

What Determines Global Flows of Entrepreneurial Finance?

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Economists examine foreign direct investment, which mostly constitutes flows to established firms (sometimes characterized as “multinational corporations”) that might or might not engage in truly innovative activity in the FDI target country. Conversely, finance scholars have studied the pipeline of entrepreneurial finance from limited partnerships (LPs) to venture capitalists (VCs) or private equity general partners (GPs) to portfolio firms. Few studies examine relationships between general and limited partners, and those that do often examine only the United States, or a limited number of countries in a given region. This paper uses a novel dataset (LP Source) to examine secular trends in cross-national flows from the LP to the GP (in the form of various investment funds) to the portfolio firm. We find evidence for “home bias” and demonstrate that cross-border flows are affected by GDP per capita, export orientation, and country-level measures of the entrepreneurial environment.

Keywords: entrepreneurial finance, venture capital, cross-border capital flows, limited partners

INTRODUCTION

Financial markets serve as conduits for investment, promoting economic development through their role in fostering entrepreneurship. Although Silicon Valley in the United States is famous for its role in promoting the development of innovative firms such as Facebook and Google, a more comprehensive understanding of financial flows to entrepreneurial ventures requires a broader view. Studies in the economics literature addressing foreign direct investment include flows generally to well-established (often, publicly traded) firms, but it is difficult to distinguish what portion of these flows are truly innovative as opposed to simply representing changes in ownership, or perhaps are even motivated by access to capital in the target firm’s country (Kandilov, et al, 2017). Cross-border M&A has also been extensively studied, but flows from LPs are an unexplored analogue to such activity. Our paper aims to bridge these literatures by examining the “pipeline” of entrepreneurial finance, from limited partnerships to funds run by general partners to portfolio firms in various industries. We also distinguish between flows that take the form of venture capital (innovation) from private equity (which, like FDI or M&A, is not necessarily related to high-technology or other truly innovative activities). We focus on three research questions:

- For a given national environment, what is the extent of each “stage” (LP to GP-run fund to portfolio firm) and/or “direction” (source of funds or target of funds) in the pipeline of entrepreneurial finance, and how has this varied over time and place?
- How have investments crossed borders? Which countries import or export entrepreneurial finance, and how have these patterns changed over time?

- How do typically more innovative flows (to funds managed by venture capitalists) differ from flows associated more closely with management changes of established firms (private equity)?

This paper proceeds as follows. We first review the relevant literature on determinants of FDI flows, the finance literature on limited partnerships and entrepreneurial finance, and the relevant cross-border M&A literature. We then describe in some detail the dataset we employ, given that it has only been used rarely in the past. Then, we introduce our hypotheses and models. Results are introduced, followed by a section focusing on the static institutional measure of legal origin. Finally, the conclusion provides some policy implications, especially about how countries might attract more limited partnership financing of innovative activity in the future, and which sorts of countries export innovative VC vis-à-vis PE investment.

LITERATURE

This paper combines several strands in the literature relating to international flows of capital, foreign direct investment (FDI), the pipeline of entrepreneurial finance from LP to VC fund to portfolio firm, and cross-border M&A.

Foreign Direct Investment

Economists have studied foreign direct investment for many decades if not centuries. A firm's decision whether to outsource a service or aspect the production process, as opposed to keeping it internal to the company or country, is a long-running aspect of economic theory (Antras, 2016; Dunning, 2000). Econometric analysis of the choice between foreign direct investment (FDI) and foreign portfolio investment (FPI) motivated a fairly recent book-length treatment of the subject (Razin and Sadka, 2007). The issue of firm borders related to corporate venture capital (where firms run their version of an in-house venture capital partnership) has recently been applied to entrepreneurial finance (Hall, 2015). Empirically, Singh and Jun (1995) find that an export orientation¹ is helpful for countries to attract FDI, generally expressed as a portion of real gross domestic product (GDP). Other factors that seem to be associated with the ability of countries to attract foreign direct investment include real GDP per capita (such that larger economies will attract more funds), measures of the institutional environment, such as the ease of starting a new company, or the enforcement of legal contracts. These and similar property rights have been discussed extensively in the cross-border M&A literature, described below. Nagano (2013) examines the choice between "greenfield" FDI and mergers and acquisitions in an international context; his paper also relates to the cross-border M&A literature. Based on the literature on FDI and related international capital flows, we include variables related to property rights and institutional environment of the source and host countries of LP flows, for example, how difficult it is to open a new business and how strictly contracts are enforced (van Stel, et al, 2008).

Limited Partnerships and the Pipeline of Entrepreneurial Finance

The pipeline of entrepreneurial finance starts with the ultimate owners of limited partnerships. LPs (such as pension funds, university endowments, banks, and insurance companies) invest in funds managed by general partners (GPs), which are often classified as either private equity firms (PE) or venture capitalists (VCs). Funds are often explicitly devoted to a class of portfolio firms that are either highly innovative (generally the case for VCs) or seem to be good targets of PE funding. Each GP (whether VC or PE) may raise several funds over time, focusing on different types of entrepreneurial venture (early stage, late stage, biotech, green energy, software, etc.) Despite many academic papers² concerning entrepreneurs and venture capitalists, a much smaller number of previous studies have examined LPs, and few of these consider flows across borders.³ For a visual representation of the pipeline, see Figure 1.

Many papers covering limited partners focus on a particular class of investors, such as pension funds or university endowments. Romano (1993) and Murphy and van Nuys (1994) consider pension funds in the United States. Other papers that focus specifically on this type of LP include Marr, Nofsinger, and Trimble, (1995); Gillan and Starks, (2007); Choi and Fisch (2008); Cremers and Nair (2005); Qiu (2006); Chen,

Harford, and Li (2007); Woidtke (2002); Woidtke, Seery, and DelGuercio (2008); Pennacchi and Rastad, (2011); and Hochberg and Rauh (2013).

Lerner, et al (2007) examine university endowments, documenting their success vis-à-vis other types of LPs. A large literature on endowments exists across several business disciplines going well beyond solely finance-oriented studies, and is reviewed by Cejnek, et al (2014).

Perhaps the closest treatment to our own study is that of Sensoy, et al (2013), which examines secular trends in private equity. They do not, however, focus on cross-border flows. Ang, et al (2017) also examine private equity over time, focusing on returns and not geographic or temporal variation in quantities of LP flows to GPs and portfolio firms. Hüther, et al (2017) provide insight into the contractual arrangements between LPs and VCs, but do not focus on temporal or geographical dispersion of these flows. In a novel approach, Andonov, et al (2018), view the “over-investment” in infrastructure by public pension funds as a financial subsidy, to the tune of \$730 million to \$3.16 billion per year. Concerning the different roles that different LPs might play in corporate governance of VC firms, Atanasov, et al (2019) examine whether university endowments and other types of LPs are better monitors of malfeasance vis-à-vis public pension funds. The latter paper employs the LP Source dataset we use herein. None of these papers, however, considers international flows from LPs to GPs or, ultimately, portfolio firms. One paper that looks at how cross-border private equity flows to (only) publicly traded companies (Aldatmaz and Brown, 2017) finds that such flows drive industry spillover effects that increase firms’ productivity in industries that receive such flows.

One paper related to the likelihood of an LP’s international diversification is by Duygun et al (2018), who generate a theoretical model predicting that the composition of an LP’s investments (defined benefit or defined contribution) is associated with the likelihood of diversifying across borders. Unfortunately, LP Source does not provide information on this aspect of pension fund composition, and in any event this variable would not be relevant to many other categories of LPs in our estimations.

Hammer, et al (2017) consider whether culture affects the performance of cross-border private equity buyouts, finding that higher levels of performance orientation negatively impact efficiency improvements in a set of over 5,000 exit channels from deals in 67 countries. Holloway, et al (2016) study how heterogeneity of private equity firms affects their cross-border acquisitions. Broadly, ownership change and how it relates to institutions are studied by Knyazeva, et al (2013).

Some papers specifically related to venture capital in an international context include an early contribution by Megginson (2004) and a comparison of the legal environment in 16 countries, which emphasizes the importance of (colonial) legal origin in determining a country’s level of venture capital activity (Cumming, et al, 2010).

Cross-Border Mergers and Acquisitions Research

To the extent that our paper concerns corporate equity ownership by entities based in other countries, it is conceptually related to the cross-border M&A literature. Xie, et al (2018) provide a recent literature review of cross-border M&A activity. Bae, et al (2013) examine determinants of target selection in cross-border M&A. Kim and Lu (2013) find that institutions (here, related to corporate governance) help understand the extent of cross-border M&A. Kandilov, et al (2017) help motivate our own paper in that they find that M&A activity is in part motivated by source country finance, which affects how pension funds and other LPs make decisions about foreign investment. Alquist, et al (2019) explore the relationship between the share of full foreign acquisition (as opposed to partial ownership) and institutional quality in emerging markets.

Other scholars have examined the effects of cross-border M&A at an industry level. For example, Albuquerque, et al (2019) find that incidence of cross-border mergers is associated with subsequent improvements in the governance of nontarget firms when the acquirer country has stronger investor protection than the target country. Alfaro and Chen (2012) identify the sources of gains from multinational production. Burns and Liebenburg (2011) examine whether M&A from an advanced market (the United States) affects emerging and developed markets differently.

Alimov and Officer (2017) and Hasan, et al (2017) find that property rights is important in motivating cross-border M&A, which helps motivate our inclusion of variables to proxy such rights in our estimations. More specifically, Ouyang and Zhu (2016) find that property rights in the form of shareholder protection are important determinants of cross-border M&A activity. Murali et al (2016) provide one of the first examples of a study looking at M&A activity from emerging markets to developed countries, which is salient for our tests of analogous LP flows.

Cornaggia and Li (2018) find that firms with more access to bank finance are more likely to be targets of cross-border acquisitions. Given that many of the entrepreneurial firms we study are early-stage and often in high-technology industries, it is likely that this motive is not very present in the transactions we study, especially since LPs generally are not using equity investment as a way to obtain bank financing. This is especially the case given that most of the flows in our data are from countries with advanced capital markets to firms located in countries with very likely less capital available to entrepreneurs.

Another paper (Rajamani, et al, 2017) focused on M&A is relevant to our study because it deals with financial institutions. In this case, the authors discuss banks (not LPs as we do here) and how their M&A advice is affected by their diversification across borders.

DATA

LP Source

Table 1 contains descriptive statistics on cross-border flows of entrepreneurial finance. Panel A indicates the total number of LPs in each country in the dataset. Clearly, the United States has dominated the number of LPs created over the last few decades, but other countries have also begun to organize funds in this manner. The top two countries outside the US (Canada and the UK) are common law countries with similar legal systems. The next eight countries are civil law nations located on the European mainland (including Scandinavia). More variety exists after that, with a mix of Asian countries, smaller European economies, and other states. China has little more than half of the number of LPs attributed to South Korea and Singapore.

Panel B indicates the number of GPs (whether focused on venture capital or on private equity) by country. Again, the United States dominates, but a larger number of countries have formed GPs than have formed LPs. The order is fairly similar as to formation of LPs, but more European countries are at the top of the list—notably, Israel has only 2 LPs in the dataset but 145 GPs exist there. Given the importance of geographic proximity for GPs to monitor their portfolio investments, it is likely that the confluence of GPs in countries with more active technology markets is not a coincidence (although the direction of causality might be difficult to assign). Panel C contains information on how the categories of “VC” and “PE” have been defined based on the fund types contained in the dataset, a distinction that will be explored further below.

Although the vast majority of entrepreneurial financial flows take place domestically (either in the same country or the same region, as we will discuss below), many thousands of cross-border flows exist in the data set. Panel D provides information on the number of flows from LPs to GPs located in other countries. Because some of the data in LP Source are provided at the regional level, we present in Panel E which countries are included in the various regions we examine.

As defined in Panel C, funds targeting early-stage and high-tech firms (VCs) can be distinguished from funds that seek to invest in more established firms. The portion of fund-raising devoted to VC as opposed to PE funds in a given year is summarized in Panel F.

Panel G provides descriptive statistics for the battery of independent variables we use throughout the empirical tests as well as the dependent variables we use to measure various stages and direction of entrepreneurial financial flows.

Given that these data are relatively novel and have not been featured in academic papers, we also provide some figures of the data’s temporal coverage and geographical extent. For example, Figure 1 provides a schematic view of the stages and directions of flows. LPs at the left of the figure invest in various GPs, some of which (top half of the figure) constitute VC partnerships, whereas private equity firms manage

other funds. A few of these flows might be cross-border in nature. The GPs (whether VCs or PE firms) in turn invest in portfolio companies, a few of which might be publicly traded (indicated in green). Unlike many others, our paper includes cross-border flows from LPs to GPs and investments in publicly traded and privately-held portfolio companies.

Figure 2 illustrates that just over \$1 trillion of funding commitments have been raised by LPs in the dataset, of which about \$678 billion has been invested. Most of this relates to buyouts, real estate, other private equity and hedge funds. The dataset contains information on about \$134 billion in venture capital funding.

Figure 3 provides some information on how LP creation has varied over time. Although the asset class did not exist in the early period, certain existing firms have transformed their organizational form such that they now count as limited partnerships. The vast majority of LPs in the dataset were founded in the 1980s and 1990s, reflecting the growth of pension funds in the United States, for example.

The number of funding rounds has varied substantially over time, with boom and bust cycles especially prevalent in the United States (light blue line). The next biggest category is GPs with a “global” dispersion of investments. Asia and Western Europe are generally in third and fourth place, with other target regions accounting for only a small portion of funding rounds.

Figure 5 separates out private equity from venture capital financing. Although VC financing receives a lot of attention in the media, dollar commitments are larger for private equity, which includes a greater number of fund categories (see Table 1, Panel C for definitions of which types of funds count for VC and which for PE). Notice that although repeated peak-and-trough scenarios exist in the United States, they are not highly correlated between VC and PE. For example, VC flows spiked in 1999 prior to the dot.com crash, and have still never recovered, but private equity flows peaked before the financial crisis of 2007.

Finally, Figure 6 indicates the portion of investment that are cross-regional in nature. The number of observations in the early period (1980s and 1990s) was rather low, and the portion of cross-regional flows was rather volatile. Since 2000, however, the portion of flows across regions has been increasing (with a setback following the global financial crisis of 2007-8), generally amounting to around 40% of flows in recent years. The apparent decline in the number of observations (dashed green line) for 2016 reflects the fact that those data only include the months of January through April.

Variables

The Appendix contains information on variables and their definitions, and Table 1 contains descriptive statistics. Generally, a flow is considered cross-border if the investing entity is in a different country (or, later, region) than the receiving entity. Thus, if an LP based in the United States provides cash to a fund managed by a VC in China, that would be defined as a cross-border flow. Another example would be a European VC funding a portfolio firm headquartered in the US. Our dependent variables are therefore related to either the prevalence (number of flows) or amount (dollar value of flows) of cross-border investments or their portion (investment amount committed to VC vis-à-vis PE funds). We initially consider the prevalence of cross-border flows from LPs to GPs and from GPs to portfolio companies. We next turn to the level of the fund, and break this down into two categories, VC and PE. Cross-border flows represent a minority of overall flows, because most investments at any level (LP to GP, GP to portfolio firm) take place within national borders or in the same region. This is unsurprising given the detailed monitoring that GPs generally conduct with their portfolio firms. Many LPs in the dataset are United States-based pension funds, exhibiting a high degree of home bias (well documented in the literature cited above).

Our independent variables are derived from the literature on foreign domestic investment, including per capita GDP as well as exports as a portion of GDP. We also introduce two newer variables constructed by the World Bank in conjunction with its “Doing Business In” series, which purports to measure various institutional factors that might affect financial markets. For our purposes, the two key variables are Start, which takes higher values for country-years that are associated with easier procedures to launch a new business, and Contracts, which takes higher values for country-years that are associated with stronger enforcement of legal contracts by the judicial system.

HYPOTHESES AND MODELS

Our work is motivated by the idea that determinants of FDI flows might also explain the prevalence and amount of entrepreneurial financing as it moves along the pipeline from LP to GP to portfolio firm. The general hypothesis is that the more advanced the country (proxied by GDP per capita), the more entrepreneurial investment will be received. Based on the FDI literature, we also surmise that the more exports a country produces (as a portion of GDP), the more conducive it will be for entrepreneurial finance. We also expect countries with better institutional environments (measured by the ease of firm start-up regulations and contract enforcement) will be more likely to attract entrepreneurial finance.

The models we estimate are as follows, with dependent and independent variables defined in the appendix:

$$DepVar_{i,t} = \alpha + \beta_1 PcGDP_{i,t} + \beta_2 Export_{i,t} + \beta_3 Start_{i,t} + \beta_4 Contract_{i,t} + \varepsilon \quad (1)$$

where i indexes the country (or region) and t indexes the year.⁴ Tables with fewer observations (i.e., Table 2 and Table 4) use aggregated or average data across years.

RESULTS

We now turn to results, located in Tables 2 through 5. Table 2 provides results concerning the 66 observations of limited partner funding of general partners located in other countries (LP→GP). Entered singly in models (1) through (4), the coefficient on per capita GDP and on business formation (Start) are positive and statistically significant. The per capita GDP coefficient's magnitude and significance level are robust to the inclusion of the other variables as well. LPs are more likely to choose GPs located in countries with higher per capita GDP and those with better regulatory environments for entrepreneurship. Export orientation is negatively associated with cross-border flows from LPs to GPs, and this result is statistically significant in the joint model (column 5). Contract enforcement seems not to matter, a finding that will be replicated often.

Table 3 provides results for stage in the pipeline of entrepreneurial finance relating to funds from GPs to portfolio firms. We see similar results for the earlier stage, such that higher per capita GDP, lower exports, and better entrepreneurial environment are associated with more cross-border funding from GPs to portfolio firms. Given the panel nature of the data in this table, we supplement the ordinary least squares (Panel A) estimation with generalized least squares estimation including clustering at the country level (Panel B). The findings are generally consistent across the different estimation methods, with somewhat lower significance levels in the GLS models (which is especially salient for the export orientation variable). Together, these four simple variables account for about 10% of the variation in the quantity of cross-border flows from GPs to portfolio firms, as indicated by the adjusted R^2 for the joint models.

In Table 4, we examine the other direction of entrepreneurial finance, and consider what source country characteristics are associated with out-bound flows. We find that export orientation again has a negative coefficient in both the univariate and multivariate models, meaning that countries with more exports are less likely to invest outside their region. However, the low explanatory power of these models means these results are fairly tenuous.

Finally, in Table 5 we present our final empirical results. Here we consider what source country characteristics are associated with higher portion of innovative finance, defined as funds raised by VCs vis-à-vis PE firms. As in Table 3, OLS results are presented above GLS results. The joint model (column 5) shows that higher levels of per capita output are *negatively* associated with higher portions of VC funding (vis-à-vis PE), whereas higher levels of exports and more conducive start-up regulations at home are positively associated with more innovative finance. These findings are fairly robust across estimation technique.

Extension: Static Institutional Measures

In this section, we compare our findings with those from a previous study that employed static measures of institutional quality, namely legal origin. Cumming, et al (2010) argued that the historical (often, colonial) legacy of a country's legal system affects the development of financial markets, and, in particular, the functioning of venture capital markets. They categorize countries based on their origin as either English (Common Law), French, German, or Scandinavian. They find that venture capital markets are most robust in countries with English legal systems, perhaps due to the importance of *stare decisis* (precedent), which provides investors with peace of mind that contractual relationships will be honored in the event of some negative business developments. The reasoning is that investors will be more likely to provide venture capital if they are confident that the judicial system will consistently apply their rights and contractual safeguards.

Using only a subset of 16 countries that they include in their study, we present in Table 6 results of regression estimations replicating Table 5, considering the portion of investment that is truly entrepreneurial in nature (VC as a portion of all LP investment) but including a battery of legal origin variables. We begin with Panel A. In the first 4 columns, we limit the data to only countries that have that legal origin, such that in column 1, only countries with English (common law) origin are included. This yields fewer observations per estimation given we are only using a sub-set of the data. Columns 1-4 indicate that the relationships vary, such that the signs and significance levels of the coefficients differ substantially in different legal families. In English-origin countries, export orientation (and to a lesser extent, ease of launching a start-up) has a positive and highly significant relationship with VC (vs. PE) investment. Contract enforcement, surprisingly, has a negative relationship with the portion of VC funding. Conversely, in French legal origin countries, not many significant relationships exist, although there is a positive and significant relationship between the ease of starting up a business and the portion of VC investment. In German legal origin countries, export orientation has a negative coefficient, consistent with what we saw in Table 5. Contract enforcement (and, to a lesser extent, the ease of starting a business) has a positive, highly significant coefficient of large magnitude. Coefficients in the Scandinavian legal origin countries are generally not significant.

Given the importance of English common law legal origin cited in the previous literature, we estimate a final model pooling all observations but including the Common Law dummy variable, taking a value of "1" for all countries such as the UK, Canada, Australia, and the United States with English legal origin. Perhaps surprisingly, we find a negative, statistically significant relationship between common law and VC as a portion of total LP investment. This becomes less unexpected when we recall that in Table 1 (Panel F), the UK and the US had substantially lower levels of VC as a portion of all LP investments.

In Panel B of Table 6, which replicates the estimations of Panel A, but uses generalized least squares with fixed effects (country and year), we find similar signs and significance levels for the coefficients. The magnitude of the Common Law variable actually even becomes a bit larger, with a similar level of significance as in the OLS regressions shown in Panel A.

SUMMARY AND CONCLUSION

In this paper, we found that similar to flows of capital to publicly traded companies, a substantial "home bias" exists, such that most investment in the entrepreneurial finance pipeline (regardless of its stage) takes place in-country. Higher levels of GDP per capita are associated with larger cross-border flows from LPs to GPs and higher levels of target country exports are associated with lower cross-border flows from LPs to GPs. Similarly, cross-border flows from GPs to portfolio firms positively relate to target country GDP per capita and entrepreneurial environment. Higher levels of source country exports are associated with lower levels of flows across regional boundaries. Distinguishing "innovative" (venture capital) funds from private equity funds, we found that countries with higher levels of per capital GDP, exports, and a more conducive entrepreneurial environment are more likely to send investment towards cross-regional funds. Given the importance of legal agreements between LPs and GPs and portfolio companies, we surprisingly found little evidence that contractual enforcement matters in any stage or direction of the entrepreneurial

finance pipeline. We found that the signs and coefficients for these variables are not consistent across different legal families, a finding that would benefit from further investigation.

The policy implications of these findings are interesting. For countries that wish to increase the level of incoming investment (whether in the form of LP flows to GPs or from GPs to portfolio firms), investors seem to respond positively to more conducive environments for entrepreneurship, which is unsurprising. The World Bank Doing Business In site⁵ contains information on how to do that. For countries interested in taking advantage of innovation outside their region, it seems that active export markets may act as a substitute for such flows. Interestingly, countries with lower per capita GDP and higher exports and better entrepreneurial environments tend to export more innovative finance (compared to private equity-oriented investment).

ENDNOTES

1. Measured by exports as a percentage of GDP or manufacturing exports as a percentage of GDP.
2. For a literature review, see da Rin, et al, 2011.
3. In the Social Science Research Network, the search term “cross-border” yielded 5,735 papers (as of January 14, 2019), but none of them contain the term “limited partner.”
4. For observations of the LP→GP stage, indicated in Table 2, we were unable to index on year, so each observation refers to only a country. Values for the independent variables are simply averaged over the 2000–2015 time frame, with descriptive statistics indicated in Table 1, Panel G.
5. Precise definitions of the characteristics included in the “start” variable are located here: <http://www.doingbusiness.org/en/methodology/starting-a-business>

REFERENCES

- Abadie, A., & Imbens, G. (2002). *Simple and bias-corrected matching estimators* [Technical report]. University of California, Berkeley.
- Admati, A., & Pfleiderer, P. (2009). The “Wall Street Walk” and Shareholder Activism: Exit as a form of voice. *Review of Financial Studies*, 22, 2445–2485.
- Aguilera, R., Capape, J., & Santiso, J. (2016). Sovereign Wealth Funds: A strategic governance overview. *Academy of Management Perspectives*, 30(1), 5–23.
- Albuquerque, R., Brandão-Marques, L., Ferreira, M.A., & Matos, P. (2019). International Corporate Governance Spillovers: Evidence from cross-border mergers and acquisitions. *Review of Financial Studies*, 32(2), 738–770.
- Aldatmaz, S., & Brown, G. (2017). *Private Equity in the Global Economy: Evidence on Industry Spillovers* [Working paper]. George Mason University.
- Alfaro, L., & Chen, M.X. (2012). Selection, reallocation, and spillover: Identifying the sources of gains from multinational production. *SSRN Electronic Journal*. DOI: 10.2139/ssrn.2101302
- Alimov, A., & Officer, M.S. (2017). Intellectual property rights and cross-border mergers and acquisitions. *Journal of Corporate Finance*, 45, 360–377. DOI: 10.1016/j.jcorpfin.2017.05.015
- Alquist, R., Berman, N., Mukherjee, R., & Tesar, L.L. (2019). Financial constraints, institutions, and foreign ownership. *Journal of International Economics*, 118, 63–83.
- Ang, A., Chen, B., Goetzmann, W., & Phalippou, L. (2017). *Estimating private equity returns from limited partner cash flows* [Working paper]. Said Business School.
- Antràs, P. (2016). *Global production: Firms, contracts, and trade structure*. Princeton, NJ: Princeton University Press.
- Atanasov, V., & Black, B. (2016). Shock-based causal inference in finance and accounting. *Critical Finance Review*, 5, 207–304.
- Atanasov, V., Ivanov, V., & Litvak, K. (2012). Does reputation limit opportunistic behavior in the VC industry? Evidence from litigation against VCs. *Journal of Finance*, 67, 2215–2246.
- Bae, S.C., Chang, K., & Kim, D. (2013). Determinants of target selection and acquirer returns: Evidence from cross-border acquisitions. *International Review of Economics & Finance*, 27(552).

- Barber, B. (2006). *Monitoring the Monitor: Evaluating CalPERS Shareholder Activism* [Working paper]. UC Davis.
- Bernstein, S., Lerner, J., & Schoar, A. (2013). The investment strategies of sovereign wealth funds. *Journal of Economic Perspectives*, 27(2), 219–238.
- Brown, J., Pollet, J., & Weisbenner, S. (2015). *The in-state equity bias of state pension plans* [Working paper]. NBER Working Paper No. 21020.
- Burns, N., & Liebenberg, I. (2011). U.S. takeovers in foreign markets: Do they impact emerging and developed markets differently? *Journal of Corporate Finance*, 17(4), 1028–1046. DOI:10.1016/j.jcorpfin.2011.05.001
- Cejnek, G., Franz, R., Randl, O., & Stoughton, N. (2014). A survey of university endowment management research. *Journal of Investment Management*, Third Quarter. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2205207
- Chen, X., Harford, J., & Li, K. (2007). Monitoring: Which institutions matter? *Journal of Financial Economics*, 86, 279–305.
- Choi, S., & Fisch, J. (2008). On beyond CalPERS: Survey evidence on the developing role of public pension funds in corporate governance. *Vanderbilt Law Review*, 1, 315–354.
- Cohen, S. (2007). *Multinational corporations and foreign direct investment: Avoiding simplicity, embracing complexity*. Oxford, England: Oxford University Press.
- Cornaggia, J., & Li, J.Y. (2018). The value of access to finance: Evidence from M&As. *Journal of Financial Economics*. DOI: 10.1016/j.jfineco.2018.09.003
- Cremers, M., & Nair, V. (2005). Governance mechanisms and equity prices. *Journal of Finance*, 60, 289–2894.
- Cumming, D., & MacIntosh, J. (2004). Boom, bust and litigation in venture capital finance. *Willamette Law Review*, 40, 867–906.
- Cumming, D., Schmidt, D., & Walz, U. (2010). Legality and venture capital governance around the world. *Journal of Business Venturing*, 25, 54–72.
- Da Rin, M., Hellman, T., & Puri, M. (2011). *A survey of venture capital research* [TILEC Discussion Paper No. 2011-044 and CentER Discussion Paper Series No. 2011-111]. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1942821
- Dunning, J. (2000). Globalization and the theory of MNE activity. In N. Hood, & S. Young (Eds.), *The globalization of multinational enterprise activity and economic development*. New York, NY: St. Martin's Press.
- Duygun, M., Huang, B., Qian, X., & Tam, L.H.K. (2018). Corporate pension plans and investment choices: Bargaining or conforming? *Journal of Corporate Finance*, 50, 519–537. DOI:10.1016/j.jcorpfin.2017.10.005
- Fama, E., & Jensen, M. (1983). Separation of ownership and control. *Journal of Law and Economics*, 26, 301–325.
- Fried, J., & Ganor, M. (2006). Agency costs of venture capitalist control in startups. *New York University Law Review*, 81, 967–1025.
- Gillan, S., & Starks, L. (2007). The evolution of shareholder activism in the United States. *Journal of Applied Corporate Finance*, 19, 55–73.
- Gilson, R. (2003). Engineering a venture capital market: Lessons from the American experience. *Stanford Law Review*, 55, 1067–1103.
- Gompers, P., & Lerner, J. (n.d.). *Money chasing deals*.
- Hall, T. (2015). Innovation and firm boundaries: Evidence from entrepreneurial finance. *International Journal of Innovation and Technology Management*, 12(05), 1–33.
- Hammer, B., Hinrichs, H., & Schwetzler, B. (2017). Does culture affect the performance of private equity buyouts? *Journal of Business Economics*, 88(3–4), 393–469. DOI: 10.1007/s11573-017-0886-0
- Hasan, I., Khalil, F., & Sun, X. (2017). The impacts of intellectual property rights protection on cross-border M&As. *Quarterly Journal of Finance*, 07(03). DOI: 10.1142/S2010139217500057

- Hochberg, Y., & Rauh, J. (2013). Local overweighting and underperformance: Evidence from limited partner private equity investments. *Review of Financial Studies*, 26, 403–451.
- Hochberg, Y., Ljungqvist, A., & Lu, Y. (2007). Whom you know matters: Venture capital networks and investment performance. *Journal of Finance*, 62, 251–301.
- Holloway, I., Lee, H.S., & Shen, T. (2016). Private equity firm heterogeneity and cross-border acquisitions. *International Review of Economics & Finance*, 44, 118.
- Jensen-Vinstrup, M., Rigamonti, D., & Wulff, J. (2018). European cross-border acquisitions: Long-run stock returns and firm characteristics. *Journal of Multinational Financial Management*, 47–48, 31–45. DOI: 10.1016/j.mulfin.2018.09.003
- Kandilov, I.T., Leblebicioğlu, A., & Petkova, N. (2017). Cross-border mergers and acquisitions: The importance of local credit and source country finance. *Journal of International Money and Finance*, 70, 288–318. DOI: 10.1016/j.jimonfin.2016.09.003
- Kaplan, S., Martel, F., & Strömberg, P. (2003). *How do legal differences and learning affect financial contracts* [Working Paper #10097]. National Bureau of Economic Research.
- Kim, E.H., & Lu, Y. (2013). Corporate governance reforms around the world and cross-border acquisitions. *Journal of Corporate Finance*, 22, 236.
- Knyazeva, A., Knyazeva, D., & Stiglitz, J.E. (2013). Ownership change, institutional development and performance. *Journal of Banking & Finance*, 37(7), 2605.
- Lerner, J., Schoar, A., & Wongsunwai, W. (2007). Smart institutions, foolish choices: The limited partner performance puzzle. *Journal of Finance*, 62, 731–764.
- Litvak, K. (2004). Governing by exit: Default penalties and walkaway options in venture capital partnership agreements. *Willamette Law Review*, 40, 771–812.
- Marr, M., Nofsinger, J., & Trimble, J. (1995). Economically targeted and social investments: Investment management and pension fund performance. *CFA Institute Monograph*.
- Mayer, C., Schoors, K., & Yafeh, Y. (2003). *Sources of funds and investment activities of venture capital funds: Evidence from Germany, Israel, Japan, and the U.K.* [National Bureau of Economic Research Working Paper 9645].
- Meggison, W.L. (2004). Towards a global model of venture capital? *Journal of Applied Corporate Finance*, 16(1).
- Meggison, W.L., & Fotak, V. (2015). Rise of the fiduciary state: A survey of sovereign wealth fund research. *Journal of Economic Surveys*, 29(4), 733–778.
- Metrick, A., & Yasuda, A. (2010). *Venture capital and other private equity: A survey* [Working Paper]. Yale University.
- Murali, D., Chari, R., & Shaikh, I.A. (2016). Defying distance? Cross-border acquisitions by emerging-economy firms. *Thunderbird International Business Review*, 59(2), 173–186.
- Murphy, K., & van Nuys, K. (1994). *State pension funds and shareholder inactivism* [Harvard University Working Paper].
- Nagano, M. (2013). Similarities and differences among cross-border M&A and greenfield FDI determinants: Evidence from Asia and Oceania. *Emerging Markets Review*, 16, 100.
- Ouyang, W., & Zhu, P. (2016). An international study of shareholder protection in freeze-out M&A transactions. *International Review of Financial Analysis*, 45, 157.
- Parrino, R., Sias, R., & Starks, L. (2003). Voting with their feet: Institutional ownership changes around forced CEO turnover. *Journal of Financial Economics*, 68, 3–46.
- Pennacchi, G., & Rastad, M. (2011). Asset allocation for pension funds. *Journal of Pension Economics and Finance*, 10, 221–245.
- Qian, M. (2011). Is voting with your feet an effective mutual fund governance mechanism? *Journal of Corporate Finance*, 17, 45–61.
- Qiu, L. (2006). *Which institutional investors monitor? Evidence from acquisition activity* [Yale University Working Paper].
- Rajamani, A., van der Poel, M., de Jong, A., & Ongena, S. (2017). The international diversification of banks and the value of their cross-border M&A advice. *Management Science*, 63(7), 2211.

- Razin, A., & Sadka, E. (2007). *Foreign direct investment: Analysis of aggregate flows*. Princeton, NJ: Princeton University Press.
- Romano, R. (1993). Public pension fund activism in corporate governance reconsidered. *Columbia Law Review*, 93, 795–853.
- Rubin, D. (1980). Bias reduction using Mahalanobis' metric matching. *Biometrics*, 36, 293–298.
- Sahiti, A., Skender, A., & Ismajli, H. (2018). A review of empirical studies on the FDI determinants. *Baltic Journal of Real Estate Economics and Construction Management*, 6(1), 37–47.
- Sensoy, B., Wang, Y., & Weisbach, M. (2013). *Limited partner performance and the maturing of the private equity industry* [National Bureau of Economic Research Working Paper 18793].
- Singh, H., & Jun, K. (1995). *Some new evidence on determinants of foreign direct investment in developing countries* [World Bank Policy Research Working Paper #1531]. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=623885
- van Stel, A., Storey, D., & Thurik, R. (2008). *The effect of business regulations on nascent and young business entrepreneurship* [ERIM Report Series Reference No. ERS-2006-052-ORG]. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1101147
- Woidtke, T. (2002). Agents watching agents? Evidence from pension fund ownership and firm value. *Journal of Financial Economics*, 63, 99–131.
- Woidtke, T., Seery, L., & Del Guercio, D. (2008). Do boards pay attention when institutional investor activists 'just vote no'? *Journal of Financial Economics*, 90, 184–204.
- Wu, Y. (2004). The impact of public opinion on board structure changes, director career progression, and CEO turnover: Evidence from CalPERS corporate governance program. *Journal of Corporate Finance*, 10, 199–227.
- Xie, E., Reddy, K.S., & Liang, J. (2017). Country-specific determinants of cross-border mergers and acquisitions: A comprehensive review and future research directions. *Journal of World Business*, 52(2), 127–183. DOI: 10.1016/j.jwb.2016.12.005

APPENDIX

TABLE 1
VARIABLE SOURCES AND DEFINITIONS

Variable	Used in Table(s)	Definition	Source (all include author calculations)
LP→GP (Number of Deals)	2	LP→GP (Number of Deals)	LP Source
Number of GP→Portfolio flows	3	Number of GP→Portfolio flows	LP Source
Cross-regional flows (portion of amounts raised in all funds, average annual per year for 63 countries)	4	Cross-regional flows (portion of amounts raised in all funds, average annual per year for 63 countries)	LP Source
Percent of investment to “innovative” funds (country-year value of VC commitments divided by VC+PE commitments)	5, 6	Percent of investment to “innovative” funds (country-year value of VC commitments divided by VC+PE commitments)	LP Source
Per capita GDP	2-6	Amount of real GDP (chain-weighted basis) per person	World Bank
Exports	2-6	Total value of exports as a portion of GDP	World Bank
Start	2-6	The variable “Starting a Business”	World Bank (Doing Business In) ¹
Contracts	2-6	The variable “Enforcing Contracts (DB04-15 methodology)”	World Bank (Doing Business In) ²
Legal Origin	6	Takes values of “1” for English (Common Law), French, German, and Scandinavian legal origins	Cumming, et al, 2010

FIGURE 1
SCHEMATIC REPRESENTATION OF THE ENTREPRENEURIAL FINANCE PIPELINE

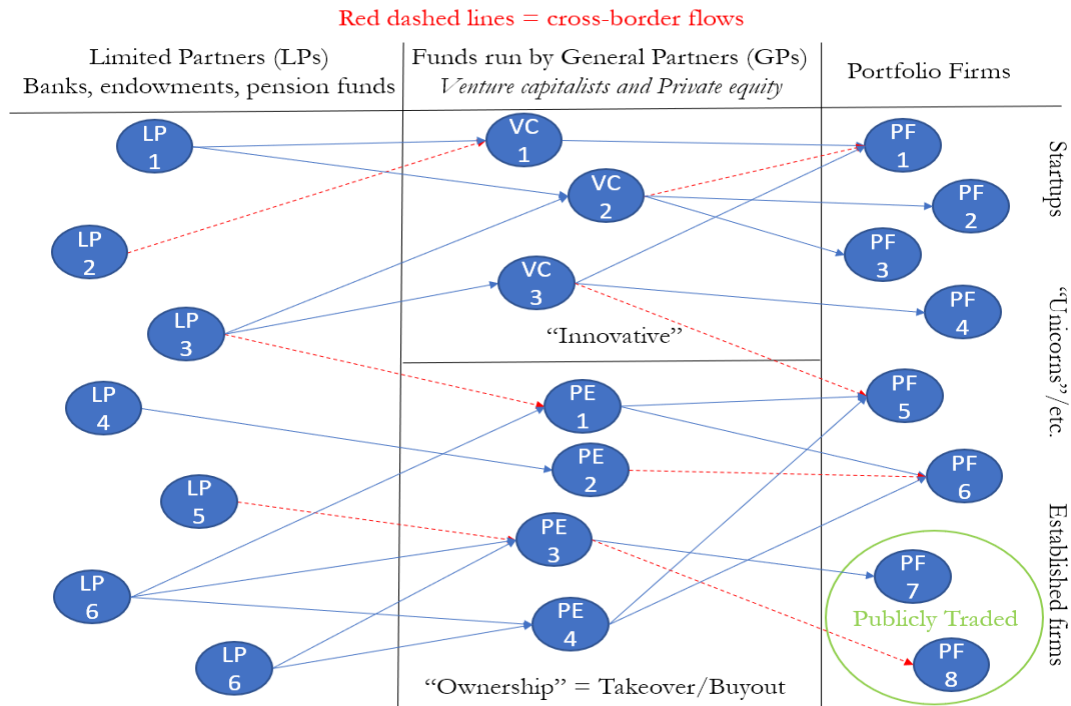
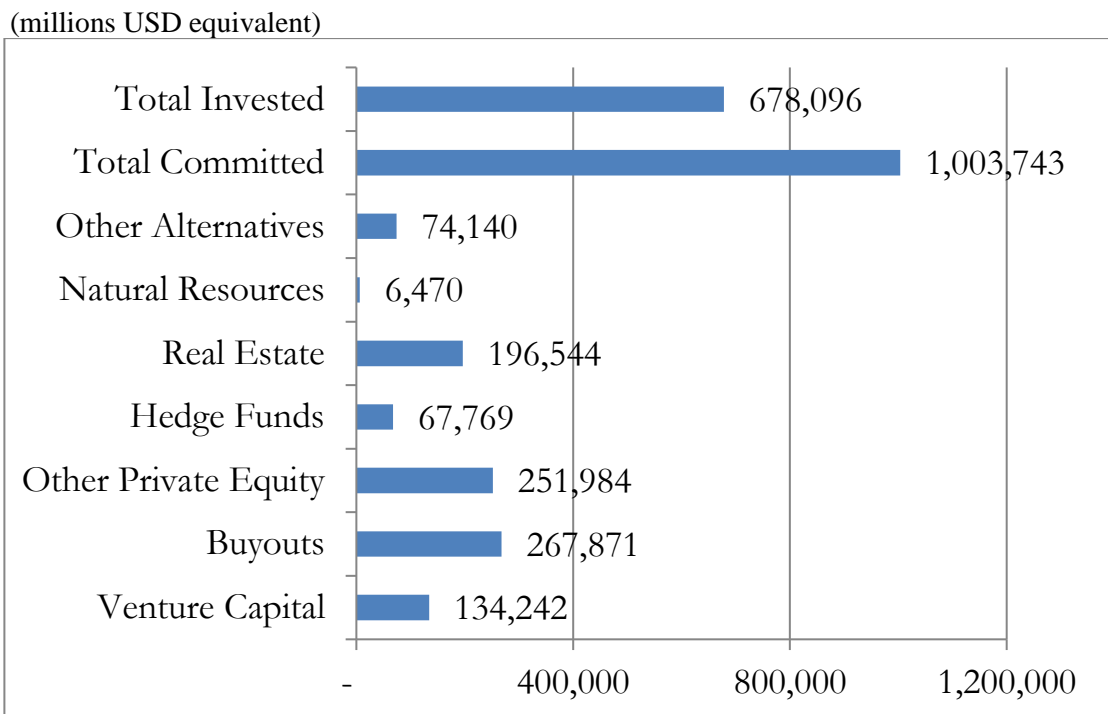


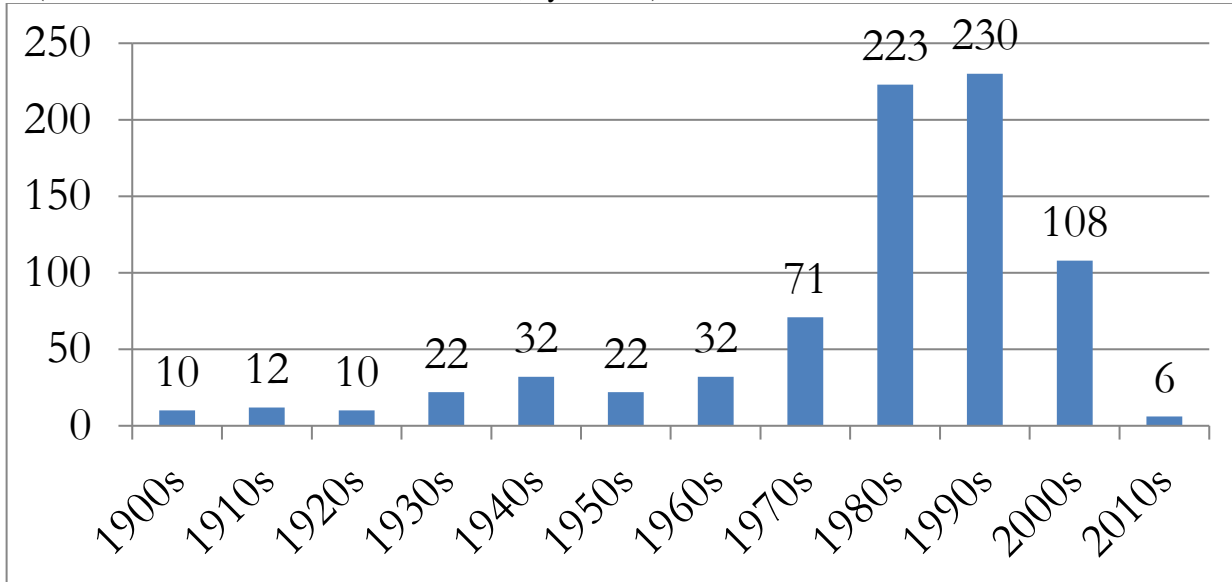
FIGURE 2
LP FUNDING (INVESTED VS. COMMITTED) BY GP TYPE



Source: LP Source

FIGURE 3
TEMPORAL DISTRIBUTION OF LP CREATION DATE

(Start date of firms now classified as LPs, by decade)



Source: LP Source

FIGURE 4
FUNDING ROUNDS CLOSED BY GPS PER TARGET REGION (SINCE 1980)

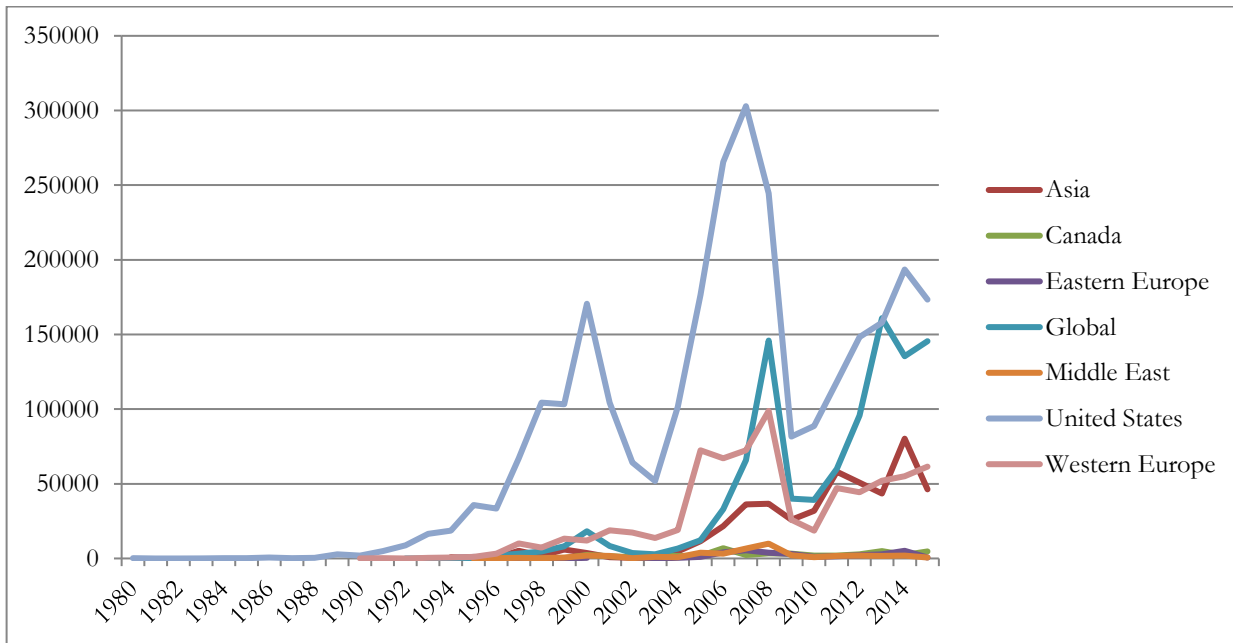
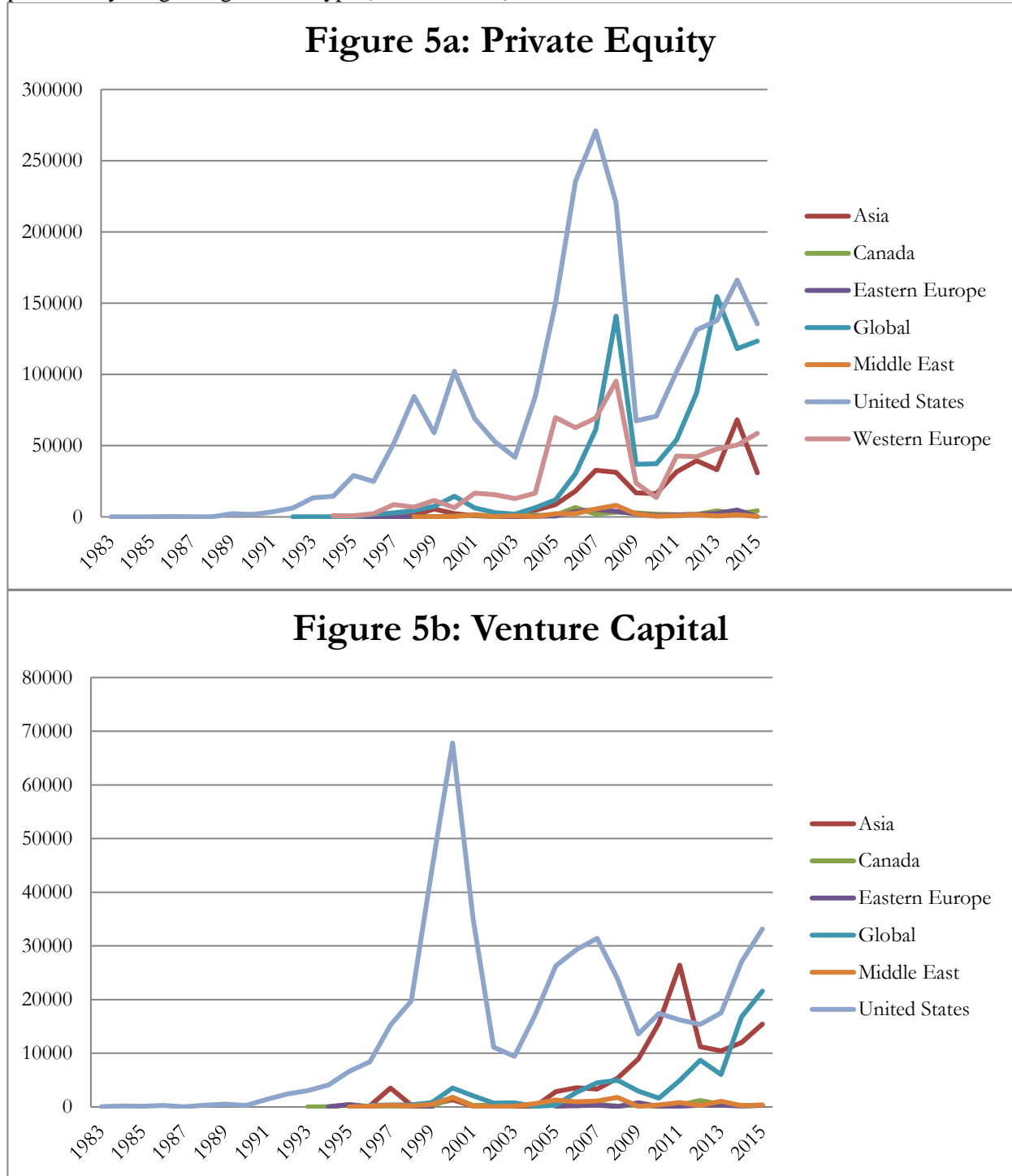


FIGURE 5
TOTAL AMOUNTS OF FUNDING ROUNDS CLOSED BY GPS

per Year by Target Region and Type (nominal USD)



Note: see Table 1, Panel C for definitions of “private equity” and “venture capital” funds

FIGURE 6
CROSS-REGIONAL FLOWS OVER TIME

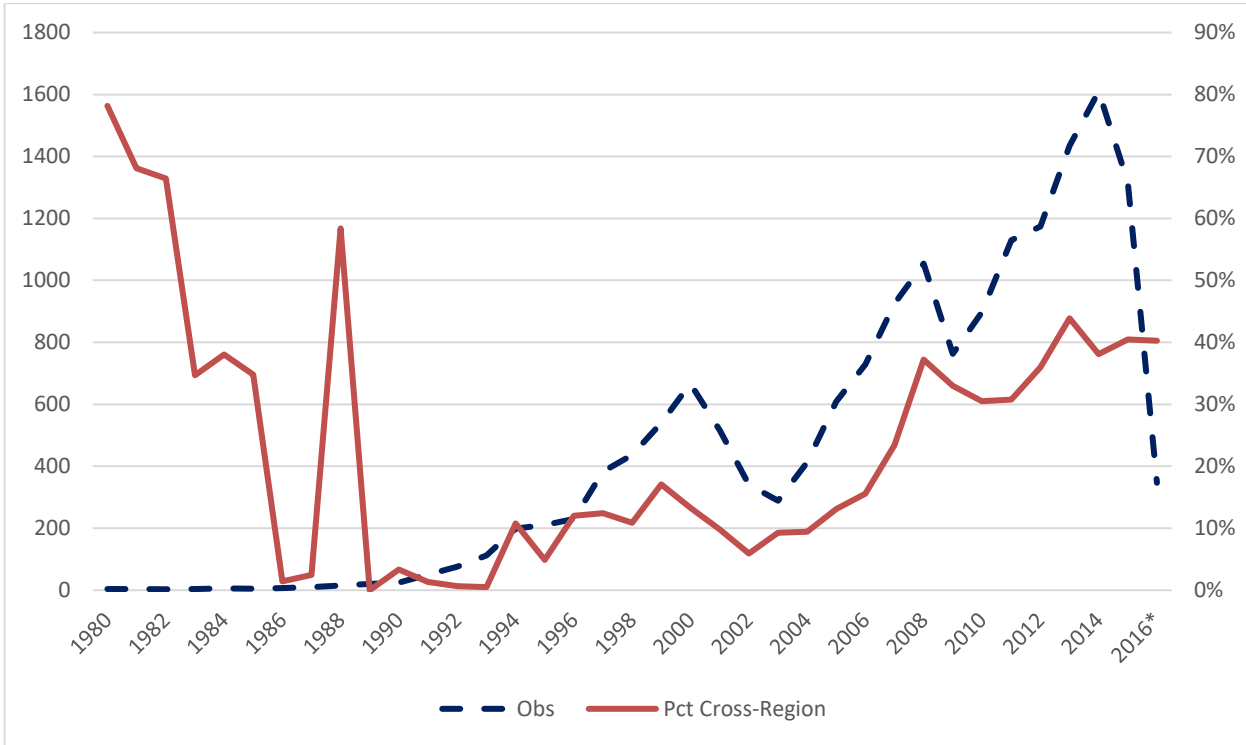


TABLE 1
DESCRIPTIVE STATISTICS

Panel A: Number of LPs by Country (bold = Western Europe)

Country	# of LPs	Country	# of LPs	Country	# of LPs	Country	# of LPs	Country	# of LPs	Country	# of LPs	Country	# of LPs
United States	13,324	Sweden	280	Ireland	98	Austria	29	Bahrain	7	Iceland	1		
United Kingdom	1,073	Germany	247	South Korea	98	Italy	29	Kuwait	7	Indonesia	1		
Canada	533	Finland	212	Singapore	88	Australia	22	India	5	New Zealand	1		
Netherlands	450	Denmark	183	Belgium	56	Spain	20	Israel	2	Portugal	1		
Switzerland	329	Norway	127	China	47	UAE	19	Russia	2				
France	296	Japan	99	Philippines	34	Malaysia	9	Saudi Arabia	2				

Panel B: Number of GPs by Country

Country	# of GPs	Country	# of GPs	Country	# of GPs	Country	# of GPs	Country	# of GPs	Country	# of GPs	Country	# of GPs
United States	13,106	Netherlands	103	Poland	32	Czech Republic	10	Ghana	3	Barbados	1		
United Kingdom	1,464	South Korea	96	Brazil	27	Taiwan	9	Jordan	3	Iceland	1		
France	421	India	77	Mauritius	27	Estonia	8	Saudi Arabia	3	Mongolia	1		
Canada	327	Ireland	69	Argentina	25	Egypt	7	Thailand	3	Portugal	1		
China	290	Italy	69	Belgium	25	Greece	6	Colombia	2	Senegal	1		
Sweden	286	Denmark	67	Malaysia	20	Nigeria	6	Kazakhstan	2	Slovenia	1		
Germany	169	Spain	55	Malaysia	20	Tunisia	6	Kenya	2	Uruguay	1		
Israel	145	Australia	52	Russia	20	New Zealand	5	Kuwait	2				
Switzerland	118	Singapore	45	UAE	19	Pakistan	5	Lebanon	2				
Norway	112	Japan	36	Turkey	15	Vietnam	5	Togo	2				
Finland	107	South Africa	36	Ukraine	12	Hungary	4	Bahrain	1				
Luxembourg	107	Austria	33	Mexico	11	Cambodia	3	Bangladesh	1				

Panel C: VC and PE Definitions by GP Category

Fund Type	Includes Categories:
Private Equity	Bridge Financing, Buyouts & Acquisitions, Co-Investment Fund, Diversified private equity, Farmland, Fund Of Funds, Hedge, Industry Focused, LP Secondaries, Mezzanine, Mezzanine (Captive), Mezzanine (Third-Party), Non-controlling Structured Equity, Project finance, Real Assets, Real estate, Restructuring/Distressed Debt, SBIC – Debentures, SBIC - Participating securities, Secondary Direct/Portfolio, Timberland
Venture Capital	Early-stage venture capital, Expansions & Growth, Late-stage venture capital, Multi-stage venture capital

Panel D: Recipients of Cross-Border LP → GP Flows

Country	# of Flows	Country	# of Flows	Country	# of Flows	Country	# of Flows	Country	# of Flows	Country	# of Flows
United States	1,552	Netherlands	72	Finland	22	Mexico	11	Vietnam	5	Bahrain	1
UK	1,041	Italy	61	Russia	19	Czech Rep.	10	Hungary	4	Bangladesh	1
France	287	Norway	48	Ireland	16	Belgium	9	Cambodia	3	Barbados	1
China	253	Australia	44	Japan	16	Taiwan	9	Ghana	3	Iceland	1
Sweden	181	Spain	44	Denmark	15	Estonia	8	Jordan	3	Mongolia	1
Canada	165	Singapore	38	Turkey	15	Egypt	7	Thailand	3	Morocco	1
Israel	144	South Africa	36	Malaysia	14	Greece	6	Colombia	2	Portugal	1
Germany	124	Poland	32	UAE	14	Nigeria	6	Kazakhstan	2	Saudi Arabia	1
Switzerland	108	Brazil	27	S. Korea	12	Tunisia	6	Kenya	2	Senegal	1
Luxembourg	107	Mauritius	27	Ukraine	12	New Zealand	5	Lebanon	2	Slovenia	1
India	77	Argentina	25	Austria	11	Pakistan	5	Togo	2	Uruguay	1

Panel E: Cross-Regional Flows Definitions

Countries and Target Regions (Regions defined by LP Source; “Obs.” refers to number of funds closed)

Asia	Obs.	Global*	Obs.	Middle East	Obs.
Bangladesh	3	Argentina	12	Bahrain	10
Cambodia	11	Australia	86	Egypt	9
China	839	Barbados	2	Israel	175
India	234	Brazil	66	Jordan	6
Indonesia	5	Chile	13	Kuwait	18
Japan	129	Colombia	6	Lebanon	6
Malaysia	29	Ethiopia	5	Morocco	3
Mauritius	32	Ghana	2	Qatar	6
Mongolia	5	Ivory Coast	1	Saudi Arabia	13

Philippines	1		Jamaica	1		Tunisia	18
Singapore	94		Kazakhstan	1		Turkey	12
South Korea	33		Kenya	2		United Arab Emirates	76
Sri Lanka	1		Mexico	60			
Taiwan	11		New Zealand	14		Western Europe	
Thailand	7		Nicaragua	1		Austria	19
Vietnam	5		Nigeria	8		Belgium	36
			Peru	3		Denmark	42
Canada	380		Senegal	1		Finland	78
			South Africa	43		France	389
Eastern Europe			Tanzania	1		Germany	206
Armenia	1		Uruguay	3		Greece	4
Czech Republic	8		Venezuela	4		Iceland	1
Estonia	7					Ireland	19
Hungary	5					Italy	90
Lithuania	4		United States	11,436		Luxembourg	55
Poland	38					Netherlands	119
Romania	1					Norway	51
Russia	41					Portugal	18
Ukraine	4					Spain	112
						Sweden	74
						Switzerland	244
						United Kingdom	943

*Global countries are those unspecified in other regions

Example: If a fund managed by a GP in the United States indicates that its target region is the United States, it is omitted from this table. A total of 11,436 funds raised in the United States indicated a target region outside of the United States. Similarly, a total of 839 funds managed by Chinese-based GPs indicated a target region outside of China. Funds managed by GPs located in the “global” countries could either be domestic or target a country or country not included in the named geographical regions.

Panel F: Percent of Flows to “Innovative” Funds by Source Country (average of all years)

<i>Country</i>	<i>Innovative Flows</i>	<i>Country</i>	<i>Innovative Flows</i>	<i>Country</i>	<i>Innovative Flows</i>
Argentina	0%	India	67%	Peru	0%
Australia	15%	Ireland	100%	Portugal	67%
Austria	47%	Israel	66%	Qatar	0%
Bahrain	87%	Italy	0%	Russia	65%
Barbados	0%	Ivory Coast	100%	Saudi Arabia	0%
Belgium	67%	Jamaica	0%	Singapore	33%
Brazil	39%	Japan	100%	South Africa	8%
Canada	19%	Kazakhstan	0%	Spain	48%
Chile	23%	Kenya	50%	Sweden	6%
China	29%	Kuwait	0%	Switzerland	15%
Colombia	40%	Luxembourg	10%	Tanzania	0%
Czech Republic	100%	Mauritius	50%	Tunisia	57%
Denmark	19%	Mexico	54%	Turkey	33%
Finland	42%	Netherlands	15%	United Arab Emirates	22%
France	39%	New Zealand	33%	United Kingdom	15%
Germany	20%	Nicaragua	100%	United States	11%
Ghana	100%	Nigeria	44%	Uruguay	100%
Greece	0%	Norway	60%		

Example: Each closed fund in the dataset is assigned a value of innovative (VC per Panel C) or non-innovative (PE per Panel C). Then, the portion of the total closing amounts devoted to VC funds relative to total funds (VC + PE) is expressed in this table, averaged over all years for that country. An unbalanced panel of firm-year observations are used in Table 5.

Panel G: Statistics

Table(s)	Variable	Obs.	Mean	StDev	Min	Max
2-5	Per Capita GDP (in Thousands)	580	26.66	24.047	0.21	119.23
2-5	Exports	580	50.307	36.769	9.05	231.19
2-5	Start	580	80.63	14.26	16.61	99.96
2-5	Contracts	580	64.44	12.27	27.31	93.36
2	LP→GP (Number of Deals)	67	72.47	228.52	1	1,552
3	Number of GP→Portfolio flows	580	20.212	48.344	1	595
4	Cross-regional flows (portion of amounts raised in all funds, average annual per year for 63 countries)	63	0.379	0.397	0	1
5	Percent of investment to “innovative” funds (country-year value of VC commitments divided by VC+PE commitments)	338	0.335	0.418	0	1

TABLE 2
REGRESSION RESULTS FOR CROSS BORDER LP→GP

Independent Variable:	(1)	(2)	(3)	(4)	(5)
Per Capita GDP (avg annual)	0.003** (2.29)	--	--	--	0.004** (2.11)
Exports (avg annual)	--	-1.083 (-1.25)	--	--	-2.098** (-2.20)
Start (avg annual)	--	--	4.772* (1.90)	--	1.859 (0.58)
Contracts (avg annual)	--	--	--	1.959 (0.96)	0.579 (0.22)
Intercept	7.982 (0.20)	123.186** (2.49)	-314.06 [†] (-1.53)	-49.20 (-0.38)	-89.55 (-0.40)
Adjusted R ²	7.59%	0.85%	3.86%	1.43%	10.31%
F-statistic	5.26**	1.56	3.61*	0.93	2.87**
Observations	66	66	66	66	66

This table contains regression results for OLS estimation of number of cross-border limited partner flows to general partnerships. Variables are explained in Appendix. Flows refers to the number of cross-border flows (see Table 1, Panel D). Per Capita GDP is amount of real GDP per capita. Exports is the quantity of exports as a portion of GDP. Start is an index with higher numbers reflecting easier regulations to start a business. Contracts is a variable taking higher values for countries with judicial systems that are more likely to enforce contracts. T-statistics in parentheses.

TABLE 3
REGRESSION RESULTS FOR CROSS BORDER GP→PORTFOLIO FIRMS

Panel A: OLS

Independent Variable:	(1)	(2)	(3)	(4)	(5)
Per Capita GDP	0.456*** (5.60)	--	--	--	0.580*** (5.91)
Exports	--	-0.178*** (-3.20)	--	--	-0.147*** (-5.65)
Start	--	--	0.538** (3.86)	--	0.239 [†] (1.46)
Contracts	--	--	--	0.264 [†] (1.62)	0.012 (0.06)
Intercept	8.042*** (2.75)	29.195*** (8.49)	-23.143** (-2.03)	3.190 (0.30)	2.139 (0.16)
Adjusted R ²	4.99%	1.58%	2.52%	0.28%	10.47%
F-statistic	31.4***	10.27**	14.92***	10.68**	17.92***
Observations	580	580	580	580	580

Panel B: GLS clustered by countries

Independent Variable:	(1)	(2)	(3)	(4)	(5)
Per Capita GDP	0.491*** (2.76)	--	--	--	0.485*** (2.71)
Exports	--	-0.071 (-0.56)	--	--	-0.102 (-1.02)
Start	--	--	0.166*** (2.68)	--	0.116* (1.71)
Contracts	--	--	--	-0.325 (-1.29)	-0.452* (-1.77)
Intercept	12.028** (2.01)	23.614** (2.44)	7.927 (1.19)	39.874** (2.42)	34.845** (2.12)
R ² (Between)	5.42%	2.44%	1.53%	0.37%	9.61%
Wald Chi ²	7.61***	0.32	7.20***	1.66	13.26
Observations	580	580	580	580	580

Note: ***, **, *, and † indicate significance at the 1%, 5%, 10%, and 15% levels, respectively.

This table contains regression results for OLS estimation of number of cross-border general partner flows to portfolio companies. Variables are explained in Appendix. Flows refers to the number of cross-border flows. Per Capita GDP is amount of real GDP per capita. Exports is the quantity of exports as a portion of GDP. Start is an index with higher numbers reflecting easier regulations to start a business. Contracts is a variable taking higher values for countries with judicial systems that are more likely to enforce contracts. T-statistics (Z-statistics for Panel B) in parentheses.

**TABLE 4
REGRESSION RESULTS FOR CROSS REGIONAL FLOWS (PORTION)**

Independent Variable:	(1)	(2)	(3)	(4)	(5)
Per Capita GDP	-0.001 (-0.61)	--	--	--	0.001 (0.26)
Exports	--	-0.003** (-2.29)	--	--	-0.003* (-1.89)
Start	--	--	-0.002 (-0.38)	--	0.000 (0.02)
Contracts	--	--	--	-0.004 (-1.16)	-0.001 (-0.27)
Intercept	0.411*** (5.64)	0.539*** (6.34)	0.535 (1.30)	0.643*** (2.76)	0.595 (1.31)
Adjusted R ²	-1.02%	6.42%	-1.04%	2.16%	1.79%
F-statistic	0.37	5.25**	0.15	1.35	1.28
Observations	63	63	63	63	63

Note: ***, **, *, and † indicate significance at the 1%, 5%, 10%, and 15% levels, respectively.

This table contains regression results for OLS and GLS estimation of the average portion of flows outside of the county's region (by dollar amount per year). Variables are explained in Appendix. Per Capita GDP is amount of real GDP per capita. Exports is the quantity of exports as a portion of GDP. Start is an index with higher numbers reflecting easier regulations to start a business. Contracts is a variable taking higher values for countries with judicial systems that are more likely to enforce contracts. Parentheses contain T-statistics.

TABLE 5
REGRESSION RESULTS FOR PORTION OF “INNOVATIVE” CROSS-REGION FLOWS

Panel A: OLS

Independent Variable:	(1)	(2)	(3)	(4)	(5)
Per Capita GDP	-0.003*** (-3.81)	--	--	--	-0.004*** (-3.11)
Exports	--	-0.000 (-1.09)	--	--	0.002** (2.13)
Start	--	--	0.000 (0.16)	--	0.007** (2.05)
Contracts	--	--	--	-0.002 (-1.18)	-0.002 (-0.72)
Intercept	0.454*** (11.90)	0.366*** (10.26)	0.235 (0.92)	0.461*** (2.90)	-0.101 (-0.35)
Adjusted R ²	4.19%	0.05%	-0.41%	0.16%	3.75%
F-statistic	14.52***	1.18	0.03	1.38	3.26**
Observations	334	334	237	237	233

Panel B: GLS clustered by countries

Independent Variable:	(1)	(2)	(3)	(4)	(5)
Per Capita GDP	-0.003*** (-3.07)	--	--	--	-0.004** (-1.96)
Exports	--	0.000 (0.54)	--	--	0.002* (1.91)
Start	--	--	0.009** (2.44)	--	0.012*** (3.33)
Contracts	--	--	--	0.002 (0.86)	-0.001 (-0.41)
Intercept	0.473*** (9.22)	0.349*** (6.14)	-0.408 (-1.35)	0.163 (0.84)	-0.518* (-1.69)
R ² (Between)	4.65%	0.11%	1.73%	2.13%	19.46%
Wald Chi ²	9.41***	0.29	5.96**	0.74	16.54***
Observations	334	334	237	237	233

Note: ***, **, *, and † indicate significance at the 1%, 5%, 10%, and 15% levels, respectively.

This table contains regression results for OLS estimation of portion of “entrepreneurial” cross-border funds (those characterized as VC per Table 1, Panel C) by country-year. Variables are explained in Appendix. Per capita GDP is amount of real GDP per capita. Exports is the quantity of exports as a portion of GDP. Start is an index with higher numbers reflecting easier regulations to start a business. Contracts is a variable taking higher values for countries with judicial systems that are more likely to enforce contracts. Parentheses contain T-statistics (Panel A) or Z-statistics (Panel B).

TABLE 6
REGRESSION RESULTS FOR LEGAL ORIGIN AND PORTION OF “INNOVATIVE” CROSS-REGION FLOWS

Panel A: OLS

Independent Variable:	(1)	(2)	(3)	(4)	(5)
Legal origin subsample:	Common Law	French	German	Scandinavian	All
Per Capita GDP	-0.000 (-0.72)	-0.000 (-0.69)	0.002* (1.97)	-0.000 (1.45)	-0.000 (-1.14)
Exports	0.472*** (3.63)	-0.218 (-0.54)	-2.443*** (-3.02)	0.715 (0.39)	0.130 (0.99)
Start	1.607** (1.90)	1.573* (1.73)	5.749** (2.69)	1.712 (0.19)	0.776 [†] (1.60)
Contracts	-1.472*** (-3.08)	0.062 (0.08)	6.132*** (3.23)	3.262 [†] (1.58)	-0.391 (-1.09)
Common Law	--	--	--	--	-14.740** (-1.99)
Intercept	-34.58 (-0.57)	-73.396 (-1.21)	-869.53*** (-3.12)	-436.52 (-0.49)	-5.717 (-0.16)
Adjusted R ²	16.43%	0.31%	40.93%	11.06%	0.03%
F-statistic	4.39***	1.03	6.02***	1.84	1.09
Observations	70	42	30	28	172

Panel B: GLS with Fixed Effects

Independent Variable:	(1)	(2)	(3)	(4)	(5)
Legal origin subsample:	Common Law	French	German	Scandinavian	All
Per Capita GDP	-0.001 (-1.40)	-0.001 (-0.88)	0.003** (2.31)	0.001 (1.34)	-0.000 [†] (1.53)
Exports	0.463*** (3.39)	-0.035 (-0.08)	-3.263*** (-2.99)	5.580 [†] (1.76)	0.148 (1.14)
Start	2.148** (2.37)	1.433 (1.41)	6.061** (2.35)	26.054 (1.35)	0.724 [†] (1.51)
Contracts	-1.455*** (-2.97)	0.302 (0.34)	8.431** (2.85)	4.926* (1.92)	-0.292 (-0.81)
Common Law	--	--	--	--	-15.835** (-2.15)
Intercept	-74.516 (-1.14)	-69.43 (-1.04)	-1.082.18** (-2;.66)	-3014.39 [†] (-1.59)	-4.807 (-0.14)

R ² (Between)	3.42%	2.28%	36.78%	9.48%	11.37%
F-Stat	4.37***	0.71	4.81**	1.92	1.27
Observations	70	42	30	28	172

Note: ***, **, *, and † indicate significance at the 1%, 5%, 10%, and 15% levels, respectively.

This table contains regression results for OLS estimation of portion of “entrepreneurial” cross-border funds (those characterized as VC per Table 1, Panel C) by country-year. Variables are explained in Appendix. Per capita GDP is amount of real GDP per capita. Exports is the quantity of exports as a portion of GDP. Start is an index with higher numbers reflecting easier regulations to start a business. Contracts is a variable taking higher values for countries with judicial systems that are more likely to enforce contracts. Legal origin variables from Cumming, et al (2010). Parentheses contain T-statistics (Panel A) or Z-statistics (Panel B). Observations restricted to countries covered in Cumming, et al (2010).

NOTES

1. This variable measures the ease with which an entrepreneur would be able to start a business, with higher scores indicating less burdensome regulations. The World Bank summarizes the analysis behind this variable as follows: “Doing Business records all procedures officially required, or commonly done in practice, for an entrepreneur to start up and formally operate an industrial or commercial business, as well as the time and cost to complete these procedures and the paid-in minimum capital requirement (figure 1). These procedures include the processes entrepreneurs undergo when obtaining all necessary approvals, licenses, permits and completing any required notifications, verifications or inscriptions for the company and employees with relevant authorities. The ranking of economies on the ease of starting a business is determined by sorting their scores for starting a business. These scores are the simple average of the scores for each of the component indicators.”<https://www.doingbusiness.org/en/methodology/starting-a-business>
2. This variable measures the likelihood that contracts will be enforced in a commercial dispute. The World Bank summarizes the analysis behind this variable as follows: “Doing Business measures the time and cost for resolving a commercial dispute through a local first-instance court and the quality of judicial processes index, evaluating whether each economy has adopted a series of good practices that promote quality and efficiency in the court system. The data are collected through study of the codes of civil procedure and other court regulations as well as questionnaires completed by local litigation lawyers and judges. The ranking of economies on the ease of enforcing contracts is determined by sorting their scores for enforcing contracts. These scores are the simple average of the scores for each of the component indicators.”<https://www.doingbusiness.org/en/methodology/enforcing-contracts>