Does Overseas Experience Matter? A study of returnee CEOs and IPOs of Chinese

entrepreneurial firms

Abstract

This paper draws on knowledge-based, resource dependence and institutional theories to examine the impact of returnee CEOs on IPOs and post-IPO performance of Chinese entrepreneurial firms. Using a sample of 355 IPOs from the newly launched ChiNext board, we show that returnee CEOs tend to list on US or HK markets and we find that returnee CEOs outperform local CEOs in terms of IPO valuation and post-IPO performance after controlling for selection bias with propensity-score matching and instrumental variable approaches. The results are more pronounced where entrepreneurial firms are backed by venture capital.

INTRODUCTION

The human capital of the management team is important to the development of entrepreneurial firms (Haber and Reichel, 2007; Zimmerman, 2008; Bondaro et al., 2011) and various individual traits, such as expertise, experience, gender and personality, are found to affect firm outcomes in both entrepreneurship and organization studies (Kilduff et al., 2000; Shrader and Siegel, 2007; Carter et al., 2007; Engelen et al., 2014). Included in these traits, overseas work or study experience can be important and is receiving increasing attention from practitioners and policymakers. China has the largest number of overseas students, expanding from 144,500 in 2007 to 413,900 in 2013.[1] Wilson et al. (2007) and Zhao et al. (2010) suggest that background or past experience may affect both personal effectiveness and future employment options, hence international experience may not only be beneficial to returnees' career development but also contribute to the development of their employers' business. Previous studies of Chinese returnees focus on their role as entrepreneurs in science park start-

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[1]See the website in Chinese: http://www.eol.cn/html/lx/2014baogao/content.html

ups (Wright et al., 2008; Filatotchev et al., 2009; Liu et al., 2010; Li et al., 2012). In this study we examine for the first time the impact of returnee CEOs on IPOs - a crucial transition for Chinese entrepreneurial firms.

Whether returnees have an advantage over locals is debatable. Although returnees possess professional knowledge and international experience, having lived overseas for years they may lack local networks and connections. Previous research has studied the role of returnee entrepreneurs on growth and innovation of early-stage entrepreneurial firms (Wright et al., 2008; Filatotchev et al., 2009; Liu et al., 2010; Li et al., 2012). The empirical evidence is contradictory. Wright et al. (2008) analyze high-tech Small- and Medium-sized Enterprises (SMEs) and find that returnee entrepreneurs have a positive effect on employment growth in SMEs located in certain types of science parks. Also focusing on SMEs in science parks, Filatotchev et al. (2009) find that returnee entrepreneurs have a positive impact on export orientation and performance. Liu et al. (2010) document that returnee entrepreneurs are positively associated with innovative performance and multinational enterprises' employee mobility. In contrast, Li et al. (2012) find that the new technology ventures led by returnee entrepreneurs underperform those led by local entrepreneurs due to a lack of local network and knowledge. Jack Ma (Yun Ma), the Chair of the Alibaba Group (NYSE:BABA)[2], points out that returnee executives may be unsuitable for the Chinese start-up market, even though the abilities of the returnees maybe higher than those of the locals.[3] These previous studies have examined the role of returnees in the early stages of entrepreneurial firms, but the impact of returnee CEOs on the IPOs of entrepreneurial firms has not yet been addressed.

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[2] The largest IPO in the US capital market until 23 September of 2014.
[3] Jack Ma had tried to appoint returnee executives to improve the quality of the top management team of the Alibaba Group after obtaining venture investment from Goldman Sachs, but subsequently failed and fired 95% of them. Jack Ma describes appointing returnees in the early stage of start-ups like 'install[ing] the engine of aircraft on tractors'. See the Chinese website: http://data.book.hexun.com/chapter-3656-4-6.shtml.

The entrepreneurship literature has emphasized the importance of entrepreneurs in the development of firms and in the IPO process (Begley, 1995; Wright et al., 2008; Bruton et al., 2009; Chahine et al., 2011; Block, 2012). Conversely, the organization studies literature mainly investigates the importance of the CEO in public firms (Sakano and Lewin, 1999; Graffin et al., 2008; Chen and Hambrick, 2012). The transition from private to public firm is a crucial milestone for entrepreneurial firms; both firm structure and environment will become more complex, often leading to the replacement of CEO entrepreneurs with professional managers (Chahine et al., 2011; Khoury et al., 2013). Consequently, this paper sheds light the role of pre-IPO appointed returnee CEOs on the transition from private to public firm.

Further, this study has implications beyond the literature on returnee CEOs and on IPOs. In light of the global talent mobility, we add to the literature of international entrepreneurship by showing to what extent the capital of international expertise determines the decision and outcome of entrepreneurial firms in transitions. While the literature of international entrepreneurship (Oviatt and McDougall, 2000) largely focuses on the entrepreneurial and organization behaviors across national borders, we focus on an under-researched dimension on the internationalization of management teams. Oviatt and McDougall (2005) highlight importance of knowledge influences and predict that entrepreneurial firms led by founders or management teams with personal international experience are more capable of exploiting entrepreneurial opportunities. Our finding confirms this prediction and provides new evidence that the internationalization of management teams benefits entrepreneurial firms not only in entering foreign countries but also in their successful transitions in the home country.

We examine 355 IPOs in the ChiNext board market, 33 IPOs in the NASDAQ market, and 23 IPOs in the HK second board market between 2009 and 2012. Firstly, we find that

entrepreneurial firms led by returnee CEOs tend to list on the US or HK market rather than on the ChiNext market. However, this preference does not survive the press reports of financial fraud of US listed Chinese firms during 2011. Secondly, returnee CEOs are associated with higher IPO valuation, but not with the first day return of IPO or IPO proceeds. Thirdly, although the positive impact of returnee CEOs on the short-run IPO performance is modest, we still find that entrepreneurial firms led by returnees outperform those led by local CEOs in the long run. The positive effect of returnee CEOs on post-IPO performance is also more pronounced when the IPO firms are backed by venture capital (VC). Our results are in line with the evidence on the role of returnee entrepreneurs (founders) in early-stage entrepreneurial firms (Wright et al., 2008; Filatotchev et al., 2009; Liu et al., 2010).

As the China Securities Regulatory Commission (CSRC) specifies that directors and senior executives of issuers are not allowed to significantly change during the 2-year period prior to the IPOs of the ChiNext board (China's Growth Enterprise Board)[4] our research setting is not subject to severe sample selection bias. Even so we use both propensity scoring matching (PSM) and an instrumental variable (IV) to address possible sample selection bias and endogeneity. More specifically, for propensity-score procedure, we match each returnee CEO managed IPO with a non-returnee CEO managed IPO. For the instrumental variable approach we argue that returnees will be influenced by the number of international schools in the firm's headquarter city for family reasons. Therefore we use the number of international schools to predict the likelihood of entrepreneurial firms managed by returnee CEOs in IPOs. We find that our results are robust

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[4] The Article 13 of 'Interim Measures on Administration of Initial Public Offering and Listing on Growth Enterprise Board' claims that 'There is no significant change in the major business, directors and senior management of the issuer in the recent two years, and there is no change in the actual controller of the issuer either'. See the CSRC website in English: http://www.csrc.gov.cn/pub/csrc_en/newsfacts/release/200904/t20090430_102998.html

to both PSM and IV approaches. We also examine the role of returnee chairs and returnee founders and our findings are broadly consistent with the results for returnee CEOs.

This paper makes four main contributions to the entrepreneurship literature. First, this is the first examination of the effect of returnee CEOs on IPO and post-IPO performance. Although a few studies have examined returnee entrepreneurs in start-ups, the role of returnee CEOs of newly public entrepreneurial firms is not clear. Second, we incorporate knowledge-based, institutional and resource dependence theories to analyze and explain the role of returnee CEOs. Knowledge-based theory suggests that knowledge is strategically important for sustained competitive advantage (Grant, 1996). Our results show that returnee CEOs positively impact on long-run performance (post-IPO performance), which supports this theory. Institutional theory suggests that the appointment of returnee CEOs may meet the requirements of institutional pressure (Scott, 1995). Again this is consistent with our result regarding the role of returnee CEOs on short-run performance (IPO performance). The resource dependence theory emphasizes that external resources are important for firms to manage environmental uncertainty (Pfeffer and Salancik, 1978). Thirdly, our study provides reliable new evidence by addressing the concern of endogeneity issue, stemming from the fact that returnees do not randomly join entrepreneurial firms, by applying both the propensity scoring match (PSM) and instrumental variable approaches. Such selection bias issue is not controlled in the entrepreneurship literature of returnees. Finally, our study also extends the studies on the under-researched Chinese entrepreneurial firms by looking at the newly launched ChiNext market[5].

The paper proceeds as follows. The next section introduces the institutional background. In the following two sections we discuss the theoretical background and develop the hypotheses

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[5] The Chinese NASDAQ market which focuses on providing finance to the entrepreneurial firms.

and thereafter present the research method and results. The penultimate section discusses the results, policy and practical implications and limitations and the final section concludes.

INSTITUTIONAL BACKGROUND

A Brief History of Returnees

The first known Chinese overseas student, Rong Hong, can be traced back to 1850 when he helped to open China to external knowledge and influences. After graduating from Yale, Rong Hong returned to China and suggested that the Qing dynasty fund a large-scale program of overseas studies. Since then returnees have played an important role in the development of Chinese society. Thus, the establishment of the Republic of China in 1911, and the People's Republic of China in 1949, were strongly influenced by returnees. More recently, China's 'Reform and Opening Up' in 1978, creating a favorable environment for the development of the Chinese economy was led by Deng Xiaoping, a returnee from France.

In addition to the impact on Chinese society, returnees also contributed to the development of modern business in China. Returnee CEOs have influenced the development of China's economy in two main periods: firstly, from 1912 to 1949, and then since 1978 onwards. During the period of the Republic of China (1912-1949), a national bourgeoisie had emerged. At that time, since the government supported national capitalism and most of the CEOs were returnees, the business and management models of Chinese enterprises followed the examples of Japan, the US and Western European countries. With the establishment of the People's Republic of China in 1949, the Chinese government sent many of its best students to study at centers of excellence in the Soviet Union encompassing a wide range of subjects, and Chinese managers also gained corporate experience in Soviet organizations.

Between 1949 and 1978 returnee CEOs played an important role in the development of Chinese companies in the market economy. The Chinese economic reforms devolved powers to restructured enterprises and gave CEOs considerable discretion over funding, products, pricing and labor practices. The appointment criteria for CEOs also moved away from dependence on political patronage and personal connections towards merit and ability. Furthermore, the establishment of the Chinese capital market in 1990 accelerated the development of Chinese enterprise; returnee CEOs were given the opportunities to use their experience and bringing expertise gained in foreign stock markets they duly drove developments in corporate governance and strategic management. To encourage these advances the Chinese government initiated a policy (Recruitment Program of Global Experts) offering returnee CEOs national-level support for working and living in China.

Since the social and education systems of China and foreign developed countries differ considerably, Chinese students studying overseas may find it difficult and the selection process for overseas students is demanding. The benefits, however, are substantial. Studying or working overseas provides returnees to China with broad experience, specialist knowledge of market economies and professional expertise in science and technology. Consequently, the Chinese government provides support to encourage overseas-based Chinese students to return.

Policies for Returnees

After the establishment of the People's Republic of China in 1949, the government encouraged Chinese students and managers to visit the Soviet Union to gain experience and learn about advanced technologies. After 1978, this policy was significantly enhanced in three stages: encouraging students to go abroad, creating an environment to attract returnees, and issuing specific policies to attract returnees.

In the first stage, the Chinese government focused on providing financial support to help Chinese students study abroad. In 1978, the first state-funded cohort was sent abroad, comprising 100 elite students (50 out of 150 candidates, and 50 young scholars). All went to study on PhD programs in the areas of science and technology. In 1985, the Chinese government began to allow self-funded students to study abroad, and issued a policy encouraging the practice, entitled 'Support for studying abroad, encouragement to return, and the freedom to come back and leave again'. Between 1978 and 1989, the number of students dispatched to study abroad by the Chinese government totaled 96,100, including 29,990 state-funded students. The initial destination countries of the self-funded students were Australia, the US, the UK and Japan.

In the second stage, the Chinese government started paying attention to attracting the graduates to come back to China by encouraging large state-owned enterprises (SOEs), banks, insurance companies and securities companies to employ Chinese candidates with overseas experience, giving them high positions and salaries (Giannetti et al., 2014). For example, 34 Academies of Science and 53 Special Economic Zones provided favorable treatment for returnees. More specifically, Shanghai promised that the application process for running a business would take just five days. Beijing Zhongguancun, known as the Chinese Silicon Valley (Filatotchev et al., 2009), even established an office in the US' Silicon Valley to recruit talented staff. In the 1990s, the number of Chinese returnees increased, most of them running their own businesses in Beijing's Zhongguancun.

In the final stage, the Chinese government began to strengthen incentives to attract the overseas elite back to China. The 'Cheung Kong Scholars Program' was implemented in 1998 by the Ministry of Education and aimed to create 300-500 positions for distinguished professors in national key development disciplines within three to five years. These professors would receive

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100,000 RMB per year. The 'Recruitment Program of Global Experts', launched by the Organization Department of the Communist Party of the China Central Committee in 2008, intended to recruit approximately 2000 experts (including university professors, corporate top executives, and other technology- or innovation-oriented talents) with overseas PhD degrees within five to ten years. The Chinese government also provided favorable treatment in terms of registered residences (*hukou*), residence permits (for foreigners), a premium medical service, social security for spouses and children, and even permitted the buying of real estate despite an otherwise restricted policy. Most importantly, the employed experts would receive 1,000,000 RMB in a one-off grant from the central and local government. By September 2011, 1510 experts had been accepted onto the 'Recruitment Program of Global Experts'[6]. Apart from the central government's policy focus on returnees, local governments have also issued a variety of policies aimed at attracting and supporting returnees.

ChiNext Board Market

Although privately owned companies are the cornerstone of Chinese economic growth (Allen et al., 2005), these private entrepreneurial firms often face financial constraints (Poncet et al, 2010; Ding et al., 2013). In developed countries, second board capital markets are normally in place to facilitate equity financing of entrepreneurial firms. For example, growth enterprises markets (GEMs) have been widely established for the development of innovative entrepreneurial enterprises including NASDAQ in the US, the Alternative Investment Market (AIM) in the UK, and Catalist in Singapore. In October 2009, ChiNext, China's GEM, was launched in the Shenzhen Stock Exchange to 'promote the development of innovative enterprises and other growing start-ups'[7] and 355 entrepreneurial firms were listed by the end of 2012. The listing

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[6] Source: *People's Daily,* 13 September 2011.
[7] http://www.szse.cn/main/en/ListingatSZSE/ListingQA/

requirements of the ChiNext board are substantially more flexible than those of the main board market. For example, one of the requirements of the ChiNext board is that the accumulated profits cannot be less than RMB 10 million and must represent continued growth in the last two years, while the SZSE main board requirement is that the net profits cannot be lower than RMB 30 million in aggregate in the last three consecutive years.[8] The ChiNext board provides a new platform to the financing of all types of entrepreneurial firms in addition to other GEMs around the world and offers significant opportunities to returnees. For example, more than 30 returnees become billionaires after the first round of IPOs on the ChiNext board in October 2009.[9]

THEORETICAL BACKGROUND

The literature focusing on Chinese returnees has concentrated on knowledge-based theory; we too use this approach but also consider institutional theory and resource dependence theory to analyze the effect of returnee CEOs on entrepreneurial firms.

Knowledge-based Theory

As returnees have studied or worked overseas they possess international experience and knowledge. Resource-based theory argues that such attributes are valuable and subsequently contribute to firms' sustainable growth (Penrose, 1959) and competitive advantages (Wernerfelt, 1984). The resources have been categorized as both human capital (Penrose, 1959) and capital assets (Teece et al., 1997). The literature has increasingly focused on human capital, especially emphasizing intangible resources such as past experience, knowledge and skills, as the important contributing factor to firm performance (Barney, 1992). Based on resource-based theory, Grant (1996) develops a knowledge-based approach suggesting that knowledge and expertise are strategically important resources for firms and the major determinants of sustained competitive

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[8] http://www.szse.cn/main/en/ListingatSZSE/ListingRequirements/
[9] http://finance.sina.com.cn/focus/cybfh/

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advantage. He sees knowledge-based resources as valuable, rare and inimitable. As returnees CEOs possess specific knowledge or expertise from their overseas experience they could provide the knowledge-based resources to establish a competitive advantage. From the perspective of an entrepreneurial firm, the CEO's experience and expertise become part of the firm's competitive advantage and can subsequently lead to superior performance (Alvarez and Busenitz, 2001).

Previous literature has researched the effect of CEO's or executives' international experience on firm's outcomes (Roth, 1995; Sambharya, 1996; Daily et al., 2000; Carpenter et al., 2001) and the role of returnee entrepreneurs in SMEs (Wright et al., 2008; Filatotchev et al., 2009; Liu et al., 2010). Consistent with the predictions from resource-based theory, Roth (1995) finds that CEO international experience is associated with better firm performance when the level of firm interdependence is high. In terms of multinational firms, top management team members with international experience are positively related to firms' internationalization strategies. Carpenter et al. (2001) document that multinational firms with CEOs possessing international working experience have better stock and operating performance than those managed by CEOs without international experience. Using Fortune 500 firms, Daily et al. (2000) also find CEO international experience has a positive effect on the degree of firm internationalization and corporate financial performance for listed firms. Giannetti et al., (2014) demonstrate that board directors with international experience also had a positive effect on value for firms in the Chinese market.

From the perspective of the role of returnee entrepreneurs in China, previous literature mainly focuses on the effect of returnee entrepreneurs on high-technology small and medium sized enterprises (Wright et al., 2008; Filatotchev et al., 2009; Liu et al., 2010). Wright et al. (2008) argue that returnee entrepreneurs are more likely than others to seek complementary

resources in the Science Park selection. Focusing on high-technology SMEs, they find that entrepreneurial firms managed by returnees holding patents are associated with stronger employment growth in non-university science parks, and multinational firms managed by returnees with entrepreneurial experience perform better than their competitors in the university science parks. Relying on knowledge-based theory, Filatotchev et al. (2009) emphasize the importance of knowledge in high-technology SMEs. They find that returnee entrepreneurs who possess overseas experience and global networks positively affect the export orientation and performance of high-technology SMEs. Liu et al. (2010) also find that the knowledge spillovers of returnee entrepreneurs has a positively impact on innovation of high-tech firms.

Institutional Theory

Institutional theory suggests different interpretations of the effectiveness of returnees in the entrepreneurial firms (Scott, 1995). From a regulative viewpoint institutional theory suggests that firm's outcomes are affected by pressure from law or regulation (Meyer and Rowan, 1977). Furthermore Meyer and Rowan (1977) emphasize that firm's outcomes could be explained by management's incentives to mimic their peers' behavior and thereby avoid criticism. Sorensen and Fassiotto (2011) also demonstrate that the normative environment influences entrepreneurial decisions. Hence firms, especially entrepreneurial firms, may appoint returnees in order to suggest an international strategy or the acquisition of advanced technology even where they have no real demand for that particular expertise. Due to the regulatory pressure, entrepreneurial firms, especially high-tech SMEs, may also appoint returnees in order to appear to legitimize their case for entry to a science park. Since the aim of establishing the science park is to build an incubator of high-tech entrepreneurial firms, science parks may expect that the management team of entrepreneurial firms include returnees. The various benefits available in science parks provide

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advantages that contribute to high growth and competitive advantage. For example, the returnees' science park of Peking University requires that the applicant should have an overseas bachelor degree or higher, long-term overseas experience, or obtained overseas permanent residence or re-entry qualification to an overseas country. The benefits to science park entry include three years tax exemptions and four years tax incentives, Beijing 'hukou' for returnees and their families, including children's education benefits and direct investment of a million RMB every year.[10] Finally, firms may hire returnees to mimic their peers' appointment of returnees either to falsely signal their capture of the benefits of returnees as described above or simply to avoid negative sentiment arising from the absence of returnees in their management team.

Individuals may seek returnee status even where they have not genuinely gained useful international experience. The Chinese and local governments provide a series of benefits, such as providing 'hukou' or tax incentives, to attract returnees with overseas experience. Consequently some individuals may try to falsely obtain the status of the returnee normally implying an overseas degree or overseas permanent residence. Strategies include studying in low quality overseas universities [11] or obtaining overseas permanent residence through "investment immigration". In some cases individuals have simply bought their degree from unaccredited overseas universities in order to obtain the status of returnees. Again, individuals may mimic the performance of their peers as returnees in order to avoid discrimination or criticism. In this instance the appearance of an international background is acquired even though their business may not need international expertise or professional knowledge.

Finally, the returnee may not affect firms in all aspects with their expertise in that individuals are subject to the discipline of competitive markets and the influence of other players

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[10] See the Chinese website http://www.haijiaonet.com/incubater-viewinfo-tid-1869.html
[11] See the World Education Service website http://www.wes.org/ewenr/diplomamills.htm

in the market. The strategy of returnee CEOs cannot violate or even challenge norms of the market. Thus, returnees could not behave differently from their local peers because they ought to embed with the market environment. Under these circumstances institutional theory suggests that the contribution of returnees could be irrelevant since entrepreneurial firms may not need international returnees.

Resource Dependence Theory

As returnees live overseas for a number of years, they have less opportunity to build a local network or political connections in China. Pfeffer and Salancik (1978) utilize resource dependence theory to explain how the external resources of organizations affect performance. Hillman et al., (2009) characterize resource dependence theory as an open system, dependent on contingencies in the external environment. Since the external environment is uncertain, especially in emerging markets where law and governance may be weak, the organization-environment relation is important and firms need to actively establish and manage their external resources to protect their development (Pfeffer and Salancik, 1978; Burt, 1983; Finkelstein, 1997). This theory suggests that firms could obtain external resources by board appointments and executive succession (Pfeffer & Salancik, 1978; Hillman et al., 2009). Thus, the external resources include interlocking boards and friendship ties and may be used by firms to decrease environmental uncertainty. Interlocking boards are an efficient way to build a network between firms and supplement resources (Boyd, 1990; Sanders and Carpenter, 1998). In addition, CEOs maintain friendship ties with top executive of other firms to manage the competitive uncertainty (Wetphal et al., 2006) whilst a CEO's outside directorship also provides external resources to their own firms (Geletkanycz and Boyd, 2011).

Particularly in China, due to the weak legal and governance environment (Allen et al., 2003), network and political resources may play an important role in helping firms to avoid uncertainty and acquire benefits (Luo and Chen, 1997; Peng and Luo, 2000; Park and Luo, 2001; Li et al., 2008). Specifically, political connections could provide advantages for firms when they face regulatory or legal obstacles. Li et al. (2008) show how political resources help private firms to access bank loans (Li et al., 2008). Additionally, '*guanxi*' helps Chinese firms to address their relationship with the environment as '*guanxi*'-related firms may exchange information or benefits from '*guanxi*' with other firms thereby decreasing information asymmetry and uncertainty (Luo and Chen, 1997; Park and Luo, 2001). Firms possessing political resources enjoy favorable regulatory conditions and benefit from the political connections (Li et al., 2008; Hillman et al., 2009).

Chinese returnees have had reduced opportunities to establish local networks and connections since returnees spend some years overseas. For example, Faccio and Parsley (2009) show that the strength of political connections is affected by the geographical location. In addition, geographical distance causes financial restrictions in entrepreneurial firms (Tian, 2012). Li et al. (2012) also provide evidence to support the fact that returnees may not have strong local networks and connections compared to locals without international experience. They find that technology ventures led by locals perform better than those led by returnees due to the lack of local networks and connections. Returnees are also less likely to obtain work in government which would allow them to accumulate political resources. The Chinese exam system is a particular problem for returnees as specific qualifications are necessary for government employment[12]. Hence, returnees cannot access firms' external resources in the same way that

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[12] See the news in Chinese by the following website: http://www.infzm.com/content/99893

non-returnees might. Resource dependence theory therefore suggests that returnee CEOs may be at a disadvantage.

HYPOTHESES

Market Selection

Since returnee CEOs are familiar with institutions in foreign countries, they are receptive to listing their firms on overseas markets. Cao et al. (2009) suggests that individuals may have a bias against change and uncertainty in investment activities and this is confirmed by evidence of home bias. Home biases are also consistent with the choice of market being influenced by the extent of information asymmetry (Coval and Moskowitz, 1999; Moore et al., 2010). Investors could be affected by distance, languages and even culture (Grinblatt and Keloharju, 2001). Returnee CEOs not only speak foreign languages but also are familiar with overseas capital markets and have contacts abroad. Thus returnee CEOs experience of the foreign capital market helps firms to decrease information asymmetry and they may list on a foreign capital market to take advantage of their foreign experience.

Hypothesis 1: Entrepreneurial firms led by returnee CEOs are more likely to list on developed overseas capital markets than non-returnee firms

IPO Performance

Signaling theory clarifies information asymmetry in decision making (Spence, 1974) and helps to explain the association of certain factors with the firm IPO performance (Certo et al., 2001a; Certo, 2003; Daily, Certo and Dalton, 2005; Bonardo et al., 2010). Prior to the IPO, information concerning the firm is not widely available to potential investors. Hence the investment in the IPO firms may bring unobservable risk to investors because the investor cannot

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predict future growth and productivity. More reliable information becomes available during the IPO process when firms' issue their prospectuses containing information related to prior financial performance and the firm characteristics. The information in the prospectus includes signals that could be used to predict the capital raised through the IPO (Certo et al., 2001a; Certo, 2003; Sander and Boivie, 2004; Pollock et al., 2010) and the post-IPO performance (Bonardo et al., 2010).

Various theories suggest different reactions to the signals concerning returnees. Knowledge-based theory suggests that returnees could bring specific knowledge to help firms achieve sustainable competitive advantages and growth (Penrose, 1959; Wernerfelt, 1984; Grant, 1996). Returnees are viewed as an elite social class in China with favorable support from government and returnees are identified in the IPO prospectus. CEOs with international experience are therefore perceived as a positive signal of IPO quality. Hence both signaling theory and knowledge-based theory imply the following hypothesis.

Hypothesis 2a: Returnee CEOs are positively associated with IPO performance.

On the other hand, institutional theory suggests that firm's outcomes may reflect institutional pressure (Scott, 1995). As discussed above entrepreneurial firms may appoint returnee CEOs as window dressing to suggest international strategies and access to advanced technology. At the firm level, entrepreneurial firms may appoint returnee CEOs even though they may not need international experience. These returnees may have attended minor universities or even bought a degree from the unaccredited university in order to obtain the benefits of returnee policies[13]. In addition, the IPO success is determined by the discipline of the

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[13] See the website: http://www.echinacities.com/news/Faking-Your-Education-Chinas-Growing-Demand-for-Diploma-Mill-Degrees.

market condition including the firms' fundamentals (Aggarwal et al., 2009), underwriters (Carter et al., 1998), or investment bankers (Daily et al., 2005). Thus, institutional theory suggests that IPO success may be unaffected by returnee CEOs as investors perceive returnees as a response to institutional pressure rather than an asset. We therefore develop the following hypothesis.

Hypothesis 2b: IPO performance is unaffected by the presence of returnee CEOs.

Resource dependence theory emphasizes the importance of external resources as a way of decreasing uncertainty (Pfeffer and Salancik, 1978). Returnee CEOs have had limited opportunities to establish local networks. In addition, the differences between Chinese and foreign institutions are barriers for returnees CEOs. Returnees may not offer the same external resources as do experienced local managers, in which case the market may perceive returnees as a signal of poor IPO quality. We therefore develop the following hypothesis.

Hypothesis 2c: Returnee CEOs are negatively associated with IPO performance.

Post-IPO Performance

In addition to the signal of returnee CEOs as perceived by investors, we also explore the effect of returnee CEOs on the long-term performance after the IPO. As discussed above, the effect of returnee CEOs on post-IPO performance could be predicted by knowledge-based theory, institutional theory, or resource dependence theory.

Consistent with the knowledge-based theory, CEO international experience has been found to add value to the large listed firms in the US market (Roth, 1995; Daily et al., 2000; Carpenter et al., 2001). In addition, returnee directors or returnee entrepreneurs could bring knowledge and increase the firm value both in listed firms (Giannetti et al., 2014) and

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entrepreneurial firms (Wright et al., 2008; Filatotchev et al., 2009; Liu et al., 2010). The impact of returnees is believed to be more important for entrepreneurial firms as they have few alternatives to supplement the knowledge resources (Kor and Misangyi, 2008). Returnee CEOs possess particular knowledge from their international experience. We develop the following hypothesis.

Hypothesis 3a: Post-IPO performance is positively affected by the presence of returnee CEOs.

From the perspective of institutional theory, appointing returnees may simply be a response to institutional demand. For example, some apparent returnees may have obtained low quality education or even purchased their degree. In this case returnees will make no difference to entrepreneurial firms that have recruited returnees simply for show. We develop the following hypothesis.

Hypothesis 3b: Returnee CEOs are not associated with post-IPO performance.

Based on resource dependence theory discussed above, previous studies find support evidence that local networks and political connections represent important external resources which could contribute to better firm performance (Luo and Chen, 1997; Peng and Luo, 2000; Park and Luo, 2001; Li et al., 2008). Therefore, returnee CEOs may lead to poor firm performance because they cannot help manage the firm's external resources and they supplant local managers who could have done so. We develop the following hypothesis.

Hypothesis 3c: Post-IPO performance is negatively affected by the presence of returnee CEOs.

RESEARCH METHOD

Sample and Data Collection Procedure

To test our hypotheses, we identify 355 IPOs of entrepreneurial firms from the Shenzhen ChiNext board market, 33 IPOs of entrepreneurial firms from the NASDAQ market and 23 IPOs of entrepreneurial firms from the Hong Kong second board market. We mainly rely on the CSMAR (China Stock Market and Accounting Research (CSMAR) database and cross check with media coverage to obtain IPOs in the NASDAQ market. IPOs in the NASDAQ market include issuing common shares and issuing American Depositary Receipts (ADR) shares. In addition, our sample excludes IPOs that transfer from the OTC board to NASDAQ as the information on these entrepreneurial firms has already been available to the public investor before listing on the NASDAQ market. In our research, we only focus on the first time entrepreneurial firm transitions from a private owned firm to a publicly owned firm.

The prospectuses are downloaded from *cninfo.com.cn* (Shenzhen ChiNext board market), hkexnews.hk (Hong Kong second board market) and EDGAR (NASDAQ market). We hand collect returnee CEOs by reviewing the short biographies in the IPO prospectuses. In addition, firm characteristics, governance characteristics and personal characteristics prior to the IPO are manually collected from the IPO prospectuses. We obtain the post-IPO financial data from CSMAR (ChiNext market and Hong Kong second board market) and Compustat (NASDAQ market).

Dependent Variables

Choice of Market. In order to explore whether an entrepreneurial firm with a returnee CEO or chair chooses the domestic or foreign market, we use three variables measuring the choice of market when entrepreneurial firms go public. *China vs US&HK* is a dummy variable equal to

one if the entrepreneurial firm chooses to list on the domestic market (Shenzhen ChiNext board market), and equal to zero if the entrepreneurial firm chooses to list on the foreign market (Hong Kong second board market or NASDAQ market). *China vs US* is a dummy variable equal to one if the entrepreneurial firm chooses to list on the domestic market (Shenzhen ChiNext board market), and equal to zero if the entrepreneurial firm chooses to list on the US market (NASDAQ market). *China vs HK* is a dummy variable equal to one if the entrepreneurial firm chooses to list on the domestic market (Shenzhen ChiNext board market), and equal to zero if the entrepreneurial firm chooses to list on Hong Kong market (Hong Kong second board market).

IPO Performance. We use three measurements of IPO performance previously used in the literature: *IPO valuation*, *IPO first day return* and *IPO proceeds*. Following Pollock et al. (2010), we measure the *IPO valuation* as the natural logarithm of the entrepreneurial firm's market capitalization at the end of the IPO's first day of trading. *IPO first day return* is measured as the percentage difference between the offer price and the closing price of the first trading day (Certo et al., 2001a; Bruton et al., 2009). *IPO proceeds* is calculated as the natural log of the total proceeds minus the underwriters' fee (Deeds et al., 1997, 2004; Zimmerman, 2008).

Post-IPO Performance. We measure post-IPO performance by the corporate financial performance following Fan et al. (2007). *ROA* is measured by net earnings over total assets in the financial year following the IPO. *ROS* is calculated by net earnings over sales in the following financial year. As Tobin's Q is a widely recognised indictor of a firm's future opportunities that is assessed by the market (Bonardo et al., 2010), we use the *Tobin's Q* to measure the post-IPO market performance. *Tobin's Q* is calculated by the aggregate of market valuation and total liabilities over total assets in the financial year following the IPO.

Independent Variables

Returnee CEO. CEOs are identified as returnees if they have had overseas working experience, overseas studying experience, overseas permanent residence or foreign nationality. CEOs are not identified as returnees if they work, study or live in Hong Kong, Macau and Taiwan.

Returnee Chair. Previous literature suggests that the board chair plays an important role in board members' engagement (Roberts et al., 2005; Bertoni et al., 2014). We therefore additionally test the effect of a returnee chair by replicating tests of returnee CEOs. Board chairs are identified as returnees if they have had overseas working experience, overseas studying experience, overseas permanent residence or foreign nationality. Chairs are not identified as returnees if they work, study or live in Hong Kong, Macau and Taiwan.

Returnee Founder. Previous studies (Wright et al., 2008; Filatotchev et al., 2009; Liu et al., 2010) also show that the foreign experience of founders influences growth in SMEs. We therefore consider the impact of returnee founders in IPOs for sensitivity checks. We identify founders as returnees if they have had overseas working experience, overseas studying experience, overseas permanent residence or foreign nationality. Founders are not identified as returnees if they work, study or live in Hong Kong, Macau and Taiwan.

Sample Selection Bias Issue

According to the CSRC regulation "*Interim Measures on Administration of Initial Public Offering and Listing on Growth Enterprise Board*", senior management must be in place for two years before an IPO, and therefore our study is less likely to subject to the sample selection bias or endogeneity issue. Nevertheless we still apply propensity score matching (PSM) and two-Stage least squares (2SLS) for robustness check. Previous studies on CEOs' international

experience (Daily et al., 2000; Carpenter et al., 2001) fail to address the concern that stems from the well performing IPO firms appointing CEOs with international experience.

In this study, we first follow Malmendier and Tate (2009) using the one-to-one nearest neighbor PSM method to match each IPO firm managed by a returnee CEO with an IPO firm managed by non-returnee CEO as a robustness check. To apply the PSM method, we first sort the sample randomly and subsequently use the following probit regression model with the same set of explanatory variables as our main test to estimate a predicted probability (Rosenbaum and Rubin, 1983) of the 355 IPOs. By following nearest neighbor matching method, each firms managed by returnee CEOs in the treatment group is matched with another otherwise identical IPO firms managed by non-returnee CEOs with the closest propensity score without replacement. Then we replicate the main tests based on the constructed matched samples.

In addition to PSM, we further address the endogeneity concern by using two-Stage least squares (2SLS) for additional robustness checks. We use the number of international schools in the headquarter city of firms in the prior year of IPOs as the instrumental variable. International schools in mainland China replicate the foreign education systems and provide foreign education curriculums. These schools intend to create the similar foreign education environment for students from families that prefer studying overseas curriculums in China and get prepared to pursue undergraduate study abroad in future. Since the median age of returnee CEOs in our sample is 45 year-old, they often have school-age children who have experienced non-Chinese education. Until 2012, 116 international schools had been officially approved by the Ministry of Education of People's Republic of China across 31 major cities of China mainland. The education issue is a key issue of returnee families when they consider returning China, and this issue is widely discussed in media. For example, due to the different educational ideologies,

returnees worry that their children cannot adapt to traditional Chinese school education and the high pressure education after coming back to China. They also expect that their children could follow the foreign curriculum and take foreign university entry exams such as SAT or A-level to enter prestigious overseas universities to follow the path of their returnee parents[14]. Due to the education concerns, returnees may prefer to settle down in cities with the international schools, and we argue that firms headquartered in cities with international schools are more likely to have returnee CEOs.

Control Variables

Following the previous IPO literature, we control for firm-level effects including firm size, firm age, venture capital (VC) ownership, high technology industry, and risk. Firm size is measured by the nature logarithms of total assets in the financial year prior to the IPO. Firm age is measured as the difference in years between the IPO firm's founding date and the date of the IPO (Daily et al., 2003). VC ownership is measured as the percentage of equity held by the venture capital in the post-IPO firm. Following Certo et al. (2001b) and Bell et al. (2012), the high tech dummy is equal to one if firms are operating in the high technology industry sectors (two-digit SIC codes) including computer hardware (SIC 35), computer software (SIC 73), semiconductors and printed circuits (SIC 36), biotechnology (SIC 28), telecommunications (SIC 48), and pharmaceuticals (SIC 28). High tech IPOs in mainland China and Hong Kong are classified by China Listed Company Industry Classification Guidelines and Global Industry Classification Standard, respectively. Following Certo et al. (2001b) and Jain and Tabak (2008), we control for entrepreneurial firm risk using the number of risk factors reported in the IPO prospectus.

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[14] See news in Chinese: http://edu.people.com.cn/n/2013/0905/c1053-22811561.html and http://edu.people.com.cn/n/2013/0905/c1053-22811561.html.

To reflect differences in corporate governance we control for the board size and the board independence. Previous studies show that the board size is positively associated with firm performance (Certo et al., 2001b; Dalton et al., 1999; Dalton et al., 2003) and is related to environmental resources (Certo et al., 2001a). We measure board size as the number of board directors prior to the IPO. Daily et al. (2005) argue that a board predominated by independent directors is a signal that effective monitoring and control systems are in place. Board independence is measured by the percentage of independent directors on the board prior to the IPO.

We also control for founder CEO, CEO duality, CEO ownership, CEO age, Chair ownership, and Chair age. Founder CEO is controlled for as the CEO founder status has an impact on IPO valuation and is perceived as uncertainty (Certo et al., 2001b). Founder CEO codes as a dummy variable equal to one if the CEO is the founder, and zero otherwise. We also control for whether the CEO is the chair of the board. The equity retained by the CEO reflects their perception of the firm's future growth and success (Leland and Pyle, 1977; Carter and Van Auken, 1990). Thus, we also controlled for CEO ownership and Chair ownership calculated as the percentage of equity held by the CEO or Chair in the post-IPO firms. CEO age or Chair age is measured by the age of CEO or Chair prior to the IPO. Descriptive statistics and the correlations between all variables used in our regression models are reported in tables one and two.

"Insert Table 1 and 2 Here"

RESULTS

Market Selection

To test H1 regarding the impact of returnee CEOs on the market selection, we regress *Returnee CEO* on *China vs US&HK*, *China vs US*, and *China vs HK* using probit regression models. The results are shown in Table 3, Panel A. In column 1, the coefficient of returnee CEOs (1.2333, t=4.47) shows that entrepreneurial firms led by returnee CEOs prefer the US and HK markets to the mainland China market. Moreover, we further partition the US and the HK market. In column 2, the coefficient of returnee CEOs (1.3351, t=2.82) indicates that entrepreneurial firms led by returnee CEOs are more likely to choose listing on the US market rather than the mainland China market. In column 3, the coefficient of returnee COEs (1.8586, t=4.21) demonstrates that firms with returnee CEOs prefer listing on the HK market rather than the mainland China market. The coefficient of returnee CEOs (0.2543, t=0.36) suggests that there is no significant difference in the preference between the US and the HK market. The results support hypothesis 1 that entrepreneurial firms led by returnee CEOs prefer listing on the more developed overseas markets, implying that returnee CEOs tend to choose markets with which they are familiar (Cao et al., 2009). The marginal effect suggests that entrepreneurial firms led by returnee CEOs are 14.61% more likely to choose listing on the US or HK markets rather than on the mainland China market. Thus the results are not only statistically but also economically significant.

"Insert Table 3 Here"

Previous literature suggests that the board chair plays an important role in board members' engagement (Roberts et al., 2005). Furthermore, Bertoni et al. (2014) document that the industry experiences of board chairs have a positive effect on the board's involvement in strategy

development or network building for example. We therefore test whether the board chairs play an important role in the development of firm strategies or the establishment of networks in addition to any impact of returnee CEOs. We predict that the effect of returnee chair may be consistent with the effect of returnee CEOs. To conduct additional un-tabulated tests for the effect of returnee chair on market selection, we replace returnee CEOs by returnee chair, and replicate the tests by using the probit regression model. The results for CEOs and chairs are consistent.

Muddy Water reported in the Orient Paper[15] that US-listed Chinese firms that greatly overstated their revenues on 28 June 2010. This event subsequently triggered a number of fraud investigations of Chinese firms listed on the US market. Darrough et al. (2012) and Jindra et al. (2012) document that Chinese firms listed on the US market are becoming increasingly subject to investigations and securities class actions since 2010, and this has led to a decrease in firm value. Consequently, US-listed Chinese firms tend to be considered suspicious by US investors, which has discouraged IPO activities by Chinese firms in the US market. Consequently, the number of IPOs of Chinese firms in the NASDAQ market has dropped substantially since 2011. Thus, we expect returnee CEOs avoid the US market after 2011. To test our prediction, we incorporate *Post2011* (dummy variable defined in section 5) and the interaction term between *Returnee CEO* and *Post2011* in column 2 of Table 3 Panel A. We regress the interaction term of *Returnee CEO* and *Post2011* on *China vs US* by using probit regression analysis, and present the results in Table 3, Panel B. The coefficient (-2.6692, t=-2.43) of the interaction term (*Returnee CEO*Post2011*) indicates that entrepreneurial firms led by returnee CEOs are less likely to be

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[15] http://www.muddywatersresearch.com/research/orient-paper-inc/initiating-coverage-onp/

listed in the US than mainland China after 2011, which supports our prediction. These results are unchanged when we replace returnee CEOs with returnee chair[16].

IPO Performance

To test H2 regarding the impact of returnee CEOs on IPO valuation, we regress *Returnee CEO* on IPO performance measured by *IPO valuation, IPO first day return and IPO proceeds* for our mainland China sample using OLS regression analysis and the results are shown in Table 4. The coefficient of returnee CEOs (0.1343, t=1.72) indicates that returnee CEOs have a significantly positive effect on the IPO valuation, supporting hypothesis 2a. This provides evidence that investors in the mainland China market capture the signal that the expertise provided by returnee CEOs contributes to growth prospects (Grant, 1996; Wright et al., 2008; Filatotchev et al., 2009; Liu et al., 2010). However, the results also demonstrates that returnee CEOs have no significant impact on IPO first day return (0.1070, t=1.59) and IPO proceeds (0.0583, t=0.89). In addition, we also use returnee chairs or returnee founders to replace returnee CEOs to replicate the tests. The untabulated results suggest that returnee chairs or returnee founders have no effect on IPO valuation.

In addition to the outcome of IPO, we also test the effect of returnee CEOs on of IPO pricing decisions (Chahine and Filatotchev, 2008), including price-to-earnings ratio adjusted by market average, price-to-assets ratio adjusted by market average and the percentage of new issuing shares among existing shares. The untabulated results indicate that returnee CEOs have no significant effect on these three measurements of IPO success. These findings are in line with the institutional theory that returnee CEOs are not different from non-returnee CEOs in all

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[16] The results are available upon request.

aspects due to the discipline of the market and the influence of other players such as regulatory commissions, underwriters and investors.

<div align="center">"Insert Table 4 Here"</div>

Post-IPO Performance

To test H3 on the effect of returnee CEOs on post-IPO performance, we regress *Returnee CEO* on one-year of post-IPO performance (*ROA*, *ROS* and *Tobin's Q*) using OLS regression analysis for the mainland China market, the US market and the HK market. The results are shown in Table 5, Panel A. In columns 1, 2, and 3, the coefficient of returnee CEOs shows that returnee CEOs have a significant and positive effect on post-one-year-IPO performance which is measured by ROA (0.0097, t-value=2.09), ROS (0.0446, t-value=2.28) and Tobin's Q (0.2182, t-value=1.81) in the mainland China market. This is consistent with Hypothesis 3a. For the typical entrepreneurial firm's median ROA, ROS and Tobin's Q is 0.0600, 0.1464 and 1.5279, respectively. The impact on ROA, ROS and Tobin's Q of returnee CEOs accounts for 16.17%, 30.46% and 14.28% respectively. This indicates that our results are not only statistically significant but also economically significant. The evidence suggests that international expertise matters for the profitability of entrepreneurial firms (Grant, 1996; Wright et al., 2008; Filatotchev et al., 2009; Liu et al., 2010). It is also broadly in line with the literature that suggests that the knowledge matters for new firms (Kor and Misangyi, 2008), especially for entrepreneurial firms. When we control for past performance by using the 3-year average ROA prior to IPO, the results remain consistent. Finally, we replace the returnee CEOs by returnee chair or returnee founders to replicate the tests as sensitivity checks, and document their positive impacts on post-IPO performance.

<div align="center">"Insert Table 5 Here"</div>

Sample Selection Bias Issue

Our setting might be subject to concerns regarding sample selection bias because returnee CEOs are not randomly appointed. For example, an alternative explanation is that entrepreneurial firms with good post-IPO performance tend to appoint returnee CEOs before the IPO process in order to signal good profits to investors. This could help entrepreneurial firms to raise more capital from the IPO. To address this issue, we apply the PSM method following Malmendier and Tate (2009). We use the predicted values (the model is shown in section 5) from the probit regression (propensity scores) to construct a one-to-one nearest-neighbor matched sample for IPOs of entrepreneurial firms led by returnee CEOs. In addition, we also match each returnee chair with a non-returnee chair by the same PSM method. Table 5, Panel B replicates the analyses of Table 5, Panel A by using the PSM sample; the coefficient of returnee CEOs remains significantly positive for ROS and Tobin's Q, suggesting the results are robust. For robustness checks, we also incorporate the past performance measured by the average ROA in the 3 years prior to the IPO in the matching stage of the PSM, and the results are consistent.

In addition to PSM procedure, we also use the IV approach to address the unobservable sample selection bias. The first-stage fitted values for returnee CEOs are then used in the second-stage OLS regression. The results for first-stage and second-stage are shown in Table 5 Panel C. In terms of the first-stage, the coefficient of internal school (0.0056, t-value=1.94) in the column 7 shows that the number of international schools in the firm's headquarter city in the prior one-year of the IPO year is a good predictor of IPO firms managed returnee CEOs. For the second-stage, we regress the instrumental returnee CEOs on ROA, ROS and Tobin's Q. In the column 8 and 9, the coefficient of instrumental returnee CEOs remains significantly positive for ROA and ROS, suggesting the results are robust after controlling the unobservable sample selection bias.

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Venture Capital

Previous literature has studied the important role of venture capital in organizations, in terms of internationalization (Manigart et al., 2006; LiPuma and Park, 2014) and governance (DeClerq and Sapienza, 2005; Dover et al., 2014; Manigart et al., 2006; Vrande and Vanhaverbeke, 2013), particularly in emerging economies (Ahlstrom and Bruton, 2006). Venture capitalists engage in a number of activities to professionalize the entrepreneurial firm in order to be ready for sale in an IPO or other form of exit (Sapienza et al., 1996; Manigart et al., 2006; LiPuma and Park, 2014). VC-backed entrepreneurial firms are associated with better corporate governance in newly listed firms (Krishnan et al., 2011; Vismara et al., 2012). Since the investment of VCs affects the firms, we predict that the effect of returnee CEOs on post-IPO performance may be strengthened by the existence of VC investment.

To test our prediction, we regress *Returnee CEO* on post-one-year IPO performance (*ROA*, *ROS* and *Tobin's Q*) by using a VC-backed variable (dummy variable equal to 1 if entrepreneurial firms are VC-backed, and 0 otherwise) to split our sample across the mainland China market, and present the results in Table 6. In columns 1, 3 and 5, the coefficient of returnee CEOs demonstrates that the significantly positive effect of returnee CEOs on post-one-year-IPO performance measured by ROA (coefficient=0.0129, t-value=2.45), ROS (coefficient=0.0557, t-value=2.48) and Tobin's Q (coefficient=0.2583, t-value=1.91) is more pronounced when the IPO is VC-backed. In addition, we also consider sample selection bias because VC investors do not randomly select entrepreneurial firms. For example, VCs may tend to invest in entrepreneurial firms with good prospects. To address this, we use the PSM method to match each non-VC-backed firm with a VC-backed firm using the propensity score from the

probit regression to match the firms. In un-tabulated tests for sensitivity checks, we find that our results are robust.

<center>"Insert Table 6 Here"</center>

DISCUSSION

The primary goal of our paper is to explore the role of returnee CEOs in IPOs. Our research finds that entrepreneurial firms led by returnee CEOs prefer to list on the US or Hong Kong capital markets rather than in mainland China but they are less likely to choose the US market after the loss of credibility in 2011. We also find that returnee CEOs have a positive effect on IPO valuation, and subsequently contribute to the post-IPO performance in the mainland China market. Finally, the positive effect of returnee CEOs on post-IPO performance is more pronounced when the entrepreneurial firm is VC backed.

Contribution to Current Debate

The returned overseas graduates have contributed greatly to the social and economic development of modern China but the effect of returnees on entrepreneurial firms is unclear. Previous studies suggest that the effect of returnees on firm value is mixed, and especially so for entrepreneurial firms. Researchers have tested the role of returnee entrepreneurs in high-tech SMEs, and found a positive effect of returnee entrepreneurs on firm value because of the knowledge spillover (Wright et al., 2008; Filatotchev et al., 2009; Liu et al., 2010). The appointments of returnee board directors are also viewed as a gain to listed firms in China, and contribute to an increase of firm value (Giannetti et al., 2014). However, technology ventures led by returnee entrepreneurs underperform those led by local entrepreneurs due to the lack of local connections and knowledge (Lin et al., 2012). We use Chinese IPOs to study the effect of returnee CEOs on newly listed firms and this may be viewed as a crucial event in the

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development of these firms. To the best of our knowledge, this is the first study of the newly launched ChiNext market in the entrepreneurship literature. The paper identifies returnees as a determinant of IPO valuation and the post-IPO performance of the ChiNext market.

Contribution to Theory Development

Previous studies regarding the role of Chinese returnees have focused on the knowledge-based (Wright et al., 2008; Filatotchev et al., 2009; Liu et al., 2010) and resource-dependence perspectives (Li et al., 2012). This study incorporates knowledge-based and resource dependence theory but further incorporates institutional theory to analyze the role of returnees. Using insights from all three theories, we provide a different and more comprehensive theoretical model of the effect of returnees on entrepreneurial firms.

This study contributes to knowledge-based theory by extending the research to newly-listed firms. Existing research only provides evidence to support the interpretation of knowledge-based theory by finding a positive impact of returnee on firm value in the early stage of entrepreneurial firms (Wright et al., 2008; Filatotchev et al., 2009; Liu et al., 2010) and listed firms (Giannetti et al., 2014). Our paper provides further results for newly public firms and we use knowledge-based theory to explain the positive effect of returnees on firm value across all stages of entrepreneurial and listed firms.

This is also the first study to use an aspect of institutional theory to discuss the role of returnees by considering legal and normative pressures on entrepreneurial firms. Although returnees contribute to firm growth with their professional knowledge, returnees may have no advantage over locals. Since the returnees are viewed as an elite class, firms may appoint returnees to falsely signal value and individuals may deliberately seek the benefits of governments support for returnees. Previous entrepreneurship studies have not considered that

the increasing number of returnees in entrepreneurial firms may be led by institutional pressure. Thus, returnees may not differ from locals because the appointment of returnees may merely reflect institutional expectations.

Relying on the weakness of returnees comparing with locals, resource dependence theory predicts that returnee CEOs may have a negative effect on firm performance. Li et al. (2012) document the underperformance of technology ventures led by returnees, but they do not associate this result with resource dependence theory. We employ resource dependence theory to explain the disadvantages of returners, and how it may negatively affect performance.

Contribution to Research Method

Our study also contributes to the development of research methodology in this field. Tucker (2010) shows that inappropriate inferences may be drawn when researchers fail to control for sample selection bias. This paper is the first to address sample selection bias using both PSM procedure and the instrumental variable approach among entrepreneurship studies of returnees. By using PSM approach, we perform our tests based on a matched sample in which each IPO firm in the treatment group (i.e. these managed by Returnee CEOs) is matched with a similar firm from the control group (i.e. these managed by local CEOs). In addition, we use the number of international schools in the headquarter cities of IPO firms as an instrumental variable to predict the likelihood for IPO firms managed by returnee CEOs. Both approaches provide consistent and reliable results.

Policy and Practical Implications

Our findings have implications for policy makers and practitioners. The Chinese government has made great efforts to attract overseas Chinese to return and contribute to the development of the Chinese economy. In addition to previous studies which confirmed the

positive effect of returnees on early stage and listed firms (Wright et al., 2008; Filatotchev et al., 2009; Liu et al., 2010). We add evidence to support the positive effect of returnee CEOs on firm value in the newly-listed firms of the ChiNext market. This suggests that policy makers should continue to encourage firms listed on ChiNext market to appoint returnees. Our findings also suggest policy makers should encourage venture capital investment in entrepreneurial firms led by returnees because they strengthen the positive effect of returnees on firm value. Our study not only finds a positive effect of returnee CEOs on firm value but also confirms the importance of the international experience of board chairs in adding value. Thus, our research suggests that practitioners should pay attention to international experience when appointing the board chair.

Limitations and Future Studies

Although this paper provides a comprehensive analysis of the effect of returnee CEOs on entrepreneurial firms and finds robust and reliable results, the study has limitations that open avenues for future research. First, the quality of education of returnees could not be identified from short biographies because some of the prospectuses do not disclose which universities the returnees attended, which country returnees visited and how long it had been since the returnees had returned. Second, prospectuses do not disclose detailed information of any venture capital background and we were unable to identify the nationality of venture capital investors. Future studies could, therefore, usefully explore the impact of the returnees' education quality, location and duration on firm performance or strategies, and investigate the impact of local versus foreign venture capital.

CONCLUSION

Many studies have investigated whether returnees are better than locals in contributing to the value of the entrepreneurial firms (Wright et al., 2008; Filatotchev et al., 2009; Liu et al.,

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2010; Li et al., 2012). Our study extends this analysis by examining whether returnees CEOs affect the IPO and post-IPO performance. We find that entrepreneurial firms led by returnee CEOs tend to choose listing on foreign capital markets. More importantly, our findings provide robust evidence to support the positive effect of returnee CEOs on IPO and post-IPO performance. To sum up, this paper extends the current research into the effect of returnees on newly-listed firms. After controlling for sample selection bias, our findings contribute reliable evidence to the ongoing debate on the effect of returnees. Our insights benefit from the integration of three theories to provide a comprehensive perspective for analyzing the role of returnees. Although our study has limitations, the findings have significant implications for policy makers and practitioners.

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Table 1 Summary Statistics

Variable	China Mainland				US				HK				China — US	China — HK	US — HK
													Mean in Diff	Mean in Diff	Mean in Diff
	Obs	Mean	SD	Median	Obs	Mean	SD	Median	Obs	Mean	SD	Median			
Returnee CEO	355	0.1324	0.3394	0	33	0.3030	0.4667	0	23	0.4348	0.5069	0	-0.1706**	-0.3024***	-0.1317
CEO Age	355	45.1606	5.6177	45	33	44.3939	6.6565	43	23	47.9130	9.9769	43	0.7666	-2.7525	-3.5191
CEO Ownership	355	0.2004	0.1657	0.1710	33	0.2903	0.2128	0.2078	23	0.2152	0.2229	0.2078	-0.0899**	-0.0148	0.0750
Returnee Chair	355	0.1155	0.3201	0	33	0.3030	0.4667	0	23	0.4348	0.5069	0	-0.1875**	-0.3193***	-0.1318
Chair Age	355	47.8479	6.7614	47	33	45.0909	6.6959	44	23	51.8261	9.8010	44	2.7570**	-3.9782*	-6.7352***
Chair Ownership	355	0.2099	0.1753	0.2239	33	0.3273	0.2232	0.2636	23	0.3532	0.2492	0.2636	-0.1174***	-0.1433**	-0.0259
Founder CEO	355	0.5408	0.4990	1	33	0.7576	0.4352	1	23	0.5217	0.5108	1	-0.2167***	0.0191	0.2358*
CEO Duality	355	0.5296	0.4998	1	33	0.6061	0.4962	1	23	0.3913	0.4990	1	-0.0765	0.1383	0.2148
Total Assets	355	19.4685	0.5708	19.4444	33	17.8901	1.0043	17.9597	23	18.5358	0.9356	17.9597	1.5783***	0.9326***	-0.6457**
Board Size	355	8.3803	1.3958	9	33	6.2121	1.6911	6	23	6.5652	1.4717	6	2.1682***	1.8151***	-0.3531
Board Independence	355	0.3705	0.0514	0.3333	33	0.4845	0.1461	0.5	23	0.5012	0.1345	0.5	-0.1140***	-0.1307***	-0.0168
VC Ownership	355	0.0875	0.1045	0.0588	33	0.1651	0.1681	0.1173	23	0.0309	0.0657	0.1173	-0.0777**	0.0566***	0.1343***
High Tech	355	0.3634	0.4817	0	33	0.6364	0.4885	1	23	0.1304	0.3444	1	-0.2730***	0.2329***	0.5059***
Firm Age	355	8.3103	4.6076	8.4575	33	8.6061	2.8607	9	23	11.9565	6.5469	9	-0.2957	-3.6462**	-3.3505**
Risk Factor	355	12.8648	4.0837	13	33	60.1818	10.4924	59	23	37.9130	10.5439	59	-47.3170***	-25.0483***	22.2688***
IPO Valuation	355	21.5583	0.5634	21.5281	32	19.0762	1.3025	19.2817	23	18.9149	0.6390	19.2817	2.4821***	2.6434***	0.1612
ROA	355	0.0610	0.0304	0.0600	31	0.0918	0.1031	0.0756	23	0.0517	0.1122	0.0756	-0.0308	0.0093	0.0401
ROS	355	0.1724	0.1111	0.1464	31	0.1290	0.1356	0.1270	23	0.0500	0.2807	0.1270	0.0434*	0.1225**	0.0790
Tobin's Q	355	1.7451	0.5945	1.5279	31	1.5000	1.3525	1.1739	23	3.0707	4.8422	1.1739	0.2451	-1.3257	-1.5707

This table reports the summary statistics of variables in this paper. All variables are defined in the Appendix 1. The sample includes IPOs of Chinese firms listed in the ChiNext market, NASDAQ market, HKEX market from 2009 to 2012.

Table 2 Correlation matrix

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Returnee CEO	1.0000														
2	CEO Age	0.1048	1.0000													
3	CEO Ownership	0.0017	0.0473	1.0000												
4	Founder CEO	0.0221	0.0049	0.5027*	1.0000											
5	CEO Duality	-0.0445	0.1866*	0.6583*	0.4915*	1.0000										
6	Returnee Chair	0.6866*	0.1526*	0.0005	0.0553	-0.0028	1.0000									
7	Chair Age	0.1742*	0.4883*	-0.1992*	-0.1674*	-0.2274*	0.0624	1.0000								
8	Chair Ownership	-0.0379	-0.0698	0.4520*	0.1657*	0.1682*	0.0352	-0.1878*	1.0000							
9	Total Assets	-0.0629	0.0447	-0.1959*	-0.1425*	-0.1149	-0.1331*	0.1370*	-0.2854*	1.0000						
10	Board Size	0.0249	-0.0971	-0.2354*	-0.1361*	-0.0761	-0.0492	0.0325	-0.3149*	0.3897*	1.0000					
11	Board Independence	0.1057	0.1859*	0.1809*	0.1146	0.0977	0.1422*	0.0965	0.2277*	-0.3985*	-0.5632*	1.0000				
12	VC Ownership	0.1212	-0.0161	-0.1215	-0.0240	-0.0391	0.1172	-0.0109	-0.2174*	0.0483	0.0738	-0.1649*	1.0000			
13	High Tech	0.0144	-0.1007	-0.0156	-0.0025	0.0224	-0.0242	-0.1230	-0.0926	-0.1829*	0.0032	0.0693	0.0366	1.0000		
14	Firm Age	0.1000	0.1164	-0.0419	-0.1232	-0.0059	0.0421	0.1007	0.0039	-0.0191	0.0003	0.0327	0.1132	0.0774	1.0000	
15	Risk Factor	0.1712*	0.0181	0.1029	0.0995	-0.0047	0.1874*	-0.0601	0.1784*	-0.5173*	-0.4095*	0.3977*	0.1414*	0.0926	0.0617	1.0000
16	China vs US&HK	0.2087*	0.0386	0.1161	0.0828	-0.0081	0.2332*	0.0005	0.2327*	-0.5709*	-0.4387*	0.5092*	0.0691	0.0463	0.1225	0.8895*
17	China vs US	0.1345*	-0.0375	0.1462*	0.1218	0.0428	0.1548*	-0.1134	0.1797*	-0.5810*	-0.3921*	0.4419*	0.1918*	0.1564*	0.0184	0.9368*
18	China vs HK	0.2020*	0.1100	0.0210	-0.0092	-0.0662	0.2234*	0.1354*	0.1869*	-0.3500*	-0.2967*	0.4659*	-0.1311	-0.1168	0.1812*	0.7866*
19	US vs HK	-0.1353	-0.2108	0.1707	0.2450	0.2114	-0.1353	-0.3843*	-0.0552	-0.3144	-0.1095	-0.0592	0.4433*	0.5030*	-0.3348	0.7278*
20	IPO Valuation	-0.1383*	-0.0795	-0.1523*	-0.0881	-0.0379	-0.2006*	-0.0135	-0.2928*	0.6892*	0.4240*	-0.5318*	0.0168	-0.0475	-0.1965*	-0.6645*
21	ROA	0.0522	0.0442	0.0182	-0.0540	0.0027	0.0728	-0.0269	-0.0322	-0.1577*	-0.1383*	0.1898*	-0.1395*	0.1069	0.0249	0.1442*
22	ROS	-0.0125	0.0315	-0.0284	-0.0339	0.0387	0.0158	-0.0299	-0.0712	-0.0217	0.0545	-0.0498	-0.0672	0.0949	-0.0100	-0.1215
23	Tobin's Q	0.1705*	-0.1193	0.0328	0.0078	-0.0303	0.1228	-0.0610	0.0195	-0.1547*	-0.0103	0.0173	-0.0100	0.0399	0.0475	0.0704

		16	17	18	19	20	21	22	23
16	China vs US&HK	1.0000							
17	China vs US	1.0000*	1.0000						
18	China vs HK	1.0000*	.	1.0000					
19	US vs HK	.	.	.	1.0000				
20	IPO Valuation	-0.7999*	-0.7232*	-0.7445*	0.0750	1.0000			
21	ROA	0.0963	0.2005*	-0.0554	0.1855	-0.0265	1.0000		
22	ROS	-0.1993*	-0.1040	-0.2246*	0.1866	0.2996*	0.6325*	1.0000	
23	Tobin's Q	0.1069	-0.0971	0.2365*	-0.2324	-0.0918	0.1159	0.0789	1.0000

* denotes significance at the 1% level.

Table 3 The effect of Returnee CEO on listed market selection (China Mainland, US or HK)

	Panel A: Market Selection			Panel B: Interaction Model
	China vs US&HK	China vs US	China vs HK	China vs US
Returnee CEO	1.2333***	1.3351***	1.8586***	2.8916***
	(4.47)	(2.82)	(4.21)	(3.19)
Post2011				-1.1925***
				(-2.62)
Returnee CEO*Post2011				-2.6692**
				(-2.43)
Total Assets	-1.3009***	-1.9055***	-1.3882***	-2.6641***
	(-5.63)	(-4.88)	(-4.78)	(-5.86)
Board Size	-0.3600***	-0.4738***	0.0922	-0.7723***
	(-3.85)	(-2.91)	(0.87)	(-4.17)
Board Independence	4.9483***	5.5338***	13.6844***	8.7590***
	(3.01)	(2.72)	(3.87)	(2.99)
VC Ownership	1.2458	4.5580***	-9.3004***	7.8893***
	(1.30)	(3.13)	(-2.77)	(4.35)
High Tech	-0.4183	0.0889	-1.4322***	0.1562
	(-1.63)	(0.25)	(-3.27)	(0.40)
Frim Age	0.0687***	-0.0120	0.1528***	-0.0008
	(2.90)	(-0.38)	(4.59)	(-0.02)
Founder CEO	0.1655	-0.0779	0.1241	0.0516
	(0.50)	(-0.23)	(0.30)	(0.13)
CEO Duality	-0.1260	0.0049	0.1673	0.4794
	(-0.33)	(0.01)	(0.29)	(1.03)
CEO Age	-0.0178	-0.0712	-0.0085	-0.0755*
	(-0.63)	(-1.50)	(-0.33)	(-1.72)
CEO Ownership	-0.4860	-0.1559	-2.5266*	-1.2108
	(-0.52)	(-0.10)	(-1.74)	(-0.74)
Constant	24.2006***	38.1894***	17.9863***	53.0042***
	(4.53)	(4.07)	(2.98)	(5.16)
R2	0.604	0.729	0.643	0.803
N	411	388	378	388

This table reports the probit regression analyses between Returnee CEO and listed market selection. All the variables are defined in the Appendix 1. T-values are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Table 4 The effect of Returnee CEO on the IPO performance in the China mainland market.

	IPO Performance		
	IPO valuation	IPO first day return	IPO proceeds
Returnee CEO	0.1343*	0.1070	0.0583
	(1.72)	(1.59)	(0.89)
Total Assets	0.3941***	-0.1805***	0.4999***
	(7.53)	(-5.95)	(10.70)
Board Size	0.0410*	-0.0042	0.0436*
	(1.78)	(-0.22)	(1.95)
Board Independence	-0.1067	-0.4891	0.1882
	(-0.19)	(-1.18)	(0.33)
VC Ownership	-0.3475	-0.0782	-0.3857*
	(-1.27)	(-0.43)	(-1.68)
High Tech	0.0290	-0.0549	0.0603
	(0.50)	(-1.44)	(1.16)
Firm Age	-0.0306***	0.0004	-0.0285***
	(-5.24)	(0.11)	(-5.41)
Risk Factor	-0.0028	0.0058	-0.0069
	(-0.38)	(1.16)	(-1.11)
Founder CEO	-0.0230	-0.0109	0.0025
	(-0.35)	(-0.24)	(0.04)
CEO Duality	0.1052	-0.0424	0.1543**
	(1.35)	(-0.82)	(2.13)
CEO Age	-0.0037	-0.0006	-0.0042
	(-0.76)	(-0.18)	(-1.04)
CEO Ownership	-0.0824	-0.0679	-0.1319
	(-0.33)	(-0.48)	(-0.56)
Constant	14.0136***	4.0739***	10.3640***
	(13.09)	(6.36)	(10.58)
R2	0.236	0.103	0.327
N	355	355	355

This table reports the OLS regression analyses between Returnee CEO and IPO performance in the China Mainland market. All the variables are defined in the Appendix 1. T-values are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Table 5 The effect of Returnee CEO on post-IPO one-year operating performance across the China Mainland market by full and PSM sample.

	Panel A: Full Sample			Panel B: PSM Sample			Panel C: Instrument Variable(IV)			
	1	2	3	4	5	6	7. 1st Stage	8. 2nd Stage	9. 2nd Stage	10. 2nd Stage
	ROA	ROS	Tobin's Q	ROA	ROS	Tobin's Q	Returnee CEO	ROA	ROS	Tobin's Q
Returnee CEO	0.0097**	0.0446**	0.2182*	0.0054	0.0424*	0.2545*		0.1172*	0.4737*	2.0675
	(2.09)	(2.28)	(1.81)	(0.83)	(1.85)	(1.93)		(1.73)	(1.74)	(1.52)
International School							0.0056*			
							(1.94)			
Total Assets	-0.0099***	-0.0445***	-0.2382***	-0.0107	-0.0575**	-0.1393	-0.0170	-0.0073	-0.0340*	-0.1929**
	(-3.35)	(-3.97)	(-4.71)	(-1.28)	(-2.14)	(-1.02)	(-0.53)	(-1.57)	(-1.79)	(-2.46)
Board Size	-0.0020	0.0034	-0.0480	-0.0003	0.0249**	0.0275	0.0185	-0.0040	-0.0044	-0.0814*
	(-1.41)	(0.58)	(-1.46)	(-0.15)	(2.16)	(0.35)	(1.06)	(-1.58)	(-0.42)	(-1.71)
Board Independence	-0.0299	0.1021	-0.9035	0.1160	1.1168***	2.4764	-0.0756	-0.0212	0.1367	-0.7546
	(-0.74)	(0.64)	(-1.28)	(1.29)	(3.06)	(1.00)	(-0.20)	(-0.39)	(0.64)	(-0.75)
VC Ownership	-0.0391**	-0.0401	0.3304	-0.0094	0.0667	-0.0947	0.5436**	-0.0985**	-0.2771	-0.6912
	(-2.27)	(-0.66)	(1.01)	(-0.33)	(0.72)	(-0.19)	(2.40)	(-1.98)	(-1.40)	(-0.76)
High Tech	0.0014	0.0075	0.1418**	0.0014	-0.0214	0.0748	-0.0242	0.0024	0.0114	0.1587
	(0.41)	(0.57)	(2.15)	(0.14)	(-0.71)	(0.46)	(-0.63)	(0.44)	(0.53)	(1.56)
Firm Age	0.0004	-0.0001	0.0068	0.0001	-0.0004	0.0116	0.0031	-0.0000	-0.0017	-0.0004
	(1.16)	(-0.05)	(1.20)	(0.12)	(-0.19)	(0.90)	(0.82)	(-0.07)	(-0.76)	(-0.04)
Risk Factor	0.0001	0.0002	0.0254***	0.0007	0.0009	0.0410*	-0.0016	0.0002	0.0007	0.0277**
	(0.21)	(0.12)	(2.98)	(0.68)	(0.22)	(1.72)	(-0.31)	(0.34)	(0.27)	(2.38)
Founder CEO	-0.0079**	-0.0107	-0.0501	-0.0021	0.0098	-0.0402	0.0323	-0.0110*	-0.0228	-0.1020
	(-2.05)	(-0.81)	(-0.73)	(-0.26)	(0.35)	(-0.23)	(0.78)	(-1.77)	(-0.91)	(-0.96)
CEO Duality	0.0037	0.0160	-0.0789	0.0035	0.0319	0.1331	-0.1194**	0.0175	0.0711	0.1589
	(0.75)	(0.89)	(-0.96)	(0.30)	(0.76)	(0.65)	(-2.31)	(1.52)	(1.57)	(0.75)
CEO Age	0.0002	0.0009	-0.0016	0.0006	0.0024	-0.0038	0.0048	-0.0004	-0.0014	-0.0116
	(0.70)	(0.78)	(-0.28)	(0.89)	(1.14)	(-0.30)	(1.28)	(-0.57)	(-0.56)	(-0.98)
CEO Ownership	-0.0066	-0.0344	-0.0784	-0.0240	-0.1109	-0.6683	0.2958*	-0.0429	-0.1792	-0.7024
	(-0.44)	(-0.62)	(-0.35)	(-0.63)	(-0.82)	(-1.19)	(1.90)	(-1.37)	(-1.41)	(-1.19)
Constant	0.2732***	0.9319***	6.7861***	0.1990	0.5506	2.8932	0.0316	0.2549***	0.8590**	6.4718***
	(4.45)	(3.80)	(6.54)	(1.18)	(0.93)	(0.92)	(0.05)	(2.98)	(2.41)	(4.33)
R2	0.096	0.083	0.146	0.128	0.239	0.182	0.190	0.549	0.255	0.802
N	355	355	355	94	94	94	355	355	355	355

This table reports the OLS regression analyses between Returnee CEO and post one-year IPO operating performance across China Mainland. All the variables are defined in the Appendix 1. T-values are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Table 6 The effect of Returnee CEO on post-IPO one-year operating performance on China Mainland market (split sample tests by VC-back and Non VC-back)

	ROA		ROS		Tobin's Q	
	VC-Back	Non VC-Back	VC-Back	Non VC-Back	VC-Back	Non VC-Back
Returnee CEO	0.0129**	-0.0125	0.0557**	-0.0256	0.2583*	0.0577
	(2.45)	(-1.13)	(2.48)	(-0.71)	(1.91)	(0.23)
Total Assets	-0.0135***	-0.0066	-0.0538***	-0.0414**	-0.2910***	-0.1589*
	(-3.63)	(-1.27)	(-3.56)	(-2.28)	(-4.67)	(-1.74)
Board Size	-0.0023	-0.0028	0.0008	0.0036	-0.0546	-0.0519
	(-1.51)	(-0.92)	(0.10)	(0.37)	(-1.14)	(-1.23)
Board Independence	-0.0081	-0.1374*	0.1078	-0.1153	-1.1110	-1.0857
	(-0.16)	(-1.93)	(0.53)	(-0.46)	(-1.19)	(-1.04)
High Tech	-0.0008	0.0044	0.0071	0.0047	0.1610*	0.1085
	(-0.20)	(0.64)	(0.43)	(0.22)	(1.89)	(1.07)
Firm Age	0.0002	0.0006	-0.0016	0.0028	0.0018	0.0174*
	(0.44)	(1.05)	(-1.08)	(1.21)	(0.24)	(1.68)
Risk Factor	-0.0001	0.0002	-0.0001	0.0010	0.0285**	0.0187
	(-0.18)	(0.22)	(-0.06)	(0.40)	(2.59)	(1.36)
Founder CEO	-0.0114***	0.0021	-0.0194	0.0026	-0.1175	0.0573
	(-2.60)	(0.25)	(-1.20)	(0.11)	(-1.39)	(0.43)
CEO Duality	0.0020	0.0089	0.0005	0.0534	-0.0996	-0.1145
	(0.38)	(0.80)	(0.02)	(1.51)	(-1.02)	(-0.61)
CEO Age	0.0003	0.0001	0.0015	0.0002	0.0027	-0.0028
	(0.71)	(0.29)	(1.10)	(0.13)	(0.33)	(-0.32)
CEO Ownership	0.0045	-0.0244	-0.0087	-0.0917	-0.1159	0.0008
	(0.26)	(-0.83)	(-0.13)	(-0.84)	(-0.44)	(0.00)
Constant	0.3344***	0.2569**	1.1240***	0.9374**	7.8678***	5.3287***
	(4.39)	(2.52)	(3.62)	(2.21)	(5.75)	(3.24)
R2	0.133	0.060	0.113	0.098	0.183	0.105
N	241	114	241	114	241	114

This table reports the OLS regression analyses between Returnee CEO and post-IPO one-year operating performance on the China Mainland market by considering VC-back and Non VC-back effect. All the variables are defined in the Appendix 1. T-values are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Appendix 1

Variables	Definition
Returnee CEO	Dummy variable equals to 1 if the CEO had overseas working experience, overseas studying experience, overseas permanent residence or hold foreign nationalities, and 0 otherwise.
CEO Age	The age of the CEO at the time of the IPO.
CEO Ownership	The percentage of beneficial ownership in the post-IPO firm held by CEO.
Total Assets	The natural logarithm of total assets in the latest fiscal before the time of the IPO.
Board Size	The number of directors in the board at the time of the IPO.
Board Independence	The percentage of independent directors in the board at the time of the IPO.
VC Ownership	The percentage of beneficial ownership in the post-IPO firm held by Venture Capital.
High Tech	Dummy variable equals to 1 if the firm classifies as high tech firm, and 0 otherwise.
Firm Age	The age of the firm at the time of the IPO.
Risk Factor	The total number of risk factors listed on the IPO prospectus.
Founder CEO	Dummy variable equals to 1 if CEO is the founder at the time of the IPO, and 0 otherwise.
CEO Duality	Dummy variable equals to 1 if CEO is the chairman at the time of the IPO, and 0 otherwise.
IPO Valuation	The value of the IPO firm as the natural logarithm of the firm's market capitalization at the end of the IPO's first day of trading – the total number of outstanding shares at IPO multiplied by the closing price at the end of the first trading day.
IPO first day return	The percentage difference between the offer price and the closing price of the first trading day.
IPO proceeds	The natural log of the difference between the total proceeds and the underwriters' fee.
China vs US&HK	Dummy variable equals to 1 if the firm listed on NASDAQ or HKEX market, and 0 otherwise.
China vs US	Dummy variable equals to 1 if the firm listed on NASDAQ market, and equals to 0 if the firm listed on ChiNext market.
China vs HK	Dummy variable equals to 1 if the firm listed on HKEX market, and equals to 0 if the firm listed on ChiNext market.
ROA	Return on assets in the post one-year of the IPO year.
ROS	Return on sales in the post one-year of the IPO year.
Tobin's Q	Tobin's Q in the post one-year of the IPO year.
International School	The number of international schools in the city of the firm's headquarter in the prior year of firms' IPOs.
Post2011	Dummy variable equals to 1 if the IPO year is 2011 or 2012, and 0 otherwise.