or even their propensity to syndicate with local VC firms. Furthermore, it may also affect companies' funding and exit events. We therefore include two indicator variables – Japan and Korea – that equal 1 for companies that are headquartered in Japan and South Korea respectively.

Prior research shows that firms adjust their cross-border investment decisions as they accumulate more knowledge or information about foreign markets (Barkema et al., 1996; Chang, 1995; Delios & Henisz, 2003; Guler & Guillén, 2010). We therefore control for foreign lead VCs' investment experience in local markets, which is measured as the cumulative number of companies previously funded by each foreign VC in its portfolio company's local market. The more experience foreign VCs have in local markets, the smaller is the risk the cultural distance represents.[9]

Finally, we include the squared term of foreign lead VCs' local investment experience to deduce whether the propensity to syndicate (including with local VCs) reduces as VCs gain more experience. For example, at the early stage, cultural differences may deter foreign lead VCs from syndicating, particularly with local investors. That is when participation of non-local VC firms (with prior investment experience in the host country or in a culturally similar country) becomes important as it encourages syndication with local firms. However, as the foreign VCs gather even more experience in the host country, the need for having a local VC may reduce, as the incremental benefits of involving them may not be justifiable.

Across five of the six specifications reported in Table 4, cultural distance shows up as significantly and negatively correlated with the probability that a foreign VC syndicates with other investors, and significantly and negatively correlated with VC syndicate size as well. This finding does not support the notion that, in cross-border venture investments, foreign VCs should necessarily syndicate to reduce risk. Rather, the cross-border nature of investing appears to represent an important barrier to smoother cooperation with other culturally distant investors. This is consistent with the evidence in Giannetti and Yafeh (2012) who report that cultural differences hamper risk sharing between participant banks in internationally syndicated bank loans. Among other findings, we observe a positive coefficient on lead VC's local experience but combined with the negative coefficient on the squared term, we infer that the propensity to syndicate initially increases with experience but the relation weakens as foreign VCs gather more local investment experience. There is some evidence that common law countries have a higher degree of syndication, French and German legal origin countries witness lesser VC syndication, and VCs syndicate more in politically less risky, better developed capital markets, and larger GDP countries. However, these results are not uniformly statistically significant across all six specifications. In four of the six specifications the coefficient on Japan dummy is negative and statistically significant, which suggests that VCs syndicate less in the presence of dominating Keiretsus. Finally, the negative (positive) coefficient on geographic distance (shared border dummy) indicates that VCs syndicate less in geographically distant countries, although these findings are also not uniformly significant across all the models.

Our finding that the likelihood of VC syndication actually reduces in culturally distant cross-border investments has parallels with Lounamaa and March (1987) and March (1991) on how individual diversity within organizations may help promote or hinder the capacity to adapt or learn, for example, for taking on exploration and supporting new ventures successfully. Some diversity in teams can facilitate a better division of labor and enhance capacity for appropriate novelty, but too much diversity reduces such synergies, increases the potential for conflicts, and increases costs of coordination and information exchange. So when cross-cultural variety is greater, teams (or VC syndicates) are likely to be smaller in order to retain coherence, enhance positive learning, and to ensure that they work together effectively.[10]

Continuing in a similar vein, Table 5 presents probit regressions of foreign investors' propensity to syndicate with local VCs. Recall that, by definition, the cultural distance between foreign and local VCs is the same as the cultural distance between the foreign investors and their portfolio companies. Hence if cultural disparity between investors is related to a reduced likelihood of syndication, this should be reflected in diminished local VC involvement. The dependent variable in our probit framework is equal to 1 if at least one local VC is present in the syndicate and 0 otherwise. The control variables are identical to those used in Table 4.

Specification (1) in Table 5 shows that cultural distance between foreign and local VCs (or local portfolio companies) is correlated with a significant reduction in the probability of syndication between the two, which does not support hypothesis 1. This result is not affected when geographic distance between foreign lead VCs and portfolio companies is included as a control variable. Furthermore, we find that foreign VC investment experience in local markets is significantly correlated with the probability of local VC involvement. This finding is consistent with the prediction of hypothesis 2, suggesting that foreign VCs are able to reduce

Table 5 Cultural distance and syndication between foreign and local VCs

Variables	Dependent variable: Probability of local VC participation (Syn_FL)				
	(1)	(2)	(3)	(4)	(5)
Ln(Cultural Distance)	−0.1275***	−0.1384***	−0.0717**	−0.1078***	−0.0469
	(0.0313)	(0.0319)	(0.0319)	(0.0324)	(0.0510)
Syn_Preexp		0.7596***		0.5809***	0.4467***
		(0.0445)		(0.0533)	(0.0669)
Syn_Cluster			0.6628***	0.3363***	0.3391***
			(0.0457)	(0.0551)	(0.0675)
Lead VC Local Experience	0.2841***	0.2592***	0.2914***	0.2679***	0.2495***
	(0.0507)	(0.0514)	(0.0512)	(0.0515)	(0.0518)
Lead VC Local Experience Squared	−0.0731***	−0.0655***	−0.0707***	−0.0658***	−0.0562***
	(0.0144)	(0.0146)	(0.0145)	(0.0146)	(0.0148)
English	−0.1050	−0.1367	−0.0404	−0.0970	−0.0973
	(0.0878)	(0.0888)	(0.0896)	(0.0897)	(0.0914)
French	−0.1506	−0.2090**	−0.0967	−0.1690*	−0.1385
	(0.0981)	(0.0996)	(0.0999)	(0.1003)	(0.1073)
German	−0.2403**	−0.2946***	−0.2708***	−0.2985***	−0.2963***
	(0.1017)	(0.1031)	(0.1039)	(0.1039)	(0.1112)
Political Risk	0.6383***	0.7096***	0.6745***	0.7084***	0.5734***
	(0.2046)	(0.2079)	(0.2073)	(0.2084)	(0.2154)
Ln(PropertyRights)	−0.0268	−0.0721	−0.1367	−0.1182	−0.0835
	(0.0923)	(0.0939)	(0.0938)	(0.0944)	(0.0983)
Ln(StockMktCap)	0.0439	0.0171	0.0185	0.0102	0.0121
	(0.0382)	(0.0388)	(0.0388)	(0.0390)	(0.0407)
Ln(GDP)	0.0432*	0.0326	0.0439*	0.0355	0.0325
	(0.0226)	(0.0230)	(0.0229)	(0.0231)	(0.0343)
Openness	0.0002	0.0005	0.0003	0.0005	0.0003
	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)
Japan	−0.1206	−0.0254	0.0123	0.0211	−0.0591
	(0.1466)	(0.1491)	(0.1477)	(0.1491)	(0.1557)
Korea	−0.0249	0.0890	0.1706	0.1630	0.1446
	(0.2002)	(0.1991)	(0.1997)	(0.1992)	(0.2015)
Ln(Geographic Distance)	−0.0918***	−0.1051***	−0.1009***	−0.1068***	−0.0493**
	(0.0215)	(0.0219)	(0.0218)	(0.0220)	(0.0235)
Shared Border	−0.3032***	−0.2885***	−0.2871***	−0.2841***	0.0195
	(0.0589)	(0.0599)	(0.0598)	(0.0601)	(0.0753)
Constant	−1.7132***	−1.0811*	−1.3136**	−1.0181	−1.6887*
	(0.6452)	(0.6553)	(0.6542)	(0.6575)	(0.8838)
Industry and stage dummies	Included	Included	Included	Included	Included
Observations	6433	6433	6433	6433	4618
Pseudo R-squared	0.1181	0.1557	0.1452	0.1604	0.1304

In this table, we analyze the determinants of syndication between foreign and local VCs in cross-border investments. All specifications are probit regressions in which the dependent variable is the *Syn_FL* dummy, which is equal to 1 if a foreign lead VC syndicated with a local VC and 0 otherwise. Specification (5) excludes the sample of US-based portfolio companies. The independent variables include the natural logarithm of cultural distance, the *Syn_Preexp* dummy, the *Syn_Cluster* dummy, foreign lead VC experience in local markets and its squared term, legal origin dummies, proxy for political risk, the natural logarithm of property rights, the natural logarithm of stock market capitalization, the natural logarithm of country GDP, country openness, Japan and Korea dummies, the natural logarithm of geographic distance, and the shared border dummy. Industry and stage of development dummies are included but not reported. Variable definitions are noted in the Appendix. Standard errors are reported in the parentheses. Significance is marked by * at 10%, ** at 5%, and *** at 1%.

cultural barriers through learning by investing in the local markets of their portfolio companies. Taken together, these two findings suggest that inexperienced foreign VC investors face a challenging decision with respect to investing in culturally distant

economies. While they need the expertise of local partners to fill in gaps caused by their limited knowledge of local markets, cultural disparity makes such cooperation difficult. However, foreign VCs having some investment experience in local markets are able

to mitigate the potentially adverse effects of cultural differences thus increasing collaboration with local investors. Foreign VCs' local experience may also be useful in selecting more promising companies thus attracting local VC participation as well.

These findings are also consistent with the notion of balancing exploitation and exploration as proposed in March (1991) and extended in Lavie and Rosenkopf (2006) in the setting of cross-border alliances. Forming partnerships with local VCs from unfamiliar cultures offers new opportunities but also greater risks, which corresponds to March's definition of exploration. But foreign lead VCs can rely on their prior experiences in distant cultures to enhance the predictability and reliability of their partnerships, which serves as one of the effective channels of exploitation.

In specifications (2)–(4), we explore two alternative ways of exploitation that foreign lead VCs can employ to foster cooperation with local investors. Specifically, we explore the intermediate role of non-lead non-local VCs in the syndicate.

In specification (2), we include an indicator variable labeled "Syn_Preexp" that equals 1 if at least one foreign VC (other than the lead VC) with investment experience in the local market is a member of the VC syndicate, and 0 otherwise. In specification (3), we include an indicator labeled "Syn_Cluster" that equals 1 if at least one foreign VC (other than the lead) from a culturally similar country is included in the VC syndicate and 0 otherwise. In specification (4), we include both the indicator variables.

We find that both strategies are significantly and positively associated with the probability of syndication with local VCs. Thus consistent with Levinthal and March (1993), when foreign VCs explore new opportunities in distant cultures they not only rely on their own experience but also on their investor partners who have prior experience of the local market or similar cultures. This serves to enhance communication and cooperation with culturally distant local VCs. Finally, in specification (5) we exclude US-based portfolio companies but find very similar results.

Cultural disparity thus emerges as an important factor in cross-border VC syndication: although cultural differences are correlated with a reduced probability of syndication with native VCs, when foreign VCs have investment experience locally or in culturally similar countries, it helps build faith among investors and increases local VC participation. Although syndication among investor types may be endogenous, our findings also indicate that foreign VCs do more than simply include

local investors to diversify away their risk in cross-border investments; they also appear to take meaningful steps to mitigate the additional risk of syndicating with culturally distant investors.

Among other findings, the results pertaining to lead VC experience are very similar to Table 4. The negative coefficient on the squared term for lead VC experience also implies that the matching of foreign lead VC and the local investor is not necessarily a reflection of a more promising venture. Also consistent with earlier findings but stronger are the coefficients on political risk and German legal origin. In politically more risky and German legal origin countries, syndication between foreign and local VCs is less likely. This could be because of limited venture capital activity in these countries and consequently underdeveloped local VC expertise, unlike common law countries. While syndication with local VCs is negatively correlated with geographical distance, unlike Table 4, the coefficient on shared border dummy is negative and significant; however, it is driven by the subset of US-based portfolio companies. It appears that syndication with US-based local VCs ensues even if other countries do not share borders with the US. That geographical distance obtains a similar sign as cultural distance is perhaps not surprising since the two variables are positively correlated in our sample.

While the above findings suggest a positive association between having foreign VCs with experience in a local market or in a culturally similar country and participation by local investors, we next ask whether local investors are involved following investments by foreign VCs. To account for the timing of investor inclusion in VC syndicates, in tests closely related to Table 5 analyses, we include two alternate dummy variables: the first indicator equals 1 if a non-local VC with prior investment experience in a local market joins a VC syndicate in that market before any local VC does ("Syn_Preexp_Before") and 0 otherwise; similarly, the second indicator equals 1 if a non-local VC from a culturally similar country ("Syn_Cluster_Before") joins a syndicate before any local VC firm does and 0 otherwise. Our analysis (not reported for brevity but available upon request) reveals significantly positive coefficients on these two dummy variables, consistent with Table 5 results and hypothesis 2.

Cultural Distance, VC Syndication, and Investment Staging
Since there are systematic patterns underlying local investor involvement, it is natural to wonder how it is

related to value creation. In this section we further examine how cultural distance and VC syndication, including local VC participation, are related to monitoring and investment staging in portfolio companies.

As mentioned above, we use the average round amount invested in a portfolio company as a proxy for the monitoring required. We expect lower average round amounts in culturally distant transactions because VCs are more likely to stage their investments in view of increased risk. On the other hand, syndication strategies such as those we consider – having a local VC investor or a VC firm with previous experience in a local market or a VC syndicate member with experience in a culturally similar country – are likely to be associated with larger average round size and less intrusive monitoring.

In Table 6, we report OLS regressions of the natural logarithm of average round size. The explanatory variables include cultural distance, the three dummy variables capturing the aforementioned syndication strategies, lead VC's investment experience in a local market, size of the VC syndicate, dummy variables for portfolio company industry, indicators for portfolio company development stage at the time of the first round of VC financing, legal origins of a portfolio company's country, proxies for country political risk and property rights, country GDP, its equity market capitalization, its openness, indicators for Japan and Korea based portfolio companies, the geographic distance between foreign lead VC and its portfolio company, and shared border dummy. Because of high correlation between VC syndicate size and the three dummy variables proxying for syndication strategies, we first orthogonalize them before including them in the models.[11]

Our first result is that cultural distance is significantly and negatively associated with average round size, indicating that greater cultural disparity is associated with more intensive monitoring of their portfolio companies by lead foreign VCs. However, local VC involvement is positively correlated with average round size. Similarly, syndication with foreign VCs with investment experience in a local market or with other non-local VCs from a culturally similar country are also associated with larger average round size. These findings are thus consistent with our hypothesis 3 and imply that such syndicate VCs' useful knowledge of local cultures and their monitoring intensity are positively related – indeed both can be influenced by each other. Finally, as we show in specification (6), the results remain robust on exclusion of US-based portfolio companies.

Among other findings, larger VC syndicates, politically less risky countries, more open nations, and countries with greater equity market capitalizations are associated with larger average round size. This may be due to easier access to capital given the competition among investors. But lead VC experience in the country of investment is negatively correlated with average round size. This result, however, is driven by a small subset of observations – companies that are backed by a single VC firm. As one may expect, average round sizes are likely to be smaller when only a single VC invests in the company and we believe this is the cause of the negative correlation between lead VC's local experience and average round size.

Weak property rights countries exhibit higher average round sizes which may be due to much more careful due diligence and investment by the VC syndicate, so that such funding materializes only if companies exhibit superior potential. Japan is characterized by lower average round size which is consistent with Keiretsus playing a relatively greater role in funding of start-ups, but we observe the opposite pattern for Korean Chaebols. Finally, greater geographic distance (shared border) is associated with higher (lower) average round size, which may be because of a higher bar in selection of better quality companies in geographically distant locations.

Cultural Distance, VC Syndication, and Aggregate Venture Financing

Our next set of analyses tell us whether cultural distance and specific syndicate structures – those having local VC investors, foreign VCs with local investment experience, or foreign VCs with experience in culturally similar nations – are related to the aggregate funding provided by VCs to their companies.

In these analyses that are very similar to investigations of average round amount, we run OLS regressions with the natural logarithm of total amount of VC financing – Ln(TotalAmount) – as the dependent variable. The explanatory variables include cultural distance, the three dummy variables capturing the three syndicate structures, and the same control variables as in Table 6.

In results not reported for brevity (available upon request), we find that cultural distance is significantly and negatively associated with the total amount of VC financing in all specifications, indicating that cultural distance does have a significant relation with how much VCs are willing to invest. However, syndication with local VCs, with other foreign VCs with investment experience in local

Table 6   Cultural distance, VC syndication, and round size

Variables	Dependent variable: Ln(RoundSize)					
	(1)	(2)	(3)	(4)	(5)	(6)
Ln(Cultural Distance)	−0.1140***	−0.1271***	−0.1522***	−0.1162***	−0.1078***	−0.2215***
	(0.0327)	(0.0331)	(0.0334)	(0.0340)	(0.0332)	(0.0533)
Syn_FL		0.2525***			0.2723***	0.2479***
		(0.0189)			(0.0188)	(0.0251)
Syn_Preexp			0.1615***		0.1822***	0.2195***
			(0.0177)		(0.0174)	(0.0232)
Syn_Cluster				0.0883***	0.1015***	0.1255***
				(0.0183)	(0.0178)	(0.0229)
Ln(SynSize+1)	0.7367***	0.2039***	0.1871***	0.1789***	0.2174***	0.2400***
	(0.0364)	(0.0189)	(0.0190)	(0.0191)	(0.0187)	(0.0291)
Lead VC Local Experience	−0.1931***	−0.2015***	−0.1951***	−0.1909***	−0.1920***	−0.2023***
	(0.0205)	(0.0207)	(0.0209)	(0.0211)	(0.0205)	(0.0216)
English	0.2312**	0.2350**	0.2029**	0.2668***	0.2420***	0.1501
	(0.0921)	(0.0934)	(0.0943)	(0.0950)	(0.0925)	(0.0983)
French	0.3830***	0.3831***	0.3048***	0.3794***	0.3827***	0.1638
	(0.1037)	(0.1051)	(0.1060)	(0.1068)	(0.1040)	(0.1154)
German	0.2660**	0.3030***	0.2203**	0.2487**	0.2522**	−0.0548
	(0.1088)	(0.1102)	(0.1112)	(0.1118)	(0.1089)	(0.1213)
Political Risk	0.2962	0.2652	0.4392**	0.3855*	0.3140	0.6859***
	(0.2067)	(0.2095)	(0.2112)	(0.2123)	(0.2068)	(0.2218)
Ln(PropertyRights)	−0.5260***	−0.4634***	−0.4936***	−0.4985***	−0.5433***	−0.6399***
	(0.0929)	(0.0941)	(0.0950)	(0.0957)	(0.0932)	(0.1010)
Ln(StockMktCap)	0.1512***	0.1652***	0.1665***	0.1709***	0.1482***	0.1065**
	(0.0397)	(0.0401)	(0.0405)	(0.0407)	(0.0397)	(0.0432)
Ln(GDP)	−0.0080	0.0044	0.0134	0.0243	−0.0050	0.1441***
	(0.0231)	(0.0235)	(0.0237)	(0.0238)	(0.0232)	(0.0357)
Openness	0.0011*	0.0010	0.0012*	0.0010	0.0011*	0.0020***
	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)
Japan	−1.1317***	−1.2278***	−1.2365***	−1.2612***	−1.1119***	−1.1542***
	(0.1367)	(0.1383)	(0.1396)	(0.1404)	(0.1369)	(0.1511)
Korea	0.4341**	0.3334*	0.3935**	0.4029**	0.4689**	0.6896***
	(0.1869)	(0.1894)	(0.1912)	(0.1926)	(0.1875)	(0.1976)
Ln(Geographic Distance)	0.0753***	0.0819***	0.0541**	0.0595***	0.0706***	0.0561**
	(0.0223)	(0.0227)	(0.0228)	(0.0230)	(0.0224)	(0.0248)
Shared Border	−0.3403***	−0.3418***	−0.3862***	−0.3881***	−0.3395***	−0.3387***
	(0.0607)	(0.0616)	(0.0620)	(0.0624)	(0.0608)	(0.0799)
Constant	9.6514***	9.8321***	9.9254***	9.5170***	10.5262***	8.4309***
	(0.6626)	(0.6726)	(0.6800)	(0.6819)	(0.6666)	(0.9112)
Industry and stage dummies	Included	Included	Included	Included	Included	Included
Observations	5293	5293	5293	5293	5293	3679
Adjusted R-squared	0.1937	0.1730	0.1584	0.1489	0.1942	0.2075

This table examines how cultural distance and syndicate type are related to the average round amount in cross-border venture capital investments. All specifications are OLS regressions where the dependent variable is the natural logarithm of the average round size. Specification (6) excludes the sample of US-based portfolio companies. The independent variables include the natural logarithm of cultural distance, the *Syn_FL* dummy, the *Syn_Preexp* dummy, the *Syn_Cluster* dummy, the natural logarithm of the number of syndicate investors plus 1, foreign lead VC's experience in the local market, legal origin dummies, proxy for political risk, the natural logarithm of property rights, the natural logarithm of stock market capitalization, the natural logarithm of country GDP, country openness, Japan and Korea dummies, the natural logarithm of geographic distance, and the shared border dummy. Industry and stage of development dummies are included but not reported. The definitions of these variables are available in the Appendix. Standard errors are reported in the parentheses. Significance is marked with * at 10%, ** at 5%, and *** at 1%.

markets, or with foreign VCs from culturally similar countries is significantly positively related to aggregate portfolio company funding. These findings thus support hypothesis 4, which predicts greater funding by these select syndicate structures. Finally, we

obtain similar results when we exclude US-based companies from our analysis.

These findings are significant given the critical importance of external funding for cash-starved start-ups. Not only is timely access to capital

important but also the quantum of funding can make or break start-ups' fortunes given the fiercely competitive pressures they typically face. Among other findings, we continue to observe a negative coefficient on lead VC's local experience but as mentioned earlier it is driven by the subset of companies backed by a single VC firm. Not surprisingly, larger VC syndicates provide greater VC funding to their companies. Also, larger GDP countries, politically less risky nations, more open countries, and those with greater stock market capitalizations witness greater VC funding of companies domiciled there. Consistent with Table 6 findings, companies based in weak property rights countries receive greater VC funding. On the other hand, English law countries receive lower VC funding perhaps because companies are able to exit sooner via IPOs and acquisitions and thus have relatively earlier access to public funding. Japan-based companies also receive lower aggregate funding, again highlighting the dominant role played by the Keiretsus in that country. Finally, in line with Table 6 findings, greater geographic distance (shared border) is associated with higher (lower) aggregate funding.

Cultural Distance, VC Syndication, and Company Performance

Finally, we link culture-related VC syndication strategies to portfolio company performance. By definition, VC-funded companies prior to their exits are private and extremely opaque. Since it is almost impossible to get measures of their operating and stock return performance, particularly in a global setting, we follow much of the traditional VC literature for gauging their success. We consider portfolio companies to be successful when they go public or are acquired. On the other hand, if the companies became defunct, were closed or remained private, they are classified as unsuccessful. Recent studies such as Hochberg et al. (2007), Gompers, Kovner, Lerner, and Scharfstein (2008), Gompers, Kovner, and Lerner (2009), and Nahata et al. (2014) also adopt this methodology for coding VC success. Furthermore, Hochberg et al. (2007) show that this measure is a reasonable proxy for VC fund returns.

We track until the beginning of 2013, the fate of all portfolio companies funded through the year 2009 to determine whether or not they exit successfully. Thus if the companies go public or are acquired by 2013, they are coded as successful; otherwise unsuccessful. We track companies funded through 2009 so as to give them sufficient time to exit since companies funded toward the end of our sample

period may not have had ample opportunities to exit in a shortened timeframe. This methodology is standard and widespread in VC literature on exits.

In Table 7, we present probit regressions in which the dependent variable is 1 if the company exits successfully and 0 otherwise. As before, the explanatory variables include the three dummy variables capturing the three syndicate structures along with VC syndicate size. While the syndicate size is positively related to performance, the structure of VC syndicate (captured in our three indicator variables) is correlated with VC success also. Syndication with local VCs, with other foreign VCs with investment experience in local markets, or with foreign VCs with experience in culturally similar countries is related to increased likelihood of VC success, both in the overall sample and the data excluding US-headquartered portfolio companies. These findings support hypothesis 5, which predicts that these select syndicate structures derived carefully amidst cultural disparities are associated with better VC performance.

In other findings of note, both country openness and GDP are negatively correlated with performance. This result is however driven by companies that received their first VC funding after 2005. We believe that the negative relation is caused by the financial crisis of 2008 which struck developed economies much harder, especially large-sized countries such as the US. Hence for companies that received funding from 2006 onward, especially in hard-hit large economies of the west, exit opportunities via IPOs and acquisitions dried up significantly in the following years. Finally, stronger property rights countries facilitate profitable exits whereas they are less likely when the investors and their portfolio companies share common borders. The latter result is consistent with Table 6 findings and also the negative relation between shared border dummy and aggregate VC funding.

Taken together, our results suggest that, when cultural differences are perceived to hinder cross-border investing, VCs prudently form syndicates that help them establish meaningful relationships among the investors involved. Cultural differences are thus significantly related to VC syndication decisions, which in turn have important ramifications for VC financing, monitoring, and performance of portfolio companies.

Robustness Tests

Endogeneity in VC syndication decisions
A major concern with respect to VC syndication is that companies presumably endogenously match

Table 7 Cultural distance, VC syndication, and company success

Variables	Dependent variable: Probability of successful exit through IPO or acquisition					
	(1)	(2)	(3)	(4)	(5)	(6)
Ln(Cultural Distance)	−0.056*	−0.0465	−0.0613*	−0.0488	−0.0437	−0.0609
	(0.0325)	(0.0327)	(0.0327)	(0.0329)	(0.0333)	(0.0506)
Syn_FL		0.1342***			0.1429***	0.1273***
		(0.0187)			(0.0188)	(0.0242)
Syn_Preexp			0.1098***		0.1172***	0.1321***
			(0.0176)		(0.0175)	(0.0223)
Syn_Cluster				0.0293*	0.0297*	0.0529**
				(0.0172)	(0.0177)	(0.0216)
Ln(SynSize+1)	0.0927***	0.1030***	0.0985***	0.0929***	0.1104***	0.0611**
	(0.0186)	(0.0186)	(0.0186)	(0.0186)	(0.0185)	(0.0285)
Lead VC Local Experience	0.0125	0.00973	0.0132	0.014	0.0122	0.0168
	(0.0192)	(0.0193)	(0.0193)	(0.0192)	(0.0194)	(0.0198)
English	−0.0126	−0.0062	−0.0262	−0.0030	−0.0093	−0.0259
	(0.0860)	(0.0862)	(0.0862)	(0.0862)	(0.0867)	(0.0888)
French	0.1327	0.157	0.1131	0.1421	0.1481	0.2217**
	(0.0956)	(0.0960)	(0.0959)	(0.0958)	(0.0965)	(0.1020)
German	0.1890*	0.2252**	0.1729*	0.1887*	0.2106**	0.2941***
	(0.0978)	(0.0982)	(0.0980)	(0.0978)	(0.0986)	(0.1047)
Political Risk	−0.0997	−0.1536	−0.0646	−0.0979	−0.1159	−0.1256
	(0.1946)	(0.1955)	(0.1950)	(0.1947)	(0.1959)	(0.1996)
Ln(PropertyRights)	0.5296***	0.5334***	0.5175***	0.521***	0.5092***	0.4569***
	(0.0932)	(0.0936)	(0.0935)	(0.0934)	(0.0941)	(0.0979)
Ln(StockMktCap)	0.00251	0.0019	−0.0029	0.0015	−0.0055	−0.0412
	(0.0368)	(0.0369)	(0.0369)	(0.0368)	(0.0371)	(0.0385)
Ln(GDP)	−0.1237***	−0.1348***	−0.1297***	−0.1231***	−0.1414***	−0.201***
	(0.0216)	(0.0217)	(0.0217)	(0.0216)	(0.0218)	(0.0308)
Openness	−0.0026***	−0.0027***	−0.0025***	−0.0026***	−0.0026***	−0.0020***
	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)
Japan	0.1125	0.1355	0.1465	0.1201	0.1824	0.2640*
	(0.1270)	(0.1272)	(0.1274)	(0.1271)	(0.1278)	(0.1358)
Korea	0.0078	0.0000	0.0375	0.0225	0.0486	0.0062
	(0.1701)	(0.1703)	(0.1704)	(0.1704)	(0.1706)	(0.1732)
Ln(Geographic Distance)	−0.0114	−0.0025	−0.0155	−0.0120	−0.0070	0.0037
	(0.0213)	(0.0214)	(0.0213)	(0.0213)	(0.0215)	(0.0230)
Shared Border	−0.3024***	−0.2791***	−0.3019***	−0.3018***	−0.2767***	−0.3516***
	(0.0608)	(0.0612)	(0.0610)	(0.0609)	(0.0614)	(0.0772)
Constant	−0.0510	0.1580	0.2185	−0.0403	0.4871	1.9708**
	(0.6428)	(0.6460)	(0.6459)	(0.6432)	(0.6501)	(0.8312)
Industry and stage dummies	Included	Included	Included	Included	Included	Included
Observations	6433	6433	6433	6433	6433	4618
−2 Log Likelihood	6641.21	6589.65	6602.26	6639.00	6542.38	4590.92

This table examines how cultural distance and VC syndicate composition are related to company success. All specifications are Probit regressions where the dependent variable is 1 if the VC-backed company went public or was acquired by the beginning of 2013. Specification (6) excludes the sample of US-based companies. The independent variables include the natural logarithm of cultural distance, the *Syn_FL* dummy, the *Syn_Preexp* dummy, the *Syn_Cluster* dummy, the natural logarithm of the number of syndicate investors plus 1, the foreign lead VC's experience in the local market, legal origin dummies, proxy for political risk, the natural logarithm of property rights, the natural logarithm of stock market capitalization, the natural logarithm of country GDP, country openness, Japan and Korea dummies, the natural logarithm of geographic distance, and shared border dummy. Industry and stage of development dummies are included but not reported. The definitions of these variables are available in the Appendix. Standard errors are reported in the parentheses. Significance is marked with * at 10%, ** at 5%, and *** at 1%.

with investors and their syndicates. As discussed earlier, the extent of the cultural difference between the lead VC and the company in itself is likely not exogenously determined, as foreign VCs from more culturally distant countries may require certain latent characteristics of the company (a better

quality venture or a higher probability of success, for example, in order to reduce risk) to make the investment. For example, higher quality companies being funded in culturally distant countries may not require the involvement of a local VC for monitoring – why include a 'redundant' investor and share potential profits? In this case, cultural distance – via company quality – would cause a decrease in the probability of local VC involvement. But this interpretation does not find clear support in the data. Multiple studies including this article find that local VCs are generally associated with better quality companies and increased likelihood of profitable exits (Chemmanur et al., 2010; Nahata et al., 2014), which runs counter to the argument above. Hence we cannot rule out the alternative explanation that companies funded by foreign VCs in culturally distant countries are simply better quality ventures that are very attractive investments for local VCs and other VCs who have had experience investing in the native country or other culturally similar nations.

On the other hand, the timing of inclusion of local VCs suggests that cultural differences also appear to be one of the factors in the choice of syndicate structure. We find evidence that local VCs are more likely to be involved when foreign VCs having investment experience in the subject country or a culturally similar country are already present in the syndicate. Given this lead-lag relation, we believe that local VC involvement and cultural distance may not be necessarily jointly determined. Our finding of a negative correlation between squared term of lead VC experience and local VC presence is also consistent with this observation.

However, endogeneity in VC syndication decisions – in part, an outcome of cultural disparities – also becomes an issue in analysis of company characteristics such as average round size, aggregate financing, and success. Although cultural distance is negatively related to these company characteristics, which suggests that not all companies funded in culturally distant countries are necessarily better quality ventures, yet to formally examine the endogeneity between culture-related VC syndication and company characteristics, we use the two-stage Heckman procedure. In the first-step model, we estimate the likelihood of VC syndication (Syn_FL or Syn_Preexp or Syn_Cluster) using a probit regression framework. The dependent variable in the probit model is unity if a potentially culture-linked VC syndicate member (Syn_FL or Syn_Preexp or Syn_Cluster) exists and 0 if it does not.

To employ the Heckman procedure, we need a valid instrument. While the instrumental variable ought to be correlated with VC syndication decisions, it should not be correlated with the error terms in the second-stage models measuring average round size, aggregate financing, and success. Although it is challenging to find valid instruments, particularly in our setup, we construct a carefully motivated instrument as follows. We use the number of internet users in the lead VC firm's country at the time of VC inclusion in the syndicate, as our instrumental variable. We conjecture that a greater number of internet users is likely to reduce cultural disparity between countries because of ease of information exchange and increased awareness of foreign countries' cultural practices, ceteris paribus. This is likely to result in greater possibility of syndication among culturally distant venture capital firms, and thus a positive correlation between the instrument and Syn_FL, Syn_Preexp, and Syn_Cluster variables. At the same time, we do not expect the instrument – number of internet users – to affect average round size, aggregate financing, and company success directly.

In addition to the instrument, other variables in the first-stage selection equation include lead VC's local experience and indicator variables for host country's legal origin.

We report these results in Table 8. As observed, the instrumental variable satisfies the relevance criterion as it is significantly positively correlated with the three culture-related syndication variables. More importantly, when we include the received inverse Mills ratio from the first stage into the second-step regressions, our estimates are statistically similar to those reported in specifications (2)–(4) of Table 6 (average round size) and Table 7 (company success) as also the corresponding analysis of aggregate VC funding.[12] At the same time, the inverse Mills ratio (not reported) emerges highly significant in most model specifications suggesting that controlling for endogeneity is important. This is particularly true in a setting such as ours where we do not have recourse to natural, controlled, or quasi-random experiments to convincingly address the endogeneity issue, which remains a limitation of our analyses.

Individual cultural dimensions
Prior research in international joint venture (IJV), foreign direct investment (FDI), and alliance literature suggests that not all cultural dimensions are likely to have a similar impact on partnerships, investment, and performance (Shenkar, 2001). For

Table 8   Robustness checks, Heckman two-stage regressions

Panel A: First-stage regressions

Variables	(1) Syn_FL	(2) Syn_Preexp	(3) Syn_Cluster
Ln(Internetusers)	0.1087***	0.0609***	0.1336***
	(0.0181)	(0.0191)	(0.0202)
Syn_Preexp	0.7137***		
	(0.0510)		
Syn_Cluster	0.4260***		
	(0.0524)		
Lead VC Local Experience	0.0781***	0.0342*	−0.0538***
	(0.0181)	(0.0192)	(0.0206)
English	0.1354*	0.5245***	−0.0013
	(0.0760)	(0.0948)	(0.0782)
French	−0.0461	0.2712***	−0.4398***
	(0.0872)	(0.1060)	(0.0951)
German	−0.2694***	0.3048***	−0.1068
	(0.0846)	(0.1022)	(0.0866)
Constant	−1.2298***	−1.5752***	−1.2771***
	(0.1008)	(0.1176)	(0.108)
Observations	6433	6433	6433
Pseudo *R*-squared	0.1074	0.0173	0.0286

Panel B: Second-stage regressions; internet users as instrument

	Ln(RoundSize)			Ln(TotalAmount)			Prob.(Successful Exit: IPO or Acquisition)		
Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Ln(Cultural Distance)	−0.1069***	−0.1147***	−0.0983***	−0.1366***	−0.1489***	−0.1243***	−0.0419	−0.0899***	−0.0628*
	(0.0327)	(0.0327)	(0.0329)	(0.0332)	(0.0333)	(0.0335)	(0.0328)	(0.0332)	(0.0334)
Syn_FL	1.0924***			1.3347***			0.2582***		
	(0.2014)			(0.2047)			(0.0421)		
Syn_Preexp		2.8901***			2.8981***			0.391***	
		(0.5559)			(0.5654)			(0.0469)	
Syn_Cluster			2.6879***			2.2206***			0.3005***
			(0.4473)			(0.4555)			(0.0478)
Ln(SynSize+1)	0.5851***	0.6889***	0.6860***	1.2026***	1.2882***	1.3025***	0.1062***	0.0973***	0.0929***
	(0.0551)	(0.0429)	(0.0418)	(0.0560)	(0.0436)	(0.0426)	(0.0185)	(0.0187)	(0.0187)
Lead VC Local Experience	−0.2047***	−0.2069***	−0.1440***	−0.1562***	−0.1560***	−0.1017***	−0.0015	0.1903***	−0.148***
	(0.0206)	(0.0206)	(0.0220)	(0.0209)	(0.0210)	(0.0224)	(0.0195)	(0.0235)	(0.0232)
English	0.2933***	0.2621***	0.3501***	−0.1849**	−0.2342**	−0.1535	−0.00876	2.7286***	−0.3541***
	(0.0926)	(0.0921)	(0.0938)	(0.0941)	(0.0937)	(0.0955)	(0.0863)	(0.2135)	(0.0922)

Table 8: (*Continued*)

Panel B: Second-stage regressions; internet users as instrument

Variables	Ln(RoundSize)			Ln(TotalAmount)			Prob.(Successful Exit: IPO or Acquisition)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
French	0.4322***	0.4148***	0.5039***	0.3756***	0.3327***	0.4170***	0.1868*	1.308***	−1.4491***
	(0.1038)	(0.1039)	(0.1052)	(0.1055)	(0.1057)	(0.1072)	(0.0965)	(0.1283)	(0.1527)
German	0.2785**	0.2750**	0.3423***	−0.0037	−0.0214	0.0315	0.2808***	1.7476***	−0.3597***
	(0.1085)	(0.1087)	(0.1095)	(0.1103)	(0.1105)	(0.1115)	(0.0997)	(0.1483)	(0.1071)
Political Risk	0.2567	0.2417	0.1750	0.2010	0.2154	0.1644	−0.1659	0.5796***	0.5387***
	(0.2062)	(0.2067)	(0.2073)	(0.2096)	(0.2102)	(0.2111)	(0.1956)	(0.2090)	(0.2082)
Ln(PropertyRights)	−0.5738***	−0.5542***	−0.5853***	−0.2894***	−0.2635***	−0.2936***	0.5064***	0.7252***	0.7015***
	(0.0930)	(0.0928)	(0.0932)	(0.0945)	(0.0944)	(0.0949)	(0.0938)	(0.1007)	(0.1005)
Ln(StockMktCap)	0.1282***	0.1301***	0.1111***	0.1470***	0.1533***	0.1414***	−0.00959	0.1447***	0.1428***
	(0.0397)	(0.0398)	(0.0401)	(0.0404)	(0.0404)	(0.0408)	(0.0372)	(0.0390)	(0.0389)
Ln(GDP)	−0.0206	−0.0170	−0.0367	0.0616***	0.0697***	0.0571**	−0.1443***	−0.00023	0.00698
	(0.0232)	(0.0232)	(0.0237)	(0.0236)	(0.0236)	(0.0241)	(0.0219)	(0.0251)	(0.0250)
Openness	0.0008	0.0009	0.0004	0.0007	0.0008	0.0005	−0.00278***	0.00051	0.000363
	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.00058)	(0.00062)	(0.00062)
Japan	−1.0640***	−1.1047***	−1.1047***	−1.6998***	−1.7466***	−1.7448***	0.1727	−0.0604	−0.0642
	(0.1368)	(0.1365)	(0.1365)	(0.1391)	(0.1388)	(0.1390)	(0.1277)	(0.1325)	(0.1324)
Korea	0.4487**	0.4155**	0.3889**	0.1867	0.1651	0.1654	0.0157	0.3462**	0.3679**
	(0.1863)	(0.1866)	(0.1874)	(0.1894)	(0.1898)	(0.1908)	(0.1703)	(0.1737)	(0.1736)
Ln(Geographic Distance)	0.0693***	0.0772***	0.0764***	0.1618***	0.1673***	0.1666***	−0.00372	−0.038*	−0.0373*
	(0.0223)	(0.0224)	(0.0223)	(0.0227)	(0.0227)	(0.0227)	(0.0214)	(0.0218)	(0.0218)
Shared Border	−0.3385***	−0.3386***	−0.3484***	−0.4973***	−0.4965***	−0.5055***	−0.2778***	−0.2844***	−0.2871***
	(0.0606)	(0.0605)	(0.0605)	(0.0616)	(0.0616)	(0.0616)	(0.0613)	(0.0618)	(0.0616)
Constant	10.3185***	10.0499***	10.5519***	6.9986***	6.6455***	6.9434***	0.767	−17.4494***	−8.6237***
	(0.6704)	(0.6650)	(0.6763)	(0.6814)	(0.6763)	(0.6887)	(0.6776)	(1.4408)	(0.9234)
Industry and stage dummies	Included	Included	Included	Included	Included	Included	Included	Included	Included
Observations	5293	5293	5293	5293	5293	5293	6433	6433	6433
Adjusted R^2/−2Log Likelihood	0.1984	0.1977	0.1992	0.3337	0.3324	0.3319	6577.73	6328.27	6399.95

This table presents results from the Heckman two-stage procedure. Panel A reports the first-stage regressions where we use the natural logarithm of Internetusers as the exogenous instrument. The dependent variable is Syn_FL in specification (1), Syn_Preexp in specification (2), and Syn_Cluster in specifications (3). In addition to the exogenous instrument, we also include lead VC local experience, and legal origin dummies. In specification (1), we further include Syn_Preexp and Syn_Cluster. Panel B reports the second-stage regressions. The dependent variable is Ln(RoundSize) in specifications (1)–(3), Ln(TotalAmount) in specifications (4)–(6), and the probability of successful exit via IPOs or acquisitions in specifications (7)–(9). The independent variables are the same as in Tables 6 and 7, plus the Inverse Mills Ratio estimated off the corresponding first-stage regression in Panel A. The definitions of these variables are available in the Appendix. Standard errors are reported in the parentheses. Significance is marked with * at 10%, ** at 5%, and *** at 1%.

Table 9 Robustness checks, individual culture dimensions

Panel A: The probability of syndication

	Dependent variable: Probability of syndication				Dependent Variable: Ln(SynSize+1)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Variables	PDI	IDV	MAS	UAI	PDI	IDV	MAS	UAI
Ln(Cultural Distance)	−0.1179***	−0.1221***	−0.1085***	−0.1741***	−0.0901***	−0.0853***	−0.0900***	−0.1181***
	(0.0180)	(0.0156)	(0.0182)	(0.0195)	(0.0062)	(0.0053)	(0.0062)	(0.0063)
Control Variables	Included	Included	Included	Included	Included	Included	Included	Included
Industry and stage dummies	Included	Included	Included	Included	Included	Included	Included	Included
Observations	6433	6433	6433	6433	6433	6433	6433	6433
Pseudo R-squared	0.1480	0.1501	0.1472	0.1524				
Adjusted R-squared					0.2653	0.2709	0.2653	0.2805

Panel B: The probability of local VC participation

	Dependent variable: Probability of local VC participation (Syn_FL)			
	(1)	(2)	(3)	(4)
Variables	PDI	IDV	MAS	UAI
Ln(Cultural Distance)	−0.2666***	−0.2847***	−0.3269***	−0.3319***
	(0.0192)	(0.0162)	(0.0192)	(0.0198)
Syn_Preexp	0.5824***	0.6378***	0.6802***	0.6999***
	(0.0542)	(0.0544)	(0.0514)	(0.0509)
Syn_Cluster	0.3122***	0.2022***	0.2682***	0.1463**
	(0.0550)	(0.0563)	(0.0590)	(0.0597)
Lead VC Local Experience	0.2628***	0.3237***	0.2951***	0.2158***
	(0.0517)	(0.0518)	(0.0520)	(0.0515)
Lead VC Local Experience Squared	−0.0711***	−0.0765***	−0.0822***	−0.0483***
	(0.0147)	(0.0147)	(0.0148)	(0.0145)
Control Variables	Included	Included	Included	Included
Industry and stage dummies	Included	Included	Included	Included
Observations	6433	6433	6433	6433
Pseudo R-squared	0.1846	0.1983	0.1956	0.1929

Table 9: (Continued)

Panel C: Round size, total amount, and exit performance

	Ln(RoundSize)				Ln(TotalAmount)				Prob.(Successful Exit: IPO or Acquisition)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Variables	PDI	IDV	MAS	UAI	PDI	IDV	MAS	UAI	PDI	IDV	MAS	UAI
Ln(Cultural Distance)	−0.1813***	−0.1468***	−0.1442***	−0.1354***	−0.2830***	−0.2946***	−0.2338***	−0.2564***	−0.1038***	−0.1017***	−0.0895***	−0.0591***
	(0.0234)	(0.0202)	(0.0213)	(0.0215)	(0.0238)	(0.0206)	(0.0216)	(0.0218)	(0.0227)	(0.0201)	(0.0206)	(0.0213)
Syn_FL	0.2430***	0.2436***	0.2476***	0.2491***	0.4680***	0.4545***	0.4748***	0.4685***	0.1268***	0.1223***	0.1278***	0.1344***
	(0.0186)	(0.0185)	(0.0188)	(0.0187)	(0.0189)	(0.0188)	(0.0191)	(0.0191)	(0.0186)	(0.0186)	(0.0188)	(0.0188)
Syn_Preexp	0.1804***	0.1800***	0.1837***	0.1797***	0.3482***	0.3478***	0.3530***	0.3471***	0.1171***	0.1162***	0.1184***	0.1165***
	(0.0174)	(0.0174)	(0.0174)	(0.0174)	(0.0177)	(0.0177)	(0.0177)	(0.0177)	(0.0174)	(0.0175)	(0.0175)	(0.0175)
Syn_Cluster	0.1005***	0.0649***	0.0923***	0.0540***	0.1789***	0.1384***	0.1639***	0.1131***	0.016	0.0177	0.031*	0.0056
	(0.0177)	(0.0173)	(0.0177)	(0.0176)	(0.0180)	(0.0176)	(0.0179)	(0.0179)	(0.0176)	(0.0173)	(0.0176)	(0.0175)
Lead VC Local Experience	−0.1958***	−0.1909***	−0.1917***	−0.1922***	−0.1449***	−0.1377***	−0.1390***	−0.1413***	0.0090	0.0153	0.0096	0.0127
	(0.0206)	(0.0206)	(0.0206)	(0.0205)	(0.0209)	(0.0209)	(0.0209)	(0.0209)	(0.0194)	(0.0194)	(0.0194)	(0.0193)
Control Variables	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Industry and stage dummies	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Observations	5293	5293	5293	5293	5293	5293	5293	5293	6433	6433	6433	6433
Adjusted R-squared	0.1938	0.1922	0.1941	0.1919	0.3292	0.3284	0.3309	0.3271				
−2*Log Likelihood									6538.84	6538.49	6539.42	6542.38

In this table, we measure culture distance by individual dimensions (PDI, IDV, MAS, UAI), respectively. Each dimensional distance is defined as the natural logarithm of the absolute difference between the corresponding dimensions of the investor and its portfolio company. In Panel A, we evaluate how disparity in individual cultural dimensions correlates with the probability of syndication. Specifications (1)–(4) are probit regressions in which the dependent variable is the syndicate dummy, which is equal to 1 if more than one investor invested in a company and 0 otherwise. Specifications (5)–(8) are OLS regressions in which the dependent variable is the natural logarithm of the number of syndicate investors plus 1. All other independent variables (most not reported) are the same as the ones used in Table 4. In Panel B, we examine how disparity in individual culture dimensions relates to the probability of foreign-local VC partnership. Syn_Cluster is set to equal to 1 if a VC from the same culture cluster in a specific dimension is included in the syndicate and 0 otherwise. Other independent variables (most not reported) are the same as the ones used in Table 5. In Panel C, we examine how disparity in individual culture dimensions relates to the round size (specifications (1)–(4)), total amount of financing (specifications (5)–(8)), and the company's exit performance (specifications (9)–(12)). Syn_Cluster is defined as in Panel B. Other independent variables (most not reported) are the same as the ones used in Tables 6 and 7. The definitions of these variables are available in the Appendix. Standard errors are reported in the parentheses. Significance is marked with * at 10%, ** at 5%, and *** at 1%.

instance, uncertainty avoidance is likely to be potentially more important in international cooperation as Barkema et al. (1997) and Barkema and Vermeulen (1997) show. With regard to international expansion choices, Shenkar (2001) also notes that uncertainty avoidance may better capture attitudes toward risk, its tolerance, and formalization. On the other hand, individualism has been found to significantly affect alliance use (Dickson & Weaver, 1997), power distance has implications for FDI (Shane, 1992), while Pothukuchi, Damanpour, Choi, Chen, and Park (2002) note that the positive relation between overall cultural distance and IJV performance is explained primarily by the masculinity vs femininity dimension.

In this study however, given the extremely risky nature of VC investments, we are agnostic about which cultural differences should matter more, *ex ante*. Although uncertainty avoidance may seem to be the relatively more important cultural dimension in our context, we believe that all types of differences would amplify the challenges of cross-border venture investing. Potential frictions emanating from differences in outlook toward power and authority, uncertainty, individualistic vs collectivistic tendencies, and even quality of life or cooperation embodied in more feminine societies, can each have implications for cooperation between VCs and with portfolio companies. Hence in Table 9, we report our regression specifications in which the cultural distance is based on each of the four separate dimensions. In these tests, each dimensional distance is defined as the natural logarithm of the absolute difference between the corresponding dimensions of the investor and its portfolio company. The variable Syn_Cluster is also updated for each cultural dimension. We introduce these distances sequentially since they are highly correlated with each other, with pairwise correlations ranging from 0.45 to 0.65. Importantly, we find very similar qualitative results in nearly all specifications with the four individual cultural dimensions emerging as significant in explaining syndication, monitoring, funding, and performance. Sometimes when not statistically significant, the coefficient signs still conform to our earlier reported results.

Finally, in the spirit of Brock, Shenkar, Shoham, and Siscovick (2008), we also control for cultural characteristics of lead VC's home country. VCs based in high power distance and uncertainty avoidance cultures are more likely to be cognizant of potential agency problems in foreign societies, and make efforts to reduce coordination and transaction costs.

Similarly, VCs from individualistic and masculine cultures are more likely to assert control in an attempt to manage inefficiencies and prevent opportunism in cross-border syndicates. To control for these effects, we also include the logarithmic values of the four cultural dimensions pertaining to foreign VCs' home country in all our hitherto reported regression specifications. However, none of the foreign VCs' cultural characteristics emerges consistently significant across all the dependent variables. Although these results are not reported to conserve space, we find evidence that (1) foreign VCs' affirmative outlook toward uncertainty avoidance is negatively correlated with average round amount, (2) their bent toward individualism is positively related to both syndicate size and the likelihood of syndication with local VCs, and (3) their relatively masculine attitude is positively correlated with both average round size and aggregate funding amount. Importantly however, the correlation of cultural distance (composite measure or one-dimensional) with syndication, local VC participation, company monitoring, funding, and performance continues to be robust and qualitatively similar.[13]

CONCLUSION

In this article we study the role of cultural differences in cross-border venture capital syndication. Several interesting findings emerge. First, we show that cultural disparity is associated with reduced probability of syndication in cross-border VC investments. This is a surprising result because the added risk arising from culturally distant transactions should increase, not reduce, the size of VC syndicates, since one of the central motives of syndication is risk sharing.

On further scrutiny, we find that the reduced probability of syndication in cross-border investments is driven largely by lesser local investor representation in foreign VC-led syndicates. This seems counterintuitive also because given their lack of knowledge of local markets, foreign lead VCs should have a greater need for local partners. One potential explanation is that cultural disparity between foreign and local VCs makes such cooperation more difficult. Foreign VCs undertaking cross-border investments face multiple challenges related to information asymmetry, uncertainty, unfamiliar environments, and potential misgivings due to cultural disparity, and these factors only increase the coordination and cooperation costs of partnership with local investors. When these costs outweigh the benefits of having a local partner, foreign VCs are less likely to syndicate with local VCs.

However, certain syndicate characteristics are positively related to local investor participation. We find that local VC presence increases when foreign VCs possess investment experience in local markets. Local VC involvement also increases when foreign lead VCs syndicate with other non-local VCs from culturally similar countries. This suggests that foreign VCs gain increasing familiarity with host cultures, over time, by investing in local markets, which makes them more comfortable and competent both in selecting promising investments and syndicating with local VCs.

We also show that culture-related syndication strategies are correlated with VC investment and monitoring intensity in cross-border investments. Although cultural disparity is related to reduced VC funding and increased monitoring intensity in cross-border investing, certain syndicate structures – those having local VC investors, foreign VCs with local investment experience, or foreign VCs from culturally similar countries – are associated with increased VC funding and reduced monitoring intensity. Finally, these same syndicate structures are also correlated with enhanced VC performance through an increased likelihood of portfolio company exits via IPOs and acquisitions. One caveat of our analysis is that we do not assert a causal influence of culture on syndication or on VC activities such as monitoring, funding, and exits. Yet we believe this is the first study that focuses on and analyzes in much greater detail, the relation between culture and VC syndication practices and its implications in cross-border investments.

Overall our results suggest that although risk sharing is an important motive for syndicating investments, VC syndication behavior is more nuanced in culturally distant cross-border investments. VCs do not include local partners simply to diversify away their risk but also appear to take meaningful steps to foster syndication including with culturally distant investors. Such careful design of VC syndicates is significantly correlated with portfolio companies' funding, monitoring, and eventual success.

The findings of our study also point toward new directions for future research. Our focus in this article has been on cultural disparity between VC investors and their portfolio companies, although we also control for geographical distance between them. Further research can potentially analyze other types of differences such as linguistic, for instance, on VC decision-making. Recent studies such as Santacreu-Vasut, Shenkar, and Shoham (2014) and Cuypers, Ertug, and Hennart (2015), for example, analyze the ramifications of linguistic distance on corporate board structures and cross border acquisitions, respectively. Second, while we have shown the importance of presence of a few syndicate members, it may be interesting to study how foreign VCs overcome their natural shortcoming of cultural distance to form and develop value enhancing relationships with other investors, particularly over a period of time. These, we believe, are intriguing issues for future analysis.

NOTES
[1] VCs from separate cultures often have divergent perceptions of VC–entrepreneur relationships (Pruthi, Wright, & Lockett, 2003). For instance, Indian domestic VCs regard the relationship between entrepreneurs and VCs as part of a unified network rather than as a series of arm's-length transactions because of the emphasis on shared responsibility in the business culture there. In China, some VC monitoring activities that are commonly employed in the US are regarded as intrusive and meet with much resistance.

[2] As mentioned earlier, an analysis of how VCs attain familiarity with foreign cultures so that potential frictions among the VC syndicate are minimized is beyond the scope of this study.

[3] We are grateful to the editor and an anonymous referee for these suggestions.

[4] As a robustness check, we include the fifth dimension, namely, long-term orientation (Hofstede & Bond, 1988) to measure the composite cultural distance; furthermore, we also use all six Hofstede dimensions (Hofstede, Hofstede, & Minkov, 2010) that include a sixth measure called indulgence vs restraint (these data also come from www.geerthofstede.nl). All our findings are qualitatively similar and retain their statistical significance. Finally, for an alternative construct of cultural disparity, we use House, Hanges, Javidan, Dorfman, and Gupta (2004) GLOBE scores to measure cultural distance between the lead VC and its portfolio company, and obtain robust results. We do

not report all these results formally to conserve space and also because we lose quite a few observations when using these additional data. Results are however available upon request.

[5]Our results are qualitatively and statistically similar when we use the Kogut and Singh (1988) formula for measuring cultural distance.

[6]In these analyses, most results are significant at conventional statistical levels. Sometimes when not significant, their signs still conform to our reported results. The analysis on Hofstede's fifth and sixth dimensions, long-term orientation and indulgence vs restraint, respectively, renders statistically significant results.

[7]We obtain the data from the CEPII website. Please see www.cepii.fr/anglaisgraph/bdd/distances.htm.

[8]The stage of development dummies (Seed, Early, Expansion, Later) are based on the VentureXpert classification. Seed stage is defined as an investment strategy involving portfolio companies that have not yet fully established commercial operations, and may also involve continued research and product development. Early stage is defined as an investment strategy involving companies involved in product development and initial marketing, manufacturing, and sales activities. Expansion stage describes funds that make investments in portfolio companies that have an established product or service already generating revenue, but may or may not be making a profit. Later stage funds make later rounds of investments in portfolio companies before they exit through an IPO or a strategic acquisition.

[9]In robustness tests (not reported) we also include a measure of VC's overall experience, defined similarly as the cumulative number of companies funded by the VC firm across all markets, but it does not affect our primary results in any of the tables reported.

[10]A natural question that arises is whether the cultural distance–syndication relation weakens when the cultural disparity increases. We find support for this conjecture as we obtain a significantly positive coefficient on the squared Hofstede cultural distance while the coefficient on cultural distance continues to be negative and significant in the presence of other independent variables. (These results are not reported for brevity but are available upon request.) While the VC's propensity to syndicate reduces with cultural diversity, this relation is not monotonic – at higher levels the strength of cultural disparity–VC syndication relation lessens.

[11]We do not include interaction terms between cultural distance and the three syndicate structures (syndication with local VCs, with VC firms having previous experience in a local market or with VCs from a culturally similar country) because the respective interaction terms are highly correlated ($\rho > 0.9$) with the three syndication strategies.

[12]Since we use the probit model in the first stage of the Heckman framework, we use non-orthogonalized syndication variables (Syn_FL, Syn_Preexp, and Syn_Cluster) as the dependent variables. Hence to avoid multicollinearity issues, we do not include all three syndication variables in the same regression specification in the second stage.

[13]The significance of these findings remains unchanged when we use all six Hofstede dimensions, although as mentioned earlier, this results in a reduction in observations.

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APPENDIX

Table A1   Definition of variables

Variables	Definitions
Cultural Distance	We obtain the Hofstede measures of culture from Geert Hofstede's website (www.geerthofstede.nl) and use them to compute the cultural distance between lead VCs and portfolio companies (or local VCs).
Geographic Distance	Measured as the distance between the capitals (or the most populated cities if the capitals are sparsely populated) of the respective countries of foreign lead VCs and portfolio companies.
Lead VC local experience	The natural logarithm of the number of companies in which lead VCs have previously invested in local markets.
Syndication	A dummy variable that is equal to 1 if a foreign lead VC is not investing by herself and 0 otherwise.
SynSize	The number of VCs investing in a portfolio company (syndicate size).
Syn_FL	A dummy variable that is equal to 1 if a foreign lead VC syndicates with a local VC and 0 otherwise.
Syn_Cluster	A dummy variable that is equal to 1 if a VC from the same culture cluster (nations at short cultural distance to the headquarters nation of a portfolio company) is included in the syndicate and 0 otherwise.
Syn_Preexp	A dummy variable that is equal to 1 if a foreign VC (other than the lead) with previous investment experience in a local market is included in a syndicate and 0 otherwise.
Syn_Cluster_Before	A dummy variable that is equal to 1 if a VC from the same culture cluster (nations at short cultural distance to the headquarters nation of a portfolio company) is included in the syndicate before a local VC is involved and 0 otherwise.
Syn_Preexp_Before	A dummy variable that is equal to 1 if a foreign VC (other than the lead VC) with previous investment experience in a local market is included in a syndicate before a local VC is involved and 0 otherwise.
TotalAmount	The total amount of financing across all rounds to the portfolio company.
RoundSize	Average round size: the total amount of financing divided by the total number of rounds.
Ind_Biotechnology	A dummy variable that is equal to 1 if the portfolio company is in the biotech industry and 0 otherwise.
Ind_Communication	A dummy variable that is equal to 1 if the portfolio company is in the communication and media industry and 0 otherwise.
Ind_IT	A dummy variable that is equal to 1 if the portfolio company is in the information technology industry and 0 otherwise.
Ind_Medical	A dummy variable that is equal to 1 if the portfolio company is in the medical/life science/health-care industry and 0 otherwise.
Ind_Semiconductor	A dummy variable that is equal to 1 if the portfolio company is in the semiconductor industry and 0 otherwise.
Stage_Seed	A dummy variable that is equal to 1 if the portfolio company received its first round of financing at the seed stage and 0 otherwise.
Stage_Early	A dummy variable that is equal to 1 if the portfolio company received its first round of financing at the early stage and 0 otherwise.
Stage_Expansion	A dummy variable that is equal to 1 if the portfolio company received its first round of financing at the expansion stage and 0 otherwise.
Stage_Late	A dummy variable that is equal to 1 if the portfolio company received its first round of financing at the late stage and 0 otherwise.
English	A dummy variable that is equal to 1 if the local country is of English legal origin and 0 otherwise.
French	A dummy variable that is equal to 1 if the local country is of French legal origin and 0 otherwise.
German	A dummy variable that is equal to 1 if the local country is of German legal origin and 0 otherwise.
Political Risk	A measure of political risk (Political Constraint Index) developed in Henisz (2000).
Ln(PropertyRights)	The natural logarithm of the measure of property rights (www.heritage.org) which is the degree to which a country's laws protect private property rights and the degree to which its government enforces those laws.
Ln(GDP)	The natural logarithm of national GDP.
Ln(StockMktCap)	The natural logarithm of national stock market capitalization.
Openness	The ratio of total trade including exports and imports to country GDP.
Japan	A dummy variable that is equal to 1 if the portfolio company is located in Japan and 0 otherwise.
Korea	A dummy variable that is equal to 1 if the portfolio company is located in Korea and 0 otherwise.
Shared Border	A dummy variable that is equal to 1 if two countries share a border and 0 otherwise.
Successful Exit	A dummy variable that is equal to 1 if the portfolio company exits successfully via an IPO or an acquisition, and 0 otherwise.
Internetusers	The number of internet users in the country.

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