# Attract the talents back: the impact of returnee entrepreneurs on Venture Capital investments *

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August 20, 2014

**Abstract**

This paper explores the role of returnees on promoting entrepreneurship in developing countries by examining the effect of the policy to attract highly-talented emigrants on venture capital (thereafter VC) activities in China. We find that the overall VC investments increased dramatically after the policy change. We also find that attracting returnee entrepreneurs back can help to mitigate the financing challenge for domestic entrepreneurs. In particular, foreign VCs that have investment preference on returnee entrepreneurs in general tend to invest more on domestic entrepreneurs after the introduction of the policy. What is more, foreign VCs tend to invest in younger firms with more rounds through syndication especially when investing on returnees. The investments made by foreign VCs on returnee entrepreneurs have the best exit outcomes compared with other VC type (foreign vs. domestic) and entrepreneur background (returnee vs. non-returnee) matches. Our findings provide evidence on the role of returnees in fostering entrepreneurship in their home countries and how the policy makers could play a role as a catalyst for creating externalities to promote VC and entrepreneurial activities.

Keywords: Entrepreneurship, Venture Capital, Returnee, Government policy, China

JEL Classification: F22, G24, L26, O53

*We are grateful to Mariassunta Giannetti and Laurent Bach for guidance and advice. We also thank Anders Andersson, Ramin Baghai, Bo Becker, Cristina Cella, David Robinson, Per Strömberg, Xin Zhang, as well as the seminar participants at the Swedish House of Finance for valuable comments and suggestions. The financial support of the Swedish Bank Research Foundation (BFI) and Infina Foundation are gratefully acknowledged. All remaining errors and omissions are our own.

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# 1 Introduction

New startup firms especially the ones with new technology are important engines for economic growth. However, nurturing entrepreneurship needs both human capital and financing, and an extensive literature shows that entrepreneurial firms face difficulties of access to external finance due to high probability of failure, lack of collateral and internal funds, as well as potential agency problems (e.g. Akerlof 1970; Hall and Lerner 2010; Jensen and Meckling, 1976). Venture Capital (thereafter VC), as independently managed capital focusing on equity investments in privately held early-stage and high-tech companies, can help to alleviate the problems of financing innovative entrepreneurial firms.

Many governments have recognized the benefits of VC in promoting new enterprise and made efforts to fund startup businesses through direct subsidies. The efficacy of these public funds is however still under debate. Lerner (2009) suggests that governments should provide the policies that ensure the economic environment is conducive to entrepreneurial activity and VC investments. He emphases that "entrepreneurship and VC are activities where the actions of any one group are likely to have positive spillovers – or 'externalities' – for their peers", and the government should make an effort to play a positive role as a catalyst. DaRin et al. (2006) have assessed the effectiveness of different public policies to boost VC markets based on a cross-country study of 14 European economies. They also find that increasing public R&D spending cannot help to foster VC activities; while the policies like opening of stock markets targeted at entrepreneurial companies, reducing the corporate capital gains tax rate and labor regulation have positive effects on creating active VC markets. According to Chatterji et al. (2013), policy makers also promote entrepreneurship through initiating several programs that seek to increase the supply of local entrepreneurship, such as high-skilled immigration policy. Kerr (2013) points out that immigrants in the US play an important role in aiding business and technology to their home countries in terms of promoting knowledge flows and cross-border trading, but the role of the return migration in innovation and entrepreneurship is unclear.

In this paper, we are going to explore how policy makers in emerging markets can mitigate the financing problem for startups and foster local entrepreneurship through attracting highly-skilled emigrants. To be specific, we are going to examine the effect of the policy to attract highly-skilled emigrants on the VC financing of both returnee and non-returnee entrepreneurial firms in China.

The reason for us to focus on China is that, as the largest emerging market, China is on the crossroad of economic development. They need more innovation and entrepreneurship to upgrade the industries, create jobs and maintain a sustainable development. According to Aizeman and Kendall (2008), China has attracted the largest international VC inflows all over the world. China's VC industry experienced a rapid growth since 1990s, and it became one of the major funding resources for Chinese entrepreneurial firms. Newly started enterprises, particularly in the high-tech sector, highly rely on foreign VCs (Wang and Wang, 2011).

What is more, the Chinese government has introduced the policy to attract highly-talented emigrants to set up business with the purpose to foster entrepreneurship and therefore promote local economic growth. The policy was introduced at provincial level at different time, starting from mid-1990s, which provides an exogenous shock on the local supply of highly-skilled entrepreneurs. We can take the advantage of the introduction of the policy to examine the effect of attracting highly-skilled entrepreneurs on the VC and entrepreneurial activities.

Previous studies such as Filatotchev et al. (2009) find that the foreign experience of high-tech small and medium enterprises (SMEs) has positive effect on expert orientation and performance. Also, ventures founded by returnees in China are more innovative than their local peers, and returnee firms have indirect spillover effect on non-returnee firms' innovation performance and act as a new channel for technological knowledge spillover, according to Liu et al. (2010).

In this paper, we find that returnee entrepreneurs play a crucial role in fostering local entrepreneurship in the home country: not only directly attracting foreign VC investments but also causing an indirect spillover effect on mitigating financing challenge for local startups. After the introduction of the policy to attract highly-talented emigrants, the total VC activities increased dramatically in China. In particular, we find that the policy has a positive effect on increasing the probability of obtaining financing for non-returnee entrepreneurs: besides the increased investments from domestic VCs, the foreign VCs appear to invest more on domestic entrepreneurs after the introduction of the policy. This implies a spillover effect of the returnee entrepreneurs on attracting VC financing and therefore fostering local entrepreneurship.

In the next section, we argue that the policy to attract highly-talented emigrants at provincial level provides an exogenous shock on the supply of local returnees due to its nice staggered nature. In order to rule out potential threats from alternative explanations such as other policies which might also affect local VC activities, we include year fixed-effect and industry fixed-effect in our probit regression model. We also controlled other factors on local economic development and investment conditions such as Gross Domestic Product (GDP) growth, government efficiency, local labor supply, transportation convenience, which might influence the foreign VC investment decisions. Our estimates are consistently robust after including all those controls.

To investigate how the background of entrepreneurs and VCs matters for the VC investment outcome, we compare the exit probability of VC deals among different entrepreneur type (returnee vs. nonreturnee) and VC type (foreign vs. domestic) matches. We find that the *returnee-foreign VC* match has the best exit outcome, followed by the *returnee-domestic VC*, *nonreturnee-foreign VC*, *nonreturnee-domestic VC* matches according to the probability of exit, which means that, in general, deals made on returnee entrepreneurs have better exit outcomes than the ones made on nonreturnee entrepreneurs and deals made by foreign VCs have higher exit probability than the ones made by domestic VCs. This implies that attracting returnee entrepreneurs can foster local VC activities and entrepreneurship not only through increasing the probability of obtaining VC financing for startups but also through decreasing the rate of failure of VC investments. Since *returnee-foreign VC* match generates the best exit rate, we further explore what type of foreign experience of the returnee entrepreneurs matters more for exit outcome. Our estimates suggest that it is the foreign working experience, other than the foreign education experience, of the returnee entrepreneurs which contributes to the best exit outcome of the *returnee-foreign VC* match. This is intuitive since returnee entrepreneurs are more likely to build the connections with foreign VCs through their professional networks when working overseas.

We also investigate how the background of entrepreneurs and VCs matters for the investment behavior of VC firms by comparing the probability of investment on early stage firms, the number of rounds invested in a startup and whether the investment is syndicated or not. We find that conditional on investment, foreign VCs tend to invest more in younger firms with more rounds and prefer to invest through syndication, especially when investing in returnees. It suggests that foreign VCs are more

failure tolerant and more likely to collaborate in investment.

The results from this project will contribute a set of existing literature. First of all, our work contributes to the literature on the government policies and entrepreneurship. Kerr (2013) point out high-skilled immigration policy could be an effective way to boost entrepreneurship. However, we know little about how those high-skilled immigrants engaged in innovation and entrepreneurship in their home countries once they return. This paper can fill the gap by providing evidence that returnees help to foster the local entrepreneurship and growth not only through setting up new business themselves, but also through attracting foreign VCs to their home countries, which indirectly mitigates the challenge of financing for domestic entrepreneurs.

This paper also contributes to the literature on the development economics in terms of the returnees and economic growth. A large literature has investigated the role of returnees played in fostering home country's economic growth in emerging markets. Returnees can help to increase local employment and the government tax base by establishing newly enterprises (Zweig, 2006). Returnees can also help Chinese companies with "going out" strategy such as foreign M&A, expanding foreign markets and trades (Wang et al., 2011). Moreover, returnee firms have an indirect impact on non-returnee firms' innovation performance and act as a new channel for technological knowledge spillover (Lu, 2012). Furthermore, returnees can join the corporate board of listed companies and improve the corporate governance and therefore firm value (Giannetti et al., 2013). This paper emphasizes the role of the returnee entrepreneurs on promoting entrepreneurship of their home countries through attracting foreign VC investors, which indirectly helps non-returnee entrepreneurs with financing their new ventures.

This paper can also contribute to the VC literature in terms of globalization of VC and cross-border investment, which is under-researched according DaRin, Hellmann and Puri (2012). Previous research focuses on the factors such as trust and networks influencing the success or performance of cross-border investments (Bottazzi et al, 2011; Chua et al., 2009; Tan, 2006). In this paper, we provide empirical evidence on how the government policy on entrepreneurs could influence the investment behavior of foreign VC in emerging economics. Moreover, this paper provides empirical evidence on the link between the exit rate of VC investments and the background of entrepreneurs and VC investors, which can shed a light on the literature regarding the determinants of exit performance of cross-border investments.

The rest of the paper is organized as follows. Section 2 provides an overview of the policy by Chinese provincial governments to attract highly-talented emigrants. Section 3 presents data source, sample construction, and definitions of the major variables used in the analysis. Section 4 presents the empirical analysis and the results, which include overall effect of the policy on the total VC investments, the investment preference of foreign VCs on (non-) returnee entrepreneurial firms, as well as the spillover effect of attracting returnee entrepreneurs on fostering financing on non-returnee entrepreneurs. In section 5, we compare the exit performance among different VC (foreign vs. domestic) and entrepreneur (returnee vs. non-returnee) types. In section 6, we compare the investment behavior among different VC (foreign vs. domestic) and entrepreneur (returnee vs. non-returnee) types. In section 7, we draw our conclusion and present our future extension plans.

## 2 Policy to attract highly-talented emigrants

Many developing countries have been suffering from the brain drains that their brightest people go abroad to study and stay in the developed world. China is a typical example due to the large number of high-talented emigrants overseas and it started to get more and more popular for Chinese students to go abroad since early 1990s. However, in recent decades, those highly-talented emigrants with foreign experience started to return to China and set up their own business. For example, Yanhong Li, who is the founder of Baidu.com, has studied in the University of Buffalo, and worked as a staff engineer for Infoseek, a pioneer internet search engine company before starting baidu.com. The immigration of those highly-educated overseas Chinese might be largely driven by the policy to attract those highly-talented emigrants. As pointed out by Zweig (2006), local Chinese governments started adopting polices to recruit returnees and foster entrepreneurial activity. In order to attract them back, the local government designed the policy which includes tax and other benefits for returnees to set up a company, such as office-rent exemption. Many local government established "enterprise incubators" for returnees, called "parks for overseas scholars to establish businesses" and provide corresponding services. The policy also contains other personal benefits towards the returnee, such as long-term residence permits, welfare benefits, subsidized housing, tax-free imports of automobiles and computers, supporting spouse for job hunting and children for schooling, as well as some local grants and awards.

As documented in Giannetti et.al (2013), the policy to attract highly-talented emigrants was introduced at provincial level at different time, starting in late 1990s. The nice staggered nature of the policy provides us an exogenous shock on the supply of the returnees at provincial level in China. Also, the introduction of the policy is not necessarily related to the regional economic development level. For example, the advanced coastal provinces such as Shanghai, Jiangsu employed the policies in 2004 and 2005, while some lagged-behind central provinces such as Anhui and Henan introduced the policy in the early 1990s (see Table 2 for details on the issuing years of the policy across provinces). What is more, the local government adopted those policies mainly due to the competition among regional policy makers. Provincial leaders designed the policies with the motive of catering the central leaders irrespective of the real needs for the local development. They might also just naively copy the behavior of neighbor provincial leaders of introducing similar policies no matter whether these polices are suitable for local development or not. So we do not expect the adoption of policies is related to the investment opportunities of VCs or driven by the need of VCs, in particular foreign VCs. What is more, the main objective is to attract those highly-educated Chinese overseas to improve the academic quality and spur entrepreneurship in China, not designed explicitly to benefit venture capital. To our knowledge, there is no evidence showing that foreign VC would be able to influence the local politicians or lobby for the adoption of the policies. As a result, we argue that the provincial level policy to attract highly-talented emigrants provides us an exogenous shock on the local supply of returnee entrepreneurs, which could benefit us to test the effect of attracting highly-talented emigrant entrepreneurs on the local VC activities and entrepreneurship, particularly the probability for the non-returnees to obtain VC financing.

# 3 Data and sample

The VC investment deals information is obtained from Zero2IPO, which is the main data source for VC study on Chinese market. It contains VC investment deals in China by both domestic and foreign VC companies. Each of the investment deal contains the information about the name and general background of the VC investor and the targeted startup. To ensure the data quality, we exclude the deals without investment amount or investment stake information. Since we want to test the effect of the policy to attract highly-talented emigrants on the probability of entrepreneurs obtaining VC financing, we dropped those VC deals with missing values in geographical location. We also dropped those

startups which are not located in mainland China since they will not be influenced by the policy. Finally, we form a sample with 1141 startups, and 2420 VC investment deals from the period 1994 to 2011.

We hand-collect information on the foreign education and work experience of founders of all startups invested by VCs in our sample. The founders' background information for the startups in our sample is obtained from the companies' website or other news and internet channels. We identify the firm founder as a returnee if she has foreign education and/or foreign work experience. We also obtain the domestic education background and professional experience such as previous CEO or entrepreneurial experience of the founders.

In order to rule out other possible alternative explanations, we try to control factors on economic development and investment climate at provincial level in China. Those control variables are collected from different data sources, such as China Stock Market & Accounting Research Database (CSMAR), World Bank survey Report on China Governance, Investment Climate, and Harmonious Society as well as other internet sources. The detailed description of all variables regarding the definition and the corresponding data source is in Table 1. Table 2 presents the summary statistics on the geographical distribution of the total VC investment deals. We can see that both domestic and foreign VC investments have increased dramatically after the issuance of the policy to attract highly-talented emigrants. From Table 3, we can find that the total VC investments on non-returnee startups increased after the adoption of the policy. Table 4 shows the industry distribution of the total VC investment deals in our sample, and we can find that most VC investments are made on the high-tech industries. Table 5 presents the summary statistics on the entrepreneurs' characteristics in the whole sample. Around 36.7% of all firm founders in our sample are returnee entrepreneurs and most of them have both foreign education and work experience.

# 4 Empirical analysis and results

In this section, we present three sets of empirical results that help us shed lights on the link between returnee entrepreneurs and entrepreneurial financing in China. First, we provide evidence on the overall impact of the policy on the VC activities in China; second, we explore the investment preference of domestic and foreign VCs in terms of entrepreneurs' background and we find that there is a positive

(negative) relationship between foreign VC and (non) returnee entrepreneurs; finally, we examine the impact of the policy on entrepreneurial financing for non-returnee entrepreneurs.

Before analyzing the impact of the policy to attract highly-talented emigrants on VC activities, we would like to show some evidence on the effectiveness of the policy to attract returnee entrepreneurs. Table 6 shows the number of new returnee entrepreneurs conditional on their obtaining of VC investments before and after the policy change. We can find that the number of returnee entrepreneurs indeed increased after the introduction of the policy in each province, which indicates that the policy to attract highly-talented emigrants does exogenously increase the supply of returnee entrepreneurs.

## 4.1 Overall effect of the policy on VC investments in China

One of the purposes for the provincial Chinese governments to adopt the policy to attract highly-talented emigrants is to foster the local entrepreneurial activities, and we find evidence that the policy has a positive impact on the VC investments in China.

Table 2 shows the geographical distribution of VC investments before and after the policy across provinces in China. We can see that the total VC investments have increased dramatically after the introduction of the policy. If we break down by VC investors' background, the number of VC deals made by both domestic and foreign has experienced a substantial increase after the policy change. The staggered style of the policy change in different provinces somehow makes the time-varying macro condition a less concern here. Hence we can arguably claim a potential causality: the policy generally has a positive effect on the VC activities in China.

## 4.2 Investment preference of VC investors: returnee VS non-returnee

The policy to attract highly-talented emigrants has increased the VC activities substantially in China. In this subsection, we are going to examine the investment preference of VC investors in terms of the entrepreneurs' background. In other words, we are going to test whether foreign (domestic) VCs prefer to invest on returnee or non-returnee entrepreneurs.

Educated and worked overseas, returnees have not only the technological knowledge but also the knowl-

edge which commercialize their ideas to business. On top of that, they do not have any difficulties to communicate with foreign VCs. These characteristics make returnee entrepreneurs more attractive to foreign VCs compared with non-returnee entrepreneurs. It is not surprising that the first wave of foreign VCs investments in China coincides with the wave of Chinese returnee entrepreneurs in mid 1990s. For example, in 1996 Sohu.com whose founder Charles Zhang a returnee from the U.S., received US$6.5 million from foreign VCs, which becomes the first new venture in the IT industry in China to receive foreign VC investment. On the other hand, returnees were abroad for many years and are unfamiliar with local conditions and lack of local networks, even though they might have good project, they might face more challenges to raise funds from domestic VCs who might prefer non-returnee entrepreneurs. As a result, our hypothesis on the investment preference of the VC investors is the following: foreign VCs are more likely to invest on returnee entrepreneurs while domestic VCs prefer non-returnee entrepreneurs. Our findings verify this hypothesis.

Figure 1 to 2 present the impact of the policy on the VC investments on returnee and non-returnee entrepreneurs; while figure 3 and 4 present the impact of the policy on the VC investments from the prospective of VC investors' background. It is interesting to see that returnee entrepreneurs obtain financing mainly from foreign VCs; while domestic VCs prefer to invest on non-returnee entrepreneurs.

Next, we provide more robust results on the investment preference of VCs by presenting a simple probit regression. Table 7 shows the probit regression results between non-returnee entrepreneurs and foreign VC investment. The dependent variable is a dummy that equals one if a non-returnee entrepreneur receives a VC investment. The variable of interest is a dummy variable that equals one if investment is made by a foreign VC. The results from table 7 suggest that the non-returnee entrepreneurs and foreign VCs investments are negatively correlated. In other words, conditional on obtaining VC financing, if the deal is made by a foreign VC, it is less (more) likely that the investment is made on a non-returnee (returnee) startup, which is consistent with our hypothesis that foreign (domestic) VCs generally prefer to invest in returnee (non-returnee) entrepreneurs. We control for time and industry fixed effects to take away the possible unobservable time-varying factors. In all specifications in table 7, we provide robust standard errors cluster at firm level.

Following Jeng and Wells (2000), we also control other possible determinants of venture capital in-

vestments, such as initial public offerings (IPOs), GDP etc. For VC investors, they always face the risk of not being able to exit their investments. Thus a valid exit mechanism is among the most important determinants of venture investment. In China, IPO is the dominant way of exit for VCs and other ways of exit such as M&A, trade sales start to be popular only recently. Nevertheless, we define IPO exit as the proportion of VC investments exited through IPO out of the total VC investments with exits in each year. The macroeconomic conditions may also influence the VCs investing because the province's economy will also enhance the startup activities and more VC is needed as long as there are more entrepreneurs. We use two macroeconomic variables: the GDP growth and FDI growth. Besides, we also control factors such as local labor supply, high-tech cluster and economic zone, tax and transportation convenience to rule out possible alternative explanations. We rationalize the inclusion of those controls in the subsection 4.3. The coefficients of foreign VC are stable and significant across all specifications which indicate a robust correlation between foreign VCs and non-returnee entrepreneurs.

It is worth noticing that we are not attempting to establish causality here at the moment. It might be the case that foreign VCs strategically pick returnee entrepreneurs since they have better projects or teams (the "stock picking" effect). It might also be the case that returnee entrepreneurs select foreign VCs in order to list their companies overseas in the future (the "certificate" effect). Even though the probit regression cannot help us to establish the causality at this stage, the strong negative (positive) correlation between the probability of being a non-returnee (returnee) startup as the investment target and being foreign VC as the investor indicates that returnee entrepreneurs are indeed more attractive to foreign VCs, which implies that the increased presence of the returnee entrepreneurs after the policy to attract highly-talented emigrants might be one of the major reasons that foreign VCs increased their investments in China.

### 4.3 The impact of the policy on entrepreneurial financing for non-returnee startups

Even though returnee entrepreneurs are more attractive to foreign VCs and non-returnee entrepreneurs are less likely to obtain foreign VC investment compared with returnee entrepreneurs, it is quite interesting that foreign VCs change their investment behavior shortly after the policy to attract highly-talented emigrants comes into effect (figure 3). Before the introduction of the policy, foreign VCs have a strict

preference over returnees but it starts making more investments to domestic entrepreneurs after the policy changes. In contrast, domestic VCs do not show any change in investment pattern: they always invest in domestic entrepreneurs. The findings are consistent if we look at the investment patterns from the entrepreneurs' prospective: domestic entrepreneurs (figure 2) seem to obtain more balanced investments from both domestic and foreign VCs after the policy change. Thus, there potentially exists a spillover effect between returnee entrepreneurs and non-returnee entrepreneurs in terms of obtaining foreign VC investments.

To examine to existence of the spillover effect, we employ a probit model to test how the policy impact the investment preference of the foreign VCs. To be specific, we test whether the positive (negative) relationship between the foreign VCs and (non-) returnee entrepreneurs is affected by introductions of the policy that aims to attract highly-skilled immigrants, which is presented by the interaction term *Policy*Foreign VC* in table 8. From column (1) of table 8, we can see that the policy has a positive effect on the domestic entrepreneur getting a VC investment. In column (2), not surprising, the coefficient for foreign VC is significantly negative which is consistent with the result from the previous subsection. Since the relevant variation in this analysis is at the province-level, we cluster errors by province. All specifications include year and industry fixed effects. The coefficient on interaction term *Policy*Foreign VC* is 0.420, significant at 10 percent level. It is almost half in magnitude to the direct effect of Foreign VC, implying a significant improving in probability for non-returnee entrepreneurs to obtain foreign VCs in *Policy =1* provinces. We observe a similar pattern in column (3) and (4) after including more provincial controls. We rationale the inclusion of these controls as following: though we argue that the passage of the policy is rather exogenous to the economic growth, there is still concern of unobserved heterogeneity across provinces, where adopters of policy may systematically differ in their attractiveness of VC investments. To put it in another way, it is not totally unlikely that passage of the policy is correlated with foreign VCs investment decisions. We thus include other factors which might predict the adoption of the policy to attract highly-talented emigrants. Apart from the macroeconomic variables that are already controlled, the variable *FDI growth* uncovers the exposure of the province to foreign economy. The high-tech clusters and economic zones variable measured by number of *high-tech clusters and economic zones* in a province until mid-90s as well as the variable *Skilled labor supply* which is measured by the per capital expenditures on education reveal how appealing of attracting highly educated returnees with technical backgrounds. We also control for the *informal payment* which

is the expectation of need for informal payment to obtain bank loans, the average taxes to high value industries and the transport convenience. All these province-level attributes which might influence the passage of such policies do not seem to affect our results. Nevertheless, considerable caution is warranted in drawing any conclusions on the impact of the policy to attract highly-talented emigrants on resulting in the increased possibility of non-returnee entrepreneurs getting foreign VC investments given the above identification concerns.

The finding that non-returnee entrepreneurs became easier to obtain financing from foreign VCs has some interesting implications. The policy to attract highly-talent emigrants increases the supply of the returnee entrepreneurs sharply in a short period, which will attract more foreign VCs investing in China. After entering the Chinese VC market, foreign VCs could explore more investment opportunities on non-returnee entrepreneurs due to the mitigation of the information asymmetry. This spillover effect could help to facilitate entrepreneurial financing for domestic entrepreneurs and therefore boost the local entrepreneurship.

However, there might be some caveats towards our findings. For example, someone may argue that the reason for the increasing probability of obtaining foreign VC financing for the non-returnee entrepreneurs might be that foreign VCs "substitute" returnee startups with some non-returnee startups in their portfolio after the policy change. However, we think that it is hardly to be the case since the preference of foreign VCs over returnee entrepreneurs do not change after the introduction of the policy (see the figure 3 and table 7). Otherwise, we shall observe roughly similar reversal effect from the investments of domestic VCs. This is however not the case (figure 3) since the investments made by the domestic VCs towards returnee entrepreneurs never pick up. This reinforces that the increased foreign VC investments on domestic entrepreneurs do not come in the expense of the investments on returnees entrepreneurs.

Some people might also criticize our findings by claiming that the increasing probability of obtaining foreign VC financing for non-returnee entrepreneurs might due to the reason that returnee and non-returnee entrepreneurs are competing for foreign VCs investments. Even though prior studies show that having a foreign VC investment would increase the chance of being listed oversea (Humphery-Jenner and Suchard, 2013), we can still argue that this is not a big threat to the spillover story because

it only matters whether the spillover is passive or active. No matter it is the foreign VCs who initiatively seek investing in non-returnee entrepreneurs or it is the non-returnee entrepreneurs who strategically choose foreign VCs for the certificate, we cannot undermine the fact that it became much easier for the non-returnee entrepreneurs to obtain financing from foreign VCs after the policy change. We can briefly look at the location choices of exits for non-returnee and returnee entrepreneurs conditional on receiving foreign VCs investments. It seems that they have similar probabilities of being listed on overseas exchanges. If the certificate story is true, we should otherwise observe higher exit rates for the domestic entrepreneurs on the international exchanges than that for the returnee entrepreneurs (Table 9).

# 5 Exit performance

The empirical evidence in previous section show the role of returnee entrepreneur in fostering local entrepreneurship in the home country through directly attracting foreign VC investments and causing an indirect spillover effect on mitigating financing challenge for local startups. In this section, we analyze how the entrepreneur-VC matches relate to the exit outcome. To be specific, we compare the exit probability of deals among different VC investor (foreign vs. domestic) and entrepreneur (returnee vs. non-returnee) types. The existing literature provides conflicting theories for the prediction. We hypothesize that the relationship could be both ways for each match and argue as follows.

**Information asymmetry hypothesis:** Compared with returnee entrepreneurs, local entrepreneurs' ability and personality can be evaluated relatively more through soft information that domestic VCs have (Berger et al., 2005). It is not hard to think about the domestic VCs could have many channels to obtain the soft information regarding the target local entrepreneurs, e.g. the network they share, the previous employers or the customers/suppliers of the entrepreneurs. The more rigorous deal sourcing is more likely leading a better exit outcome and thus a positive relationship between *nonreturnee-domestic VC* match. The same argument applies to the *returnee-foreign VC* match because the returnees and foreign VCs might have connected each other abroad. The entrepreneurial or working experience aboard seems crucial to establish such ties. The information argument disfavors the matches between the *returnee-domestic VC* and *nonreturnee-foreign VC* because there seem to have more information asymmetry problems in these two matches.

**Monitoring hypothesis:** From the VC perspective, there is evidence (Kaplan et al., 2007) that foreign VCs (usually from U.S.) which implement U.S. style VC contracts would increase likelihood of success. Foreign VCs come from countries which have a far more advanced VC industry, it is not surprising that foreign VCs can have a better monitoring ability by exerting their power though the contingent control rights, voting rights or board seats. Alongside with this view, we predict that better monitoring and more demanding board meetings would make foreign VCs outperform the domestic VCs.

**Proximity hypothesis:** This view is aligned with the culture proximity in management literature. Both physical and cultural distance would affect the management of local portfolio company for the foreign VCs. Long physical distance can hamper VC's ability to manage their portfolio companies (Masulis et al., 2012). Meanwhile, social norms have been demonstrated abundantly to be important in economic exchange (Guiso et al., 2009). Thus lacking enough understanding of the local culture can also impact the success of foreign VCs in China (Chua et al., 2009).

All in all, it is not theoretically clear which match can deliver the best exit performance. In the next step, we analyses this question empirically.

Table 10 presents the result on the association between the entrepreneur-VC matches and exit performance. We exclude the investments made after 2007 as it usually takes several years for VCs to exit since the first investment. Please note that none of results below are sensitive to the treatment of cut year, it holds throughout the entire sample as well (column (6) is the regression based on the whole sample). The regression is a simple logit model where the dependent variable is 0 if the company had no exit record, 1 if the company has an exit. We categorize the investments into four matches as *returnee-foreign VC*, *returnee-domestic VC*, *nonreturnee-foreign VC* and *nonreturnee-domestic VC*. And we run the logit model with each of the four types of matches as the independent variable which is a dummy equals 1 if, for example the investment is made by a foreign VC into a returnee entrepreneur. We find that the exit probability is significantly positively correlated with the *returnee-foreign VC* match while negatively correlated with the *nonreturnee-domestic VC* match. It seems that *returnee-foreign VC* match seems to be associated with better investment outcomes while the *nonreturnee-domestic VC* match seems to be associated with worse outcome. The later result echoes with what has been found in

Gompers et al. (2014) and particularly Hsu and Bengtsson (2013) which say that a shared co-ethnicity is associated with worse investments outcome (especially the likelihood of an IPO). The former finding is interesting and new to us. Former research indicates (Humphery-Jenner and Suchard, 2013) that having a foreign VC do NOT per se increase the likelihood of a successful exit. Our result however reveals that what really matters for the exit outcome is towards whom the foreign VC invests and it gives strong support to the information asymmetry and monitoring hypotheses.

We take one step forward to test the kind of foreign experience matters more for exit outcome. Be aligned with what we hypothesized above, we predict that foreign working experience would matter more because it helps to build the connections with foreign VCs and to establish the reputation which further reduce the asymmetry information. The result presented in table 11 indicates that the returnee entrepreneurs who have foreign working experience seem to have a better exit performance. The coefficient of dummy capturing the returnee entrepreneurs' working experience is significantly positive related to exit performance while the one capturing the returnee entrepreneurs' foreign studying experience is not significant. This result suggests that foreign working experience of returnee entrepreneurs seems to be more important.

# 6 Investment behavior and entrepreneur-VC matches

**Timing of investment** Table 12 presents the results on the entrepreneur-VC match and the timing of its investment. The dependent variable is the dummy which equals one if the investment is made to the firm which is in its early stage. The early stage in the dataset refers to the companies which are able to begin operations but not yet at the stage of commercial manufacturing and sales. We find that conditional on investments, in the presence of a returnee-foreign VCs match, foreign VC intends to invest more in early stage firms relative to the match between nonreturnee entrepreneur and domestic VC. The positive signs of the coefficients for the returnee-foreign VC and nonreturnee-foreign VC matches seem to indicate the foreign VC tend to invest more in younger firms, the coefficients are however not statistically significant.

**Scope of Investment** We move on to investigate how entrepreneur-VC match associates with the scope of investments. The dependent variable is "ln(1+Number of Rounds VC invested in Company)"

. We find significantly positive coefficient in column (1) table 13 which indicates a positive relationship between the returnee-foreign VC match and more rounds of VC investments. Compared with other matches, the returnee-foreign VC seems to outperform other matches in terms of scope of investments. And we can also see the nonreturnee-foreign VC match, although lasting fewer rounds than the returnee-foreign VC match, it lasts more rounds than the investments made by domestic VCs. It lends some evidence to that foreign VCs might be using the staged financing contracts to achieve better monitoring and reduce asymmetric information. It could also indicate that foreign VCs are more failure tolerant.

**Syndication of investment** Started by Lerner (1994), VC syndication has been studied extensively. Besides several theoretic papers which try to rationalize this particular VC behavior (See DaRin et al., 2012; Tian, 2012) empirically show that VC syndication creates value for entrepreneurial firms in many ways from product market to financial market. We here also examine the association between the entrepreneur-VC match and the syndication. We follow the definition of VC syndication as a group of two or more VC firms that share any particular round of financing. In Table 14, we use a probit model to examine the association where the dependent variable is dummy variable which equals to one if the investment is made in a syndication VC group, i.e. invest together with other VC firms. And we find that there is a positive relationship between the returnee-foreign VC match and the syndication. It implies that foreign VCs are more likely to invest returnee in the form of VC syndications. If we compare among different matches, we see that the foreign VCs are more likely to collaborate. We interpret the result as the foreign VCs are investing in a more professional and sophisticated way. And the results are confirmed in Humphery-Jenner and Suchard (2013) as well.

To summarize what we find: it seem that the match between the returnee and foreign VC has some distinguished features conditional on investment: relatively earlier investments (stage), more rounds of investments (number of rounds) and more investment collaboration (syndication).

# 7 Conclusion and future extension

This paper presents evidence on the role of returnees in promoting entrepreneurship of their home countries by examining the effect of the policy to attract highly-talented emigrants on VC activities in China. We find that the policy has a positive effect on increasing VC investments and entrepreneurial

activities. On one hand, domestic entrepreneurs are able to obtain more foreign VC investment after the adoption of the policy, which implies a spillover effect of foreign VCs' investment on non-returnee ventures promoted by the policy to attract returnee entrepreneurs back. On the other hand, domestic VCs increased the investment on non-returnee entrepreneurs dramatically after the policy, which further moderates the financing challenge for local entrepreneurs. In total, the policy to attract highly-talented emigrants back to set up business have substantially increased the VC activities and promoted the local entrepreneurship. What is more, foreign VCs are more failure tolerant and tend to investment more in early stage firms with more rounds. The *returnee-foreign VC* match has the best exit outcome among different entrepreneur background and VC type matches. In general, the deals made on returnee entrepreneurs and the deals made by foreign VCs have higher exit probability, which suggests that the involvement of returnee entrepreneurs and foreign VC investors can decrease the failure rate of the VC investments.

Even though the analysis in this paper focuses on China, we argue that the Chinese case might be able to apply to many developing countries where the financial system is underdeveloped and the local entrepreneurs face the challenge of obtaining external financing. It might be particularly applicable to those emerging markets with many highly-talented emigrants overseas. Policy makers could try to implement similar policies to attract those highly-talented emigrants back, with the hope to attract foreign capitals to mitigate the financing challenge for local entrepreneurs.

We argue that there might be a spillover effect that attracting returnee entrepreneurs can also attract foreign VCs back who will thereafter increase the investment on domestic entrepreneurs. However, we admit that we are not able to establish the causality at this stage. It might be the case that returnees have more difficulty to raise funding from domestic VC since they were abroad for many years and are unfamiliar with local conditions or they want to be listed abroad in the future. So they search for funding from foreign VCs overseas other than attracting foreign VCs back to China. It also might be the case that domestic entrepreneurs actively select foreign VCs in order to exit on an overseas exchange in the future other than the story that foreign VCs were attracted to China and found new investment opportunities on domestic entrepreneurs. In the future, we are going to further explore the mechanism on the spillover effect and try to provide evidence to rule out the caveats regarding reversal causality. We will also try to find the explanation for the reason why domestic VCs increased investment dra-

matically on non-returnee but not returnee entrepreneurs after the introduction of the policy. Is it due to the competition effect that domestic VCs want to compete for the non-returnee markets or is it the case that domestic VCs try to mimic the investment behavior of foreign VCs?

Nevertheless, our findings in this paper can still be a valuable reference for the policy makers since the introduction of the policy to attract highly-talented emigrants back can potentially increase the VC investments and improve the exit outcomes, and therefore promote local entrepreneurship.

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**Table 1 Definition and data source of Variables**

| Variable | Definition and Data Source |
|---|---|
| Entrepreneur Age | The difference between the current year (2014) and the entrepreneur's year of birth. Source: Manual collection |
| Entrepreneur with political connection | A dummy equal to one if the entrepreneur has political connection. An entrepreneur is defined as politically connected if he or she is a current or former member of government bureau. Source: Manual collection |
| Entrepreneur with previous CEO experience | A dummy equal to one if the entrepreneur has previous work experience as a CEO before starting the business. Source: Manual collection |
| Entrepreneur with previous entrepreneurship experience | A dummy equal to one if the entrepreneur has previous entrepreneurial experience before starting the business. Source: Manual collection |
| Entrepreneur with previous management experience | A dummy equal to one if the entrepreneur has previous work experience as a manager (but not CEO) before starting the business. Source: Manual collection |
| FDI growth | Growth rate of foreign direct investment in a province. Source: Provincial annual report for each province in China |
| Female entrepreneur | A dummy equal to one if the entrepreneur is a female. Source: Manual collection |
| Foreign Education | A dummy equal to one if the entrepreneur has foreign education. Source: Manual collection |
| Foreign VC | A dummy equal to one if the VC investment deal is made by a foreign VC. Source: Zero2IPO |
| Foreign Work | A dummy equal to one if the entrepreneur has foreign work experience. Source: Manual collection |
| GDP growth | The growth rate of GDP in a province in the year. Source: CSMAR database |
| Informal payment | Measured by the informal payments to obtain the bank loans. Source: World Bank Report on China Governance, Investment Climate, and Harmonious Society (2006) |
| Skilled Labor supply | Measure by per capital expenditures on education. Source: World Bank Report on China Governance, Investment Climate, and Harmonious Society (2006) |
| High-tech cluster and Economic Zone | Number of high-tech development zones in a province until mid-90s, which is a proxy for technology and developing infrastructure. Source: Geography, economic policy,and regional developmenting in China, Demruger, Sachs, Woo, Bao, and Chang (2002) |
| IPO exit rate | The proportion of VC investments exit through IPO out of the total VC investments with exits in each year. Source: Zero2IPO |
| Nonreturnee_foreign_match | A dummy variable equals one if the investment is made by a foreign VC to a nonreturnee entreprenuer. Source: Zero2IPO |

| | |
|---|---|
| Nonreturnee_domestic_match | A dummy variable equals one if the investment is made by a domestic VC to a nonreturnee entreprenuer. Source: Zero2IPO |
| Policy | A dummy equal to one if the province has introduced the policy to attract highly skilled emigrants in the year. Source: LiuXue RenYuan ZhongGuo ChuangYe ZhiNan, China Machine Press |
| Returnee entrepreneur | A dummy equal to one if the entrepreneur has foreign education or work experience. Source: Manual collection |
| Returnee_foreign_match | A dummy variable equals one if the investment is made by a foreign VC to a returnee entreprenuer. Source: Zero2IPO |
| Returnee_domestic_match | A dummy variable equals one if the investment is made by a domestic VC to a returnee entreprenuer. Source: Zero2IPO |
| Returnee_work_foreign_match | A dummy variable equals one if the investment is made by a foreign VC to a returnee entreprenuer with foreign working experience. Source: Zero2IPO |
| Returnee_study_foreign_match | A dummy variable equals one if the investment is made by a foreign VC to a returnee entreprenuer with foreign studying experience. Source: Zero2IPO |
| Tax rate and fees | Average taxes and fees relative to sales for industries with high-value (in percentage). Source: World Bank Report on China Governance, Investment Climate, and Harmonious Society (2006) |
| Transportation convenience | Measured by the total miles of highways per square kilometer in a province, which is a proxy for transportation convenience. Source: Province annual reports 1994-2011 |

**Table 2 Geographical distribution of VC investments**

This table reports the issuing year of the policy to attract highly-skilled emigrants in each province, the number of total VC investment deals and the number of deals made by foreign VCs, domestic VCs and joint capital VCs. The sample period is 1994-2011. "Policy Issuing Year" is the year when the policy to attract highly-skilled emigrants was introduced. "After" refers to observations after the issuing year. "Before" refers to observations before the issuing year.

| | Policy Issuing Year | # VC deals | | # Foreign VC deals | | # Domestic VC deals | | # Joint Capital VC deals | |
|---|---|---|---|---|---|---|---|---|---|
| | | Before | After | Before | After | Before | After | Before | After |
| Beijing | 2000 | 19 | 855 | 16 | 596 | 3 | 198 | | 13 |
| Chongqing | 2005 | 5 | 41 | 1 | 10 | 4 | 28 | | 1 |
| Fujian | 2000 | 1 | 60 | | 17 | 1 | 39 | | 1 |
| Guangdong | 1999 | 6 | 454 | 1 | 135 | 5 | 277 | | 9 |
| Guangxi | 2005 | 2 | 8 | | | 2 | 8 | | |
| Guizhou | 2003 | 1 | 3 | 1 | 2 | | 1 | | |
| Hubei | 2002 | 7 | 47 | 2 | 12 | 5 | 32 | | |
| Hunan | 2001 | 1 | 49 | | 3 | 1 | 46 | | |
| Jiangsu | 2004 | 18 | 227 | 5 | 58 | 13 | 152 | | 6 |
| Shandong | 2005 | 8 | 42 | 1 | 12 | 7 | 28 | | 1 |
| Shanghai | 2005 | 102 | 411 | 72 | 285 | 27 | 88 | 3 | 9 |
| Shanxi | 2007 | 2 | | | | 2 | | | |
| Sichuan | 2005 | 5 | 48 | 3 | 11 | 2 | 33 | | |
| Zhejiang | 2001 | 7 | 146 | 5 | 53 | 2 | 85 | | 2 |
| Total | | 184 | 2391 | 107 | 1194 | 74 | 1000 | 3 | 42 |

**Table 3 Geographical distribution of VC investments on non-returnee startups**

This table reports the issuing year of the policy to attract highly skilled emigrants in each province and the number of total VC investment deals on non-returnee entrepreneurial firms. The sample period is 1994-2011. "Policy Issuing Year" is the year when the policy to attract highly skilled emigrants was introduced. "After" refers to observations after the issuing year. "Before" refers to observations before the issuing year.

| | Policy Issuing Year | Total | Before | After |
|---|---|---|---|---|
| Beijing | 2000 | 467 | 12 | 455 |
| Chongqing | 2005 | 33 | 5 | 28 |
| Fujian | 2000 | 48 | 1 | 47 |
| Guangdong | 1999 | 324 | 5 | 319 |
| Guangxi | 2005 | 10 | 2 | 8 |
| Guizhou | 2003 | 4 | 1 | 3 |
| Hubei | 2002 | 32 | 2 | 30 |
| Hunan | 2001 | 41 | 1 | 40 |
| Jiangsu | 2004 | 153 | 8 | 145 |
| Shandong | 2005 | 42 | 7 | 35 |
| Shanghai | 2005 | 235 | 25 | 210 |
| Shanxi | 2007 | 2 | 2 | |
| Sichuan | 2005 | 42 | 2 | 40 |
| Zhejiang | 2001 | 100 | 6 | 94 |
| Total | | 1533 | 79 | 1454 |

**Table 4 Industry distribution**

This table presents the industry distribution of total VC investment deals in the sample. The sample period is from 1994 to 2011. The industry categorization is defined by the China Securities Regulatory Commission.

| IndustryGroup | # deals | % |
|---|---|---|
| Merchandising | 46 | 2.19 |
| IT | 261 | 12.41 |
| Energy&Mineral | 36 | 1.71 |
| Broadcasting&Digital TV | 7 | 0.33 |
| Entertainment&Media | 51 | 2.43 |
| Logistics | 13 | 0.62 |
| Others | 80 | 3.8 |
| Education | 32 | 1.52 |
| Cleantech | 215 | 10.22 |
| Agr&Forestry&Fishing | 30 | 1.43 |
| Finance | 18 | 0.86 |
| Food | 14 | 0.67 |
| IC | 123 | 5.85 |
| Bio&Healthcare | 177 | 8.42 |
| Machinery | 51 | 2.43 |
| Chemical | 52 | 2.47 |
| Construction | 36 | 1.71 |
| Real Estate | 8 | 0.38 |
| Automobiles | 45 | 2.14 |
| Internet | 479 | 22.78 |
| Costume | 31 | 1.47 |
| Telecom | 158 | 7.51 |
| Electronics | 140 | 6.66 |
| Total | 2,103 | 100 |

## Table 5 Entrepreneur Characteristics

This table reports the summary statistics of the entrepreneur characteristics of our sample startups from 1994 to 2012. The unit of observation is entrepreneur-firm-year. "Returnee Entrepreneur" is a dummy equal to one if the entrepreneur has foreign education or work experience, and zero otherwise. "Entrepreneur with foreign education" is a dummy equal to one if the entrepreneur has foreign education, and zero otherwise. "Entrepreneur with foreign work experience" is a dummy equal to one if the entrepreneur has foreign work experience, and zero otherwise. "Entrepreneur age" is the difference between the current year (2014) and the entrepreneur's year of birth. "Female entrepreneur" is a dummy equal to one if the entrepreneur is a female, and zero otherwise. "Entrepreneur with previous CEO experience" is a dummy equal to one if the entrepreneur has previous work experience as a CEO before starting the business, and zero otherwise. "Entrepreneur with previous management experience" is a dummy equal to one if the entrepreneur has previous work experience as a manager (but not CEO) before starting the business, and zero otherwise. "Entrepreneur with previous entrepreneurship experience" a dummy equal to one if the entrepreneur has previous entrepreneurial experience before starting the business, and zero otherwise. "Entrepreneur with political connection" is a dummy equal to one if the entrepreneur has political connection, and zero otherwise.

| | Mean | Std. Dev. | Min | Max | No of obs. |
|---|---|---|---|---|---|
| Returnee Entrepreneur | 0.367 | 0.482 | 0 | 1 | 2420 |
| Entrepreneur with foreign education | 0.329 | 0.470 | 0 | 1 | 2272 |
| Entrepreneur with foreign work experience | 0.322 | 0.467 | 0 | 1 | 2244 |
| Entrepreneur age | 48.558 | 8.337 | 30 | 78 | 475 |
| Female entrepreneur | 0.018 | 0.132 | 0 | 1 | 1069 |
| Entrepreneur with previous CEO experience | 0.306 | 0.461 | 0 | 1 | 731 |
| Entrepreneur with previous management experience | 0.449 | 0.498 | 0 | 1 | 731 |
| Entrepreneur with previous entrepreneurship experience | 0.312 | 0.464 | 0 | 1 | 731 |
| Entrepreneur with political connection | 0.097 | 0.296 | 0 | 1 | 638 |

**Table 6 Returnee entrepreneurs and the policy to attract highly-talented emigrants**

This table reports the issuing year of the policy to attract highly skilled emigrants in each province and the number of new returnee entrepreneurs conditional on their obtaining of VC investments before and after the policy change. The new returnee entrepreneurs are defined as the returnee entrepreneurs who obtain VC financing for the first time in the year in each province in our sample. The sample period is 1994-2011. "Policy Issuing Year" is the year when the policy to attract highly skilled emigrants was introduced. "After" refers to observations after the issuing year. "Before" refers to observations before the issuing year.

| | Policy Issuing Year | # Returnee entrepreneurs | |
|---|---|---|---|
| | | Before | After |
| Beijing | 2000 | 7 | 130 |
| Chongqing | 2005 | 0 | 5 |
| Fujian | 2000 | 0 | 5 |
| Guangdong | 1999 | 1 | 48 |
| Hubei | 2002 | 2 | 7 |
| Hunan | 2001 | 0 | 4 |
| Jiangsu | 2004 | 6 | 37 |
| Shandong | 2005 | 1 | 6 |
| Shanghai | 2005 | 20 | 64 |
| Sichuan | 2005 | 1 | 4 |
| Zhejiang | 2001 | 1 | 21 |
| Total | | 39 | 331 |

**Table 7 Non-returnee Entrepreneurs and Foreign VC investment**

This table shows the results of the probit regression examining the probability that the non-returnee entrepreneurs obtain financing if the VC deals are made by foreign VCs. The dependent variable is the dummy variable equals one if the startup is founded by a non-returnee. All the variables are defined in Table 1. All standard errors are clustered at the province level. ***,** and * indicate significance at 1%,5% and 10% levels, respectively.

| | Dummy(equals 1 if the startup is founded by a non- returnee) | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| Foreign VC | -0.729*** | -0.705*** | -0.605*** | -0.609*** |
| | (0.094) | (0.095) | (0.096) | (0.095) |
| GDP growth | | 3.494* | 0.017 | -0.025 |
| | | (1.880) | (2.138) | (2.074) |
| FDI growth | | 0.098 | 0.110 | -0.001 |
| | | (0.271) | (0.332) | (0.309) |
| IPO exit rate | | -1.909 | 0.706 | 0.785 |
| | | (2.155) | (2.288) | (2.257) |
| High-tech cluster and Economic Zone | | | | 0.089 |
| | | | | (0.141) |
| Skilled labor supply | | | | -0.001 |
| | | | | (0.003) |
| Informal payment | | | | 1.340 |
| | | | | (10.348) |
| Tax rate and fees | | | | 0.050 |
| | | | | (0.167) |
| Transportation convenience | | | | 0.000*** |
| | | | | (0.000) |
| Year FE | YES | YES | YES | YES |
| Industry FE | YES | YES | YES | YES |
| Province FE | NO | NO | YES | NO |
| Observations | 2,210 | 2,208 | 2,197 | 2,208 |
| Pseudo R-squared | 0.0858 | 0.0878 | 0.106 | 0.105 |

**Table 8 The effect of policy on non-return entrepreneurial firms**

This table shows the results of the probit regression examining the effect of the policy to attract highly-talented emigrant entrepreneurs on the probability that the non-returnee entrepreneurs obtain financing (and if the VC deals are made by foreign VCs). The dependent variable is the dummy variable equals one if the startup is founded by a non- returnee. All the variables are defined in Table 1. All standard errors are clustered at the province level. ***,** and * indicate significance at 1%,5% and 10% levels, respectively.

| | Dummy(equals 1 if the startup is founded by a non-returnee) | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| Policy | 0.646** | 0.359 | 0.297 | 0.167 |
| | (0.329) | (0.276) | (0.261) | (0.219) |
| Foreign VC | | -1.109*** | -1.143*** | -1.009*** |
| | | (0.239) | (0.238) | (0.228) |
| Policy*Foreign VC | | 0.420* | 0.481* | 0.435* |
| | | (0.250) | (0.255) | (0.253) |
| GDP growth | | | 3.244* | 0.076 |
| | | | (1.966) | (2.231) |
| FDI growth | | | 0.163 | 0.010 |
| | | | (0.316) | (0.266) |
| IPO exit rate | | | -1.685 | 0.748 |
| | | | (1.804) | (2.886) |
| High-tech cluster and Economic Zone | | | | 0.066 |
| | | | | (0.065) |
| Skilled labor supply | | | | -0.000 |
| | | | | (0.001) |
| Informal payment | | | | -2.277 |
| | | | | (4.183) |
| Tax rate and fees | | | | 0.089 |
| | | | | (0.081) |
| Transportation convenience | | | | 0.000*** |
| | | | | (0.000) |
| Year FE | YES | YES | YES | YES |
| Industry FE | YES | YES | YES | YES |
| Observations | 2,210 | 2,210 | 2,208 | 2,208 |
| Pseudo R-squared | 0.0468 | 0.0920 | 0.0938 | 0.108 |

**Table 9 IPO location and VC-entrepreneur matches**

This table reports the IPO location choice among the four types of VC-entrepreneur match: returnee-foreign VC, returnee-domestic VC, non-returnee-foreign VC and non-returnee-domestic VC. The IPO location is roughly divided into the U.S., Asia and China.

| IPO location | Returnee-Foreign VC | Returnee-Domestic VC | Nonreturnee-Foreign VC | Nonreturnee – Domestic VC |
|---|---|---|---|---|
| Asia | 20 | 13 | 25 | 7 |
| China | 19 | 58 | 24 | 211 |
| U.S. | 145 | 17 | 106 | 9 |
| Total | 184 | 88 | 155 | 227 |

**Table 10 Exit and entrepreneur-VC background match**

This table shows the results of the logit regression examining the relationship between exit outcome and entrepreneur-VC match. Column (1) to (5) excludes VC investments after 2007 and column (6) is the whole sample. The dependent variable is the dummy variable equals one if the firm has an exit. All the variables are defined in Table 1. All standard errors are robust. ***,** and * indicate significance at 1%,5% and 10% levels, respectively.

| | Dummy(equals 1 if the deal has an exit) | | | | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Returnee_foreign_match | 0.527*** | | | | | |
| | (0.182) | | | | | |
| Returnee_domestic_match | | 0.314 | | | -0.197 | -0.119 |
| | | (0.227) | | | (0.262) | (0.176) |
| Nonreturnee_foreign_match | | | -0.004 | | -0.366* | -0.408*** |
| | | | (0.191) | | (0.219) | (0.141) |
| Nonreturnee_domestic_match | | | | -0.786*** | -0.971*** | -0.408*** |
| | | | | (0.190) | (0.228) | (0.149) |
| GDP growth | 1.102 | 0.845 | 0.968 | -0.677 | -0.267 | 3.113 |
| | (4.391) | (4.368) | (4.382) | (4.352) | (4.401) | (2.656) |
| FDI growth | 1.234** | 1.312** | 1.321** | 1.262** | 1.211* | -0.039 |
| | (0.628) | (0.623) | (0.622) | (0.626) | (0.631) | (0.392) |
| Year FE | YES | YES | YES | YES | YES | YES |
| Industry FE | YES | YES | YES | YES | YES | YES |
| Province FE | YES | YES | YES | YES | YES | YES |
| Observations | 805 | 805 | 805 | 805 | 805 | 2,242 |
| Pseudo R-squared | 0.0743 | 0.0683 | 0.0665 | 0.0824 | 0.0851 | 0.185 |

**Table 11 Exit and foreign education and work experience of returnee**

This table shows the results of the logit regression examining the relationship between exit outcome and foreign working and studying experience of the returnee entrepreneurs. We exclude VC investments after 2007. The dependent variable is the dummy variable equals one if the firm has an exit. All the variables are defined in Table 1. All standard errors are robust. ***,** and * indicate significance at 1%,5% and 10% levels, respectively.

| | Dummy(equals 1 if the deal has an exit) | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| Returnee_work_foreign_match | 0.461** | | 0.672** |
| | (0.189) | | (0.281) |
| Returnee_study_foreign_match | | 0.214 | -0.282 |
| | | (0.185) | (0.281) |
| GDP growth | 0.875 | 0.939 | 0.855 |
| | (4.392) | (4.363) | (4.396) |
| FDI growth | 1.252** | 1.283** | 1.271** |
| | (0.625) | (0.623) | (0.626) |
| Year FE | YES | YES | YES |
| Industry FE | YES | YES | YES |
| Province FE | YES | YES | YES |
| Observations | 805 | 805 | 805 |
| Pseudo R-squared | 0.0720 | 0.0677 | 0.0729 |

**Table 12 Investment stage and entrepreneur-VC background match**

This table shows the relationship between the entrepreneur-VC match and investment stage. The dependent variable equals to one if the VC investment is made in an early stage. The entrepreneur-VC controls are defined in the appendix. Specifications (1) to (5) are Probit regressions while (6) is OLS regression. Year F.E. are the year dummies when the VC investments are made, industry F.E. are industry dummies, province FE is the location dummy where the investments are made and Round F.E. are the rounds at which the investments are made. ***,** and * indicate significance at 1%,5% and 10% levels, respectively.

| | *VC Invested in Early Stage (1=Yes, 0 = No)* | | | | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| returnee_foreign_match | 0.075 | | | | | |
| | (0.082) | | | | | |
| returnee_domestic_match | | 0.034 | | | -0.117 | -0.031 |
| | | (0.129) | | | (0.120) | (0.038) |
| nonreturnee_foreign_match | | | 0.065 | | 0.054 | 0.025 |
| | | | (0.113) | | (0.092) | (0.038) |
| nonreturnee_domestic_match | | | | -0.143 | -0.275*** | -0.064* |
| | | | | (0.100) | (0.100) | (0.033) |
| Regression Type | Probit | Probit | Probit | Probit | Probit | OLS |
| Year FE | YES | YES | YES | YES | YES | YES |
| Industry FE | YES | YES | YES | YES | YES | YES |
| Province FE | YES | YES | YES | YES | YES | YES |
| Round FE | YES | YES | YES | YES | YES | YES |
| Observations | 2,019 | 2,019 | 2,019 | 2,019 | 2,019 | 2,208 |
| R-squared | 0.133 | 0.133 | 0.134 | 0.134 | 0.138 | 0.159 |

**Table 13 Investment round and entrepreneur-VC background match**

This table shows the relationship between the entrepreneur-VC match and the logarithm of number of rounds. The dependent variable is *ln (1 + Number of Rounds VC Invested in Company)*. The entrepreneur-VC matches are defined in the appendix. Specifications (1) to (5) are OLS regressions while (6) is negative binomial regression. Year F.E. are the year dummies when the VC investments are made, industry F.E. are industry dummies, province FE is the location dummy where the investments are made and Stage F.E. are the stages at which the investments are made. ***,** and * indicate significance at 1%,5% and 10% levels, respectively.

| | *ln (1 + Number of Rounds VC Invested in Company)* | | | | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| returnee_foreign_match | 0.120*** | | | | | |
| | (0.015) | | | | | |
| returnee_domestic_match | | -0.045* | | | -0.132*** | -0.134*** |
| | | (0.025) | | | (0.023) | (0.031) |
| nonreturnee_foreign_match | | | -0.024 | | -0.091*** | -0.087*** |
| | | | (0.027) | | (0.018) | (0.032) |
| nonreturnee_domestic_match | | | | -0.060*** | -0.154*** | -0.158*** |
| | | | | (0.020) | (0.018) | (0.027) |
| Regression Type | OLS | OLS | OLS | OLS | OLS | Neg.Bin. |
| Year FE | YES | YES | YES | YES | YES | YES |
| Industry FE | YES | YES | YES | YES | YES | YES |
| Province FE | YES | YES | YES | YES | YES | YES |
| Stage FE | YES | YES | YES | YES | YES | YES |
| Observations | 2,242 | 2,242 | 2,242 | 2,242 | 2,242 | 2,242 |
| R-squared | 0.231 | 0.248 | 0.252 | 0.236 | 0.236 | N.A. |

**Table 14 Syndication and entrepreneur-VC background match**

This table shows the relationship between the entrepreneur-VC match and syndication. The dependent variable equals to one if the deal is made in a VC syndication. The entrepreneur-VC controls are defined in the appendix. Specifications (1) to (5) are Probit regressions while (6) is OLS regression. Year F.E. are the year dummies when the VC investments are made, industry F.E. are industry dummies, province FE is the location dummy where the investments are made and Round and Stage F.E. are the rounds and stage at which the investments are made. ***,** and * indicate significance at 1%,5% and 10% levels, respectively.

| | Dependent Variable *VC Invested in a Syndication (1=Yes, 0 = No)* | | | | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| returnee_foreign_match | 0.325*** | | | | | |
| | (0.072) | | | | | |
| returnee_domestic_match | | -0.011 | | | -0.316*** | -0.106** |
| | | (0.113) | | | (0.127) | (0.044) |
| nonreturnee_foreign_match | | | -0.058 | | -0.279*** | -0.090** |
| | | | (0.091) | | (0.111) | (0.038) |
| nonreturnee_domestic_match | | | | -0.193** | -0.393*** | -0.130*** |
| | | | | (0.089) | (0.088) | (0.039) |
| Regression Type | Probit | Probit | Probit | Probit | Probit | OLS |
| Year FE | YES | YES | YES | YES | YES | YES |
| Industry FE | YES | YES | YES | YES | YES | YES |
| Province FE | YES | YES | YES | YES | YES | YES |
| Round FE | YES | YES | YES | YES | YES | YES |
| Stage FE | YES | YES | YES | YES | YES | YES |
| Observations | 2,184 | 2,184 | 2,184 | 2,184 | 2,184 | 2,208 |
| R-squared | 0.137 | 0.139 | 0.139 | 0.142 | 0.138 | 0.181 |

**Figure 1 VC investments on returnee entrepreneurs**

This figure presents the impact of the policy to attract highly-talented emigrants on the total VC investments, domestic VC investments and foreign VC investments on returnee entrepreneurs. The data is from Zero2IPO.

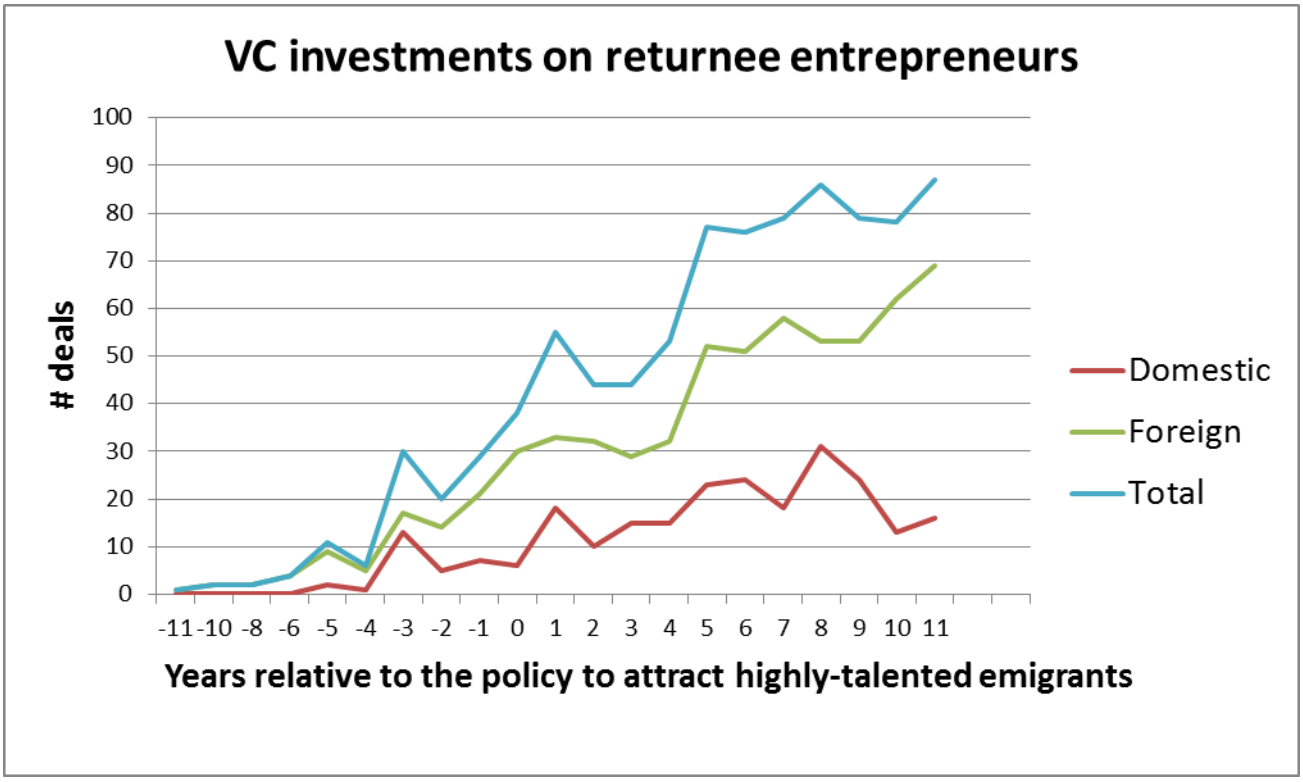

**Figure 2 VC investments on non-returnee entrepreneurs**

This figure presents the impact of the policy to attract highly-talented emigrants on the total VC investments, domestic VC investments and foreign VC investments on non-returnee entrepreneurs. The data is from Zero2IPO.

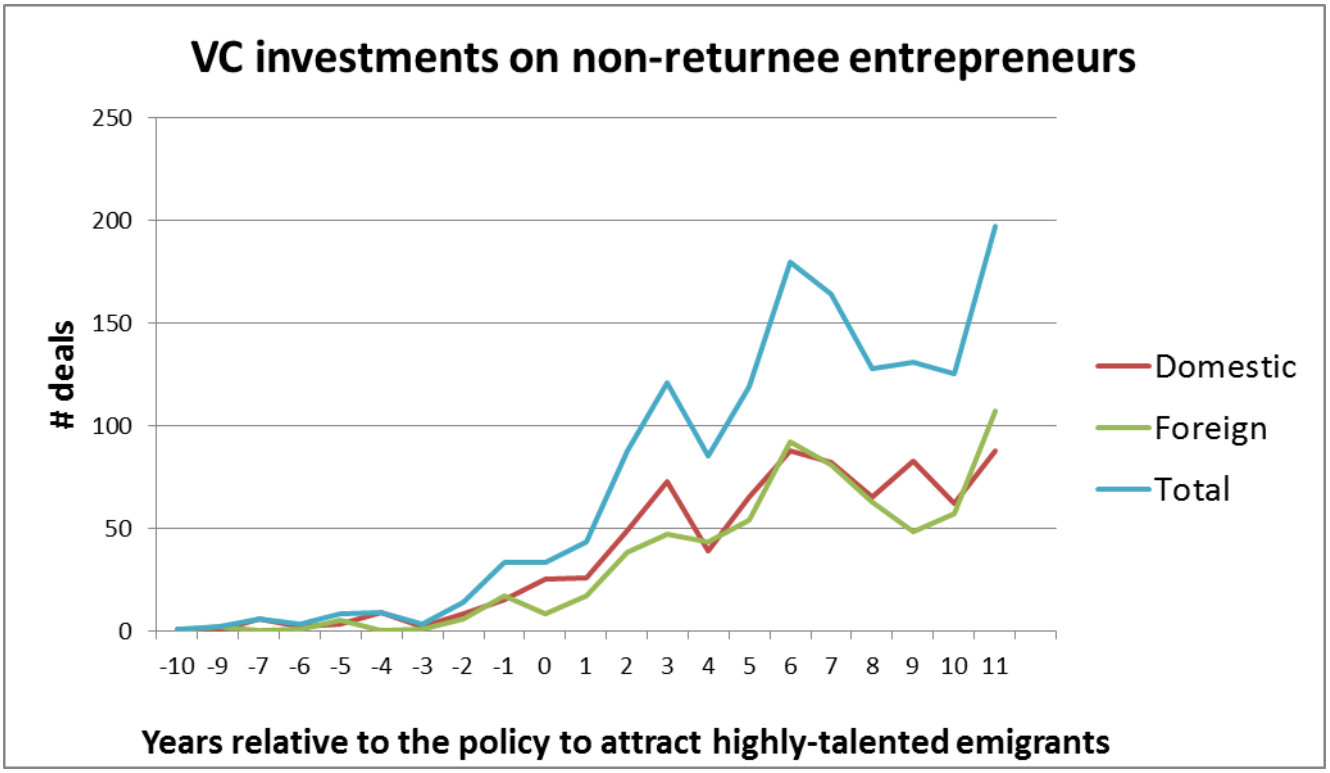

**Figure 3 VC investments by foreign VCs**

This figure presents the impact of the policy to attract highly-talented emigrants on the VC investments made by foreign VC investments on both returnee and non-returnee entrepreneurs. The data is from Zero2IPO.

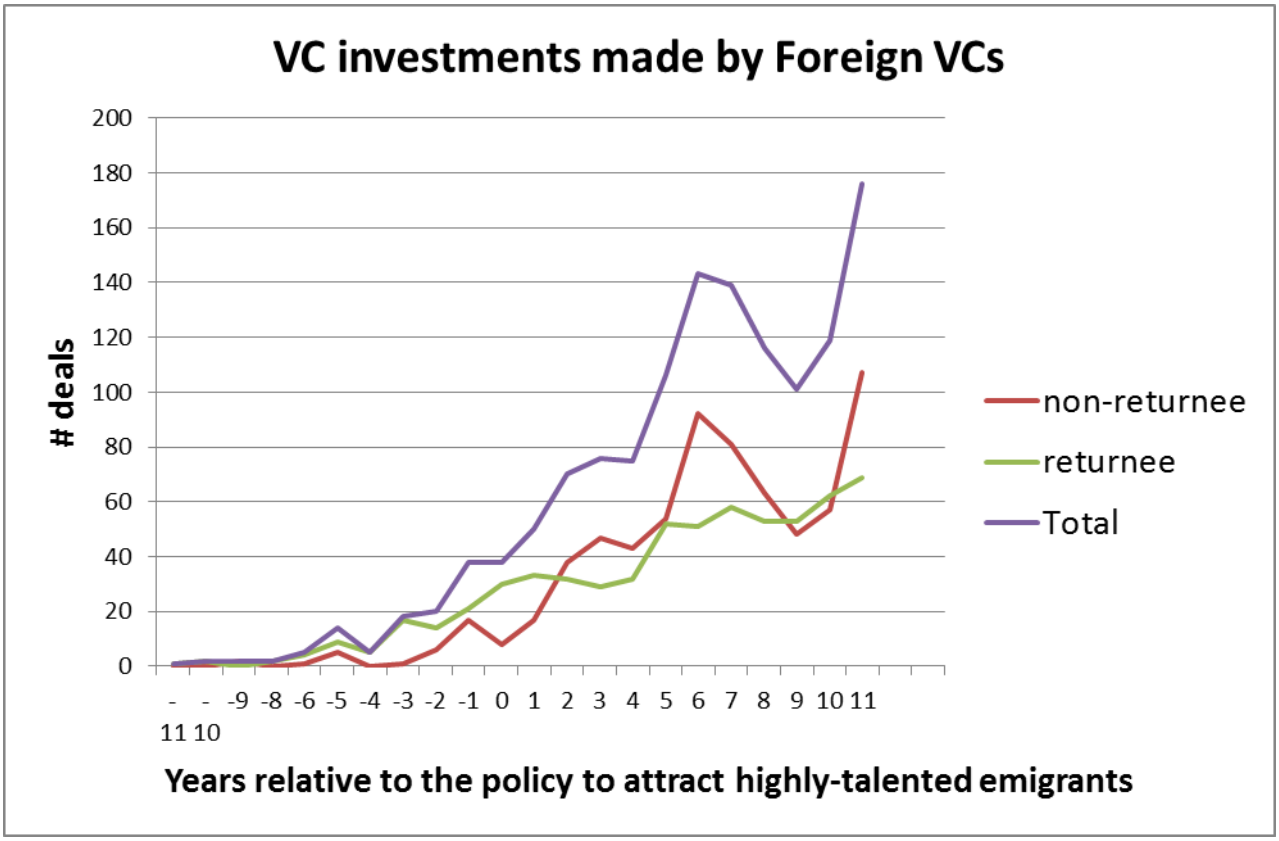

**Figure 4 VC investments by Domestic VCs**

This figure presents the impact of the policy to attract highly-talented emigrants on the VC investments made by domestic VC investments on both returnee and non-returnee entrepreneurs. The data is from Zero2IPO.