What Makes the Divergence between Cross-border VCs and Domestic VCs Persist?: in the Context of the Chinese VC industry*

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ABSTRACT

This project introduces the recent development of the Chinese VC industry. One characteristic of the Chinese VC market is that both cross-border VCs and local VCs play significant roles. The two types of VCs show clear differences in terms of invested sectors and geographic regions. This paper provides a literature review to address some mechanisms leading to the divergence. It also documents two mechanisms not addressed in the extant literature through interviews with local investors and startups: the rigidity of a typical startup's fund structure and the types of limited partners of VCs explain why the divergence takes place in the first place and why the dissimilarity is likely to persist. The simple empirical analysis shows that cross-border VCs are more likely to invest in market-oriented high-tech sectors and regions with relatively well-established market institutions, while local VCs tend to invest in fields and regions of the nation’s strategic focus.

Keywords: Cross-border venture capitals (VCs), international VCs, VCs in developing economies, VCs in China, determinants of VC investments

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“The world is much flatter. If you raise a billion dollar fund, you have to leave your backyard. You can’t invest it all in Silicon Valley. You have to take a broader view to generate positive returns.” – Jeff Grabow, US Venture Capital Leader, EY

INTRODUCTION

The internationalization of venture capitals (VCs) has been a global phenomenon since 1990s (Baygan and Freudenberg 2000; Bottazzi, Da Rin and Hellmann 2004; Gompers and Lerner 2003, Wright, Pruthi and Lockett 2005; Schertler and Tykvová 2012). In 2014, for example, investors from the United States (US) accounted for more than a half of all the money raised by London startups. This pattern is continuing with the remarkable outflows of VCs from the US toward rapidly developing economies such as China and India (Wright, Lockett and Pruthi 2002; Wang and Wang 2010; Deloitte 2015; EY 2015). The entry of foreign VCs contributes to establish an entrepreneurial financing market in the growing economies (Ahlstrom and Bruton 2006; Dossani and Kenney 2002; Wright 2007). As shown in Figure 1, the recent development of the Chinese VC industry shows remarkable growth specifically since 2015, making the actual investments worth $38 billion US dollars, approximately the half of the investments made in the US in 2017. Figure 2 exhibits that cross-border VCs account for a significant share of the VC investments made in China.

The growing literature on the determinants of cross-border investments by VCs documents several competitive advantages of foreign VCs entering to a region with a relatively underdeveloped VC market, such as more experience and greater investment scale compared to local VCs (Mäkelä and Maula 2005; Bottazzi, Da Rin and Hellmann 2004; Bruton, Ahlstrom and Obloj 2008). The investment at distance requires costs though, mainly because of the lack of understanding of the local market and the difficulty of monitoring (Mäkelä and Maula 2008; Dai, Jo and Kassicieh 2012). As such, cross-border VCs have exploited a variety of strategies to cope with the challenges, by investing in startups at a close range (Mäkelä and Maula 2006, 2008), by acquiring credible sources of information such as publicly disclosed information or valuable networks (Pruthi, Wright and Lockett 2003; Zeng 2004; Wright
What Makes the Divergence between Cross-border VCs and Domestic VCs Persist?

2007), or by partnering with local investors that know domestic market and business culture well (Tan, Zhang and Xia 2008; Tarrade 2012).

Source: Wall Street Journal VentureSource, 2018/04/18

**Figure 1. VC investments by place of origin, in billions (USD)**

Source: ITjuzi (www.itjuzi.com), 2018/01/31

**Figure 2. Chinese VC investment by denominated currencies of funds**
Nevertheless, our understanding of specialized investment styles of cross-border VCs and their roles in growing economies is still limited. Cross-border VCs might enjoy competitive advantages over local VCs two decades ago, in terms of investment know-how and size, but over twenty years of observations might give local VCs enough time to absorb superior capabilities of the foreign investors. Moreover, the increase use of partnership with local VCs (Ahlstrom and Bruton 2006; Mäkelä and Maula, 2008) also implies that investment decisions of the two types of VCs may overlap over time.

However, the divergence between domestic VCs and cross-border VCs still appears to persist. In fact, the institutional and cultural barriers make it difficult for a foreign VC to jointly invest with local investors (Dai, Jo and Kassicieh 2012). Most importantly, we lack evidence regarding how the different investment styles of cross-border VCs contribute to the development of a local VC market and how they evolve to adapt to the starkly explosive economic growth recently achieved by some developing economies.

To fill the literature gap, this paper aims to investigate some mechanisms that make the difference between cross-border VCs and local VCs sustain. China is an ideal setting for this study, mainly because it is the biggest net importer of cross-border VC investment (Wang and Wang 2010). Also, the country’s domestic entrepreneurship has achieved a remarkable growth for the last few years. As one of the most successful example of organized economy, Chinese government is nurturing the domestic VC market in unique ways, where domestic VCs and cross-border VCs are specialized to play different roles.

One goal of this paper is to provide a precise picture on the recent development of the Chinese VC industry. This study carefully reviews literature related to the determinants of cross-border investments by VCs and complements the extant research with interviews with local investors and startups. The qualitative studies shed a light on two novel mechanisms that lead to the persistent divergence between cross-border VCs and domestic VCs, contributing to the growing literature on the internationalization of VC investments. According to the interviews, the different types of dominant fund providers to a VC (Lerner, Schoar and Wongsunwai 2007; Hochberg and Rauh 2012) cause the dissimilarity of cross-border VCs and local counterparts. Moreover, once a startup chooses to receive funding from one type of VC, the startup is likely
What Makes the Divergence between Cross-border VCs and Domestic VCs Persist?

19

to be “locked-in” to the similar type of VCs because of a typical investment structure of a startup. With a novel dataset on the VC investments in China, the empirical study shows that cross-border VCs are likely to invest in market-oriented, high-tech industry sectors as well as regions with relatively well-established market institutions, while domestic VCs primarily tend to fund startups from the sectors and regions of the government’s strategic focus.

This paper provides a few implications to practitioners. Understanding the non-converging investment pattern of cross-border VCs, compared to local VCs, is important for a startup to decide which type of investors to reach out at the first place as well as how to construct its funding structure. Also, the documented factors for the divergence of investment styles may give an insight to cross-border VCs and local VCs seeking for collaboration, regarding how to cope with challenges in making a partnership.

Lastly, this project makes policy implications. Where an entrepreneurial financing system is not yet matured enough, a government usually takes a hands-on approach to endow public resources in the pursuit of building an ecosystem similar to the “Silicon Valley” in the US. While a thoroughly designed governmental plan may moderate the market failure that could appear in the nascent stage of development (Kim, Chatterjee and Higgins 2018), it also has caveats of steering VCs towards unexpected ways (Bruton and Ahlstrom 2003; Lerner 2009; Hochberg and Rauh 2012). This paper documents a large-scale experiment by the government of a developing country and its impact on the investment decisions by local VCs and cross-border VCs, helping policy makers understand the potential impact of government actions in transforming to entrepreneurial economy.

DEVELOPMENT OF CHINESE VC INDUSTRY

The VC market in China has explosively grown for the last 10 years. A decade ago, the VC commitment in China was under $5 billion, which was approximately one ninth the size of the U.S. In 2016, the commitments in China exceeded $50 billion, nearly matching the size of the US for the first time. At the same time, the domestic sources of VC funds have vastly increased. While foreign funds, mostly USD funds, accounted for 75% of the investments
made in China in 2007, more than 75% of VC investments come from Chinese funds in 2017 (Deloitte 2015).

Still, foreign funds are one of the significant sources of venture capital in the country. In fact, China is the largest net importer of cross-border investment across the globe (Wang and Wang 2012). In addition, given the unique characteristics of China as an organized economy, the different level of influence of the Chinese government on domestic funds and foreign funds can generate somewhat distinguishable difference in their investment patterns, providing an ideal environment for this research (Zeng 2004).

As one of the most well-known examples of organized economies, China has changed the approach toward the growth of entrepreneurship and the corresponding financing market (White, Gao and Zhang 2005; Wright 2007). Over 1980s, the government did not recognize venture capital firms as a legitimate organizational type. Since Chinese policymakers saw the VC investment as an important success factor of the innovation in Silicon Valley, the government attempted to replicate the similar system in China with a few government-led initiatives and policies. The Ministry of Science and Technology, formally the State Science and Technology Commissions, played central roles in forming the China New Technology Venture Investment Corporation, the first kind of the investment organization founded in China (Zeng 2004; White, Gao and Zhang 2005).

Meanwhile, the central government used economic zones to support for new ventures (Huang 2003). First experimented in Shenzhen and Wuhan in the mid-1980s, the government officially sanctioned the Beijing Experimental Zone as the first national-level new industry development zone. At the same time, local government-backed VC firms were established in Guangdong, Shanghai and nearby areas between 1991 and 1993 and later expanded to other provinces. Naturally, the development of the VC industry was closely related to the State Planning Commission’s national plan agenda.

In 1990s, however, the central government began to recognize limitations of the government-led approach. The government-backed VCs were susceptible to local government’s pressure to finance firms of which risk and return prospects were not attractive. Second, there was not enough supply of seed capital to pool funds. The initial stage funding was mostly dependent on government budget allocations. While banks were supposed to provide financial
support to entrepreneurial projects, the organizations, mostly state-owned enterprises (SOEs), found increasing loans to fund high-risk ventures politically unacceptable. Third, the country lacked institutional support (White, Gao and Zhang 2005). The shortage of seed capital was partly attributed to the paucity of laws and the lack of legal enforcement necessary to protect private investors from fraud (Bruton and Ahlstrom 2003; Wang and Wang 2012).

Throughout the late 1990s and 2000s, the state council gradually turned toward a relatively hands-off approach. While local governments still played primary roles in pooling funds and identifying investments, the central government took more indirect actions to nurture the environment. The government legitimized venture capital as well as private entrepreneurship, through the opening of the Communist Party membership to entrepreneurs and the change in regulations that allowed new organizational forms to be established as legal entities. Also, the government aimed to strengthen the legal and financial systems closer to the standard of an established market-oriented economy (Bruton, Ahlstrom and Yeh 2004; Ahlstrom and Bruton 2006). Finally, the development of stock markets in Shanghai and Shenzhen both directly and indirectly supported the establishment of entrepreneurship, by providing funds to growing firms and increasing the financial resources of major limited partners including SOEs and large private firms. The formal or informal institutional safeguards, combined with more exit opportunities, attracted private investors as well as foreign VCs since 2000 (Jingu and Kamiyama 2008). It is this phrase of time that foreign VCs, mostly from the US, responded to the change in investment environment in China to initiate cross-border VC investments.

2015 marked one of the most important years for the growth of entrepreneurship in China. Li Keqiang, the current Premier of the State Council, announced the “mass entrepreneurship and innovation (大众创业 万众创新)” as the main agenda for the growth of national economy. A series of initiatives followed to insert huge public funding for startups: 297 funds were newly established by the government to manage $231 billion in 2015. It was a starkly huge jump from the $44.3 billion investment committed to 83 funds in 2014.

It is worth noting that the central government still has influence on the direction of local VC’s investment in several channels.
First, once in every five years, the country sets the national five year economy and society development plan (中华人民共和国国民经济和社会发展五年规划纲要) including a list of industries/sectors to be strategically developed. In October 18th 2017, the 19th National Congress of the Communist Party of China (中国共产党第十九次全国代表大会) was held in which Xi Jinping and Li Keqiang publicly announced the country’s strategic focus in a general manner. Second, two national level meetings (两会) are held by the Communist Party of China every year to evaluate the progress of the development plan where a general and abstract guidance from government is disclosed to public. Lastly, since many local VCs largely depend on the funding from local city councils, the willingness and the preference of a local city council both directly and indirectly impact the investment decisions by invested VCs.

Upsides of the central planning include the prompt action of making progress and easier coordination of interests among different players. For example, according to ITjuzi (www.itjuzi.com), the database to be explained later, the total number of annual VC investments made in China between 2015 and 2017 skyrocketed up by three times compared to the previous three years, backed by the enormous governmental support. Beside the public efforts, one interesting aspect of the Chinese entrepreneurship is that large corporations play central roles in attracting startups and private VCs. Specifically, Baidu, Alibaba and Tencent, as known as “B.A.T” in China, actively respond to the national agenda to invest in startups in nascent high-tech sectors such as artificial intelligence (AI) and block chain technology, attracting private VCs and thereby forming a healthy ecosystem around the cutting-edge technologies. Also, the government deliberately has allocated some portion of public funding to early-stage startups. In many market economies, early-stage startups tend to suffer most from the lack of funding led by valuation problem (Kim, Chatterjee and Higgins, 2018).

Yet, the growth of the Chinese VC industry still incorporates a few challenges. The government is still the major source of capital supply to domestic VCs. It implies that the decisions of private VCs are apparently influenced by the strategic intention of the public sector, possibly with compromised economic returns. The distinctive influence of government is due to the major role that the central government and the Communist Party have in upper-level personnel appointment, both in local governments and large enterprises (White,
What Makes the Divergence between Cross-border VCs and Domestic VCs Persist?  

Gao and Zhang 2005).

**LITERATURE REVIEW AND HYPOTHESES**

**The emergence of cross-border VCs**

Prior to 1990s, VCs were solely the US-based phenomenon. Cross-border VCs have grown initially through the internationalization of the US VC firms, first to Europe and later to Asia (Baygan and Freudenberg 2000; Bruton, Ahlstrom and Yeh 2004). The integration of global economy and the rapid growth of emerging economies such as India and China facilitated the cross-border investments by VCs ((Bottazzi, Da Rin and Hellmann 2004; Wright, Lockett and Pruthi 2002).

In entering to newly developing regions previously underserved by VCs, cross-border VCs take advantage of the low cost structure and novel investment opportunities in the fast growing economies that are perceived to yield greater investment returns (Guler and Guillen 2004; Aizenman and Kendall 2008; Bruton and Ahlstrom 2008). In general, most cross-border VCs are experienced ones that have competitive advantages in terms of investment insights and reputation as opposed to relatively young and inexperienced local investors. The foreign VCs finance local ventures in larger scales with longer investment periods, compared to local VCs (Dai, Jo and Kassicieh 2012). Moreover, cross-border VCs could provide useful guidance and networks to startups that intend to expand business to international markets (Aizenman and Kendall 2008; Baygan and Freudenberg 2000).

That said, VCs investing at distance face a series of non-negligible caveats, mainly due to the lack of understanding of a local market and the monitoring problem caused by geographical distance (Mäkelä and Maula 2006; Zhang 2002; Siqueira and Bruton 2010). The difficulty of monitoring and opportunity identification can be exacerbated by the lack of necessary institutions in developing economies (Bruton and Ahlstrom 2003, White, Gao and Zhang 2005; Wang and Wang 2012).

In addition, cultural difference also causes challenges. Foreign VCs recognize that the unique business environment and culture of a local market makes it difficult for them to replicate business
models used in their own countries (Meyer and Shao 1995; Wright, Pruthi and Lockett 2005). For example, while VCs in the US often provide a variety of value-added services, sometimes through direct advices and intervention via the board membership, such a direct intervention can be viewed as a significant threat to a founder in the East Asia (Fried and Hisrich 1995; Tan Zhang and Xia 2008).

Hence, attentions have been paid to the strategies that cross-border VCs implement to overcome the challenges (Wright, Lockett and Pruthi 2002; Pruthi, Wright and Lockett 2003; Wright 2007). To minimize the issues associated with identifying and monitoring foreign startups, cross-border VCs tend to invest in startups nearby or make greater commitments to startups within close distances, as if they do in their own countries (Mäkelä and Maula 2006). When entering to foreign markets, cross-border VCs often choose regions relatively well-protected by a stable stock market, supportive regulations and the availability of legal protection and other institutional support (Lockett, Wright, Sapienza and Pruthi 2002; Dai, Jo and Kassicieh 2012).

Also, cross-border VCs employ a variety of protective instruments when investing in a foreign market. For example, Cumming and MacIntosh (2001) reports that, while American VC firms primarily use the form of convertible preferred equity, the investing firms likely to use additional financial means to fund Canadian-based startups. Similarly, the US-based investors in India are less likely to depend on due diligence and information provided by entrepreneurs and rather focus on public information such as publications and accountants’ reports, compared to the American VCs investing in their own domestic market (Wright, Lockett and Pruthi 2002).

Alternatively, partnership with local investors helps foreign VCs reduce the concerns about information asymmetry and monitoring problem. Local VCs can play important roles in attracting cross-border investments. The formation of partnership is further increasing with the social capital of the local investors (Hochberg, Ljungqvist and Lu 2007; Mäkelä and Maula 2008). One issue is that it is not easy for a foreign VC to form a cross-border partnership with local partners due to a few practical barriers. In fact, a majority of cross-border VCs rather act alone (Dai, Jo and Kassicieh 2012).

Despite the previous research, yet researchers don’t seem to reach an unified conclusion as to whether and how cross-border VCs are differentiated from local counterparts. For example, there is a
controversy regarding whether foreign VCs tend to invest in less tech-oriented sectors (Fuller 2010; Dai, Jo and Kassicieh 2010) or invest in relatively growth-oriented, highly risky sectors, compared to local investors (Wang and Wang 2010, Dossani and Kenney 2002). The discrepancy in studies implies that we still need more empirical evidence on the cross-border investment by VCs.

Mechanisms behind the persistent divergence of cross-border VCs and local VCs

The extant literature reveals that cross-border VCs fund startups in a local market in larger scale and for a longer period of time, taking advantage of accumulated knowledge and abundant resources, compared to relatively young and immature VCs in the local market (Guler and Guillen 2004; Aizenman and Kendall 2008; Bruton and Ahlstrom 2008; Dai, Jo and Kassicieh 2012). Also, a series of studies document the challenges faced by the foreign VCs entering to a new market, to examine a list of strategic options cross-border VCs use to cope with the caveats, including partnership with local VCs (Wright, Lockett and Pruthi 2002; Pruthi, Wright and Lockett 2003; Hochberg, Ljungqvist and Lu 2007; Wright 2007; Mäkelä and Maula 2008, Wang and Wang 2012).

Both the competitive advantage and the partnership with local investors make one prediction possible: as local VCs catch up with cross-border VCs’ superior capabilities through learning via observation and partnership, the dissimilarity between the two types of VCs may disappear over time. As will be discussed later, however, the empirical analysis based the most recent data shows that the diverging pattern still clearly exists. What makes the difference persistent?

I conduct interviews with a group of investors and startups headquartered in Beijing and Shanghai in China as well as Seoul in Korea, to find two mechanisms that are, to the best of my knowledge, understudied by the extant literature on cross-border VCs. One is the underlying difference in the composition of limited partners that provide funds to VCs and the other is the practical difficulty for a startup to switch between different fund structures based on distinct currencies.

First, to explain the former, I briefly describe the typical organizational structure of a VC. In general, a VC consists of one
or more funds, each of which is dedicated to fund startups that fit in pre-determined criteria such as growth stage, industry sector, and investment period. The VC raises the amount necessary to construct a fund from one or a few capital providers, which are as known as “limited partners (LPs).” The LPs include, but not limited to, pension funds, large corporations, institutional investors, and wealthy individuals. A VC manages a fund for the pre-determined investment period, usually 6 to 8 years, and returns the original amount and investment returns to LPs at the maturity of the fund. The fundraising structure makes a typical VC distinguished from other forms of investment resources such as angel investors and crowdfunding (Cremades 2016). While there exists variation over different LPs, a group of top tier venture LPs expect an invested VC to earn net return more than three times greater than invested capital (Hochberg and Rauh 2012; Deloitte 2015; Cremades 2016).

LPs can affect investment decisions of investee VCs, mainly through reputation (Lerner, Schoar, and Wongsunwai 2007). The return a VC earns at T-1 significantly affects how much the VC can raise at time T (Shu, Yeh, Chiu and Ho 2011). It is because a VC’s business is not an one-shot game, but rather repeatedly occurs across multiple periods, in many cases with a repeated partnership with the same LPs. Also, different LPs have different purposes for endowing the investment amount. For example, in the US, VC funds backed by public pension funds disproportionately outweigh in-state investments over out-of-state deals at the cost of moderated investment returns (Hochberg and Rauh 2012). The local overweighting makes sense, since keeping the stability and the safety of local economy through supporting local startups is often among the top priorities of a pension fund LP or a local government. Similarly, in some industry sectors such as the bio-pharmaceutical sector, it takes much longer time for a startup to earn profits and has higher attrition rates than other industries. VCs would not be able to make effective deals in the risky sectors unless a majority of LPs are patient enough to provide capitals for longer investment period, enduring the higher risk for potentially superior returns (Budish, Roin and Williams 2015; Kim, 2018).

Similarly, the investment decisions of cross-border VCs and local VCs may be influenced by the types of LPs behind the funds managed by the VCs. In a growing market where the VC financing market is at a nascent stage, few private funding is available for
VCs. In this case, the government often runs a public “funds of funds (FoF)” to jumpstart VC investments by providing a sheer volume of funds to VCs. In many countries that range from those with well-established VC markets such as the US and Israel to the growing regions such as China, Korea, India and Singapore, governments are indeed one of the most crucial sources of capital available to domestic VCs (Lockett, Wright, Sapienza and Pruthi 2002; White, Gao and Zhang 2005; Lerner 2009; Hochberg and Rauh 2012; Cremades 2016). Since the preferences of the public LPs are closely co-aligned with the national agenda for economic growth, government-backed domestic VCs are likely to fund startups within the sectors that lie in the strategic focus of the public sector such as transportation, metal mining, hardware infrastructure and so on (Lerner 2009; Schertler and Tyková 2012). An anonymous investor in one of the largest institutional investors in China said:

“...since we’ve observed the trouble recently faced by Wanda, we internally reached the conclusion that we’d better to invest in more serious industries favored by the government or those relevant to national projects like the “one-belt-one-road (一带一路)” project...... no game, no amusement park, no dramas/movies...... while the government doesn’t give us a direct guidance to follow, it has indirect channels to influence big, private investors to invest in the fields of the government’s strategic attention...”

Also, it is worth noting that, in the government-focusing sectors, local VCs have competitive advantages over cross-border VCs as well, since the local investors can better access the hidden information through local networks, for example, those with top government officials.

By contrast, as addressed in the previous literature, VC investment across borders inherently incorporates a high level of uncertainty. Thus, LPs that allow a VC to invest across borders are likely to reward risk-taking behaviors in an adequate manner as well as to better understand the nature of VC investment. Those LPs include large private corporations, professional investors or wealthy individuals who have exposed themselves to entrepreneurial business for a long time. Naturally, cross-border VCs backed by those type of LPs seek for startups in fields that combines cutting-edge technologies and demands of market in innovative ways.

Also, these areas are where the insights of cross-border VCs,
mostly from the US, can shine, given that most innovative business models such as Uber and Facebook are experimented in the Silicon Valley earlier than any other regions in the globe (Huang 2003; Fuller 2010). Business models in tech-related, market-oriented sectors such as digital marketing, hardware, or biotechnology relatively show similarity over different regions, making it easier for cross-border VCs to leverage insights learned from their home market to preempt promising deals in relatively undeveloped market. A head director of one of the biggest accelerators in China put it in this way.

“...basically the business model of American VCs in China is to invest in promising local startups that adopt the ideas proven to be successful in the US and scale-up faster than anybody else.....”

Indeed, Didi Chuxing, a Chinese version of Uber, or Xiaomi Technology, one of the most well-known manufacturers of mobile and home appliances in China, are attracting investments from cross-border VCs.

In the meantime, there exist some industries that are neither of the strategic focus of a government nor high-tech based, market-oriented sectors. Those sectors include entertainment, sports, lifestyle and so forth. Since the fields require a fine-tuned focus on the tastes of local consumers, local VCs may have competitive advantages over foreign investors.

Second, interviews with local investors inform that there exist some barriers that make it hard for a startup to switch between foreign investors – i.e. cross-border VCs – and local investors throughout growth stages, mainly due to the typical VC investment structure. The most practical challenge is the discrepancy in the denominated currency of a fund. Because a VC is likely to raise funds from limited partners in similar geographic regions, in general most funds managed by local VCs are formed in local currency, i.e. Chinese Yuan (CNY), while cross-border VCs, those from the US in most cases, construct funds in the form of the US dollars (USD).

One issue is that, once a startup receives its early-stage investment in the form of one currency, it is difficult for the startup to invite later-round investments in other currencies. A former partner in a Shanghai-based cross-border VC said:
“Once a startup receives early-stage investment from a fund in a currency, it cannot easily change the fund structure without going through very meticulous and time-consuming process. For example, consider a startup receives series A investment from an USD fund. In order to raise a lion’s share of funds in CNY in the series B, the startup has to persuade each investor who participated in series A in USD not to participate in series B, at least not as a majority investor. Your nightmare begins when the USD-based investors and the CNY-based investors have different idea about the firm valuation or ownership distribution……the worst scenario happens when one or a few investors in series A refuse to go out or require a crazy amount for compensation. Not to mention the news an investor that entered in series A does not invest in series B is by no means a positive signal to market and potential investors…….”

To summarize his point, once a startup’s early-stage investment structure is set up, the startup might be “locked-in” the fund in the same currency as the initial fund. He also mentioned that this might partly explain why many Chinese unicorns have USD-denominated investment structure even in the advanced growth stages close to IPO.

In addition, when foreign VCs have a lion’s share of ownership of a startup, local government LPs would be reluctant to participate as a secondary investor with limited ownership and vice versa (Huang 2003; White, Gao and Zhang 2005). As a sheer volume of CNY funding flows into the sector recently, some startups strategically wait to receive initial investments in CNY. A quotation from a Chinese startup looking for series A round funding addresses this point.

“A few years ago, Chinese startups have few options but receiving funding from foreign VCs. Now? China doesn’t need money, it just needs ideas. I know some VCs or even wealthy individuals who can raise $1 million USD by simply giving a few calls to friends…… previously most local startups want to go to public in the US or Hong Kong. But I believe that the stock market in Shenzhen should be a decent option for us in the near future. For IPO (上市) in China, I prefer to construct the fund structure in CNY from the very first place.”
One noteworthy point here is that a startup’s decision about from whom to receive investment does not only depend on the availability of later-stage funding but also hinges upon the prospect of exit in a domestic market. The discussion derives the first set of hypotheses on the specialization of cross-border VCs and local VCs in terms of industry types.

**H1a:** Cross-border VCs in an emerging market are likely to invest in market-oriented sectors, whereas domestic VCs are more likely to invest in industry sectors that are of the government’s strategic focus.

**H1b:** Among market-oriented industries, cross-border VCs in an emerging market are more likely to invest in tech-related sectors, compared to non-tech related sectors.

In a similar manner, cross-border VCs and domestic VCs may invest in different regions. As Hochberg and Rauh (2012) reports, US VC funds backed by a state pension fund disproportionately seek in-state startup deals sacrificing additional returns from investing in promising startups outside the state. The Small Business Innovation Research (SBIR) and the Small Business Administration (SBA) in the US deliberately attempt to allocate some budgets to facilitate entrepreneurship by minority and from relatively underdeveloped regions.

In China, the heavy dependence on a local government capital may lead domestic VCs to support startups in underdeveloped area or in areas otherwise important to the nation’s growth. Local governments play direct roles in pooling funds and even identifying investment deals, actively inviting high-potential investors into the region with a series of incentives. For example, Chengdu, Sichuan province has rapidly grown as a hub of entrepreneurship in the western-central region, partly because of the central government’s intention to promote balanced growth over regions. Since the central government decides the promotion of top-rank local government officials depending on the economic growth and the employment of the region, a local government has incentives to nudge domestic VCs to make investments with which to achieve the growth of local economy (Zeng 2004; White, Gao and Zhang 2005; Wright 2007; Wang and Wang 2011). Not to mention, local investors that have
networks with local government officials can have access to the investment opportunities in the growing regions earlier than foreign counterparts do.

On the contrary, foreign VCs in China find it safe and feasible to invest in regions that have relatively similar institutions to their own. Among big cities in China, for example, many cross-border VCs and accelerators are located in Shanghai where the economy was first open to the West and, thus, has a relatively well-established market enforcement system (Bruton and Ahlstrom 2003; Huang 2003; Jingu and Kamiyama 2008). It results in the difference in geographic locations disproportionately invested by cross-border VCs and those by local VCs.

**H2:** Cross-border VCs in an emerging market are likely to invest in regions governed by relatively well-established market institutions, whereas domestic investors seek to invest in regions of the strategic focus of the domestic government.

### RESEARCH DESIGN

**Data**

The primary source of data used in the study is a Chinese database called ITjuzi (IT桔子, www.itjuzi.com). A practical problem of studying Chinese entrepreneurship is the lack of comprehensive dataset. Founded in 2013, IT juzi becomes a relatively novel source of information on the VC investment within the greater China, including the investment of domestic funds and cross-border funds. I choose to use this database primarily because a few local VCs and journalists recommend me to use this database instead of other well-known datasets from outside the China.

There are several benefits of using the ITjuzi database to investigate the present trajectory of VC investment in China. First of all, the database specifies the currency consisting of a fund, unlike other frequently used databases that translate all foreign currencies to USD. The currency denoting a fund forms the essential information for this study. Second, while a majority of studies on entrepreneurship predominantly use the US-based databases such as the VentureXpert database, Crunchbase and
Pitchbook, the databases are often claimed to have limited coverage for the investment made outside the US. Because of somewhat strict online censorship in China, in principle, Chinese entrepreneurs and VC investors have limited access to the foreign sources nor update their information on some well-known databases/platforms including Google. Also, Chinese business people tend to avoid disclosing crucial information to outsiders, specifically to strangers. Since many investment transactions take place under the surface, the domestic database company that has connection with local investors and media can access relatively comprehensive data from the local market. The database company partners with a group of representative practical investors such as Angelcrunch and Chinaacceleratorator as well as media companies specialized in entrepreneurship and innovation including Pingwest, IPO media (IPO传媒), and 活动行 – a Chinese version of Meetup.

As of 2018 January, 34630 investments are made to fund 97781 startups in the greater China including the mainland, Hong Kong and Taiwan. The Chinese VC market is open to foreign funds in various currencies including USD, the Japanese Yen, the British Pound, and the Hong Kong dollars. Figure 2 shows that a good share of investments in China are made by USD-denominated funds. As shown in Figure 3, the database classifies the investments into 18 industry categories: education, finance, transportation, real estate, health care, travel, lifestyle, game, marketing, hardware, entertainment, B2B enterprise support, social media, digital marketing/sales, software, sports, logistics and agriculture. Figure 4 indicates that a majority of investments are concentrated to the startups located in major cities/provinces including Beijing, Shanghai, Guangdong, Zhejiang and Jiangsu.

In this study, I collect the VC investments made in the greater China region from 2013 and 2017. I deliberately choose this time period to examine the impact of the government initiatives followed by the announcement of “mass entrepreneurship and innovation (大众创业 万众创新)” by Premier Li Keqiang in 2015 March by comparing the two pre-2015 years and three post-2015 years. Also, among investments made by foreign currency funds, I restrict the sample to the USD-denominated funds.

Table 1 provides the descriptive statistics. The final dataset used in this study includes 29859 investments, among which 26604 investments are made by local currency funds and 3255 by USD
What Makes the Divergence between Cross-border VCs and Domestic VCs Persist?

Figure 3. Distribution of Chinese VC investment over industries

Source: ITjuzi (www.itjuzi.com)
funds.

Variables and analysis method

The dependent variable of this study is the ratio of the number of investment by cross-border VCs to the total number of VC investments in each category. To test hypothesis 1-1 and 1-2 on the choice of industry sectors, I use the industry classification provided by the IT juzi database to construct the independent variable. The “Gov_focus” dummy assigns 1 to the group of investment taking place in the following industries: transportation, health care, hardware, B2B enterprise support, agriculture, which are among the top priority of the central government, and 0 to market-oriented sectors. The market-oriented sector includes two different types of sectors depending on whether the final products are technology-driven or not. I create the “Market_tech” dummy that assigns 1 to the group of tech-related sectors including finance, digital
marketing, and software and gives 0 to the group of non-tech, consumer-related sectors including education, real estate, travel, lifestyle, game, marketing/advertisement, entertainment and sports sectors.

I classify the industries based on the national five year economy and society development plan (中华人民共和国国民经济社会发展五年规划纲要) including a list of industries/sectors to be strategically developed, the 19th National Congress of the Communist Party of China (中国共产党第十九次全国代表大会) as well as two national

Table 1. Descriptive Statistics

<table>
<thead>
<tr>
<th>Year</th>
<th>Num. of Inv. In CNY</th>
<th>Num. of Inv. In USD</th>
<th>Total Inv.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>1366</td>
<td>396</td>
<td>1869</td>
</tr>
<tr>
<td>2014</td>
<td>3644</td>
<td>894</td>
<td>4752</td>
</tr>
<tr>
<td>2015</td>
<td>8108</td>
<td>939</td>
<td>9070</td>
</tr>
<tr>
<td>2016</td>
<td>7840</td>
<td>590</td>
<td>8449</td>
</tr>
<tr>
<td>2017</td>
<td>5646</td>
<td>436</td>
<td>6100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hypo 1: industry analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>CNY count</td>
</tr>
<tr>
<td>USD ratio (%)</td>
</tr>
<tr>
<td>Gov. supported</td>
</tr>
<tr>
<td>Market-oriented, tech</td>
</tr>
<tr>
<td>Market-oriented, non-tech</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hypo 2: geographic location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market-enforced regions</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>Market-enforced regions</td>
</tr>
<tr>
<td>USD count</td>
</tr>
</tbody>
</table>
level meetings (两会: 全国人民代表大会 and 政治协商会议) annually held by the Communist Party of China. Nevertheless, I admit that the results may be sensitive to the categorization. To minimize the concerns, I do some robustness checks with different classifications. For example, switching health care, B2B support, or marketing from one category to another doesn’t change the general direction of results.

Finally, to test the difference in geographic locations between foreign VCs and local VCs, I create the “Market_enforced” dummy variable. The sample is restricted to the top eleven regions that attract the most VC investments in the greater China: Beijing, Shanghai, Guangdong, Zhejiang, Jiangsu, Sichuan, Fujian, Hubei, Shandong, Hong Kong and Taiwan. The independent dummy variable gives 1 to the investment occurred in Shanghai, Hong Kong, Taiwan and 0 otherwise. The 2015 dummy assigned 1 to all VC investments made in 2015 and thereafter and 0 to those made in 2013 and 2014.

Because the analysis does not require a rigorous examination of causality, I use a simple set of OLS regressions. Of course, the simple analysis may admittedly overlook other important aspects that affect the investment decisions by foreign VCs in the local market. One of the goals for subsequent studies is to studying the other determinants of the activities of foreign VCs in a more rigorous manner.

**RESULTS**

Overall, the analysis results generally support hypotheses 1-1 and hypothesis 1-2. The coefficient of the “Gov_focus” variable is negative and statistically significant. Since the dependent variable is the percentage (%) of the ratio of cross-border investments over all investments, -3.98 indicates that the likelihood that a foreign VC invests in the sectors of the government’s focus decreases by 4% compared to other sectors. Meanwhile, the “Market_tech” dummy is positive and significant, indicating that the likelihood that a foreign VC makes an investment increases by 3.27 percentage point in tech-related, market-oriented sectors.

The coefficient of 2015 dummy shows a sharp drop of the ratio of cross-border VC investments by 14% as appeared in both Table 2.
and Table 3, reflecting the vast increase of VC investments by local VCs since 2015. One interesting finding comes from the coefficient of the interaction term between Gov_focus and 2015 dummy. While a share of cross-border VC investments have decreased since 2015, now the cross-border VCs are investing more in the hardcore, infrastructure sectors that are of the nation’s strategic focus. Possibly this change is related to the recent switch of the government’s approach toward foreign direct investment (FDI). While the country has had quite a few restrictions against FDI, the government attempts to relax the regulations, as addressed in the recent speech of the Chinese president Xi Jinping in the 2018 Boao Forum for Asia (博鳌亚洲论坛). For example, in 2017, Tesla, Inc. is allowed to build an 100%-owned factory in Shanghai, rather than a joint venture with a local automobile company, for the first time ever in China. The country announces that it will relax more regulations

Table 2. Difference between USD funds and CNY funds in industry sectors

<table>
<thead>
<tr>
<th></th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
<th>P-value</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
<th>Lower 95.0%</th>
<th>Upper 95.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>21.73</td>
<td>0.98</td>
<td>22.18</td>
<td>0.00</td>
<td>19.78</td>
<td>23.67</td>
<td>19.78</td>
<td>23.67</td>
</tr>
<tr>
<td>Gov_focus</td>
<td>-3.98</td>
<td>1.84</td>
<td>-2.17</td>
<td>0.03</td>
<td>-7.64</td>
<td>-0.33</td>
<td>-7.64</td>
<td>-0.33</td>
</tr>
<tr>
<td>Market_tech</td>
<td>3.27</td>
<td>1.43</td>
<td>2.28</td>
<td>0.02</td>
<td>0.42</td>
<td>6.12</td>
<td>0.42</td>
<td>6.12</td>
</tr>
<tr>
<td>2015 dummy</td>
<td>-13.95</td>
<td>1.20</td>
<td>-11.61</td>
<td>0.00</td>
<td>-16.33</td>
<td>-11.56</td>
<td>-16.33</td>
<td>-11.56</td>
</tr>
<tr>
<td>Gov_focus* 2015</td>
<td>4.14</td>
<td>2.34</td>
<td>1.77</td>
<td>0.08</td>
<td>-0.51</td>
<td>8.79</td>
<td>-0.51</td>
<td>8.79</td>
</tr>
</tbody>
</table>

Table 3. Difference between USD funds and CNY funds in geographic locations

<table>
<thead>
<tr>
<th></th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
<th>P-value</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
<th>Lower 95.0%</th>
<th>Upper 95.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>18.75</td>
<td>4.04</td>
<td>4.64</td>
<td>0.00</td>
<td>10.64</td>
<td>26.86</td>
<td>10.64</td>
<td>26.86</td>
</tr>
<tr>
<td>Market_enforced</td>
<td>47.00</td>
<td>5.35</td>
<td>8.78</td>
<td>0.00</td>
<td>36.26</td>
<td>57.74</td>
<td>36.26</td>
<td>57.74</td>
</tr>
<tr>
<td>2015 Dummy</td>
<td>-14.37</td>
<td>4.87</td>
<td>-2.95</td>
<td>0.00</td>
<td>-24.14</td>
<td>-4.61</td>
<td>-24.14</td>
<td>-4.61</td>
</tr>
</tbody>
</table>
against foreign investment over time, which may further impact the direction of cross-border VC investment in China.

Table 3 presents the testing results of hypothesis 2. The findings are consistent with the prediction that USD funds serve different geographic regions from CNY funds. The coefficient of the “Market_enforced” variable in table 3 is not only statistically significant but also considerably large in size. It indicates that the switch to the regions with relatively well-established market institutions such as Shanghai, Hong Kong and Taiwan increases the ratio of USD funds 47 percentage point. On the flip side, the result implies that a significant number of government-backed local VC funds is committed to finance economically under-developed regions or those of the government’s strategic focus including Beijing and Shenzhen. For example, entrepreneurship in Chengdu has rapidly grown for the last couple of years, thanks to the strong government support aimed to develop Chengdu as one of several inter-continental base points. Improving the geographical imbalance of economic growth lies in the top priority of the central government and the Communist Party of China, specifically stressed by the General Secretary Xi Jinping. In the meantime, foreign VC funds appreciate relatively well-developed institutions and legal frameworks in the regions similar to market economy, which explains the specialization of foreign VCs into the regions.

Overall, the results of this study confirm that the difference between investment of cross-border VCs and local VCs is still persistent even with the use of recent data. Beside the reasons revealed by previous studies, the dissimilarity is also attributable to the two mechanisms: the rigidity of fund structure and the preference of limited partners. Meanwhile, the 2015 dummy is negative, significant, and considerably huge in size, indicating that the relative share of deals made by domestic funds sharply increase with the $224-worth government endowment to national funds. How the government initiative affects the divergence of foreign VCs and local VCs in China will be an interesting follow-on question.

CONCLUSION

This project introduces the recent development of the Chinese VC industry. One characteristics of the Chinese VC market is that both
cross-border VCs and local VCs play significant but distinct roles. The two types of VCs show clear difference in terms of invested sectors and geographic regions. This paper provides a literature review to address some mechanisms that cause the specialization. Through interviews with cross-border VCs and local startups, I also document two mechanisms – the rigidity of fund structure and the preference of limited partners - underlying the persistence of divergence between foreign VCs and domestic VCs in the context of China, which is not addressed enough in the extant literature on the internationalization of VCs. The simple empirical analysis shows that cross-border VCs are more likely to invest in market-oriented high-tech sectors and regions with relatively well-established market institutions, while local VCs invest in fields and regions of the nation’s strategic focus.

This paper mainly speaks to the audience interested in the recent development of the VC industry in China as well as in a novel dataset available for future studies. Backed by a group of relatively flexible, market-oriented limited partners that adequately reward risk-taking investment, cross-border VCs tend to take more risks in financing rapidly changing high-tech industries and market-oriented sectors, while domestic VCs whose funds primarily come from the government invest in the areas important to the nation’s development agenda. Moreover, the rigidity of fundraising structure of a typical startup makes it difficult for the once-diverging pattern to converge through partnership or learning. The findings imply that cross-border VCs complement local VCs in a growing market by serving some sectors relatively less focused by public efforts, possibly moderating public failure in establishing an entrepreneurial ecosystem. Combined with the previous research on the specialization of cross-border VCs (Fuller 2010), this study suggests that more aspects should be examined on the impact of public policy on the growth of a stable VC market (Lerner 2009; Watson and George 2010; Schertler and Tyková 2012).

This paper leaves a few interesting questions for future research. Since 2015, China has gone through a transformative change in the landscape of entrepreneurship. With the considerable influence of the corporate venture capitals such as “B.A.T,” partnership with the local firms, investors, and governments has become even more important than any time before. How do cross-border VCs respond to the change? Nowadays, for example, although most VC firms
manage funds in the form of the currency of their own markets, some cross-border VCs seem to increasingly construct new funds in local currencies. The Chinese branch of Sequoia Capital manages the investment capital worth 30 billion Chinese Yuan (CNY), among which one sixth of the amount is constructed in the form of local currency funds. While constructing the local currency funds may require a deep understanding of local market and a closely interwoven local network, managing a CNY fund helps foreign VCs identify otherwise overlooked local opportunities as well as actively collaborate with local investors and governments. The localization of cross-border VCs can be co-aligned with the accumulation of experiences and the establishment of domestic networks. It would be interesting to examine the evolution of cross-border VCs in a response to the remarkable change in the governmental initiative in a growing market.

In addition, one notable phenomenon in the Chinese entrepreneurship is the formation of close ties between Silicon Valley in the US and the so-called “dragon valley” in China including Beijing, Shanghai and Shenzhen, specifically through returnee entrepreneurs and investors who receive advanced degrees in the US to return to China to conduct businesses (Wang 2015). While the underlying mechanisms have received considerable attention from academia, few research examines how the roles of the returnee entrepreneurs change in a response to environmental changes. The transformation of Chinese economy may provide an ideal setting to test the change in mechanisms through which the returnees impact domestic entrepreneurship.

REFERENCES


Finance, 62(1), 251-301.


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