



# Foreign venture capitalists and the internationalization of entrepreneurial companies: Evidence from China

## Mark Humphery-Jenner<sup>1</sup> and Jo-Ann Suchard<sup>1</sup>

<sup>1</sup> Australian School of Business, University of New South Wales, Sydney, Australia

#### Correspondence:

M Humphery-Jenner, Room 350, Australian School of Business, University of New South Wales, Sydney NSW 2052, Australia.

Tel: +61 29 385 1000; Fax: +61 29 385 6347;

#### **Abstract**

We use a comprehensive database of venture-capital-backed companies from China to test whether and how foreign venture capitalists (VCs) can facilitate international initial public offerings of entrepreneurial companies. Foreign VCs increase the likelihood that a portfolio company will list on a foreign exchange and use a top lawyer, banker, or accountant when doing so. The propensity to list overseas is moderated by the number of venture backers, the fund's size, and governance in the domestic market. Foreign VCs encourage foreign listings in domestic-backed companies. We take steps to address sample selection and endogeneity concerns. Overall, we show that foreign VCs encourage internationalization in entrepreneurial companies.

Journal of International Business Studies (2013) 44, 607–621. doi:10.1057/jibs.2013.22

**Keywords:** venture capital; private equity and portfolio diversification; China; cross-border investments; internationalization; initial public offerings (IPOs)

#### INTRODUCTION

The last decade has seen an increase in international participation in venture investments and the globalization of venture capital (e.g., Guler & Guillen, 2010). A sizable portion of this capital has flowed to emerging markets (Chakma, Sammut, & Agrawal, 2013), notwithstanding evidence that the poor-governance environments characteristic of such markets tend to affect venture capital outcomes negatively. While it is arguable that geographic distance might make it difficult for venture capitalists (VCs) to monitor and mentor portfolio companies (Humphery-Jenner & Suchard, 2013; Lutz, Bender, Achleitner, & Kaserer, 2012), foreign VCs sometimes try to justify their presence by arguing that they can facilitate internationalization by enabling portfolio companies to list on foreign exchanges. The purpose of this paper is to test the claim that foreign VCs can indeed facilitate internationalization of portfolio companies.

Listing on a foreign exchange can be an important strategic decision for a firm, potentially providing access to overseas customers and additional capital (Moore, Bell, Filatotchev, & Rasheed, 2012). Less mature firms (such as start-ups) might have difficulties listing on foreign exchanges, owing to problems of information

Received: 6 September 2012 Revised: 9 April 2013 Accepted: 10 April 2013

Online publication date: 30 May 2013



asymmetry and home asset bias (Bell, Filatotchev, & Rasheed, 2012; Caglio, Hanley, & Marietta-Westberg, 2011), problems likely to be especially severe for companies in developing markets attempting to list in developed markets (Moore, Bell, & Filatotchev, 2010). Foreign VCs (i.e., VCs that operate across borders) could help to overcome information asymmetries, as foreign institutional investors are often associated with the transmission of improved corporate governance (Aggarwal, Erel, Ferreira, & Matos, 2011). In addition, foreign VCs are typically larger, better connected with key intermediaries, more experienced, and more knowledgeable than are domestic VCs about interna-

tional (developed) markets.

There is a dearth of comprehensive evidence about whether, or how, foreign VCs can facilitate the internationalization of their portfolio companies. While Hursti and Maula (2007) suggest that foreign VCs can help European companies list overseas, there is little comparable evidence for emerging markets. Khoury, Junkunc, and Mingo (2012) use data from 433 VC transaction rounds in 13 Latin American countries to examine how sovereign governance influences VCs' investment practices. Lerner and Schoar (2005) use a sample of 210 PE-backed companies to highlight the fact that legal enforcement affects PE transactions. Ahlstrom and Bruton (2006) and Bruton and Ahlstrom (2003) support this claim with interview-based evidence. Wang and Wang (2011) and Dai, Jo, and Kassicieh (2011) examine investments in 243 and 418 portfolio companies in China, respectively. These, however, are relatively small samples, in view of the 4753 Chinese venture-backed companies that we have identified. Such small samples raise concerns about sample selection, and restrict the depth of analysis of the activities of foreign VCs. Wang and Wang (2012) seek to address the sample-size issue by examining a sample of 6025 VC investments across 35 countries. However, using a multi-country sample can incur the cost of introducing another source of variance for which a study must control. These studies also do not examine the role of foreign VCs in facilitating internationalization.

We overcome the small-sample problem by examining a large sample of Chinese portfolio companies that received VC investments between 1988 and 2011 (sourced from ChinaVenture). China is an ideal market in which to test the contribution of foreign VCs to internationalization, for several reasons. First, it has attracted a significant amount of foreign VC capital, with VC investment rising

from US\$1.2 billion in 1999 to US\$31.4 billion in 2010 (Jiang, Cai, Keasey, & Wright, 2011). Second, the Chinese government has instituted significant changes in the regulation of mergers and acquisitions (M&As) and initial public offerings (IPOs) (Huang, 2008, 2011). This enables us to examine how the likelihood of foreign listing is affected by the quality of sovereign governance. Third, China is a market with relatively nascent domestic capital markets and haphazard regulations. This allows us to examine how sovereign governance modifies the propensity to pursue an international listing. We start with a comprehensive sample of 4753 portfolio companies that have received VC backing. To examine our central hypotheses, we focus on a subsample of 677 companies that have been successfully exited via an IPO. We use this sample of 677 companies to investigate whether foreign VCs can facilitate internationalization in the form of listing on foreign exchanges.

We arrive at several key findings that contribute to the literature. First, we show that foreign VCs significantly increase the likelihood that a portfolio company will list on a foreign exchange. This indicates that foreign VCs do indeed contribute to the internationalization of portfolio companies.

Second, we show that regulatory and commercial changes influence the propensity to pursue international IPOs.

Third, we find that the presence of a foreign VC increases the likelihood that a domestic-backed company will list overseas. This suggests that some syndicate diversity can be beneficial in achieving particular outcomes. We also find the related result that the impact of foreign VCs on internationalization is moderated by the total number of VCs who invest in the portfolio company.

Fourth, we find that companies backed by foreign VCs are significantly more likely to use top-tier lawyers, investment banks, and accountants, suggesting that such connections might be one mechanism through which foreign VCs can facilitate international listings. These results contribute to a burgeoning stream of literature that aims to examine precisely "how" VCs contribute value to portfolio companies (e.g., Harford & Kolasinski, 2012; Hochberg, 2012). The results also contribute to the literature on the importance of connections within the VC/PE industry (Hochberg, Ljungqvist, & Lu, 2007, 2010). Specifically, our results support the idea that foreign VCs can add value through their choice of partners in the IPO exit process.

#### THEORY DEVELOPMENT AND HYPOTHESES

The goal of this paper is to examine the role of foreign VCs in the internationalization of portfolio companies, with a specific focus on how foreign VCs can facilitate IPOs in international markets.

#### Overseas Funds and IPO Location

Entrepreneurial companies often face barriers to operating abroad. Apart from market-driven economic costs, firms incur social costs of access and acceptance when attempting to do business in a foreign country, costs often referred to as the "liability of foreignness" (Mata & Freitas, 2012; Zaheer, 1995). For entrepreneurial companies, the liability of foreignness is compounded by the liability of newness (Certo, 2003). Together, such factors mean that entrepreneurial companies face barriers in raising capital in developed markets (Bell et al., 2012; Caglio et al., 2011). Such problems could be especially severe for companies in information-poor environments that attempt to list overseas (Moore et al., 2010). Given that potential issuers are aware of the liabilities of foreignness and of newness, their efforts will focus on overcoming these liabilities to make their IPO a success (Moore et al., 2012).

Foreign VC funds are likely to be better placed than domestic VC funds to facilitate internationalization. If a portfolio company is exited via an IPO, it can list on a domestic or an overseas market. Listing on an overseas market is easier if the portfolio company has better access to experts in that market and/or has the financial backing of a sponsor who can navigate the international listing process. Foreign VCs are more likely than domestic VCs to have such connections. In addition, funds that make cross-border investments tend to be comparatively large and well resourced (Wang & Wang, 2012), and foreign VCs are more likely than domestic VCs to have institutional knowledge about foreign markets. For example, a US-based VC, with experience in the United States, is more likely to have institutional knowledge of the US market than is a VC based in China.

Additionally, foreign VCs may have a greater incentive to list companies in a developed market such as the United States (aside from the significant barriers to listing companies in China and repatriating profits). Developed markets are typically well established, and have strong regulations. This is important for post-IPO value-adding activity and capital raising. It is also important for a VC that wishes to distribute its shares to its investors (limited partners) at the end of the lock-up period. Thus, we expect that foreign-backed portfolio companies are more likely than domestic-backed portfolio companies to do an IPO in a foreign market

Hypothesis 1: If a Chinese VC investment is to undertake an IPO, then a foreign-backed investment is more likely to undertake the IPO in an exchange outside of China.

#### **Moderating Effects**

### Sovereian aovernance

Foreign funds have several advantages in listing overseas, although their inclination to do so is likely to be influenced by the quality of regulations and governance in the domestic market. VCs want to at least recoup the money they invested (preferably maximizing their returns on investments). Poorly regulated markets will be less efficient, and companies that list in such markets risk trading at a discount, owing to the illiquidity, poor market quality, and opacity that can result from inadequate regulations. Further, if the post-IPO price is below the firm's fundamental value (possibly due to opacity associated with a paucity of market regulation), then the backer might suffer a reputational penalty for failure to obtain an adequate price for the company. To the extent that foreign VCs are sensitive to this risk, they are more likely to encourage their portfolio company to list in a developed market with strong regulations.

China's securities markets appear to suffer from these problems, as reflected by the concerns raised about its securities laws/regulations (e.g., Chen, Firth, & Gao, 2005) and the enforcement thereof (He & Su, 2013; Humphery-Jenner, 2013). However, the quality of China's financial markets has improved over time. In particular, China's regulation of markets has improved through increasingly strong restrictions on market manipulation and accounting misstatements (Huang, 2007; Jia, Ding, Li, & Wu, 2009), a trend that may make China's financial markets more attractive, increasing the likelihood of domestic IPO exits. This background suggests that while foreign VCs will remain more likely to IPO a company overseas, their willingness to list a company in Mainland China will increase with improvements in China's regulation and governance.

Hypothesis 2: While foreign-backed Chinese companies remain more likely to list IPOs overseas, the proportion of such IPO listings that occur in



Mainland China increases with the strength of regulation/governance in Mainland China.

#### Foreign VCs in domestic-backed companies

The involvement of foreign VCs affects the propensity of domestic VCs to list their portfolio firms in their home market. The greater a domestic VC's institutional knowledge and expertise are in the home market, the more likely it is to list a company domestically. A foreign VC can provide outside/ foreign institutional knowledge and connections to a company backed by domestic VCs. Thus, the presence of a foreign VC could increase the propensity to internationalize a domestically backed company. This logic has the natural corollary that VC-syndicate diversity can help achieve outcomes such as internationalization. We capture this in the following hypothesis.

**Hypothesis 3:** The presence of a foreign VC moderates the impact of domestic backing on the likelihood of overseas listing. In particular, the presence of a foreign VC increases the likelihood that a domestically backed company will list overseas.

#### Other characteristics

Several factors might moderate the impact of foreign VCs on the likelihood of an overseas listing. Larger funds, for example, are likely to be better resourced and have more connections and potentially more experience than smaller funds. Thus, we expect the effect of the presence of foreign VCs on the likelihood of foreign listing to increase with fund size. While some large companies do benefit from cross-listing, and are generally more likely than smaller companies to cross-list (Pagano, Roell, & Zechner, 2002), in the VC market overseas listings tend to have a greater benefit for smaller entrepreneurial companies that will benefit more from increased access to capital, and from the "bonding" benefits of listing in a developed market. Finally, portfolio companies that have the backing of many VCs are more likely to list overseas than companies with fewer VCs, because having a larger number of backers provides access to a larger number of intermediaries and financiers, who can help facilitate an international listing. We capture these expectations in the following hypothesis.

Hypothesis 4: The impact of foreign VCs on the likelihood of an international IPO increases with fund size, and with the number of investors in a company, but decreases with company size.

#### Overseas Funds and Top Lawyers, Accountants, and Bankers

Next, we examine some of the mechanisms through which foreign VCs might enhance internationalization. One of these is that foreign VCs can leverage their networks of financial institutions to facilitate international listings. This potential advantage follows from prior literature showing VCs' connections to be an important driver of value-creation in VC deals (Hochberg et al., 2007, 2010). Such connections include links to top-tier bankers, toptier lawyers, and top-tier accountants that could be developed through repeat interactions (Cao & Liu, 2012; Huang, Shangguan, & Zhang, 2008).

There is evidence of improved M&A outcomes from using top-tier lawyers (Karsten, 2012), investment banks (Bao & Edmans, 2011), and law firms (Krishnan, Masulis, Thomas, & Thompson, 2012; Krishnan & Masulis, forthcoming). Further, there is evidence that top-tier banks tend to convey additional benefits in the form of higher certification (Lee & Wahal, 2004), higher-quality post-IPO research coverage (Fang & Yasuda, 2010), and a larger clientele of institutional investors who can monitor the firm (Woidtke, 2002). Top-tier accountants could ameliorate governance issues within portfolio companies - issues that could be especially prevalent in emerging markets - and could provide certification benefits during the exit/IPO processes. International VCs are more likely to be sophisticated investors, with more connections to major international firms (Hochberg et al., 2007), and thus are more likely to have access to top lawyers, bankers, and accountants. This leads to the following hypothesis:

**Hypothesis 5**: Foreign VC involvement increases the likelihood of using top-tier lawyers, top-tier accountants, and top-tier bankers during the IPO process.

#### **DATA AND SAMPLE DESCRIPTION**

Our data are sourced from ChinaVenture, and include information on portfolio companies and the funds or general partners (GPs) that invest in the companies. We start with 4753 portfolio companies that received investments between 1988 and 2011 (for which ChinaVenture also has control variables, indicated below). We then restrict our sample to 677 companies that were exited via IPO (as our goal is to examine the role of foreign VCs in



international listings). In our data set, each portfolio company counts as one observation: the unit of analysis is thus the individual portfolio company. We use these data to analyze the types of companies in which overseas VC/PE funds invest, and the types of exits that they are most likely to use. Our sample allows us to define the following variables (all are from ChinaVenture unless otherwise indicated), summarized in Table 1.

#### Foreign-Backing Variables

A fund is defined as "overseas" (interchangeably: foreign) if it derives its funding from overseas. A fund is defined as a "JV" if it derives its funding from both foreign and domestic sources. This enables us to examine the importance of a foreign fund co-investing with a domestic fund. We code our dependent variables as follows: I (At least one foreign VC) equals 1 if at least one of its VC backers

Table 1 Variable definitions

An indicator that equals 1 if at least one foreign GP invested in the company.  We code a GP as foreign if it sources its capital from overseas markets  An indicator that equals 1 if at least one foreign GP and/or at least one JV invested in the company. We code a GP as foreign if it sources its capital from overseas markets.  We code a GP as a JV if it obtains its capital from both overseas and domestic markets (as a purely foreign fund would not be able to accomplish this)  The proportion of investors in the company that are foreign  The proportion of investors in the company that are foreign or are JVs  An indicator that equals 1 if the only investors are foreign investors  An indicator that equals 1 if only foreign investors or JVs invest in the company  The S&P sovereign risk weighting assigned to (in this case) China in the given year  An indicator that equals 1 if the IPO uses one of the Big 4 accounting firms.  These are KPMG, PWC, Ernst & Young, and Deloitte
We code a GP as foreign if it sources its capital from overseas markets  An indicator that equals 1 if at least one foreign GP and/or at least one JV invested in the company. We code a GP as foreign if it sources its capital from overseas markets. We code a GP as a JV if it obtains its capital from both overseas and domestic markets (as a purely foreign fund would not be able to accomplish this)  Prop (Foreign)  The proportion of investors in the company that are foreign  Prop (Foreign VC backing)  (Only Foreign/JV VC backing)  (Only Foreign/JV VC backing)  (Only Foreign/JV VC backing)  (Only Foreign/JV VC backing)  (Big 4 Accountant)  We code a GP as foreign if it sources its capital from overseas markets  An indicator that equals 1 if to obtains its capital from overseas markets.  We code a GP as a JV if it obtains its capital from overseas markets.  We code a GP as a JV if it obtains its capital from overseas markets.  We code a GP as foreign if it sources its capital from overseas markets.  We code a GP as foreign if it sources its capital from overseas markets.  We code a GP as foreign if it sources its capital from overseas markets.  We code a GP as foreign if it sources its capital from overseas markets.  We code a GP as foreign if it sources its capital from overseas markets.  We code a GP as foreign if it sources its capital from overseas markets.  We code a GP as foreign if it sources its capital from overseas markets.  We code a GP as foreign if it sources its capital from overseas markets.  We code a GP as foreign if it sources its capital from overseas markets.  We code a GP as foreign if it sources its capital from overseas markets.  We code a GP as foreign if it sources its capital from overseas markets.  We code a GP as foreign if it sources its capital from overseas markets.  We code a GP as foreign if it sources its capital from overseas markets.
An indicator that equals 1 if at least one foreign GP and/or at least one JV invested in the company. We code a GP as foreign if it sources its capital from overseas markets. We code a GP as a JV if it obtains its capital from both overseas and domestic markets (as a purely foreign fund would not be able to accomplish this)  Prop (Foreign)  Prop (Foreign/JV)  Conly Foreign VC backing)  Conly Foreign/JV VC backing  Conly Foreign/JV VC ba
in the company. We code a GP as foreign if it sources its capital from overseas markets.  We code a GP as a JV if it obtains its capital from both overseas and domestic markets (as a purely foreign fund would not be able to accomplish this)  The proportion of investors in the company that are foreign  Prop (Foreign/JV)  The proportion of investors in the company that are foreign or are JVs  (Only Foreign VC backing)  (Only Foreign/JV VC backing)  An indicator that equals 1 if the only investors or JVs invest in the company  The S&P sovereign risk weighting assigned to (in this case) China in the given year  An indicator that equals 1 if the IPO uses one of the Big 4 accounting firms.
We code a GP as a JV if it obtains its capital from both overseas and domestic markets (as a purely foreign fund would not be able to accomplish this) The proportion of investors in the company that are foreign Prop (Foreign/JV) The proportion of investors in the company that are foreign or are JVs (Only Foreign VC backing) An indicator that equals 1 if the only investors are foreign investors (Only Foreign/JV VC backing) An indicator that equals 1 if only foreign investors or JVs invest in the company The S&P sovereign risk weighting assigned to (in this case) China in the given year (Big 4 Accountant)  An indicator that equals 1 if the IPO uses one of the Big 4 accounting firms.
(as a purely foreign fund would not be able to accomplish this)  The proportion of investors in the company that are foreign  The proportion of investors in the company that are foreign or are JVs  (Only Foreign VC backing)  (Only Foreign/JV VC backing)  An indicator that equals 1 if the only investors are foreign investors  An indicator that equals 1 if only foreign investors or JVs invest in the company  The S&P sovereign risk weighting assigned to (in this case) China in the given year  (Big 4 Accountant)  An indicator that equals 1 if the IPO uses one of the Big 4 accounting firms.
Prop (Foreign) The proportion of investors in the company that are foreign The proportion of investors in the company that are foreign or are JVs  (Only Foreign VC backing) An indicator that equals 1 if the only investors are foreign investors  (Only Foreign/JV VC backing) An indicator that equals 1 if only foreign investors or JVs invest in the company The S&P sovereign risk weighting assigned to (in this case) China in the given year  (Big 4 Accountant)  The proportion of investors in the company that are foreign The proportion of investors in the company that are foreign The proportion of investors in the company that are foreign The proportion of investors in the company that are foreign The proportion of investors in the company that are foreign The proportion of investors in the company that are foreign The proportion of investors in the company that are foreign The proportion of investors in the company that are foreign The proportion of investors in the company that are foreign The proportion of investors in the company that are foreign The proportion of investors in the company that are foreign or are JVs  An indicator that equals 1 if the only investors or JVs invest in the company The S&P sovereign risk weighting assigned to (in this case) China in the given year  (Big 4 Accountant)
Prop (Foreign/JV)  (Only Foreign VC backing)  (Only Foreign/JV VC backing)  (Only Foreign/JV VC backing)  (Only Foreign/JV VC backing)  (An indicator that equals 1 if the only investors are foreign investors  An indicator that equals 1 if only foreign investors or JVs invest in the company  The S&P sovereign risk weighting assigned to (in this case) China in the given year  (Big 4 Accountant)  An indicator that equals 1 if the IPO uses one of the Big 4 accounting firms.
(Only Foreign VC backing) (Only Foreign/JV VC backing) (Only Foreign/JV VC backing)  &P Rating (Big 4 Accountant)  An indicator that equals 1 if the only investors are foreign investors An indicator that equals 1 if only foreign investors or JVs invest in the company The S&P sovereign risk weighting assigned to (in this case) China in the given year An indicator that equals 1 if the IPO uses one of the Big 4 accounting firms.
(Only Foreign/JV VC backing) An indicator that equals 1 if only foreign investors or JVs invest in the company The S&P sovereign risk weighting assigned to (in this case) China in the given year (Big 4 Accountant) An indicator that equals 1 if the IPO uses one of the Big 4 accounting firms.
The S&P sovereign risk weighting assigned to (in this case) China in the given year (Big 4 Accountant)  An indicator that equals 1 if the IPO uses one of the Big 4 accounting firms.
(Big 4 Accountant) An indicator that equals 1 if the IPO uses one of the Big 4 accounting firms.
(Top 25 Lawyer)  An indicator that equals 1 if the IPO uses one of the top 25 law firms. We base
this list on the top 25 revenue-generating law firms as listed in <i>American Lawyer</i> : http://www.law.com/jsp/tal/PubArticleTAL.jsp?id=1202472338838&slreturn=1
· · · · · · · · · · · · · · · · · · ·
(Top IB)  An indicator that equals 1 if the IPO uses a top investment banker. We define the top investment banks as Bank of America, Bear Stearns, Cazenove (as a subsidiary
of J. P. Morgan), Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs,
J. P. Morgan, Lazard, Lehman Brothers, Morgan Stanley, and UBS
Num Rounds  The total number of investment rounds in which the company received funding.
Source: ChinaVenture
The total number of unique GPs that invested in the company. Source: ChinaVenture
(Start-up) An indicator that equals 1 if ChinaVenture codes the company as a start-up
(Late) An indicator that equals 1 if ChinaVenture codes the company as a late-stage investment
Total Disclosed Stake  The total percentage stake of all GPs in the company
n (Total Invested Amount)  The natural log of the total amount of money that all GPs invested in the company (in US\$ million)
exit-specific variables
(Successful) An indicator that equals 1 if the company is successfully "exited" (i.e., via an IPO,
M&A, or trade sale)
(IPO Successful)  An indicator that equals 1 if the exit is via an IPO (conditional on the company
being exited) n (Maximum Fund Size) The natural log of the size of the largest fund that invested in the company (in US\$ million)
n (Maximum Fund Size)  The natural log of the size of the largest fund that invested in the company (in US\$ million)  (Maximum Average Fund  The natural log of the maximum average fund investment size (across all companies). The
nvestment Size) average investment size is the average size of investments that the fund makes in any companions
We compute this for all funds that invest in the company. We then take the natural log of the maximum of this value
Max Fund Exits The maximum number of exits achieved by one of the funds that invests in the company
Max Num Fund Investments  The maximum number of investments made by one of the funds that invests in the company
Max Num Fund Regions The maximum number of regions in which a fund (that invests in the company) has invested
Max Num Industries  The maximum number of industries in which a fund (that invests in the company) has invested





derives its financing from overseas. I (At least one foreign/JV VC) equals 1 if at least one of its VC backers derives its financing either (a) purely overseas or (b) both overseas and domestically. We also collect data on the proportion of backers that are foreign or JVs. These data are collected for each round of investment, and for the overall company.

#### **Exit Variables**

We specify variables that indicate whether an IPO exit is on a foreign market, and each country in which an IPO exit occurs. The data also indicate whether a given VC-backed company is exited via an M&A, a secondary buyout, or an IPO (or is not yet exited). We do not focus on M&As or secondary buyouts, as these exit types are not core to the analysis. There may also be some under-reporting of M&As and secondary buyouts, as we have 677 IPO exits compared with only 189 M&A exits and 31 secondary buyout exits (which contrasts to US evidence, in Harford & Kolasinski, 2012, where only a minority of VC-backed companies are exited via IPO). We make no claims about whether the deals "not yet exited" are liquidations. This is because some will be liquidations and some will merely be companies that have not sufficiently matured, and VCs have an incentive to conceal (and thus not report) failed investments, which makes it difficult to determine why a company is not yet exited.

#### **Governance Variables**

Hypothesis 2 suggests that the likelihood of an IPO in Mainland China increases with the strength of governance in China. There are myriad potential governance variables. Given that we are interested in assessing changes in governance over time, we use the S&P sovereign risk rating. The S&P rating is time varying (cf. the anti-director rights index in La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1997, 1998, and later modified in Spamann, 2010). The rating ranges from 0 to 20 (although, in our sample, China's S&P score ranges from 12 to 16). A higher score connotes better sovereign governance.

#### Other Independent Variables

We control for various other variables that might influence the likelihood of foreign investment and/or exit outcomes. We group these into several categories.

The first group includes characteristics of the portfolio company. ChinaVenture reports the industry in which the company operates. These

industry classifications are analogous to four-digit SIC industry classifications. To examine the industries on which foreign VCs focus, we condense these into industry dummies that are analogous to two-digit SIC industries. In addition, ChinaVenture includes information on the province in which a company is based. This enables us to create region indicators to examine the geographic preferences of foreign VC funds.

The second group includes investment information such as investment stage (i.e., start-up, development, or late stage). Larger international funds might focus on purchasing larger (i.e., late-stage) investments, owing to difficulties in monitoring smaller companies in poor-governance countries (Zhou & Xu, 2012). Further, whether a company is a start-up or a late-stage investment might influence exit mechanisms, owing to China's relatively stringent requirements for a company to IPO. Additional variables include the number of rounds of financing, the total number of investors, and the total disclosed stake that VCs have in the company.

Third, we construct variables to proxy for VCs' level of experience and success. Although we cannot directly identify the "lead" VC in a company, we proxy for the lead VC by taking the maximum of several characteristics across the set of VCs that invest in the company. These include the maximum number of (prior) exits that any VC has achieved (to proxy for VC experience), the maximum number of investments that any VC investor has achieved, the maximum number of regions in which any VC investor has invested, and the maximum number of industries in which any VC has invested.

The multivariate models also control for year, industry and subnational-region (i.e., province) fixed effects (in light of prior evidence of strong time/industry effects; Johnson, Moorman, & Sorescu, 2009; Petersen, 2009), and sub-national region effects (Ma, Tong, & Fitza, 2013).

There are some significant differences in the portfolio companies across IPO exit location. Table 2 contains the univariate statistics by IPO exit location. The proportion of portfolio companies with a foreign backer is significantly higher for companies that list either in Hong Kong or overseas. Further, companies that list overseas tend to be backed by VC funds that are larger and more experienced, as proxied by the amount of investments and exits made by the companies' VC backers. Of the companies that list overseas, a larger proportion of companies are start-ups (14% of VC-backed companies

Table 2 Summary statistics by listing location

Listing location	Mainland Hong Kong China		Overseas (exc. Hong Kong)	Mainland less Hong Kong	Mainland less Overseas (exc. Hong Kong)	
I (Start-up)	0.056	0.047	0.140	0.010	-0.084***	
I (Late Stage)	0.064	0.271	0.210	-0.207***	-0.146***	
In (Maximum Fund Size)	6.479	7.585	7.559	-1.106***	-1.079***	
In (Maximum Ave Fund Investment Size)	1.996	3.638	2.972	-1.643 <b>***</b>	-0.977***	
I (At least one Foreign VC)	0.153	0.783	0.885	-0.629***	-0.732***	
I (At least one Foreign/JV VC)	0.376	0.961	0.968	-0.585***	-0.592***	
Max Fund Exits	14.616	17.589	20.025	-2.973	-5.409***	
Max Num Fund Investments	62.041	67.775	80.236	-5.734	-18.195**	
Max Num Fund Regions	10.821	12.775	12.484	-1.954**	-1.663**	
Max Num Fund Industries	19.233	22.419	24.178	-3.186**	-4.946***	
Num Rounds	1.488	1.853	2.019	-0.364***	-0.531***	
Total Num Investors	1.992	2.279	3.210	-0.287**	-1.218***	
Observations	391	129	157			

This table contains sample averages by listing location. Overseas listings are listings on an exchange that is outside either Mainland China or Hong Kong. The figures are sample means (or differences therein, as applicable).

Table 3 Location of IPO for VC-backed companies

	Num IPOs	Prop Overseas- Num IPOs Backed IPOs		Prop Non-Overseas- Backed IPOs	Difference	
	(1)	(2)	(3)	(4)	(5)=(2)-(4)	
China	60	0.200	331	0.878	-0.678	
Hong Kong	101	0.337	28	0.074	0.262	
Overseas (exc. Hong Kong)	139	0.463	18	0.048	0.416	
Total	300		377			

This table contains the proportion of overseas-backed and non-overseas-backed companies that IPO in different regions.

that list overseas are start-ups, compared with 5.6% of companies that pursue a mainland listing). This supports the idea that China's listing requirements tend to be less accommodating to start-ups than those in other countries.

#### **RESULTS**

#### Foreign VCs, Overseas Listings, and Moderating **Factors**

This section contains univariate statistics and multivariate models used to test Hypotheses 1-4. We hypothesize that overseas VC backers are more likely to exit companies overseas (i.e., outside Mainland China), and that this tendency is modified by higher-quality governance in the domestic market (i.e., China). We anticipate that the presence of a foreign VC will moderate the likelihood that a domestic-backed company will IPO in Mainland China. In addition, we expect that factors such as fund size will moderate the propensity for foreign VCs to IPO a company overseas.

The univariate statistics indicate that foreignbacked companies are more likely to list overseas. The statistics on IPO exit locations are presented in Table 3. Of the companies with a foreign VC backer, only 20% list in Mainland China. By contrast, 88.8% of firms without a foreign VC backer list on a Mainland Chinese market.

The multivariate results support the idea that foreign VCs are less likely than domestic VCs to pursue IPOs in Mainland China. Table 4 presents logit models used to analyze the likelihood of an IPO in Mainland China. The baseline models in



<sup>\*, \*\*,</sup> and \*\*\* denote significant differences in means at 10%, 5%, and 1%, respectively.

Dependent variable	Mainland listing indicator							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
I (At least one Foreign VC)	-4.622*** (0.000)			-10.638*** (0.007)		-3.165*** (0.000)	-2.304*** (0.001)	-7.155*** (0.004)
I (At least one Domestic VC)	, ,	5.293*** (0.000)		,		4.414*** (0.000)	5.797*** (0.000)	, ,
I (At least one Foreign/JV VC)		` ,	-5.784*** (0.000)		-14.728*** (0.003)	,	,	
S&P Rating			` ,	0.133 (0.516)	-0.2 (0.584)			
I (At least one Foreign VC) × S&P Rating				0.459* (0.095)	( ,			
I (At least one Foreign/JV VC) × S&P Rating				(******)	0.616* (0.084)			
I (At least one Foreign VC) $\times$ I (At least one Domestic VC)					(0.000)		-2.717*** (0.008)	
I (At least one Foreign VC) $\times$ I (Start-up)							(3332)	1.913 (0.386)
I (At least one Foreign VC) $\times$ I (Late Stage)								1.044 (0.528)
I (At least one Foreign VC) $\times$ In (Maximum Fund Size)								-0.225 (0.337)
I (At least one Foreign VC) $\times$ In (Maximum Ave Fund Investment Size)								1.546**
I (At least one Foreign VC) × Max Fund Exits								0.108 (0.425)
I (At least one Foreign VC) $\times$ Max Num Fund Investments								-0.023 (0.459)
I (At least one Foreign VC) $\times$ Max Num Fund Regions								0.021
I (At least one Foreign VC) $\times$ Max Num Fund Industries								(0.901)
I (At least one Foreign VC) × Num Rounds								(0.180)
I (At least one Foreign VC) × Total Num Investors								(0.868) -2.894*** (0.000)

I (Start-up)	-1.849*	-1.165	-1.383	-1.345	-0.683	-2.028*	-2.304*	-3.970**
I (Late Stage)	(0.092) -1.312**	(0.282) -2.150**	(0.167) -2.278***		(0.409) -1.957***		(0.075) –1.616	(0.047) -2.018
In (Maximum Fund Size)	(0.039)	(0.016)	(0.002)	(0.076)	(0.002)	(0.149)	(0.114)	(0.170)
	0.107	0.036	0.204**	0.133	0.176**	0.035	0.068	0.317
In (Maximum Ave Fund Investment Size)	(0.243) -0.537**	(0.662) -0.826***			(0.024) -0.808***		(0.450) -0.404	(0.152) -1.904***
Max Fund Exits	(0.014)	(0.001)	(0.000)	(0.004)	(0.000)	(0.103)	(0.116)	(0.001)
	-0.096**	-0.170***	-0.084**	-0.102**	-0.095***	-0.183***	-0.182***	-0.196
Max Num Fund Investments	(0.029)	(0.000)	(0.016)	(0.012)	(0.007)	(0.000)	(0.001)	(0.130)
	0.016	0.029**	0.011	0.019**	0.014*	0.030***	0.028**	0.035
Max Num Fund Regions	(0.122)	(0.013)	(0.165)	(0.032)	(0.081)	(0.009)	(0.020)	(0.228)
	0.115*	0.149**	0.159**	0.111*	0.179***	0.127	0.121	0.153
Max Num Fund Industries	(0.079)	(0.042)	(0.021)	(0.091)	(0.007)	(0.159)	(0.209)	(0.284)
	-0.053	-0.034	-0.018	-0.054	-0.014	-0.029	-0.015	-0.147
Num Rounds	(0.110)	(0.350)	(0.566)	(0.123)	(0.656)	(0.453)	(0.674)	(0.124)
	0.133	-0.223	0.208	-0.056	0.005	-0.138	-0.062	0.011
Total Num Investors	(0.584)	(0.403)	(0.342)	(0.781)	(0.980)	(0.667)	(0.847)	(0.995)
	0.032	-0.749***	-0.297**	0.142	-0.225*	-0.565***	-0.566***	2.417***
Constant	(0.830)	(0.000)	(0.024)	(0.278)	(0.070)	(0.002)	(0.005)	(0.000)
	-1.354	-0.062	2.118**	-0.694	6.629	-1.918	-3.329**	-1.388
Observations	(0.345)	(0.961)	(0.046)	(0.819)	(0.204)	(0.139)	(0.016)	(0.676)
	570	570	570	558	558	570	570	570
Pseudo R <sup>2</sup>	65.40%	70.20%	65.40%	59.50%	60.90%	74.00%	74.90%	72.20%
Log pseudo likelihood	-134	-115.52	-134.06	-154.02	-148.84	-100.7	-97.47	-120

This table contains logit models that predict the location of IPOs. The sample comprises only those VC-backed companies that exit via an IPO. Table 1 contains the variable definitions. The models in Columns 1–3 and 6–9 are logit models that include year dummies, region dummies, and industry dummies, and use robust standard errors. The models in Columns 4 and 5 omit the year dummies, as these become collinear with the S&P rating variable.

Parentheses contain *p*-values, and \*, \*\*, and \*\*\*\* denote significance at 10%, 5%, and 1%, respectively.





Columns 1, 2, and 3 examine the impact of foreign backing per se. Both the variables I (At least one foreign VC) and I (At least one foreign/JV VC) significantly reduce the likelihood of listing in Mainland China. These results support Hypothesis 1 (namely, that if the investment is exited via IPO, then foreign VCs are more likely to IPO in a market outside Mainland China).

The results also support the idea that the likelihood of foreign listing varies with the quality of governance in the domestic market (consistent with Hypothesis 2). Columns 4 and 5 show interactions between the foreign VC backing variables and the sovereign governance variable (S&P Rating). The foreign-backing terms remain independently significant and negative in both models, confirming that foreign backing reduces the likelihood of mainland listing. However, the interaction terms (i.e., I (At least one Foreign VC) × S&P Rating) are positive and weakly significant, suggesting that improvements in governance moderate the likelihood of overseas listing by foreign backers.

We find some evidence that the presence of foreign VCs increases the likelihood that a company backed by domestic VCs will list overseas (supporting Hypothesis 3). Column 6 examines the role of domestic and foreign VCs, independently of other factors. Column 7 examines how the presence of a foreign VC moderates the likelihood that a domestic-backed company will list overseas. The interaction term I (At least one Foreign VC) × I (At least one Domestic VC) in Column 7 is significant and negative. This implies that the presence of a foreign VC significantly reduces the likelihood that a domestic-backed company will list on a Mainland Chinese market. That is, the presence of foreign VCs contributes to the internationalization of domestic-backed companies. These results support Hypothesis 3.

Our results also suggest that some factors moderate the impact of foreign VCs on internationalization. The relevant results are presented in Column 8 of Table 4. The larger the number of foreign VCs, the more likely a firm is to list overseas, consistent with the idea that increased connections, due to the increased number of backers, help to facilitate international listings. Conversely, the larger the investments made by foreign funds, the less likely the backers are to IPO the company overseas, consistent with the idea that smaller companies have more difficulty satisfying the listing requirements of Chinese financial markets - requirements that have historically favored large, established companies. Examples of such requirements include the requirement that a listed company can "make profits continuously" (Securities Law Article 13(2)) and the RMB 30 m capitalization requirement (Securities Law Article 50(2)).

#### Are Foreign VCs More Likely to Make Use of Top-Tier Lawyers, Accountants, and Bankers?

We next address one of the mechanisms through which foreign VCs might achieve internationalization benefits: the use of a top-tier banker, lawyer, or accountant. We examine the use of top-tier accountants and lawyers by examining whether one of the Big 4 accounting firms, one of the top 25 international law firms, or one of the top international investment banks is involved in the IPO process. We define these in Table 1. The results are presented in Table 5. The results show that foreign VCs significantly increase the likelihood of using a top lawyer, banker, or accountant, as indicated by the positive, and significant, coefficients on the variables I (At least one foreign VC) and I (At least one foreign/JV VC). This implies that one avenue through which foreign VCs can create value for portfolio firms is by using their connections with other financial intermediaries, potentially establishing certification benefits during the IPO.

#### Additional Robustness Tests

#### General robustness tests

First, we ensure that the results are robust to various fixed effects. The main models used in our analysis are year dummies, industry dummies, and region dummies. For those models that do not rely on dummies in the analysis of regions or industries, we check robustness. We find that the results are qualitatively the same if we replace the industry dummies by broader industry sector dummies (used to examine the regional preferences of foreign VC funds). Our results are also robust to excluding the dummies. The results are qualitatively the same if we cluster standard errors by industry, year, and/or province. We also cluster standard errors by the lead fund, which we define as the fund that invests the most money in the company. The results are also robust to exclusion of deals that occurred before 2000 (before which our sample contains relatively few deals).

#### Selection issues

The results are robust to controlling for nonrandomness in the companies that receive foreign

Table 5 Logit models predicting use of top accountants, lawyers, and bankers

Dependent variable	I (Big 4 Ac	countant)	I (Top 2	5 Lawyer)	I (Top IB)		
	(1)	(2)	(3)	(4)	(5)	(6)	
I (Start-up)	0.743*	0.692	1.111**	1.037	1.003**	1.042*	
•	(0.052)	(0.405)	(0.030)	(0.155)	(0.032)	(0.080)	
I (Late Stage)	0.371	0.597*	-0.277	0.073	-0.266	0.041	
•	(0.197)	(0.096)	(0.612)	(0.860)	(0.582)	(0.919)	
In (Maximum Fund Size)	-0.039	-0.055	0.072	0.073	0.055	0.051	
	(0.528)	(0.361)	(0.121)	(0.220)	(0.504)	(0.577)	
In (Maximum Ave Fund Investment Size)	0.363**	0.482***	0.14	0.280*	0.279*	0.462***	
	(0.015)	(0.002)	(0.221)	(0.060)	(0.073)	(0.010)	
I (At least one Foreign VC)	2.412***		2.701***		2.908***		
-	(0.000)		(0.000)		(0.000)		
I (At least one Foreign/JV VC)		3.068***		3.137***		3.078***	
_		(0.000)		(0.000)		(0.000)	
Max Fund Exits	0.02	0.025	-0.031	-0.013	0.049	0.058	
	(0.462)	(0.430)	(0.418)	(0.755)	(0.265)	(0.237)	
Max Num Fund Investments	-0.007	-0.006	0.000	-0.001	-0.014	-0.015	
	(0.253)	(0.310)	(0.992)	(0.855)	(0.145)	(0.180)	
Max Num Fund Regions	-0.007	-0.048	-0.022	-0.059	-0.084	-0.144**	
_	(0.890)	(0.305)	(0.728)	(0.360)	(0.254)	(0.024)	
Max Num Fund Industries	0.035	0.016	0.076**	0.053*	0.073**	0.061*	
	(0.313)	(0.559)	(0.018)	(0.089)	(0.034)	(0.054)	
Num Rounds	0.246	0.286	0.131	0.139	0.135	0.132	
	(0.149)	(0.103)	(0.498)	(0.515)	(0.528)	(0.570)	
Total Num Investors	0.067	0.192*	-0.081	0.048	0.145	0.322***	
	(0.509)	(0.060)	(0.485)	(0.652)	(0.153)	(0.001)	
Constant	-2.948***	-4.740***	-1.780*	-3.857***	-2.723*	-4.740***	
	(0.001)	(0.000)	(0.061)	(0.001)	(0.064)	(0.002)	
Observations	591	591	486	486	510	510	
Pseudo R <sup>2</sup>	47.20%	47.60%	41.30%	39.20%	54.90%	52.10%	
Log pseudo likelihood	-204.39	-202.67	-168.59	-174.70	-138.22	-146.75	

This table presents logit models that predict the use of a Big 4 accountant, a top 25 lawyer, or a top investment bank (IB). The column title contains the dependent variable. The models are logit models that include year dummies, region dummies, and industry dummies, and use robust standard errors. Parentheses contain *p*-values, and \*, \*\*, and \*\*\* denote significance at 10%, 5%, and 1%, respectively.

VC backing. We address concerns about systematic differences between foreign-backed and non-foreign-backed companies in two ways.

First, we use a weighting approach (following Busso et al., 2011). We estimate a first-stage probability that a firm will receive foreign VC backing (or foreign/JV backing) as a function of the variables Num Rounds, Total Num Investors, In (Total Invested Amount), I (Start-up), I (Late), and Total Disclosed Stake. Next, we calculate a weighting score, defined as

$$Weight = I(Overseas\ VC\ Backing) \\ + [1 - I(Overseas\ VC\ Backing)] \\ \times \frac{Prob(Overseas\ VC\ Backing)}{1 - Prob(Overseas\ VC\ Backing)} \tag{1}$$

where Prob (Overseas VC Backing) refers to the propensity score obtained from the first-stage

regression. Then, for all the models that are not restricted to the subsample of overseas-backed companies, we weight the covariance matrix using this weighting factor. The results (unreported for brevity) are qualitatively the same in these models.

Second, we use a propensity score approach. We use the above-mentioned first-stage regression to calculate the probability that a firm will receive overseas VC backing. For the set of firms that do receive foreign VC backing, we compute a range of propensity scores, and identify the propensity scores that mark the 10% lower tail of this distribution. Then, for the companies that do not receive overseas backing, we omit all companies whose propensity scores are below the 10% cut-off. The idea is to remove all firms whose characteristics render them unlikely to receive foreign VC backing. The results (unreported for brevity) are robust to omission of these firms from the sample.

#### **Endogeneity issues: Subsample regressions**

Endogeneity is a key concern in international business research (Reeb, Sakakibara, & Mahmood, 2012). One concern is that the possibility of an international exit may cause the foreign VC to invest (rather than the foreign VC causing the firm to undertake an international exit). One way to address endogeneity issues is to examine subsamples in which endogeneity is less likely to hold. The subsample results are qualitatively similar to the reported results, and are unreported for brevity. The subsamples are as follows.

First, we examine size-based subsamples. Endogeneity might be less likely to hold for the set of small portfolio companies. This is because the small portfolio companies might not have the management expertise or capital necessary to undertake an international listing (without the help of a VC backer). Consequently, we divide the sample into halves based upon how much capital the portfolio company received.

Second, we examine investment-time subsamples. If the mere prospect of an international exit attracted the foreign VC, then we would expect the foreign VC to invest for a relatively short period of time. Thus, endogeneity is less likely to hold for the set of portfolio companies that received foreign VC backing a significant time prior to exit. We therefore examine the subsample of companies where the foreign VC backer invested at least 500 days before the IPO (or, more stringently, 750 days before the IPO). We also examine the subsample of companies in which the foreign VC invested in the first round of VC investment.

#### **Endogeneity issues: Two-stage regressions**

We also use a two-stage regression approach to address endogeneity concerns. For both I (At least one Foreign VC) and I (At least one Foreign/JV VC), we generate two instruments: the proportion of all portfolio companies that receive foreign VC backing (or foreign/JV VC backing, as appropriate) in (1) the subject company's year of first investment and industry, and (2) the subject company's year of first investment and region/province. These instruments should satisfy the exclusion restriction, because there is no per se reason to believe that a large foreign VC presence in a particular region or industry will necessarily make any one company more likely to list overseas. The instruments should satisfy the relevance requirement, because a large foreign VC presence in a particular region (or industry) is likely to encourage further foreign VC investment in companies in that region or industry. We statistically verify the validity of the instruments. The results for the second stage of the regressions, suppressed for brevity, are available on request, but are consistent with the main reported models.

#### Endogeneity issues: Portfolio company quality

We also address the possibility that foreign VCs will focus on high-quality companies that are more likely to achieve a successful IPO exit by virtue of being high quality, rather than because of the presence of a foreign VC. This could induce an omitted-variable bias in the main regressions, and potentially raise issues about systematic differences between foreignbacked and non-foreign-backed companies.

We address this concern by examining the portfolio company's EBIT/Assets at the time of listing. We collect data on the firm's EBIT/Assets at the time of the IPO from Compustat (for US listings), CSMAR (for Mainland China listings), and Factset (for listings elsewhere). We first address the issue of whether "firm quality" is an omitted variable by controlling for the firm's EBIT/Assets. Next, we construct a distribution of EBIT/Assets values for all foreign-backed (or foreign/JV-backed) companies. We then exclude from the sample any non-foreignbacked (or non-foreign/JV-backed) companies whose EBIT/Assets are in the upper/lower 5% tails (for the 90% interval sample) or the upper/lower 10% tails (for the 80% interval). We also estimate a two-stage model, where in the first stage we use the portfolio company's EBIT/Assets as an instrument to predict whether there is foreign backing or foreign/JV backing. For brevity, the results are not reported, but the main finding is that foreign backing is still significantly negatively associated with company listing on a mainland market.

#### **Discussion and Limitations**

Our results are consistent with our core hypotheses. The results suggest that foreign-backed companies are more likely than domestic-backed companies to list overseas, consistent with Hypothesis 1. This supports the idea that foreign VCs can help to achieve internationalization, arguably by utilizing their connections, financial resources, and institutional knowledge. The results also suggest that the tendency to IPO a company overseas depends upon governance quality in the domestic market (supporting Hypothesis 2).

Syndication appears to be important in the internationalization of VC-backed companies. The presence of foreign VCs also increases the likelihood that a domestic-backed company will list abroad, or, conversely, decreases the likelihood that it will list domestically, supporting Hypothesis 3. Furthermore, consistent with Hypothesis 4, the likelihood that a foreign-backed company will list abroad increases with the total number of VC backers.

The results also indicate that one mechanism of internationalization could be the use of top-tier intermediaries (supporting Hypothesis 5), suggesting that foreign VCs' connections are a key avenue through which they contribute to the likelihood of international listing.

It is worth acknowledging some limitations of this study. We have sought to address econometric concerns through the previously mentioned robustness tests. There are some alternative explanations that we cannot completely eliminate: we cannot eliminate the possibility that results reflect China's listing rules, or the difficulties that foreign VCs would have repatriating profits into their home currency (cf. China's governance). Future literature could look at the impact of recent reforms to foreign exchange controls on VC investment in China. Additionally, this paper focuses on international IPOs rather than international takeovers. Investigating the role of VC and PE funds in facilitating international takeovers is an avenue for future research.

#### CONCLUSION

This paper analyzes the role of foreign VCs in encouraging the internationalization of their portfolio companies. In this paper, we focus on investments in companies based in China. The focus on China enables us to specifically examine portfolio companies that might benefit from internationalization because it significantly improves their access to capital.

We show that foreign-backed portfolio companies are significantly more likely than domestic companies to IPO overseas. The propensity of foreign backers to pursue an international listing varies with the quality of sovereign governance. The presence of foreign backers also increases the likelihood that a domestic-backed company will IPO overseas, suggesting that some types of syndicate diversity can be beneficial. Further, foreign VCs are more likely to use top-tier bankers, lawyers, and accountants when undertaking an IPO, suggesting that their connections with intermediaries are a key value driver of investments by foreign VCs. We take steps to mitigate concerns about endogeneity and sample selection.

These results contribute to the literature on international business. Prior literature has examined the role of sovereign governance on VC and PE investment strategies. Additionally, some of the literature has examined the investment strategies of foreign VCs. We extend this analysis by examining the role of foreign VCs in encouraging internationalization through international IPOs.

These results contribute to the literature on entrepreneurship, venture capital, and international business. Prior literature has attempted to identify the value drivers in VC/PE investment. We highlight that one such value driver can be internationalization. Conversely, prior literature indicates that geographic distance can be a disadvantage in VC/PE investment. We show that even if foreign VCs might not always achieve a successful exit, they can create value by exposing portfolio companies to international markets. We contribute to the syndication literature by showing that foreign VCs increase the likelihood that a domestic-backed company will list abroad. We also highlight the importance of sovereign governance to the decision to list an entrepreneurial company abroad. Overall, these results demonstrate the importance of foreign VCs to entrepreneurial internationalization.

#### **ACKNOWLEDGEMENTS**

This paper benefited from comments received at the workshop on Venture Capital and Private Equity in the Asia Pacific Region (2011) and the AVCAL Research Roundtable (2011), and from presentations at the University of New South Wales and University of Technology, Sydney. The paper also significantly benefited from the comments of two anonymous reviewers, and from David Reeb (the editor). We also thank Dirk Baur, Justin Chakma, David Feldman, Jing Li, Michelle Lowry, Ronald Masulis, Joseph McCahery, Marco Navone, Ronan Powell, Pascal Nguyen, Konark Saxena, Kar Mei Tang, and Konari Uchida.

#### **REFERENCES**

Aggarwal, R., Erel, I., Ferreira, M., & Matos, P. 2011. Does governance travel around the world? Evidence from institutional investors. Journal of Financial Economics, 100(1): 154–181.

Ahlstrom, D., & Bruton, G. D. 2006. Venture capital in emerging economies: Networks and institutional change. Entrepreneurship Theory and Practice, 30(2): 299-320.





- Bao, J., & Edmans, A. 2011. Do investment banks matter for M&A returns? *Review of Financial Studies*, 24(7): 2286–2315.
- Bell, R. G., Filatotchev, I., & Rasheed, A. A. 2012. The liability of foreignness in capital markets: Sources and remedies. *Journal of International Business Studies*, 43(2): 107–122.
- Bruton, G. D., & Ahlstrom, D. 2003. An institutional view of China's venture capital industry: Explaining the differences between China and the West. *Journal of Business Venturing*, 18(2): 233–259.
- Busso, M., DiNardo, J. E., & McCrary, J. 2011. New evidence on the finite sample properties of propensity score matching and reweighting estimators. IZA Discussion Paper No. 3998.
- Caglio, C., Hanley, K. W., & Marietta-Westberg, J. 2011, IZA. Going public abroad. Working Paper, Securities Exchange Commission; Federal Reserve Board.
- Cao, J., & Liu, X. 2012. Building relationships with private equity firms: Banks in connected leveraged buyouts. Working Paper, Singapore Management University; National University of Singapore.
- Certo, S. T. 2003. Influencing initial public offering investors with prestige: Signaling with board structures. *Academy of Management Review*, 28(3): 432–446.
- Chakma, J., Sammut, S. M., & Agrawal, A. 2013. Life sciences venture capital in emerging markets. *Nature Biotechnology*, 31(3): 195–201.
- Chen, G., Firth, M., & Gao, D. N. 2005. Is China's securities regulatory agency a toothless tiger? Evidence from enforcement actions. *Journal of Accounting and Public Policy*, 24(6): 451–488.
- Dai, N., Jo, H., & Kassicieh, S. 2011. Cross-border venture capital investments in Asia: Selection and exit performance. *Journal of Business Venturing*, 27(6): 666–684.
- Fang, L. H., & Yasuda, A. 2010. Are stars' opinions worth more? The relation between analyst reputation and recommendation values. Working Paper, INSEAD; University of California, Davis.
- Guler, I., & Guillen, M. F. 2010. Institutions and the internationalization of US venture capital firms. *Journal of International Business Studies*. 41(2): 185–205.
- tional Business Studies, 41(2): 185–205.
  Harford, J., & Kolasinski, A. C. 2012. Do private equity sponsors sacrifice long-term value for short-term profit? Evidence from a comprehensive sample of large buyouts and exit outcomes. Working Paper, University of Washington, Washington DC.
- He, X., & Su, Y. 2013. Do the "haves" come out ahead in Shanghai courts? *Journal of Empirical Legal Studies*, 10(1): 120–145.
- Hochberg, Y. V. 2012. Venture capital and corporate governance in the newly public firm. *Review of Finance*, 16(2): 429–480.
- Hochberg, Y. V., Ljungqvist, A., & Lu, Y. 2007. Whom you know matters: Venture capital networks and investment performance. *Journal of Finance*, 62(1): 251–302.
- Hochberg, Y. V., Ljungqvist, A., & Lu, Y. 2010. Networking as a barrier to entry and the competitive supply of venture capital. *Journal of Finance*, 65(3): 829–859.
- Huang, H. 2007. The statutory derivative action in China: Critical analysis and recommendations for reform. *Berkeley Business Law Journal*, 42(1): 227–250.
- Huang, H. 2008. The new takeover regulation in China: Evolution and enhancement. *International Lawyer*, 42(1): 153–175.
- Huang, H. 2011. The regulation of securities offerings in China: Reconsidering the merit review element in light of the global financial crisis. *Hong Kong Law Journal*, 41(1): 261–284.
- Huang, R., Shangguan, Z., & Zhang, D. 2008. The networking function of investment banks: Evidence from private investments in public equity. *Journal of Corporate Finance*, 14(5): 738–752.
- Humphery-Jenner, M. 2013. Strong financial laws without strong enforcement: Is good law always better than no law? *Journal of Empirical Legal Studies* 10(2): 288–324.
- Humphery-Jenner, M., & Suchard, J.-A. 2013. Foreign VCs and venture success: Evidence from China. *Journal of Corporate Finance*, 21(1): 16–35.

- Hursti, J., & Maula, M. V. J. 2007. Acquiring financial resources from foreign equity capital markets: An examination of factors influencing foreign initial public offerings. *Journal of Business Venturing*, 22(6): 833–851.
- Jia, C., Ding, S., Li, Y., & Wu, Z. 2009. Fraud, enforcement action, and the role of corporate governance: Evidence from China. *Journal of Business Ethics*, 90(4): 561–576.
- Jiang, P., Cai, C. X., Keasey, K., & Wright, M. 2011. The role of venture capitalists in emerging markets: A study of Chinese IPOs. Working Paper, University of International Business and Economics; Leeds University; Nottingham University.
- Johnson, S. A., Moorman, T. C., & Sorescu, S. 2009. A reexamination of corporate governance and equity prices. *Review of Financial Studies*, 22(11): 4753–4786.
- Karsten, C. 2012. What drives the variation in takeover contracts: The economics or the lawyers? Working Paper, University of Amsterdam, the Netherlands.
- Khoury, T. A., Junkunc, M., & Mingo, S. 2012. Navigating political hazard risks and legal system quality: Venture capital investments in Latin America. *Journal of Management*, online first 27 August. doi: 10.1177/0149206312453737.
- Krishnan, C. N. V., & Masulis, R. forthcoming. Law firm expertise and mergers and acquisitions. *Journal of Law and Economics*, (in press).
- Krishnan, C. N. V., Masulis, R. W., Thomas, R. S., & Thompson, R. B. 2012. Shareholder litigation in mergers and acquisitions. Journal of Corporate Finance, 18(5): 1248–1268.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. 1997. Legal determinants of external finance. *Journal of Finance*, 52(3): 1131–1150.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. 1998. Law and finance. *Journal of Political Economy*, 106(6): 1113–1155.
- Lee, P. M., & Wahal, S. 2004. Grandstanding, certification and the underpricing of venture capital backed IPOs. *Journal of Financial Economics*, 73(2): 375–407.
- Lerner, J., & Schoar, A. 2005. Does legal enforcement affect financial transactions? The contractual channel in private equity. *Quarterly Journal of Economics*, 120(1): 223–246.
- Lutz, E., Bender, M., Achleitner, A.-K., & Kaserer, C. 2012. Importance of spatial proximity between venture capital investors and investees in Germany. *Journal of Business Research*, available online 16 May, http://dx.doi.org/10.1016/j.jbusres.2012.04.016.
- Ma, X., Tong, T. W., & Fitza, M. 2013. How much does subnational region matter to foreign subsidiary performance? Evidence from Fortune Global 500 corporations' investment in China. *Journal of International Business Studies*, 44(1): 66–87.
- Mata, J., & Freitas, E. 2012. Foreignness and exit over the life cycle of firms. *Journal of International Business Studies*, 32(7): 615–630.
- Moore, C. B., Bell, R. G., & Filatotchev, I. 2010. Institutions and foreign IPO firms: The effects of "home" and "host" country institutions on performance. *Entrepreneurship Theory and Practice*, 34(3): 469–490.
- Moore, C. B., Bell, R. G., Filatotchev, I., & Rasheed, A. A. 2012. Foreign IPO capital market choice: Understanding the institutional fit of corporate governance. *Strategic Management Journal*, 33(8): 914–937.
- Pagano, M., Roell, A., & Zechner, J. 2002. The geography of equity listing: Why do companies list abroad? *Journal of Finance*, 57(6): 2651–2694.
- Petersen, M. A. 2009. Estimating standard errors in finance panel data sets: Comparing approaches. *Review of Financial Studies*, 22(1): 435–480.
- Reeb, D., Sakakibara, M., & Mahmood, I. P. 2012. Endogeneity in international business research. *Journal of International Business Studies*, 43(3): 211–218.
- Spamann, H. 2010. The "antidirector rights index" revisited. *Review of Financial Studies*, 23(2): 467–486.

Wang, L., & Wang, S. 2011. Cross-border venture capital performance: Evidence from China. Pacific-Basin Finance Journal, 19(1): 71-97.

Wang, L., & Wang, S. 2012. Economic freedom and cross-border venture capital performance. *Journal of Empirical* Finance, 19(1): 26-50.

Woidtke, T. 2002. Agents watching agents? Evidence from pension fund ownership and firm value. Journal of Financial Economics, 63(1): 99-131.

Zaheer, S. 1995. Overcoming the liability of foreignness. *Academy of Management Journal*, 38(2): 341–363.

Zhou, K. Z., & Xu, D. 2012. How foreign firms curtail local supplier opportunism in China: Detailed contracts, centralized control, and relational governance. Journal of International Business Studies, 43(7): 677-692.

#### **ABOUT THE AUTHORS**

Mark Humphery-Jenner is an Assistant Professor at the University of New South Wales. His research interests are in corporate finance, law and economics, and venture capital/private equity. He has published in influential finance and management journals. His PhDs are from the University of New South Wales, Tilburg University, and Leiden University.

Jo-Ann Suchard is an Associate Professor in Banking and Finance at the University of New South Wales. Her research interests include venture capital and private equity, capital raising in debt and equity markets, and corporate governance. She is a Director of the Asian Finance Association, and organizes and hosts an annual online workshop on venture capital and private equity in Asia.

Accepted by David Reeb, Area Editor, 10 April 2013. This paper has been with the authors for three revisions.



Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

