The Curse of Returnee CEOs*

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Abstract

This paper studies the impact of appointing returnees as CEOs on the performance of Chinese listed firms. Although there is a consensus on the benefits of international experience in the literature, we show that the appointment of returnee CEOs is associated with inferior performance, less positive market reactions and a higher incidence of regulatory enforcement actions, after controlling for selection bias. We argue that CEOs' international expertise is acquired at the opportunity cost of local social resources such as political connections and network ties, which are critical in transition economies with weak legal institutions. As we predict, the negative effect of returnee CEOs on performance is driven by these who stayed abroad longer and the effect disappears when social resources are in place or their international expertise is in demand.

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1. Introduction

The characteristics of CEOs have been found to map into firm performance (Bertrand and Schoar, 2003; Malmendier and Tate, 2009; Kaplan et al., 2012). In particular, two major functions of CEOs depend on their characteristics: knowledge and expertise help CEOs to make superior organizational decisions (Li et al., 2014), and their networks help to bring critical resources to offset external uncertainty (EI-Khatib et al., 2015). In the context of the globalization of human capital, listed firms, especially those from transition economies, often choose to appoint CEOs that have returned from overseas, known as returnee CEOs, hoping they will bring the benefits of advanced concepts and international vision. Despite the significance of international experience in shaping individuals, this important characteristic of CEOs remains under-researched.

Returnee CEOs in transition economies are perceived to possess high-quality education, good reputations, and high ability as a result of their international experience. The benefits of these characteristics are documented in the literature, mainly based on US firms. For example, better firm or fund performance is associated with CEOs' international work experience (Carpenter et al., 2001), CEOs' educational experience from prestigious universities (Chevalier and Ellison, 1999), CEOs' ability (Falato et al., 2015; Demerjian et al., 2012), and their reputation (Jian and Lee, 2011)[1].

Unlike these strengths, returnees' weaknesses are largely ignored. Having spent years abroad, they have missed out on opportunities to accumulate local social resources such as political connections and local network ties, whose importance, especially in transition

[1] Masulis et al. (2012) and Giannetti et al. (2015) also document the benefits of international experience on acquirer returns and firm performance, based on samples of board directors.

economies, has been acknowledged in the literature (Allen et al., 2005). These resources produce favorable conditions and have positive effects on firm performance (Faccio, 2006; Correia, 2014; EI-Khatib et al., 2015). As a result, the lack of such resources may offset the benefits of returnee CEOs. The arguments and evidence from both sides lead to two competing hypotheses, namely an expertise hypothesis and a network hypothesis. Determining the net effect on overall firm performance represents a timely and important question.

To conduct our research, we construct a sample of returnee CEOs from China, the leading country in terms of overseas students, with as many as 2.6 million studying abroad and 1.1 million of them having returned to China between 1978 and 2012[2]. The Chinese government recently launched favorable talent schemes to encourage high-level overseas professionals, including managers, to return to China and contribute to the development of its capital markets. By reviewing 2,847 biographies of all the CEOs appointed between 2001 and 2010 by firms listed on the Shanghai and Shenzhen Stock Exchanges, we identify 247 returnee CEOs, accounting for 8.86% of all appointments.

To examine the impact of appointing returnees on subsequent firm performance, we carefully control for possible selection bias that stems from the fact that firms do not randomly appoint returnee CEOs. We apply both propensity score matching (PSM) and the instrumental variable (IV) approach to address the potential endogeneity issue. For PSM, we following the literature (Malmendier and Tate, 2009; Custódio et al., 2013) and match each appointment of a returnee CEO from the treatment group to an appointment of a local CEO from the control group, based on the closest propensity score without replacement. In this way, each firm that appointed a returnee CEO is matched with another firm that was equally likely to appoint a

[2] Annual report on the development of Chinese students studying abroad, Social Science Academy Press (China), 2013: Beijing.

returnee CEO but actually appointed a local one. The matched sample is not subject to observable sample selection bias. In addition, we employ the two-stage least squares (2SLS) approach to address the potential unobservable sample selection bias. We use a dummy variable based on whether the province in which the firm's headquarters is located has international schools, as the IV to predict the likelihood of returnee CEOs being appointed. The international schools in mainland China target the families of returnees and foreigners as their main clients and prepare students for the SAT or A-level university entry exams using the curricula from the US or UK. The international education opportunities for kids largely affect the career and relocation decisions of returnees, who tend to join firms located in provinces with international schools. This IV is proper in that it is correlated with the endogenous variable of the appointment of a returnee CEO, but is uncorrelated with the error terms of the regressions of performance.

We document consistent results from the original sample, the PSM sample, and the IV approach, showing that firms appointing returnee CEOs are associated with inferior subsequent performance in terms of return on assets (ROA), return on sales (ROS), and the market-to-book ratio (MTB). This finding supports the network hypothesis that local social resources are more important than international expertise for increasing firm value in transition economies like China. The results are driven by CEOs with international work experience, who stayed abroad longer than those with overseas study experience only, suggesting that the longer the returnees had stayed abroad, the more difficult it was for them to accumulate local resources and adapt to the business culture in China. When we look into the organizational dynamics by taking the prior CEOs into consideration, we find that the market reaction and the change in operating performance are at least 4% less positive when a non-returnee CEO is succeeded by a returnee than by another non-returnee.

Although there seems a consensus in the literature on the benefits of the international experience of CEOs, our findings show that their impact is controversial in transition economies, where they fail to secure local social resources that are critical. If the negative impact of returnee CEOs is due to the lack of such resources, their underperformance should disappear when social resources are in place (i.e. in state-owned enterprises (SOEs) backed up by state controlling shareholders, for politically connected returnee CEOs, and for CEOs with social networks). The results confirm our prediction and further support the network hypothesis. Moreover, we find that the effect of returnee CEOs depends on the firm's need for international expertise. The underperformance of returnee CEOs is not documented in firms engaging in international business, where there is ample scope for the use of returnee CEOs' international expertise.

To further explore the sources of the underperformance, we examine the regulatory environment faced by returnee CEOs and their corporate strategies. We document a higher incidence of regulatory enforcement actions imposed on firms led by returnee CEOs. This result, robust to the control of selection bias, implies the importance of resources in bringing about favorable regulatory conditions (Hou and Moore, 2010; Correia, 2014). In addition, we find that returnee CEOs are reluctant to appoint politically connected executives who could help to complement their weaknesses, but are more likely to appoint executives with a better educational background. Meanwhile, returnee CEOs exhibit overconfidence and engage in business diversification. These results provide insights into the channel through which returnee CEOs influence firm performance.

Our study complements the growing literature on the impact of CEOs' personal background or characteristics on firm decisions and financial outcomes (Malmendier and Tate, 2009; Falato et al., 2015; Kaplan et al., 2012; Custódio and Metzger, 2014; EI-Khatib et al.,

2015). In particular, this paper complements and extends the seminal work of Bertrand and Schoar (2003), which documents that managers' person-specific effect can explain a large amount of the unexplained variation in corporate practices, after controlling for firm-level characteristics and industry effects. Quantifying the personal traits of CEOs with international experience, this paper adds a new dimension to studies of CEO managerial effects and reveals how the international experience of CEOs shapes corporate performance and decisions.

Our study also makes timely contributions to the limited research on the phenomenon of brain gain in the context of weak institutions in transition economies. Giannetti et al. (2015) argue that directors with foreign experience facilitate the adoption of strong corporate governance practices and internationalization. Masulis et al. (2012) find the advisory capability of foreign directors to be enhanced by their knowledge of foreign markets. We, however, provide original evidence on the impact of weak institutions in shifting listed firms' needs regarding CEO characteristics. Despite their international expertise and possible international networks, returnee CEOs who fail to secure local social resources suffer the consequences of inferior performance and an adverse regulatory environment. The realization of the full benefits of introducing global talent is restricted by the institutional reliance on political connections and relationships.

The findings also explain the phenomenon whereby the ratio of returnee CEO appointments did not increase from 2001 to 2010, despite the governments' tremendous efforts and regulatory reforms aimed at introducing returnee professional managers into the Chinese capital markets. Although the institutional forces at the social and firm levels are the important factor in organizational change (Lau et al., 2002), the weaknesses of returnee CEOs are holding back their popularity.

The rest of the paper proceeds as follows. Section 2 discusses the institutional background relating to Chinese returnees. Section 3 reviews the related literature and develops the hypotheses. Section 4 introduces the research design. Section 5 presents the empirical results and the robustness checks, which is followed by additional tests in Section 6. Section 7 concludes.

2. Institutional Background

2.1 A Brief History of Returnees in China

Learning from people in other countries is embedded in the old Chinese wisdom. A poem recorded 2,700 years ago in *Shijin* says "*there are other hills whose stones are good for working jade*", implying that the knowledge developed in other places could be used to solve local problems. Arguably the most well-known returnee in ancient China was Xuanzang (AD 602–664), who made a 17-year journey to India, studied at Nalanda University and brought back advanced Buddhist ideologies. After his journey, Buddhism became more prevalent and more widely understood in China, and subsequently in East Asia. The first example of an overseas student in modern China dates back to 1854, when Yung Wing (1828–1912), later known as "the father of Chinese returnees", graduated from Yale University. After finishing his studies, Yung Wing returned to Qing Dynasty China and led the "Self-Strengthening Movement", the westernization process implemented by the Qing Dynasty to modernize its industry and education, which helped China to develop national capitalism (Wang et al., 2014). After 1872, the government of the Qing Dynasty started dispatching groups of youths for overseas education, starting a large-scale trend for Chinese people to study overseas. Upon returning to China, these returnees led the "New Culture Movement" of 1919, calling for the creation of a new Chinese culture based on western standards, especially democracy and science.

Sun Yat-sen, a returnee from Japan, led the Xinhai Revolution in 1911, overthrowing China's 2000 years of imperial rule, and bringing the country into the republican era. He took the role of provisional president when the Republic of China was established in 1912. Chiang Kai-shek, another returnee from Japan, later reunified the country and was appointed president. After the Chinese Civil War in 1949, a batch of returnees established the People's Republic of China. Among the 10 founding marshals, 6 were returnees.

Despite the importance of returnees in developing the country, their social status experienced turmoil in the "Anti-Rightest Movement" (1957–1959) and the "Culture Revolution" (1966–1976). Both movements aimed to strengthen the socialist system and nip the capitalist ideology from the West in the bud, and therefore returnees, especially those returning from developed capitalist countries, were deemed the main target due to their overseas experience, and were denounced for their capitalist thoughts. Others who had returned from the Soviet Union were not immune, due to the deterioration of Sino-Soviet relations since the 1960s. After this, the government stopped dispatching and funding people to study abroad.

In 1978, Deng Xiaoping, a returnee from France, initiated the opening-up and reform of China. Deng ended China's isolation from foreign countries after the chaos of the "Cultural Revolution", and reformed China from a centrally planned to a market economy, leading the country into an era of rapid development. After the first batch of 52 state-funded students went abroad in 1978, the number of Chinese overseas students between 1978 and 2012 reached 2.6 million. More importantly, Deng also changed the independent and exploratory development of the country into a style based on learning from foreign experience, providing a bigger stage for returnees to contribute with their advanced knowledge acquired abroad. For example, the founding of the Chinese stock markets was proposed by eight returnees in their proposal to

Chinese state leaders, titled "*Policy Recommendations Regarding the Promotion of the Legalization and Standardization of China's Securities Market*", in 1988.

2.2 Background to Returnee CEO Appointments in China

In the past few years, the Chinese government has paid increasing attention to attempting to attract high-level overseas talents back to China. For example, the Organization Department of the Communist Party initiated a returnee-favorable policy entitled "*Recruitment Program of Global Experts*" in 2008, offering returnee executives national-level policy support for working and living in China, as well as a tax-free lump sum of a million RMB. The scheme targets full professors at overseas universities, senior executives in multinational firms, and innovation-oriented entrepreneurs, and attracted 2,263 high-level returnees from 2008 to 2012. Since then, virtually every provincial and municipal government has launched local, returnee-favorable talent schemes. In addition to the policies, the rapid development of China has also encouraged the return of overseas Chinese professional managers by providing ample business and career opportunities. The completion of infrastructural facilities in large cities in China has also ensured that returnees enjoy a similar quality of life to that in developed countries.

To take advantage of returnee specialists in technology, the Chinese government initially encouraged them to conduct technology transfer by starting high-tech ventures. Since the first Returned Scholars Venture Park was established at Nanjing in 1994, many parks of this kind have been established by both provincial and municipal governments all over China, to provide preferential policies, including tax preferences and free office space, to returnee entrepreneurs. As a result, a large number of returnee ventures are succeeding and contributing to economic growth. Seeing the success of returnee specialists in running small businesses, the government extended the invitation to returnee professional managers to enter the Chinese capital markets, and expected them to replicate the success seen in the small business sector.

China lacked such a talent pool because there was no modern enterprise in China until 1978. Thus, the returnee professional managers complemented the local supply of talent. For example, the State-owned Assets Supervision and Administration Commission (SASAC) started a global search for senior executives for SOEs affiliated to the central government in 2003. Other listed firms have also appointed returnee managers so as to catch up with the trend or meet the expectations of the government.

3. Literature Review

3.1 Strengths of Returnee CEOs

Returnee CEOs are viewed in China as possessing international experience, high-quality education, a good reputation and strong capabilities. The literature confirms the benefits of these CEO characteristics. First of all, CEOs with international assignment experience possess tacit knowledge of international markets, which can help multinational companies (MNCs) with far-flung operations to establish a sustained competitive advantage in the global environment, and thus enhance their performance (Carpenter et al., 2001).

Secondly, returnee CEOs have normally obtained overseas university degrees, because studying used to be the only route Chinese people could follow if they wished to go and live abroad. A survey by Wang and Lu (2012) shows 36.1% of returnees to have postgraduate degrees and 35.5% of them PhD degrees. In terms of university rankings, none of the universities from mainland China has made it into the top 200 in the world in the *Academic Ranking of World Universities,* published annually since 2003, making Chinese universities substantially lower-ranked than universities from developed countries, the major destinations for Chinese students. Returnee CEOs are therefore believed to be associated with a better quality of education. In addition, the university curricula of Chinese and western universities used to be very different. Since 1952, universities in China had mainly concentrated on

technology and engineering, following the higher education model of the Soviet Union. Social sciences were mainly taught from a socialism perspective. As a result, returnee CEOs had gained exposure to knowledge that was unavailable in China. The literature documents the value added by education. Chevalier and Ellison (1999) and Gottesman and Morey (2006) find that the risk-adjusted excess returns of funds are higher for fund managers who have graduated from colleges with higher SAT entry requirements and these from prestigious MBA programs, after controlling for expenses, risk, and survivorship bias. For listed firms, Bertrand and Schoar (2003) find that CEOs with MBA degrees are associated with higher operating performance through the human capital accumulation or the selection effect.

Thirdly, the process of going abroad used to be very selective, in that Chinese people were in general unable to self-finance their study in the early years, so that securing a scholarship was necessary. Growing up in underdeveloped socialist China, their accomplishments in overseas studies and careers required great effort. Therefore, returnees are regarded as an elite social class with a good reputation. The CEO's talent and reputation are found to influence firm performance. Demmerjian et al. (2012) find a negative market reaction to the turnover of capable CEOs, as indicated by the firm's prior performance and the efficiency of generating revenues. Falato et al. (2015) find that CEO talent, reflected by media coverage, a fast-track career and a high-quality educational background, adds both short-term and long-term firm value. Reputable CEOs are believed to put more effort into improving performance so as to protect their credibility and future compensation. Jian and Lee (2011) find that the stock market reaction to the announcement of a capital investment is positive when the CEO is more reputable and thus believed to be able to enhance the firm's post-investment operating performance.

3.2 Weaknesses of Returnee CEOs

Although returnee CEOs possess prominent strengths, they also exhibit weaknesses. Returnee CEOs have usually lived abroad for many years before returning to their home country, and are therefore less likely to have accumulated local social resources such as political connections and network ties. Due to the weak legal and regulatory institutions, such local social resources play an important role in emerging markets such as China, by bringing about a favorable business environment (see Park and Luo, 2001; Allen et al., 2005; Faccio, 2006). The lack of such resources represents their main competitive disadvantage.

Returnee CEOs are less likely to have political connections for institutional and personal reasons. When they are abroad, they do not have opportunities to join the Chinese Communist Party. When they return, they do not have any advantage in China's civil service exam, the qualifying requirement for becoming a government bureaucrat, due to the exam's focus on public policy and social knowledge of China. For these joined the civil service, their overseas experience does not count for remuneration and promotion because the major criteria are the number of years they have served in their current rank and their track record in the civil service. The talent schemes in general do not include returnee bureaucrats, leaving their salaries substantially lower than others included in the schemes. These institutions hinder returnees from establishing political connections.

The benefits of political connections are documented in the literature (Fisman, 2001), in the form of special treatment from the government in terms of lighter taxation and government contracts. The market also reacts positively to announcements of newly established political connections (Faccio, 2006). Faccio and Parsley (2009) further show that the cumulative market-adjusted returns of firms that are headquartered in a politician's home town are negative around the event of the politician's sudden death, due to the loss of political

connection. Political connections established through campaign contributions also help to improve firm performance when the winning candidates return the favor to the firms (Claessens et al., 2008). For the setting of China, Li et al. (2008) find that the China Communist Party membership (CCPM) of private entrepreneurs is positively related to firm performance and access to bank loans, especially for firms located in regions with weaker market institutions and legal protection[3].

Returnee CEOs have also had fewer opportunities to establish local networks because of their prior geographic distance from China. CEO networks refer to the linkages between CEOs and other individuals or organizations, from which both parties can benefit. Such connections can be established through common educational, work or recreational experiences. The geographic distance impedes returnee CEOs from establishing such connections with local business communities. Some returnees could have had networks established before going abroad, but the geographic distance and time difference make it more difficult for them to maintain the networks.

Returnees' lack of networks restricts the transmission of knowledge, ideas or funds and therefore effective channels for exchanging information and favors. Both formal and informal networks are found to provide positive impacts on firm performance and access to essential external resources, reducing environmental uncertainty and consequently contributing to profitability (Engelberg et al., 2012; EI-Khatib et al., 2015). CEO networks also increase the CEO's managerial power (Daily and Johnson, 1997) and the lack of networks could undermine the leadership of returnee CEOs.

[3] Contradictory evidence on the effect of CEOs' political connections in Fan et al. (2007) is based on newly privatized firms that already have political connections through their state shareholders. Too many connections lead to government intervention and incur costs.

Specific to China, "guanxi" serves as a special type of network beyond ordinary connections, defined as the exchange of favors and a person's credibility, which is transferable, reciprocal, intangible and utilitarian (Park and Luo, 2001). It is an ancient and important cultural and social element, with a strong and direct impact on social attitudes and economic life in China. Influencing the flow of resources and a firm's interaction with its environment, it becomes an important social resource for organizations, influencing firm performance. Returnee CEOs often experience a new culture shock when they go back to China and find it difficult to integrate themselves into a working environment in which individuals need to conform to the business culture so as to establish "guanxi", by exchanging favors in gray areas in a delicate manner.

3.3 Hypothesis Development

Based on the institutional background and literature reviewed above, we develop two competing hypotheses regarding the impact of returnee CEOs on the performance of listed firms. Returnee CEOs possess the characteristics that the literature has found to add value, such as international experience, prestigious education, great ability and reputation. CEOs' experience and expertise are strategically important resources that help to ensure sustained competitive advantage. Returnee CEOs are therefore expected to create long-term and sustained competitive advantages over firms with local CEOs. We thereby propose the following "expertise hypothesis":

H1a: *Firms that appoint returnee CEOs outperform those that appoint non-returnee CEOs.*

Meanwhile, returnee CEOs also have weaknesses due to their lack of local social resources such as political connections, local networks and "guanxi", which are essential for firms in emerging countries like China. Previous empirical evidence confirms the importance of these resources and their positive effect on firm performance. Local social resources are

therefore regarded as valuable and inimitable intangible resources for creating firm growth and a competitive advantage. Since the external environment is more uncertain in emerging countries, local social resources are critical for ensuring firm development. The lack of resources also undermines the leadership of returnee CEOs. Therefore, we propose the following "competing network hypothesis":

H1b: *Firms that appoint returnee CEOs underperform those that appoint non-returnee CEOs.*

Firms have different levels of local social resources. For example, SOEs establish political connection through their state controlling shareholders and do not rely on their CEOs to gain this resource. Therefore, the lack of political connections of returnee CEOs will matter less when they work for SOEs. The level of resources will also vary across CEOs. Returnee CEOs who have previously worked in government or are sitting on the boards of other firms do not share the typical weaknesses. We therefore propose the second hypothesis as follows:

H2: *The effects of returnee CEOs are more positive (or less negative) when local social resources are in place*.

The need for returnees' expertise will also vary across firms. For example, the international scope and expertise of CEOs will be more valuable for multinational firms than for locally operated ones. In other words, a firm's globalization strategy exaggerates the benefits of appointing a CEO with knowledge of foreign markets and institutions, and with foreign networks on which to draw. On the contrary, local social resources will be more critical for locally operated firms because they largely depend on the local business community as their main suppliers and clients. Their reliance on the local government is also heavier in that they are more sensitive to local policies. We therefore propose the third hypothesis as follows:

H3: *The effects of returnee CEOs are more positive (or less negative) when firms demand international expertise.*

4. Research Design

4.1 Data and Sample Selection

In order to identify appointments of returnee CEOs, we include all appointment events of A-share firms listed on the main boards of the Shanghai and Shenzhen Stock Exchanges, and review the short biographies of 3,324 CEOs disclosed in appointment announcements between 1 January 2001 and 31 December 2010, which we obtain from the China Stock Market and Accounting Research (CSMAR) database. A typical short CEO biography contains information on name, age, gender, educational background and work experience. We also cross-check the information with *finance.sina.com.cn* to verify the accuracy and complete any missing biographies.

The cross-sectional sample excludes CEOs with no disclosed biography, foreign CEOs and interim CEOs in office for less than 180 days. The data on firm performance and characteristics and governance characteristics are also collected from CSMAR. We also require non-missing data on the dependent variables and the control variables, including the CEO's personal characteristics, firm characteristics and governance characteristics. These filters finally leave us with a cross-sectional sample of 2,847 CEO appointment events, and we identify that 247 of these are returnee CEOs.

Figure 1 presents the frequency of returnee CEOs' successions from 2001 to 2010. The returnee CEOs with overseas experience are further divided into two groups: (1) CEOs with overseas employment experience, including pure work experience or combined study and work experience; (2) CEOs with pure overseas study experience. The returnee CEOs with work

experience generally account for a larger proportion than those with study experience, except in 2005. In terms of returnee CEOs with overseas experience, the number of appointments increased from 17 in 2001 to 22 in 2010, with a peak of 37 in 2007. The percentage of appointments of returnee CEOs was higher in 2005 (10.7%), 2007 (11.6%) and 2008 (10.0%). In general, the proportion of CEO appointments taken by returnees was stable over the period, with little fluctuation. The government's efforts to introduce returnee professional managers seem not to have been very effective.

[Insert Figure 1]

Figure 2 breaks down the returnee CEOs' appointments by industry sector using the two-digit Global Industry Classification Standard (GICS) code. The appointments of returnee CEOs are unevenly distributed across 10 industries. The number of returnee CEO appointments is higher (>30) among the materials, industrial, consumer discretionary, financial and information technology sectors, which tend to be technology and knowledge-intensive. The percentage of appointments is higher in the financial (13.0%), information technology (12.2%) and telecommunication services (40.0%) sectors.

[Insert Figure 2]

4.2 Baseline Model

To test our competing hypotheses on the effects of returnee CEOs on firm performance, we apply the following regression model on the cross-sectional sample:

$$Performance_{t+1} = \alpha_0 + \alpha_1 Returnee\_CEO_t + \sum_{k=1}^{k} \alpha_{k+1} Control_{k,t} + \varepsilon \quad (1)$$

where *Performance* is the one-year-lead dependent variable, which is measured by return on assets (*ROA*), return on sales (*ROS*) and the market-to-book ratio (*MTB*). *ROA* is measured by

net income over total assets and reflects the efficiency in using assets to generate earnings. *ROS* is calculated as net income over total sales and indicates the efficiency with which a firm employs its current asset base, being especially pertinent to this study. *MTB* is calculated by the market price over the book value of net assets per common share, and reflects the premium or discount that the market gives to the firm on its net assets.

The independent variable *Returnee CEO* is a dummy variable equal to 1 if the CEO has overseas experience, and 0 otherwise. In addition, we create two dummy variables to capture their type of overseas experience. *Returnee CEO (study)* is set to 1 for CEOs with pure overseas study experience, and 0 otherwise. *Returnee CEO (work)* is set to 1 for CEOs with work experience (including pure work experience and combined work and study experience abroad), and 0 otherwise. To support H1a (H1b), we would expect to observe significantly positive (negative) coefficients on *Returnee CEO*.

We also incorporate control variables to account for firm characteristics (market-to-book ratio, firm size, leverage, firm age and block ownership), governance characteristics (board size, supervisory board size, board meeting frequency, supervisory board meeting frequency and board independence), and CEO characteristics (CEO age, education and gender). *Firm Size* is measured by the natural logarithm of total sales. *Firm Age* is defined as the number of years since the initial public offering (IPO). *Block Ownership* is measured by the proportion of the largest shareholder's ownership. Prior performance (*Prior ROA, Prior ROS and Prior MTB*) is measured by the average of one-year-prior and announcement-year ROA, ROS and MTB, respectively. Chinese listed companies adopt a two-tier board structure. *Board Size* is defined as the number of directors on the board. *Supervisory Size* is the number of supervisory directors on the supervisory board. Board meeting frequency (*Bmeetf*) refers to the total number of directors' board meetings in each fiscal year. Supervisory meeting frequency (*Smeetf*) refers

to the total number of supervisory board meetings in each fiscal year. *Board Independence* is the proportion of independent directors among the board directors. *CEO Age* is the age of the CEO in the appointment year. We also control for *MBA*, which is a dummy variable equal to 1 if the CEO holds an MBA or EMBA degree, and 0 otherwise. *CEO Gender* is an indicator equal to 1 if the CEO is male, and 0 otherwise. These variables have been found by the literature to influence firm performance.

In addition, year dummies are incorporated to control for time trends. Industry dummy variables are constructed based on the first two digits of the GICS codes in order to control for the effect of industry traits. Regional dummies are used to control for regional differences in economic development in China. The dummies are classified based on the development level: (1) Shanghai and Shenzhen, (2) the more developed areas, including the open cities and provinces along the coast, (3) the inland provinces, and (4) the least developed area, in the northwest of China (Firth et al., 2006).

4.3 Propensity Score Matching

We address the endogeneity concern that stems from possible selection bias: returnees do not randomly choose the firms they join, and firms do not randomly appoint CEOs either. We employ both PSM and the 2SLS approach based on a plausible exogenous IV to address the observable and unobservable sample selection bias respectively.

Observable sample selection bias refers to the possibility that poorly performing firms might be more likely to appoint returnee CEOs, either as scapegoats or as outsiders to bring about reform, or that returnee CEOs end up joining poorly performing firms because of information asymmetry. To address the concern, we follow a standard approach from the literature (Malmendier and Tate, 2009; Custódio et al., 2013), using PSM with no replacement to match each of the 247 firms (treatment group) that appointed a returnee CEO with an

otherwise identical firm that would have been just as likely to appoint a returnee CEO but in fact appointed a non-returnee CEO (control group). We then replicate the main test based on the matching sample of 494 firms free of the selection bias issue to confirm the robustness of our findings.

To estimate the probability or propensity score (Rosenbaum and Rubin, 1983), we apply the following probit regression model after randomly sorting the full sample of 2,847 CEO appointments:

$$\begin{aligned} Probit(Returnee\_CEO)_t = {} & \alpha_0 + \alpha_1 Size_t + \alpha_2 PB_t + \alpha_3 Leverage_t + \alpha_4 Firmage_t \\ & + \alpha_5 PriorPerformance + \alpha_6 Boardsize_t + \alpha_7 Blockownership_t \\ & + \alpha_8 Supervisorysize_t + \alpha_9 Bmeetf_t + \alpha_{10} Smeetf_t \\ & + \alpha_{11} Indr_t + \alpha_{12} CEOage_t + \alpha_{13} MBA_t + \alpha_{14} CEOgender_t \\ & + Year + Industry + Region + \varepsilon \end{aligned} \quad (2)$$

These explanatory variables, which are defined as earlier, capture various firm and CEO characteristics that may influence the appointment decision. We then use the predicted values from the model above to construct a nearest-neighbor matched sample for the appointment of returnee CEOs. We finally ensure the quality of the matching by testing the difference in the means of the matched characteristics between the treatment firms and their matched counterparts.

4.4 Instrumental Variable Approach

We use the IV approach to address the concern over a selection bias stemming from unobservable factors. We use an exogenous dummy variable indicating whether the province in which the headquarters of the firm are located has international schools as the IV. Targeting returnees or foreigners' families, international schools in China provide kids with a similar educational environment to that of the primary and secondary schools in western, developed

countries. The education system and curricula of international schools are mainly copied from the US or UK, and the schools prepare students for foreign university entry exams such as SAT or A-level exams. The first formal international school was established in Shanghai after gaining approval from the Ministry of Education of China in March 1996. As of 2012, there were 116 officially approved international schools in 19 provinces of China.

The choice of this IV is motivated by the family education and lifestyle concerns of returnee professionals. The typical age of the returnee CEOs in our sample is 43 years old, and they generally have school-aged children. Education opportunities play an important role in the relocation decisions of managers. Considering the over-intense, exam-oriented nature of education in China and the fierce competition to get into Chinese universities with an international reputation, returnee professionals prefer to join firms located in provinces where international schools are available for the subsequent generations. In addition, the provinces with international schools could be more internationalized in terms of lifestyle, because the demand for overseas education implies they will have larger communities of foreigners and returnees. Therefore, we use *International School,* which is a dummy variable equal to 1 if the province in which the firm's headquarters are located has an international school, and 0 otherwise, as our IV. It serves as plausible as it predicts the likelihood of a firm having a returnee CEO but does not affect the firm's performance other than through the effect of appointing a returnee CEOs.

4.6 Changes in Performance and the Switch in the Type of CEO

To further control possible endogeneity, we also examine how switches in the type of CEO determine changes in performance. We first partition the sample based on the type of the previous CEO. In the subsample of firms that previously had a non-returnee CEO, we construct a dummy variable, *Other to Returnee,* which is set to 1 if a non-returnee CEO is succeeded by

a returnee CEO and 0 if by another non-returnee CEO. We regress the variable on cumulative market returns (CAR) for various windows as well as the change in ROA and change in ROS. The change in ROA is calculated as the difference between the post-one-year ROA and the mean of the prior two years' ROAs. The change in ROS is defined as the difference between the post-one-year ROS and the mean of the prior two years' ROSs. To support H1a (H1b), we would expect to observe significantly positive (negative) coefficients on *Other to Returnee*. Likewise, in the subsample that previously had returnee CEOs, we would expect to observe an increase in performance when a returnee CEO was succeeded by a non-returnee CEO.

4.7 Descriptive Statistics

Table 1 provides the summary statistics of all the variables used in our analyses, including the full sample, the subsamples with and without returnee CEOs, and the difference in means test. Panel A shows that the number of appointments of returnee CEOs accounted for 8.68% of the 2,847 CEO appointments in our sample, with 5.02% having overseas work experience and 3.65% having overseas study experience only. Panel D shows that the returnee CEOs more often possess MBA (or EMBA) degrees than do the non-returnee CEOs, confirming the returnees' good educational background. Panel D shows that returnee CEOs tend to be appointed by younger firms, private firms (non-SOEs), and firms with more active boards as reflected by higher meeting frequencies of corporate boards and supervisory boards.

[Insert Table 1]

5. Empirical Results

5.1 Baseline Results

We firstly explore what types of firms tend to appoint returnee CEOs by using probit regression analysis. Table 2 shows that older firms and firms with large supervisory boards are

less likely to appoint returnee CEOs. More importantly, one-year-prior operating performance, namely *Prior ROA*, *Prior ROS* and *Prior MTB*, does not significantly influence the appointment decision, implying that prior performance does not cause selection bias and therefore mitigating our concern on the endogeneity issue.

[Insert Table 2]

To test the competing hypotheses on the impact of returnee CEOs, we regress the dummy variable of *Returnee CEO* on the subsequent operating performance based on our cross-sectional sample of 2,847 CEO appointments. Table 3 shows that the coefficients of *Returnee CEO* are significantly negative across the regressions on ROA (-0.0282), ROS (-0.2590), and MTB (-1.0259). The results show that firms appointing returnee CEOs underperform those appointing non-returnee CEOs, supporting the network hypothesis. Despite the international expertise of the returnee CEOs, their lack of local social resources outweighs that benefit and leads to underperformance in the year subsequent to the appointment.

When we incorporate the type of overseas experience, namely through *Returnee CEO (work)* and *Returnee CEO (study)* in Panel B, we also find that the underperformance is driven by the appointments of returnee CEOs with overseas work experience. H1b implies that the longer a returnee stayed abroad, the less opportunity they will have had to accumulate local resources. We conjecture that returnee CEOs with work experience will tend to have stayed overseas for longer than those with study experience only, because the most common overseas degree (80 out of 105) for returnee CEOs is the master's degree, which normally takes no more than two years. The biographies included in appointment announcements do not report the exact duration of returnee CEOs' stays abroad. We therefore search for the name of each CEO in the leading Chinese search engine, Baidu, and find detailed information of the past experience of about 10% of the returnee CEOs in our sample. Confirming our conjecture, we

find that the average duration of the stay abroad of returnee CEOs with and without work experience is 6.9 years and 1.5 years, respectively. In addition, spending longer abroad makes it more difficult for returnees to adapt to the working environment upon their return to China. To sum up, the results in Panel B further support our hypothesis 2 and indicate the opportunity costs in terms of local resources that returnees face when they have worked abroad for a longer period of time.

[Insert Table 3]

The findings help to explain why the proportion of appointments of returnee CEOs remained at around 8% from 2001 to 2010, despite the tremendous efforts of the government to introduce returnee professional managers. Although the appointment of overseas talent became a trend in Chinese society, its negative impact on firm performance has hindered a greater prevalence of such managers in the capital markets.

Our finding contradicts the benefits of international experience among board directors documented in the literature (Masulis et al., 2012; Giannetti et al., 2015). We attribute the contradiction to the different responsibilities of directors and CEOs. Board directors play a monitoring and advisory role and their function is enhanced by their international experience. On the contrary, CEOs are responsible for continuously securing critical resources to diminish the uncertain external environment and implement their strategic decisions. A lack of social capital undermines their capability and leadership.

To check the robustness of the findings, we use PSM and the IV approach to address the observable and unobservable sample selection bias, respectively.

5.2 Propensity Score Matching

The observable sample selection bias stems from the possibility of that prior firm performance may influence the appointment decision. The results in Table 2 show performance not to be a determinant of the appointment of returnee CEOs, and this helps to mitigate the concerns. Nevertheless, we apply PSM by the nearest-neighbor matching method without replacement, obtaining the propensity scores from Models 1, 2 and 3 of Table 2 for ROA, ROS and MTB, respectively. Each firm in the treatment group (i.e. firms appointing returnee CEOs) is matched with an otherwise identical firm from the control group (i.e. firms appointing non-returnee CEOs). To verify the effectiveness of the matching procedure, we conduct a difference in means t-test by returnee CEO using the propensity-score-matched sample, and find that there is no significant difference between returnee CEOs and non-returnee CEOs in the matched sample in terms of all the matching factors. The results are presented in an unpublished appendix. We replicate the test based on the matched samples and report the results in Table 4 Panel A. The significantly negative coefficients of *Returnee CEOs* and *Returnee CEOs (work)* are consistent with the baseline results and reinforce H1b that the appointment of returnee CEOs leads to inferior performance.

5.3 Instrumental Variable Approach

In addition, we address the concern over selection bias due to unobservable factors by the using *International School* as an IV based on the propensity-score-matched sample. Table 4 Panel B shows that *International School* significantly predicts the likelihood of a firm appointing returnee CEOs in the first-stage model, for various prior performance measures. The results in the second stage show that the predicted *Return CEOs* significantly reduces the subsequent *ROA* and *ROS*, broadly consistent with our baseline results and further supporting

H1b on the negative impact of returnee CEOs on firm performance and highlighting the importance of social resources[4].

[Insert Table 4]

5.4 Market Reaction to the Switch in Type of CEOs

We also take the predecessor to the current CEO into consideration. Our main results show that the negative effect is driven by returnee CEOs (work) and that returnee CEOs (study) and local CEOs are indifferent. We therefore examine the market reaction to the switch in type of returnee CEOs (work) by constructing a subsample of appointments in which the previous CEOs were non-returnees (work) and then comparing the cumulative abnormal returns (CARs) for appointments of returnee (work) successors and of non-returnee (work) successors. We obtain CEO appointment announcement dates and daily stock returns from CSMAR and estimate the abnormal return as the difference between the daily stock return adjusted by dividends and the value-weighted market return including distributions. As shown in Figure 3, although the replacement of non-returnee CEOs (work) leads to a positive market reaction in general, the CAR is substantially more positive when the incoming CEO is a non-returnee (work) than a returnee (work). The difference in the mean CAR between the two groups increases over time to about 6.76% on the 60 days after the announcement, showing the economic significance of the impact.

Table 5 presents the regressions results for the CARs for various event windows based on the above subsample. We incorporate a dummy variable "*Other to Returnee (work)*", which is set to 1 if a non-returnee CEO (work) is succeeded by a returnee CEO (work) abroad and

[4] Giannetti et al. (2015) use a dummy variable of the promulgation of province-level policies to attract individuals with foreign experience as an IV to predict board composition in terms of returnee directors. We find the variable fails to predict the appointment of returnee CEOs in our cross-sectional sample. There are a few possible reasons for this. For example, the post-policy dummy is more suitable for panel data. In addition, the incentives associated with the province-level talent schemes are attractive to professional returnees at the director level but not to CEO-level returnees.

zero otherwise. Its coefficients are significantly negative after controlling for firm characteristics, governance characteristics and CEO characteristics and further support H1b.

[Insert Figure 3 and Table 5]

5.5 Change in Operating Performance

We then examine the impact of a switch in the type of CEO on the change in operating performance. Table 6 Panel A reports the results based on the original subsample of appointments where the previous CEO was a non-returnee (work), and Panel B reports the results on the 1-to-2 propensity-score-matched subsample so as to obtain adequate observations to run the regression. The propensity score is estimated based on all control variables in the table. The coefficients of *Other to Returnee (work)* are significantly negative for the regressions of the change in ROA and the change in ROS. This is in line with our baseline results based on the level of performance and further supports H1b on the cost of appointing returnee CEOs.

Panel C reports the results based on the subsample of appointments where the previous CEO was a returnee CEO (work). *Returnee (work) to Other* is a dummy variable set to one if a returnee CEO with work experience abroad is succeeded by a non-returnee CEO (work) and zero otherwise. Its negative coefficients for the regressions of the change in ROA and the change in ROS confirm the benefits of non-returnees in terms of increasing operating performance. Note that PSM cannot be applied for *Returnee (work) to Other* because the number of observations in the control group (i.e. returnee CEOs who are succeeded by other returnee CEOs) is only 10.

[Insert Table 6]

5.6 Local Social Resources and the Effects of Returnee CEOs

To confirm that the negative effect of appointing a returnee CEO on firm performance is due to their lack of local social resources, and to test hypothesis 2, we replicate the test by using split samples based on whether the resources are in place. Specifically, we partition the sample according to whether the firm is a SOE, whether the CEO has political connections and whether the CEO has social networks respectively. We argue that the resources are in place for SOEs, for CEOs with political connections and for CEOs with social networks, and predict that the negative effect of a returnee CEO to be less pronounced among these firms.

SOE status is obtained from the CCER (China Centre for Economic Research), constructed based on whether the ultimate controlling shareholder is the government. CEOs are classified as politically connected if they have work experience in the government (Fan et al., 2007). *CEO Network* is a dummy variable based on whether a CEO sits on the boards of other listed firms. The samples are constructed based on a 1-to-1 propensity-score-matched sample when the dependent variable is ROA, ROS or MTB, and based on a 1-to-2 propensity-score-matched sample, so as to obtain enough observations for t-tests, when the dependent variable is the change in ROA or the change in ROS.

Table 7 Panel A presents the results of the split samples of SOEs and non-SOEs of the matched sample obtained using PSM. It shows that the negative impact of the appointment of a returnee CEO (with work experience abroad) on ROA, ROS and MTB is only pronounced in non-SOEs. In addition, when returnees CEO with work experience abroad replace non-returnee (work) predecessors, their negative impacts on the change in ROA and the change in ROS are only observed in non-SOEs. In other words, the appointment of returnee CEOs does not lead to inferior performance in SOEs, which rely on their state controlling shareholders rather than their CEOs to secure social resources.

When we take individual-level resources in Table 7 Panel B and Panel C, we find that the negative impacts of returnee CEOs are concentrated on the sample of CEOs with no political connections and those with no explicit networks. Returnee CEOs with such resources do not exhibit a negative impact on the level or the change in operating performance. To sum up, the findings from the three panels support hypothesis 2 and confirm the importance of local social resources in determining the impact of returnee CEOs.

[Insert Table 7]

5.7 International Business and the Effects of Returnees

H3 predicts that the demand for international expertise influences the effects of returnee CEOs and that international experience and expertise matters more for firms that conduct international business. To test the hypothesis, we partition the firms into those that engage in international business and those that do not by using foreign sales, and expect that the negative effect of returnee CEOs will be concentrated on those without international business. The foreign sales data are taken from WIND and CSMAR. The samples are constructed based on a 1-to-1 propensity-score-matched sample when the dependent variable is ROA, ROS or MTB, and on a 1-to-2 propensity-score-matched sample, so as to obtain enough observations for the t-tests, when the dependent variable is the change in ROA or the change in ROS. Table 7 Panel D shows that the coefficients on *Returnee CEOs* are only significantly negative in firms with no foreign sales. The results confirm our predictions and support H3. The weaknesses of returnee CEOs are offset by the demand for their international expertise in the firms that engage in international business. This result is also consistent with Carpenter et al. (2001).

It is important to note that, although Table 7 shows that the negative effects of returnee CEOs are no longer pronounced in firms with local social resources in place and in those with

a demand for those CEOs' international expertise, we still find no evidence that those CEOs are superior to non-returnee CEOs in improving firm performance.

5.8 Other Returnee Characteristics

Finally, we examine whether other characteristics of returnee CEOs determine their impact. We classify the characteristics according to the following perspectives: (1) the quality, subject and level of their overseas education, (2) the development level of the foreign country in which they were located and (3) the type of their overseas work experience. To perform the analyses, we regress these characteristics on three performance measures (ROA, ROS and MTB) based on the subsample of 247 firms that appointed returnee CEOs. The untabulated results are available in the unpublished appendix.

The results show that whether CEOs studied in one of the top 100 universities in the *Academic Ranking of World Universities* (http://www.shanghairanking.com/)[5], whether they obtained their first degrees in China from elite universities of the "985 project" and whether they majored in science or technology does not influence firm performance. Whether they stayed in any of the 34 OECD (the Organization for Economic Cooperation and Development) developed countries, in English-speaking countries or in Hong Kong, Macao or Taiwan does not determine their impact on their firms' performance either. These findings seem counter-intuitive but are in line with the institutional background that, in the early days, the process of studying abroad was very competitive for all universities and countries. Those sponsored by state scholarship programs did not have freedom of choice over where they went. An alternative explanation is that the most capable and successful graduates from elite universities and

[5] We use the Academic Ranking of World Universities (ARWU) 2012 to identify prestigious universities. The criteria used by the Center for World-Class Universities of Shanghai Jiaotong University to construct the ranking include the number of alumni and staff winning Nobel Prizes and Fields Medals, number of highly cited scientist, number of publications on *Nature* and *Science* and number of publications in SCI and SSCI. ARWU takes a century's performance into account for these two indicators in order to avoid fluctuations over the short term. The ranking is regarded as stable and transparent.

developed countries tend not to return to China because of the larger set of opportunities that they enjoy abroad.

We also find although returnee CEOs who obtained bachelor's, master's or MBA degrees abroad do not exhibit significantly different results, those with PhD degrees outperform those with master's degrees in terms of the ROA and ROS of their firms, and those that pursued academic careers abroad in universities or research institutes outperform those that did not. These results imply that academic experience may stimulate critical thinking and in turn help to enhance firm value.

6. Additional Tests

6.1 Returnee CEOs and Regulatory Conditions

Given the importance of local social resources in China, we explore the regulatory environment faced by returnee CEOs. Due to the weak legal enforcement, regulatory system and investor protection in China, as noted by Allen et al. (2005), Hou and Moore (2010) and Correia (2014), social resources bring about favorable regulatory conditions for firms. For example, laws and regulations are not enforced effectively for politically powerful firms. Therefore, we predict that the appointment of returnee CEOs leads to more severe inspections from the regulator, and thus a higher incidence of regulatory enforcement.

We collect regulatory enforcement data from the CCER, and construct a dummy, *Regulatory Enforcement*, which is equal to 1 for firms that experienced regulatory enforcement against fraud in the year in question and 0 otherwise. There are 149 regulatory enforcement actions in our sample. We match each fraudulent firm from the treatment group to a non-fraudulent firm from the control group with similar characteristics that would have been equally likely to have incurred enforcement actions but did not do so, using 1-to-1 PSM by the nearest

neighbor matching method without replacement. The matching variables are shown in Model 1 of Table 8. We obtain 298 observations including 149 fraud cases with enforcement action taken, and 149 predicted fraud cases without action taken. Table 8 presents the results of the probit regression analyses. Our prediction is empirically verified in that the coefficients of *Returnee CEO, Returnee CEO (work)* and *Returnee CEO (study)* are significantly positive, showing that returnee CEOs lead to severe regulatory conditions as reflected by a larger incidence of regulatory enforcement action. The results imply that the harsh regulatory and possible legal conditions faced by returnee CEOs may partially explain the inferior performance of their firms.

[Insert Table 8]

6.2 Returnee CEOs and the Appointment of Executives

We next explore the corporate strategies of returnee CEOs in terms of the composition of their management teams. Because executives with heterogeneous knowledge and expertise can complement each other, returnee CEOs should appoint those who are able to bring local social resources to complement their weaknesses. We collect information on the executives' backgrounds from the database of RESSET. To perform the test, we review the backgrounds of the newly appointed executives from their biographies and construct the following variables: (1) the ratio of China's Communist Party members among the executives appointed in the year following the CEO's appointment, to proxy for political connections; (2) the ratio of accounting, auditing or law professionals among the executives appointed in the year following the CEO's appointment; (3) the ratio of executives with a master's degree or higher among the executives appointed in the year following the CEO's appointment; and (4) the ratio of female executives among the executives appointed in the year following the CEO's appointment.

We regress the dummy variables *Returnee CEO (work)* and *Returnee CEO (study)* on the variables related to executive appointments. The results reported in Table 9 show that returnee CEOs are reluctant to appoint executives with political connections, being more likely to appoint executives with a good educational background. The results help to explain the underperformance documented earlier. Their preference is presumably because politically connected executive members may undermine their leadership, and they may also feel more comfortable working with people with similar experience, such as those with a good educational background.

[Insert Table 9]

6.3 Switch in Type of CEO and Corporate Strategy

Finally, we explore the corporate finance strategies of returnee CEOs by examining their influence on corporate diversification, investment, R&D expenditure and cash holdings. Since returnee CEOs enjoy favorable social status and prestigious backgrounds, we argue that they tend to exhibit overconfidence by overestimating their ability in choosing positive NPV (net present value) projects in various sectors, and pursue corporate diversification, which in turn could destroy firm value (Lang and Stulz, 1994). They may also have a greater sensitivity of corporate investment to cash flow due to overestimating returns on projects and viewing external funds as unduly costly (Malmendier and Tate, 2005), and may increase risk-taking, as reflected by R&D expenditure and cash holdings (Kim and Lu, 2011; Opler et al., 1999).

To test our predictions, we use the number of business segments multiplied by the number of geographic segments to proxy for the firm's diversification, following Markarian and Parbonetti (2007). The corporate investment policy is measured by the ratio of capital expenditure to cash flow, following Malmendier and Tate (2005). We obtain data on business segments and geographic segments from CSMAR (2003-2010) and WIND (2001-2002),

capital expenditure and earnings from CSMAR, and depreciation from CSMAR (2003-2010) and GAOTIME (2001-2002). We regress the dummy variables *Returnee CEO (work)* and *Returnee CEO (study)* on diversification, the sensitivity of investment to cash flow, R&D expenditure and cash holdings, using the original sample, and the results are reported in Table 10. The results show that returnee CEOs tend to pursue firm diversification but are not significantly different from local CEOs in terms of their other corporate strategies. Firm diversification serves as one of the sources of the underperformance of returnee CEOs.

[Insert Table 10]

7. Conclusion

Although the benefits of CEOs' international experience are documented among samples from the US, this paper shows that the impact is less clear cut in transition economies. We construct a sample of CEO appointments to Chinese listed firms, and investigate how the CEOs' international experience influences firm performance. Returnee CEOs account for 8.86% of all appointments. The expertise hypothesis suggests that returnee CEOs would outperform non-returnee CEOs due to their international experience, expertise and good educational backgrounds; meanwhile, the network hypothesis argues that returnee CEOs would underperform non-returnee CEOs as a result of their lack of local social resources such as political connections and local networks.

After controlling for selection bias, we find that returnee CEOs have a negative impact on market reaction and firm performance but a positive influence on the incidence of regulatory enforcement action. The results support the network hypothesis and imply that weak legal institutions in transition economies make local social resources critical for firms, which reduce the dependency between firms and external contingencies. Returnee CEOs acquire

international experience and possibly overseas networks but fail to secure the critical local sources and therefore suffer from the consequences of underperformance.

Furthermore, we show that the underperformance is indeed due to the lack of social sources because the performance of resource-affluent returnee CEOs, such as CEOs in SOEs, politically connected CEOs and CEO with networks, are not inferior. We also find that returnee CEOs are not inferior in firms engaging in international business, because here their international expertise is in demand. Finally, we explore the channel through which returnee CEOs underperform local CEOs. We find that returnee CEOs are less likely to appoint executives with political resources to complement their disadvantages but more likely to appoint executives with a good educational background, limiting the heterogeneity of their management team. Returnee CEOs also exhibit overconfidence by engaging in business diversification.

Overall, we show that measurable CEO characteristics regarding their international experience significantly determine firm performance, and provide direct evidence of the importance of local social capital versus international experience in transition economies. In the context of the globalization of human capital, our findings suggest that the development of legal institutions, which will reduce the dominant influence of political connection and relationships, will help transition economies like China to fully enjoy the benefits of introducing global talent. With regard to CEOs, our findings suggest a corporate governance question unidentified in prior literature: To what extent does international experience influence the leadership, entrenchment and remuneration arrangements of returnee CEOs? For example, it would be interesting to know whether returnee CEOs possess more power in exercising their decision rights due to their international experience and knowledge, or less power due to their lack of local networks. We consider this an important area for future research.

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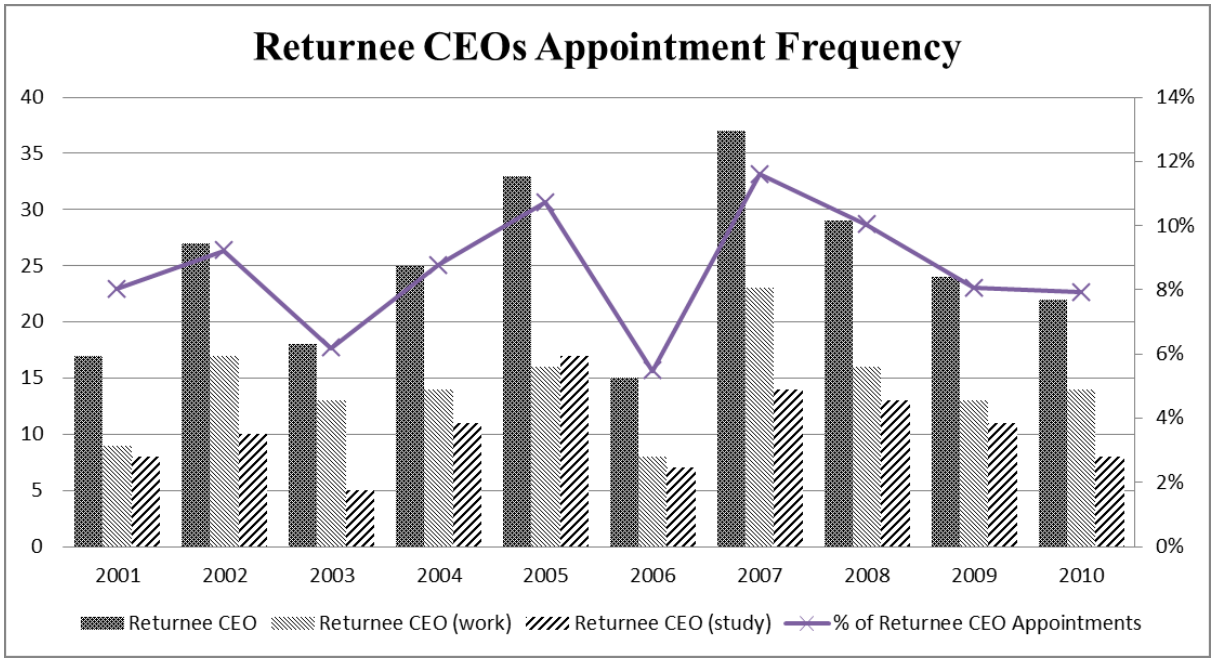

Fig. 1. This figure presents the number of appointments of returnee CEOs (with any experience), returnee CEOs (with work experience) and returnee CEOs (with study experience) from 2001 to 2010 in Chinese A-share listed firms.

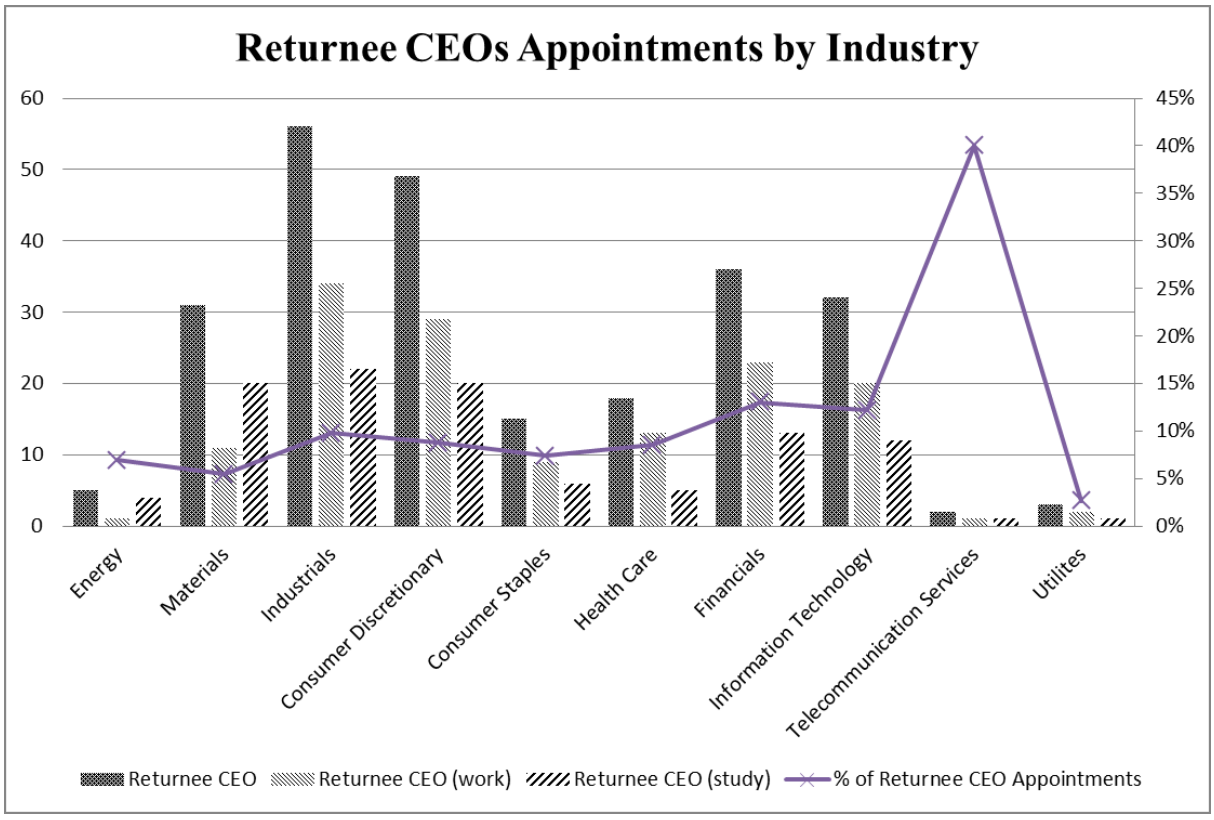

Fig. 2. This figure presents the number of appointments of returnee CEOs (with any experience), returnee CEOs (with work experience) and returnee CEOs (with study experience) and the proportion of appointments of returnee CEOs (any experience), broken down into 10 industries (by two-digit GICS code), from 2001 to 2010 in Chinese A-share listed firms.

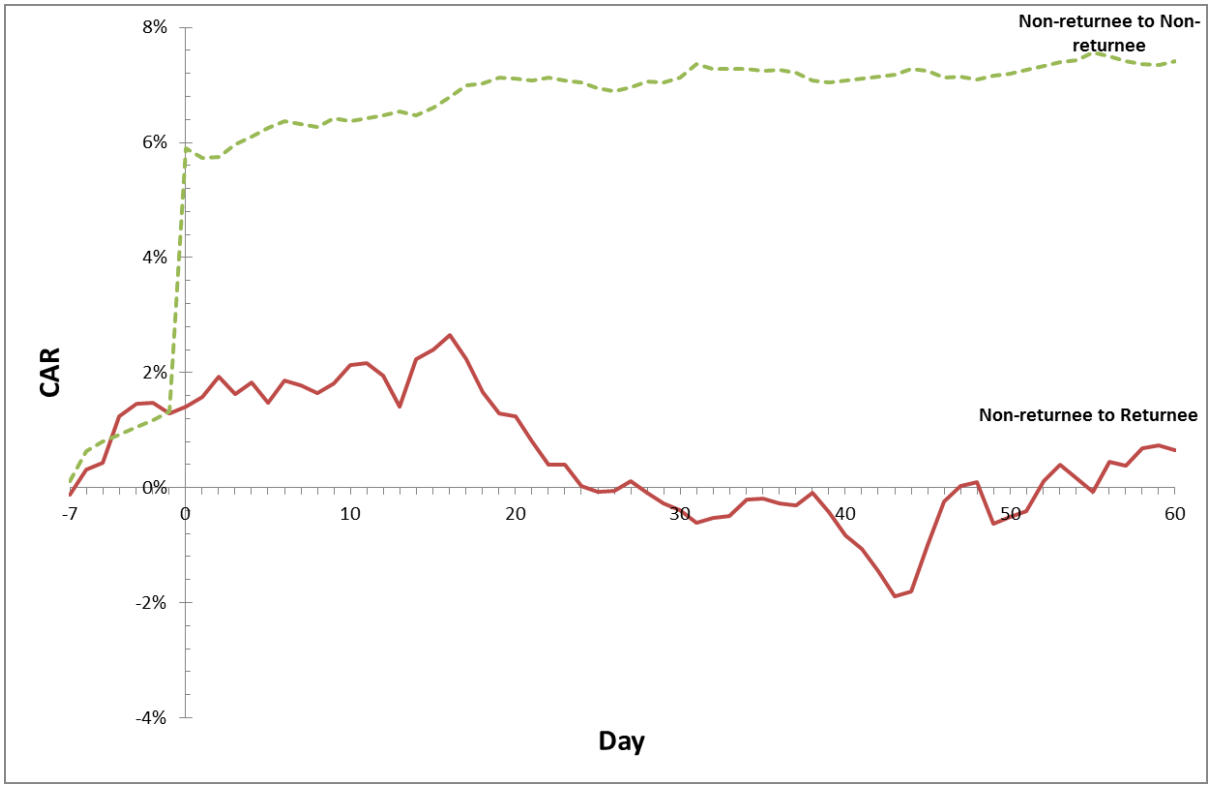

Fig. 3. Mean cumulative market-adjusted compound stock returns (CARs) around changes of CEOs, from 7 trading days prior to 60 trading days post, in the Chinese stock market, for firms that had CEO appointment events during 2001-2010, sorted by either non-returnee CEOs (work) is succeeded by non-returnee CEOs (work) or by returnee CEOs (work).

Table 1 Descriptive Statistics

This table presents the descriptive statistics for the full sample and the subsamples with and without returnee CEOs. The variable *Returnee CEOs* equals one if a returnee CEO (with any type of experience) is appointed and zero otherwise. The other variables are defined in the appendix. The sample period covers 2001 to 2010. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Variables	Panel A				Panel B				Panel C				Panel D
	Full				Returnee CEO				Non-Returnee CEO				Panel B - Panel C
	Obs	Mean	Median	Std. Dev	Obs	Mean	Median	Std. Dev	Obs	Mean	Median	Std. Dev	Mean Difference
Returnee CEO	2847	0.0868	0	0.2815	247	1	1	0	2600	0	0	0	-
Returnee CEO (work)	2847	0.0502	0	0.2185	247	0.5789	1	0.4947	2600	0	0	0	0.5789***
Returnee CEO (study)	2847	0.0365	0	0.1876	247	0.4211	0	0.4947	2600	0	0	0	0.4211***
Size	2847	20.4335	20.4425	1.5905	247	20.4690	20.4963	15.2046	2600	20.4301	20.4387	1.5825	0.0389
MTB	2847	4.2074	3.0459	6.7690	247	3.8927	3.3174	6.5128	2600	4.2373	2.9935	6.7933	-0.3446
Leverage	2847	0.5784	0.5235	0.4536	247	0.5550	0.5164	0.3924	2600	0.5807	0.5237	0.4590	-0.0256
Firm Age	2847	7.8212	8	4.0274	247	7.2753	7	4.2805	2600	7.8731	8	3.9995	-0.5978**
Board Size	2847	9.2655	9	2.0282	247	9.1093	9	2.0680	2600	9.2804	9	2.0242	-0.1711
Board Independence	2847	0.3225	0.3333	0.1001	247	0.3305	0.3333	0.0979	2600	0.3217	0.3333	0.1002	0.0088
Block Ownership	2847	38.8817	36.1	16.3718	247	39.2394	36.03	16.8229	2600	38.8477	36.115	16.3312	0.3917
Supervisory Size	2847	4.0376	3	1.3591	247	3.7773	3	1.3109	2600	4.0623	3	1.3612	-0.2850***
Bmeetf	2847	9.1213	9	3.2758	247	9.8178	9	3.5561	2600	9.055	8	3.2408	0.7628***
Smeetf	2847	4.4292	4	1.7671	247	4.6437	4	1.9134	2600	4.4088	4	1.7516	0.2349**
CEO Age	2847	43.7418	43	6.4111	247	43.0081	43	6.9017	2600	43.8115	43	6.3595	-0.8034*
MBA	2847	0.1282	0	0.3344	247	0.3603	0	0.4811	2600	0.1062	0	0.3081	0.2542***
CEO Gender	2847	0.9519	1	0.2141	247	0.9393	1	0.2393	2600	0.9531	1	0.2115	-0.0138
SOE	2847	0.6558	1	0.4752	247	0.5223	1	0.5005	2600	0.6685	1	0.4709	-0.1462***
Politically connected CEO	2847	0.1967	0	0.3976	247	0.1700	0	0.3764	2600	0.1992	0	0.3995	-0.0292
Network CEO	2847	0.2325	0	0.4225	247	0.2834	0	0.4516	2600	0.2277	0	0.4194	0.0557**
Foreign Business	2847	0.2561	0	0.4365	247	0.2794	0	0.4496	2600	0.2538	0	0.4353	0.0255
Prior ROA	2847	-0.0005	0.0220	0.1031	247	0.0039	0.0268	0.1071	2600	-0.0009	0.0214	0.1028	0.0048
Prior ROS	2847	-0.1529	0.0386	1.0902	247	-0.1298	0.0489	0.9757	2600	-0.1551	0.0377	1.1006	0.0253
Prior MTB	2831	4.3627	3.2260	4.3627	242	4.0506	3.5609	4.5701	2589	4.3919	3.2139	4.9072	-0.3413
ROA (t+1)	2847	0.0083	0.0243	0.1326	247	-0.0078	0.0217	0.1778	2600	0.0098	0.0246	0.1274	-0.0176**
ROS (t+1)	2847	-0.0894	0.0451	1.1389	247	-0.2444	0.0475	1.7689	2600	-0.0747	0.0445	1.0591	-0.1697**
MTB (t+1)	2846	4.4265	2.8144	9.3368	247	3.2229	2.7829	7.1372	2599	4.5409	2.8197	9.5126	-1.3180**

Table 2 Determinants of Returnee CEOs' Appointments

This table reports the results of probit regression analyses of the determinants of returnee CEOs' appointments. The dependent dummy variable is *Returnee CEO*, which equals one if a returnee CEO is appointed and zero otherwise. Models 1 - 3 deal with various one-year-prior performance measures, including *Prior ROA*, *Prior ROS* and *Prior MTB*, respectively. All variables in the table are defined in the appendix. Z-values are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Variables	Returnee CEO		
	Model 1	Model 2	Model 3
Prior ROA	-0.2484		
	(-0.50)		
Prior ROS		0.0046	
		(0.12)	
Prior MTB			-0.0139
			(-1.50)
MTB	-0.0079	-0.0082	
	(-1.17)	(-1.19)	
Size	0.0093	0.0036	0.0001
	(0.33)	(0.13)	(0.01)
Leverage	-0.1175	-0.0794	-0.0875
	(-1.19)	(-0.84)	(-1.09)
Firm Age	-0.0344***	-0.0341***	-0.0314***
	(-3.24)	(-3.23)	(-2.89)
Board Size	0.0007	0.0004	-0.0017
	(0.04)	(0.02)	(-0.08)
Board Independence	0.5906	0.5956	0.4819
	(0.95)	(0.96)	(0.77)
Block Ownership	-0.0001	-0.0001	-0.0004
	(-0.03)	(-0.05)	(-0.17)
Supervisory Size	-0.0566*	-0.0560*	-0.0567*
	(-1.83)	(-1.81)	(-1.82)
Bmeetf	0.0303**	0.0303**	0.0315***
	(2.54)	(2.53)	(2.61)
Smeetf	0.0268	0.0267	0.0268
	(1.19)	(1.18)	(1.18)
CEO Age	-0.0052	-0.0050	-0.0055
	(-0.88)	(-0.84)	(-0.92)
MBA	0.8094***	0.8101***	0.8014***
	(9.50)	(9.52)	(9.32)
CEO Gender	-0.0919	-0.0868	-0.0936
	(-0.60)	(-0.57)	(-0.61)
Constant	-2.2980***	-2.2246***	-2.0642***
	(-3.03)	(-2.90)	(-2.71)
Year Dummy	YES	YES	YES
Industry Dummy	YES	YES	YES
Regional Dummy	YES	YES	YES
Pseudo R^2	0.106	0.109	0.109
No. of Observations	2847	2847	2830

Table 3 The Effect of Appointing Returnee CEOs on Firm Performance

This table reports the results for the effect of appointing returnee CEOs on firm performance. The dependent variables are return on assets (*ROA*), return on sales (*ROS*) and market-to-book ratio (*MTB*) in the year after the firms appointed returnee CEOs. The independent variables are *Returnee CEO, Returnee CEO (work) and Returnee CEO (study)*. All variables in the table are defined in the appendix. T-values are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Variables	Panel A Any Experience			Panel B Work or Study Experience		
	ROA	ROS	MTB	ROA	ROS	MTB
Returnee CEO	-0.0282**	-0.2590**	-1.0259**			
	(-2.56)	(-2.26)	(-2.18)			
Returnee CEO (work)				-0.0394**	-0.3768**	-1.2479***
				(-2.46)	(-2.30)	(-3.44)
Returnee CEO (study)				-0.0119	-0.0865	-0.6956
				(-1.01)	(-0.67)	(-0.69)
Prior ROA	0.3020***			0.3016***		
	(4.70)			(4.71)		
Prior ROS		0.2003**			0.2009**	
		(2.13)			(2.14)	
Prior MTB			0.6533***			0.6534***
			(6.38)			(6.38)
MTB	0.0005	-0.0096		0.0005	-0.0096	
	(0.65)	(-1.20)		(0.66)	(-1.20)	
Size	0.0049**	0.0344	-0.3061*	0.0050**	0.0352	-0.3050*
	(1.99)	(1.38)	(-1.93)	(2.03)	(1.42)	(-1.93)
Leverage	0.0110	-0.0487	0.1972	0.0111	-0.0457	0.2002
	(0.78)	(-0.39)	(0.29)	(0.79)	(-0.37)	(0.30)
Firm Age	-0.0021***	-0.0099*	0.0614	-0.0020***	-0.0098*	0.0615
	(-3.05)	(-1.93)	(1.26)	(-3.03)	(-1.91)	(1.27)
Board Size	0.0011	0.0236**	0.0396	0.0011	0.0235**	0.0396
	(0.91)	(2.13)	(0.55)	(0.90)	(2.13)	(0.55)
Board Independence	0.0826*	0.7414	-1.6608	0.0818*	0.7334	-1.6826
	(1.69)	(1.47)	(-0.50)	(1.67)	(1.46)	(-0.51)
Block Ownership	0.0006***	0.0038***	0.0056	0.0006***	0.0038***	0.0055
	(4.08)	(3.34)	(0.62)	(4.07)	(3.33)	(0.62)
Supervisory Size	-0.0004	-0.0022	0.3062***	-0.0004	-0.0018	0.3068***
	(-0.25)	(-0.16)	(2.74)	(-0.23)	(-0.13)	(2.75)
Bmeetf	-0.0010	0.0030	0.0436	-0.0010	0.0028	0.0434
	(-1.39)	(0.56)	(0.73)	(-1.42)	(0.53)	(0.73)
Smeetf	0.0021	0.0176	-0.0879	0.0021	0.0174	-0.0881
	(1.29)	(1.33)	(-0.82)	(1.28)	(1.32)	(-0.82)
CEO Age	-0.0004	-0.0017	0.0356	-0.0003	-0.0014	0.0362
	(-0.94)	(-0.47)	(1.11)	(-0.86)	(-0.38)	(1.13)
MBA	0.0227***	0.1921***	1.2529*	0.0212***	0.1764***	1.2216*
	(3.90)	(3.78)	(1.90)	(3.65)	(3.46)	(1.88)
CEO Gender	-0.0009	0.0091	0.2263	-0.0009	0.0092	0.2266
	(-0.07)	(0.08)	(0.28)	(-0.07)	(0.08)	(0.28)
Constant	-0.0865*	-1.0059**	2.2072	-0.0902**	-1.0420**	2.1511
	(-1.91)	(-2.19)	(0.60)	(-1.99)	(-2.26)	(0.59)
Year Dummy	YES	YES	YES	YES	YES	YES
Industry Dummy	YES	YES	YES	YES	YES	YES
Regional Dummy	YES	YES	YES	YES	YES	YES
Adj-R^2	0.113	0.090	0.162	0.114	0.091	0.162
No. of Observations	2847	2847	2830	2847	2847	2830

Table 4 Panel A PSM Test for the Effect of Appointing Returnee CEOs on Firm Performance

This table reports the results of the sensitivity tests (1-to-1 matching of firms) for the effect of appointing returnee CEOs on firm performance. The 1-to-1 matching of firms is done using propensity score matching (PSM). The PSM scores for ROA, ROS and MTB are obtained from Models 1, 2 and 3 in Table 2, respectively. The dependent variables are return on assets (*ROA*), return on sales (*ROS*) and market-to-book ratio (*MTB*) in the year after a firm appoints a returnee CEO. The independent variables are *Returnee CEO, Returnee CEO (work)* and *Returnee CEO (study)*. All variables in the table are defined in the appendix. T-values are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Variables	Any Experience			Study or Work Experience		
	ROA	ROS	MTB	ROA	ROS	MTB
Returnee CEO	-0.0320**	-0.3115***	-1.3473*			
	(-2.49)	(-2.69)	(-1.90)			
Returnee CEO (work)				-0.0460***	-0.4384***	-1.3939**
				(-2.66)	(-2.75)	(-2.46)
Returnee CEO (study)				-0.0127	-0.1391	-1.2839
				(-0.93)	(-1.02)	(-1.13)
Prior ROA	0.3637**			0.3624**		
	(2.01)			(2.00)		
Prior ROS		0.1102			0.1142	
		(0.59)			(0.62)	
Prior MTB			0.7717**			0.7717**
			(2.59)			(2.58)
MTB	-0.0008	-0.0300		-0.0007	-0.0294	
	(-0.25)	(-0.98)		(-0.23)	(-0.97)	
Size	-0.0023	-0.0339	-0.0924	-0.0015	-0.0297	-0.0910
	(-0.37)	(-0.72)	(-0.36)	(-0.25)	(-0.64)	(-0.36)
Leverage	-0.0223	-0.5444	-1.0212	-0.0210	-0.5278	-1.0195
	(-0.71)	(-1.61)	(-0.83)	(-0.66)	(-1.57)	(-0.83)
Firm Age	-0.0014	-0.0126	0.0620	-0.0013	-0.0119	0.0623
	(-0.83)	(-1.50)	(0.65)	(-0.75)	(-1.42)	(0.65)
Board Size	0.0044	0.0618**	0.0837	0.0043	0.0597**	0.0832
	(1.49)	(2.04)	(0.73)	(1.45)	(1.99)	(0.72)
Board Independence	0.0255	1.1557	9.5934	0.0201	1.0874	9.5815
	(0.20)	(0.79)	(1.05)	(0.16)	(0.74)	(1.04)
Block Ownership	0.0007*	0.0035	-0.0037	0.0007*	0.0034	-0.0038
	(1.91)	(1.45)	(-0.30)	(1.87)	(1.41)	(-0.31)
Supervisory Size	0.0100**	0.0983**	0.1694	0.0101**	0.0999**	0.1695
	(2.14)	(2.02)	(0.67)	(2.15)	(2.04)	(0.67)
Bmeetf	0.0011	0.0070	0.1864	0.0010	0.0055	0.1861
	(0.68)	(0.56)	(1.21)	(0.62)	(0.44)	(1.22)
Smeetf	-0.0001	-0.0324	-0.0122	-0.0004	-0.0355	-0.0131
	(-0.03)	(-0.78)	(-0.06)	(-0.10)	(-0.85)	(-0.07)
CEO Age	-0.0008	-0.0116	-0.0381	-0.0006	-0.0097	-0.0374
	(-0.60)	(-1.34)	(-0.79)	(-0.41)	(-1.09)	(-0.77)
MBA	0.0133	0.1815	1.1526	0.0084	0.1389	1.1352
	(1.15)	(1.64)	(1.03)	(0.73)	(1.25)	(1.05)
CEO Gender	-0.0050	-0.2061	1.1067	-0.0059	-0.2138	1.1071
	(-0.30)	(-0.97)	(1.46)	(-0.35)	(-1.01)	(1.46)
Constant	0.0531	0.0576	-0.8933	0.0486	-0.0529	-0.9433
	(0.41)	(0.05)	(-0.11)	(0.38)	(-0.05)	(-0.12)
Year Dummy	YES	YES	YES	YES	YES	YES
Industry Dummy	YES	YES	YES	YES	YES	YES
Regional Dummy	YES	YES	YES	YES	YES	YES
Adj-R^2	0.167	0.130	0.194	0.171	0.135	0.192
No. of Observations	494	494	484	494	494	484

Table 4 Panel B Instrumental Variable (IV)

This table reports the results of the instrumental variable test for the effect of appointing returnee CEOs on firm performance by 1-to-1 propensity score matching. The instrumental variable is *International School* which is a dummy variable equal to 1 if the province in which the firm's headquarters are located has at least one international school, and 0 otherwise. The dependent variable in Models 1, 3 and 5 is *Returnee CEO*. The dependent variables in Models 2, 4 and 6 are return on assets (*ROA*), return on sales (*ROS*) and market-to-book ratio (*MTB*) in the year after a firm appoints a returnee CEO, respectively. The independent variable in Models 2, 4 and 6 is $\widetilde{Returnee\ CEO}$, which is the fitted value predicted by Model 1, Model 3 or Model 5, respectively. All variables in the table are defined in the appendix. T-values are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Returnee CEO	ROA	Returnee CEO	ROS	Returnee CEO	MTB
	1st Stage	2nd Stage	1st Stage	2nd Stage	1st Stage	2nd Stage
$\widetilde{Returnee\ CEO}$		-0.2265**		-3.2612**		-15.2072
		(-2.29)		(-2.30)		(-1.42)
International School	0.2092***		0.1856***		0.1494**	
	(3.04)		(2.65)		(2.08)	
Prior ROA	0.1024	0.3801**				
	(0.30)	(2.05)				
Prior ROS			-0.0082	0.0783		
			(-0.34)	(0.47)		
Prior MTB					-0.0071	0.6821***
					(-1.14)	(2.77)
MTB	-0.0009	-0.0009	-0.0014	-0.0327		
	(-0.21)	(-0.33)	(-0.35)	(-1.23)		
Size	-0.0150	-0.0043	-0.0057	-0.0301	-0.0003	-0.0592
	(-0.78)	(-0.61)	(-0.31)	(-0.45)	(-0.02)	(-0.17)
Leverage	0.0401	-0.0141	-0.0689	-0.7198**	-0.0507	-1.6752
	(0.49)	(-0.36)	(-1.18)	(-2.07)	(-0.84)	(-1.13)
Firm Age	-0.0040	-0.0022	0.0028	-0.0042	-0.0030	0.0415
	(-0.57)	(-1.00)	(0.41)	(-0.18)	(-0.41)	(0.31)
Board Size	0.0014	0.0045	-0.0024	0.0520	-0.0091	-0.0378
	(0.11)	(1.18)	(-0.18)	(1.09)	(-0.70)	(-0.16)
Board Independence	0.0293	0.0430	0.0654	1.4248	0.4155	15.6282
	(0.08)	(0.33)	(0.17)	(0.86)	(1.16)	(1.28)
Block Ownership	0.0001	0.0007	-0.0007	0.0020	-0.0005	-0.0096
	(0.08)	(1.49)	(-0.46)	(0.37)	(-0.33)	(-0.38)
Supervisory Size	0.0094	0.0121**	0.0169	0.1491*	-0.0135	-0.0155
	(0.45)	(1.97)	(0.80)	(1.78)	(-0.67)	(-0.05)
Bmeetf	-0.0088	-0.0003	-0.0086	-0.0134	0.0094	0.3351
	(-1.28)	(-0.14)	(-1.20)	(-0.50)	(1.28)	(1.63)
Smeetf	-0.0038	-0.0014	0.0161	0.0083	-0.0093	-0.1848
	(-0.27)	(-0.30)	(1.11)	(0.14)	(-0.62)	(-0.65)
CEO Age	0.0030	-0.0001	0.0011	-0.0070	0.0071*	0.0602
	(0.77)	(-0.09)	(0.28)	(-0.52)	(1.82)	(0.61)
MBA	-0.0100	0.0122	-0.0075	0.1966	0.0006	1.1218
	(-0.20)	(0.83)	(-0.15)	(1.07)	(0.01)	(0.88)
CEO Gender	-0.0462	-0.0149	-0.0438	-0.3042	0.0493	1.8032
	(-0.43)	(-0.59)	(-0.41)	(-0.85)	(0.48)	(1.05)
Constant	0.4545	0.0956	0.4095	1.2226	0.1007	-3.6872
	(0.95)	(0.69)	(0.80)	(0.69)	(0.21)	(-0.40)
Year Dummy	YES	YES	YES	YES	YES	YES
Industry Dummy	YES	YES	YES	YES	YES	YES
Regional Dummy	YES	YES	YES	YES	YES	YES
No. of Observations	494	494	494	494	484	484

Table 5 Market Reaction to Switch in Type of CEO

This table reports the regression results of the market reaction to Switch in Type of CEO. *Other to Returnee (work)* is a dummy variable that is equal to 1 if a returnee CEO (work) replaces a non-returnee CEO (work) and is equal to 0 if a non-returnee CEO (work) replaces a non-returnee CEO (work). The dependent variables are cumulative abnormal returns (calculation method shown below) over different windows, given by *CAR(-1,1)*, *CAR(-3,3)*, *CAR(-5,5), CAR(-7,20), CAR(-7,40)* and *CAR(-7,60).* All variables in the table are defined in the appendix. T-values are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Variables	CAR(-1,1)		CAR(-3,3)		CAR(-5,5)		CAR(-7,20)		CAR(-7,40)		CAR(-7,60)	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Other to Returnee (work)	-0.0446**	-0.0538**	-0.0465**	-0.0557**	-0.0446**	-0.0537*	-0.0587**	-0.0666**	-0.0791***	-0.0888***	-0.0676**	-0.0814**
	(-2.35)	(-2.12)	(-2.28)	(-2.08)	(-2.08)	(-1.94)	(-2.26)	(-2.12)	(-2.80)	(-2.65)	(-2.33)	(-2.39)
MTB		0.0018		0.0015		0.0012		0.0024		0.0019		0.0031
		(1.10)		(0.85)		(0.70)		(1.33)		(0.99)		(1.62)
Size		-0.0203*		-0.0234*		-0.0224*		-0.0185		-0.0165		-0.0166
		(-1.83)		(-1.96)		(-1.87)		(-1.44)		(-1.24)		(-1.25)
Leverage		0.0862		0.0727		0.0715		0.1041		0.0962		0.0904
		(0.95)		(0.80)		(0.79)		(1.18)		(1.07)		(1.01)
Firm Age		0.0045		0.0048		0.0053		0.0053		0.0047		0.0059
		(1.29)		(1.38)		(1.50)		(1.48)		(1.29)		(1.62)
Board Size		-0.0208		-0.0195		-0.0202		-0.0232*		-0.0241*		-0.0246*
		(-1.59)		(-1.49)		(-1.56)		(-1.79)		(-1.82)		(-1.86)
Board Independence		0.1373		0.2286**		0.2064*		0.2626**		0.2403*		0.2255
		(1.29)		(2.03)		(1.82)		(2.10)		(1.84)		(1.63)
Block Ownership		0.0030**		0.0035**		0.0033**		0.0028*		0.0027*		0.0033**
		(1.97)		(2.22)		(2.11)		(1.80)		(1.70)		(2.09)
Supervisory Size		0.0013		0.0007		0.0008		0.0027		0.0057		0.0024
		(0.16)		(0.09)		(0.10)		(0.29)		(0.58)		(0.24)
Bmeetf		0.0026		0.0036		0.0042		0.0043		0.0057		0.0062
		(0.66)		(0.88)		(1.02)		(1.00)		(1.30)		(1.38)
Smeetf		0.0118		0.0139		0.0147		0.0243*		0.0298**		0.0314**
		(0.92)		(1.07)		(1.14)		(1.88)		(2.26)		(2.39)
CEO Age		0.0025		0.0022		0.0022		0.0032		0.0036		0.0041
		(0.78)		(0.69)		(0.70)		(0.98)		(1.09)		(1.22)
MBA		-0.0136		-0.0163		-0.0183		-0.0200		-0.0142		0.0006
		(-0.59)		(-0.69)		(-0.76)		(-0.78)		(-0.49)		(0.02)
CEO Gender		0.0584**		0.0650**		0.0691**		0.0941***		0.0761**		0.0510
		(2.22)		(2.39)		(2.46)		(2.90)		(2.19)		(1.44)
Constant	0.0456***	0.1416	0.0505***	0.1459	0.0562***	0.1347	0.0711***	-0.0486	0.0707***	-0.1112	0.0741***	-0.1259
	(2.61)	(1.03)	(2.87)	(1.00)	(3.21)	(0.92)	(3.93)	(-0.25)	(3.83)	(-0.55)	(4.00)	(-0.61)
Adj-R^2	0.000	0.009	0.000	0.010	0.000	0.010	0.000	0.016	0.000	0.017	0.000	0.020
No. of Observations	1599	1599	1599	1599	1599	1599	1599	1599	1599	1599	1599	1599

Table 6 The Effect of Switch in Type of CEO on the Change in Firm Performance

This table reports the results of the effect of Switch in Type of CEO on the change in firm performance, based on the original subsample and a matching subsample (1-to-2 matching of firms with replacement). The 1-to-2 matching of firms is done using propensity score matching (PSM). The dependent variables are *Change ROA,* which is the difference between post-one-year ROA and the mean of the prior two years' ROAs, and *Change ROS,* which is the difference between post-one-year ROS and the mean of the prior two years' ROSs. The independent variables are *Other to Returnee (work)* and *Returnee (work) to Other*. *Other to Returnee (work)* is a dummy variable that is equal to 1 if a returnee CEO (work) replaces a non-returnee CEO (work) and is equal to 0 if a non-returnee CEO (work) replaces a non-returnee CEO (work). *Returnee (work) to Other* is a dummy variable that is equal to 1 if a non-returnee CEO (work) replaces a returnee CEO (work) and is equal to 0 if a returnee CEO (work) replaces a returnee CEO (work). All variables in the table are defined in the appendix. T-values are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Variables	Panel A Prior Other CEO		Panel B		Panel C Prior Returnee CEO (work)	
	Original Subsample		PSM Subsample		Original Subsample	
	Change ROA	Change ROS	Change ROA	Change ROS	Change ROA	Change ROS
Other to Returnee (work)	-0.0376*	-0.2666*	-0.0495**	-0.3090**		
	(-1.72)	(-1.76)	(-2.12)	(-2.01)		
Returnee (work) to Other					0.1940**	0.8964*
					(2.61)	(1.91)
MTB	0.0000	-0.0085	0.0021	-0.0186	-0.0020	-0.0265
	(0.02)	(-1.50)	(0.52)	(-0.91)	(-0.79)	(-0.84)
Size	-0.0107***	-0.1286***	-0.0226***	-0.1474**	-0.0082	-0.0496
	(-3.57)	(-4.77)	(-2.82)	(-2.10)	(-0.74)	(-0.67)
Leverage	0.0994***	0.5172***	0.1065***	0.3458	0.0667	0.6357**
	(6.44)	(5.04)	(3.72)	(1.26)	(1.44)	(2.15)
Firm Age	-0.0016	-0.0075	-0.0091**	-0.0478**	-0.0005	-0.0183
	(-1.29)	(-1.01)	(-2.49)	(-2.34)	(-0.11)	(-0.73)
Board Size	0.0022	0.0240*	0.0099**	0.0756*	-0.0029	0.0384
	(1.09)	(1.68)	(2.05)	(1.89)	(-0.22)	(0.69)
Board Independence	0.1720**	1.2420*	0.3684*	3.0495	0.2039	0.2247
	(2.09)	(1.72)	(1.80)	(1.60)	(0.40)	(0.08)
Block Ownership	0.0003*	0.0048***	0.0001	0.0002	0.0003	0.0007
	(1.75)	(3.21)	(0.10)	(0.04)	(0.35)	(0.15)
Supervisory Size	0.0024	0.0140	0.0134*	0.1241**	0.0237*	0.0635
	(0.90)	(0.83)	(1.81)	(2.18)	(1.92)	(0.76)
Bmeetf	-0.0012	-0.0042	0.0023	0.0134	0.0059	0.0119
	(-1.20)	(-0.69)	(0.63)	(0.68)	(0.93)	(0.36)
Smeetf	0.0044**	0.0203	0.0075	0.0209	-0.0431**	-0.2498**
	(2.00)	(1.59)	(1.43)	(0.60)	(-2.39)	(-2.60)
CEO Age	0.0000	0.0038	-0.0009	0.0000	0.0021	0.0065
	(0.02)	(0.88)	(-0.46)	(0.00)	(1.02)	(0.56)
MBA	0.0287***	0.1962***	0.0033	0.0606	0.0515	0.3039
	(3.40)	(3.12)	(0.18)	(0.56)	(1.39)	(1.26)
CEO Gender	0.0081	-0.0151	0.0232	0.3463	0.0557	-0.3022
	(0.49)	(-0.13)	(0.81)	(1.45)	(0.45)	(-0.37)
Constant	0.2275***	2.1899***	0.2040	1.1191	-0.1128	0.2927
	(2.92)	(3.92)	(1.06)	(0.83)	(-0.41)	(0.16)
Year Dummy	YES	YES	YES	YES	YES	YES
Industry Dummy	YES	YES	YES	YES	YES	YES
Regional Dummy	YES	YES	YES	YES	YES	YES
Adj-R^2	0.167	0.153	0.237	0.159	0.197	0.311
No. of Observations	1606	1606	196	196	95	95

Table 7 Tests for H2 and H3

This table reports the results of the split-sample sensitivity tests (1-to-1 matched firms) for the effect of appointing returnee CEOs on firm performance, and the results of the split-sample sensitivity tests (1-to-2 matched firms) for the effect of Switch in Type of CEO on the change in firm performance. Panel A presents the results for the matching firm sample split between SOEs and non-SOEs. Panel B presents the results for the matching firm sample split between those with politically connected CEOs and those with non-politically connected CEOs. Panel C presents the results for the matching firm sample split between networked CEOs and non-networked CEOs. Panel D presents the results for the matching firm sample split between firms conducting international business and those not doing so. The 1-to-1 and 1-to-2 matching of firms is done using propensity score matching (PSM) by the nearest neighbor matching method without replacement. The dependent variables are return on assets (*ROA*), return on sales (*ROS*) and market-to-book ratio (*MTB*) in the year after firms appoint returnee CEOs, and *Change ROA* and *Change ROS*. *Change ROA* is the difference between post-one-year ROA and the mean of the prior two years' ROAs, and *Change ROS* is the difference between post-one-year ROS and the mean of the prior two years' ROSs. The independent variables are *Returnee CEO (work)* and *Other to Returnee (work)*. *Other to Returnee (work)* is a dummy variable that is equal to 1 if a returnee CEO (with work experience abroad) replaces a non-returnee CEO and is equal to 0 if a non-returnee CEO replaces a non-returnee CEO. The regressions for *ROA*, *ROS* and *MTB* include control variables that are consistent with the control variables for *ROA*, *ROS* and *MTB* in Table 3, respectively. The full tables are provided in the unpublished appendix. The regressions include year, industry and regional dummies, along with constant. T-values are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: SOEs vs. Non-SOEs

Variables	ROA		ROS		MTB		Change ROA		Change ROS	
	SOEs	Non-SOEs	SOEs	Non-SOEs	SOEs	Non-SOEs	SOEs	Non-SOEs	SOEs	Non-SOEs
Returnee CEO (work)	-0.0155	-0.0748**	-0.0094	-0.9483***	-0.4690	-2.7033**				
	(-1.26)	(-2.51)	(-0.21)	(-2.81)	(-0.65)	(-2.29)				
Returnee CEO (study)	0.0049	-0.0536	0.0404	-0.7391**	-0.6496	-2.6072**				
	(0.47)	(-1.62)	(0.85)	(-2.20)	(-0.45)	(-2.22)				
Other to Returnee (work)							-0.0158	-0.0662*	-0.0742	-0.5281*
							(-0.66)	(-1.86)	(-1.07)	(-1.96)
Adj-R^2	0.238	0.231	0.101	0.228	0.167	0.295	0.231	0.323	0.135	0.225
No. of Observations	284	210	288	206	288	196	105	91	105	91

Panel B: Politically connected CEO vs. Non-politically connected CEO

Variables	ROA		ROS		MTB		Change ROA		Change ROS	
	Politically Connected	Non-Politically Connected	Politically Connected	Non-Politically Connected	Politically Connected	Non-Politically Connected	Politically Connected	Non-Politically Connected	Politically Connected	Non-Politically Connected
Returnee CEO (work)	0.0229	-0.0543***	0.0856	-0.5426***	0.6392	-1.2832**				
	(1.04)	(-2.78)	(0.83)	(-2.98)	(0.18)	(-2.19)				
Returnee CEO (study)	0.0122	-0.0200	-0.0304	-0.2050	2.9872	-1.7262**				
	(0.40)	(-1.34)	(-0.23)	(-1.33)	(0.51)	(-2.19)				
Other to Returnee (work)							0.0516	-0.0606**	0.1705	-0.3051*

							(0.47)	(-2.11)	(0.16)	(-1.70)
Adj-R^2	0.178	0.205	0.320	0.154	0.000	0.360	0.126	0.242	0.000	0.167
No. of Observations	84	410	91	403	90	394	34	162	34	162

Panel C: Network CEO vs. Non-Network CEO

Variables	ROA		ROS		MTB		Change ROA		Change ROS	
	Network	Non-Network	Network	Non-Network	Network	Non-Network	Network	Non-Network	Network	Non-Network
Returnee CEO (work)	-0.0414	-0.0515**	-0.1339	-0.4983**	-0.6750	-1.2889*				
	(-1.25)	(-2.41)	(-0.89)	(-2.39)	(-0.55)	(-1.81)				
Returnee CEO (study)	0.0241	-0.0189	0.3953	-0.2621	-3.5354	-0.8037				
	(0.96)	(-1.07)	(1.33)	(-1.57)	(-1.45)	(-0.65)				
Other to Returnee (work)							-0.0200	-0.0690**	0.0064	-0.5008**
							(-0.44)	(-2.08)	(0.03)	(-2.45)
Adj-R^2	0.009	0.241	0.129	0.169	0.281	0.158	0.276	0.240	0.785	0.150
No. of Observations	140	354	129	365	125	359	43	153	43	153

Panel D: Foreign Business vs. Non-Foreign Business

Variables	ROA		ROS		MTB		Change ROA		Change ROS	
	Foreign Business	Non-Foreign Business	Foreign Business	Non-Foreign Business	Foreign Business	Non-Foreign Business	Foreign Business	Non-Foreign Business	Foreign Business	Non-Foreign Business
Returnee CEO (work)	-0.0205	-0.0610***	-0.0855	-0.5822***	-2.4209	-1.3608**				
	(-1.12)	(-2.73)	(-1.43)	(-2.82)	(-1.40)	(-2.01)				
Returnee CEO (study)	-0.0067	-0.0224	-0.0687	-0.2564	-2.6185	-0.2957				
	(-0.49)	(-1.18)	(-1.15)	(-1.24)	(-1.25)	(-0.21)				
Other to Returnee (work)							0.0650	-0.0614**	0.3566	-0.4149**
							(1.02)	(-2.18)	(1.53)	(-2.20)
Adj-R^2	0.411	0.185	0.292	0.157	0.157	0.209	0.346	0.177	0.260	0.159
No. of Observations	132	362	136	358	132	352	47	149	47	149

Table 8 The Effect of Appointing Returnee CEOs on the Incidence of Regulatory Enforcement Against Fraud

This table reports the results of probit regression analyses for the effect of appointing returnee CEOs on the subsequent year's regulatory enforcements against fraud, for a 1-to-1 propensity-score-matched (nearest neighbor matching without replacement) regulatory enforcement against fraud sample, from 2001 to 2010. The propensity score is obtained from the probit regression in Model 1. The dependent variable is the one-year-after regulatory enforcement against fraud, which equals 1 if the firm was subject to regulatory enforcement against disclosed fraud, and 0 otherwise. The independent variables are *Returnee CEO, Returnee CEO (work) and Returnee CEO (study)*. All the independent variables in the table are defined in the appendix. T-values are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Regulatory Enforcement Against Fraud		
	Model 1	Model 2	Model 3
Returnee CEO		0.8588***	
		(2.86)	
Returnee CEO (work)			0.8377**
			(2.15)
Returnee CEO (study)			0.8863**
			(2.25)
Prior ROA	-2.5301***	0.3081	0.3090
	(-5.67)	(0.46)	(0.47)
MTB	0.0010	0.0085	0.0085
	(0.20)	(0.89)	(0.89)
Size	-0.1025***	0.0823	0.0826
	(-3.14)	(1.40)	(1.41)
Leverage	-0.0892	0.3261**	0.3269**
	(-0.95)	(2.01)	(2.02)
Firm Age	-0.0158	-0.0173	-0.0174
	(-1.31)	(-0.76)	(-0.77)
Board Size	-0.0390	0.0203	0.0203
	(-1.63)	(0.50)	(0.50)
Board Independence	-0.2874	-0.4858	-0.4896
	(-0.67)	(-0.61)	(-0.62)
Block Ownership	-0.0086***	0.0045	0.0044
	(-2.82)	(0.73)	(0.73)
Supervisory Size	0.0001	-0.0397	-0.0398
	(0.00)	(-0.60)	(-0.60)
Bmeetf	0.0069	-0.0043	-0.0041
	(0.48)	(-0.16)	(-0.15)
Smeetf	-0.0187	0.0337	0.0335
	(-0.72)	(0.69)	(0.69)
CEO Age	-0.0015	0.0055	0.0055
	(-0.23)	(0.46)	(0.47)
MBA	-0.0152	-0.3393	-0.3420
	(-0.12)	(-1.38)	(-1.40)
CEO Gender	-0.2177	-0.0942	-0.0935
	(-1.25)	(-0.31)	(-0.31)
Constant	2.6046**	-1.8818	-1.8876
	(2.24)	(-1.34)	(-1.34)
Industry Dummy	YES	YES	YES
Pseudo R^2	0.132	0.047	0.047
No. of Observations	2847	298	298

Table 9 The Effect of Returnee CEOs on Executive Appointments

This table presents the results of OLS regression analyses for the effect of returnee CEOs on the subsequent appointments of executives. The dependent variables include *CCPM*, *Professional Background*, *Postgraduate Education*, and *Female Executives*, which are all one year lagged. *CCPM* is the ratio of members of China's Communist Party among the executives appointed in the year following the CEO's appointment. *Professional Background* is the ratio of executives with a title certificate for being an accountant, auditor or lawyer among the executives appointed in the year following the CEO's appointment. *Postgraduate Education* is the ratio of executives possessing a master's degree or higher among the subsequently appointed executives. *Female Executives* is the ratio of female executive among the subsequently appointed executives. The dependent variable is *Returnee CEO (work)*, which is a dummy variable equal to 1 if the CEO has overseas work experience and 0 otherwise. Other control variables are defined in the appendix. Industry and year effects are also included. The sample period covers 2001 to 2010. T-values are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Variables	CCPM	Professional Background	Postgraduate Education	Female Executives
Returnee CEO (work)	-0.0430*	0.0259	0.0570*	0.0021
	(-1.77)	(1.08)	(1.82)	(0.10)
Returnee CEO (study)	-0.0265	0.0111	0.0024	-0.0422**
	(-0.89)	(0.42)	(0.07)	(-1.99)
Prior ROA	0.0048	-0.1694***	-0.0376	-0.0196
	(0.07)	(-2.67)	(-0.55)	(-0.29)
MTB	0.0016**	0.0002	0.0014*	0.0003
	(2.08)	(0.37)	(1.87)	(0.43)
Size	0.0157***	-0.0017	0.0159***	-0.0118***
	(3.42)	(-0.44)	(3.08)	(-2.90)
Leverage	0.0095	-0.0135	-0.0104	-0.0132
	(0.73)	(-1.06)	(-0.74)	(-1.02)
Firm Age	0.0014	-0.0012	-0.0009	-0.0010
	(0.77)	(-0.89)	(-0.49)	(-0.65)
Board Size	0.0058	-0.0013	0.0103***	0.0012
	(1.63)	(-0.48)	(3.09)	(0.48)
Board Independence	-0.2136**	0.0096	0.0982	0.0582
	(-2.16)	(0.13)	(0.93)	(0.80)
Block Ownership	0.0007	-0.0001	0.0001	-0.0000
	(1.52)	(-0.36)	(0.25)	(-0.05)
Supervisory Size	0.0128**	0.0031	-0.0076	-0.0034
	(2.33)	(0.79)	(-1.54)	(-0.90)
CEO Age	0.0017*	-0.0014*	0.0003	-0.0005
	(1.71)	(-1.85)	(0.28)	(-0.68)
MBA	-0.0149	-0.0008	0.0295	-0.0032
	(-0.80)	(-0.05)	(1.48)	(-0.21)
CEO Gender	-0.0087	-0.0510*	0.0275	-0.0326
	(-0.31)	(-1.92)	(1.10)	(-1.23)
Constant	-0.4138***	0.2624***	-0.3372***	0.2814***
	(-3.78)	(2.71)	(-3.07)	(3.15)
Year Dummy	YES	YES	YES	YES
Industry Dummy	YES	YES	YES	YES
Adj-R^2	0.025	0.004	0.017	0.009
No. of Observations	2847	2847	2847	2847

Table 10 The Effect of Returnee CEOs on Corporate Strategy

This table reports the OLS regression analyses results for the effect of returnee CEOs on corporate strategy. The dependent variables are *Firm Diversification*, *Investment to Cash Flow Sensitivity, R&D* and *Cash Holding*. *Firm Diversification* is calculated by the number of business segments multiplied by the number of geographic segments. *Investment to Cash Flow Sensitivity* is the ratio of capital expenditure to cash flow (earnings before extraordinary terms plus depreciation). *R&D* is the natural log of one plus the R&D expenditure from 2007 to 2010. *Cash Holdings* is the ratio of cash and marketable securities to net assets computed as total assets minus cash and marketable securities, from 2007 to 2010. The independent variables are *Returnee CEO (work)* and *Returnee CEO (study)*. The regressions control other factors, along with year and industry effects. All variables in the table are defined in the appendix. T-values are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Variables	Firm Diversification	Investment to Cash Flow Sensitivity	R&D	Cash Holdings
Returnee CEO (work)	2.2501*	0.0853	0.0338	0.0034
	(1.67)	(1.14)	(0.06)	(1.14)
Returnee CEO (study)	1.5363	-0.0280	0.0538	0.0007
	(1.30)	(-0.48)	(0.08)	(0.39)
Prior ROA	1.1113	0.9650***	3.5231***	0.0055
	(0.42)	(4.04)	(3.37)	(0.94)
MTB	-0.0241	-0.0001	0.0275**	0.0001**
	(-0.91)	(-0.03)	(2.00)	(2.05)
Size	1.4275***	-0.0334***	0.1499*	0.0009**
	(7.54)	(-2.79)	(1.84)	(2.32)
Leverage	0.3072	-0.0017	0.1333	0.0012
	(0.59)	(-0.04)	(0.79)	(1.59)
Firm Age	0.1033	-0.0163***	0.0033	-0.0002*
	(1.48)	(-4.01)	(0.12)	(-1.90)
Board Size	0.0357	0.0062	0.0187	0.0005*
	(0.29)	(0.87)	(0.25)	(1.68)
Board Independence	0.3669	-0.1442	1.3830	0.0067
	(0.10)	(-0.64)	(0.56)	(0.95)
Block Ownership	-0.0641***	-0.0024***	-0.0030	-0.0001***
	(-4.37)	(-2.77)	(-0.39)	(-3.18)
Supervisory Size	0.0722	-0.0026	0.0149	0.0008
	(0.37)	(-0.27)	(0.18)	(1.64)
CEO Age	-0.0478	-0.0028	-0.0065	0.0001
	(-1.28)	(-1.23)	(-0.36)	(1.12)
MBA	-0.5590	0.0073	0.3169	-0.0024***
	(-0.76)	(0.16)	(0.86)	(-3.42)
CEO Gender	1.0829	0.1091*	0.3634	0.0029***
	(1.03)	(1.72)	(0.87)	(3.11)
Constant	-24.4238***	1.2301***	-5.4923**	-0.0342***
	(-5.61)	(4.72)	(-2.43)	(-2.73)
Year Dummy	YES	YES	YES	YES
Industry Dummy	YES	YES	YES	YES
Adj-R2	0.039	0.032	0.038	0.053
No. of Observations	2793	2793	1453	1453

Appendix A: Variable Definitions

Variables	Definitions
Returnee CEO	Dummy variable equal to 1 if the CEO has had overseas experience, either studying at university, training, or working, and 0 otherwise.
Returnee CEO (work)	Dummy variable equal to 1 if the CEO has had overseas work experience, and 0 otherwise.
Returnee CEO (study)	Dummy variable equal to 1 if the CEO has had overseas experience studying at a university, or overseas training experience, and 0 otherwise.
Other to Returnee (work)	Dummy variable that is equal to 1 if a returnee CEO (with work experience abroad) replaces a non-returnee CEO and is equal to 0 if a non-returnee CEO replaces a non-returnee CEO.
Returnee (work) to Other	Dummy variable that is equal to 1 if a non-returnee CEO replaces a returnee CEO (with work experience abroad) and is equal to 0 if a returnee CEO (with work experience abroad) replaces a returnee CEO (with work experience abroad).
Returnee $\tilde{CEO}$	The fitted value predicted by Model 1, Model 3 or Model 5 in Table 4 Panel B.
International School	Dummy variable equal to 1 if the province in which the firm's headquarters are located has an international school in the year in which the CEO is appointed, and 0 otherwise.
ROA	Net income over total assets at the end of the year.
ROS	Net income over total sales at the end of the year.
MTB	Market price per share over book value per ordinary share.
Change in ROA	The one-year-post ROA minus the average of one-year-prior ROA and the announcement-year ROA.
Change in ROS	The one-year-post ROS minus the average of the one-year-prior ROS and the announcement-year ROS.
Regulatory Enforcement	Dummy variable equal to 1 if the firm is subject to regulatory enforcement against disclosed fraud, and 0 otherwise.
CCPM	The ratio of members of China's Communist Party among the executives appointed in the year following the CEO's appointment.
Professional Background	The ratio of executives with a title certificate for being an accountant, auditor or lawyer among the executives appointed in the year following the CEO's appointment.
Postgraduate Education	The ratio of executives possessing a master's degree or higher among the executives appointed in the year following the CEO's appointment.
Female Executives	The ratio of female executives among the executives appointed in the year following the CEO's appointment.
Firm Diversification	The number of business segments multiplied by the number of geographic segments.
Investment to Cash Flow Sensitivity	The ratio of capital expenditure to cash flow (earnings before extraordinary terms plus depreciation).
R&D Expenditure	The natural logarithm of one plus the R&D expenditure from 2007 to 2010.
Cash Holdings	The ratio of cash and marketable securities to net assets computed as total assets minus cash and marketable securities, from 2007 to 2010.
Prior ROA	The average of the one-year-prior ROA and the announcement-year ROA.
Prior ROS	The average of the one-year-prior ROS and the announcement-year ROS.
Prior MTB	The average of the one-year-prior MTB and the announcement-year MTB.
Firm Size	The natural logarithm of firm sales at the end of the year.
Leverage	Total debt over sales at the end of the year.
Firm Age	The number of years since the firm's IPO year.

Block Ownership	The ownership of the largest shareholder.
SOE	Dummy variable equal to 1 if the firm is a state-owned enterprise, and 0 otherwise.
Foreign sales	Dummy variable equal to 1 if the firm has foreign sales, and 0 otherwise.
CEO Age	The age of the CEO in the year they were appointed.
MBA	Dummy variable equal to 1 if the CEO possesses an MBA or EMBA degree, and 0 otherwise.
CEO Gender	Dummy variable equal to 1 if the CEO is male, and 0 otherwise.
CEO Political Connections	Dummy variable equal to 1 if the CEO was or still is an officer of the central government, local government, or the military, and 0 otherwise.
CEO Network	Dummy variable equal to 1 if the CEO sits on the board of other firms at the end of the year, and 0 otherwise.
Board Size	The total number of directors on the board at the end of the year.
Supervisory Size	The total number of supervisors on the board at the end of the year.
Bmeetf	The total number of directors' board meetings in one year.
Smeetf	The total number of supervisory board meetings per year.
Board Independence	The proportion of outside directors among the board directors.
Year Effect	The year ranges from 2001 to 2010.
Industry Effect	The first two digits of the Global Industry Classification Standard (GICS) is utilized to construct the industry dummy variables. Some industry dummy variables may be automatically omitted in different regressions.
Regional Effect	The location of the firm is classified into a city with a stock exchange, the coastal area, the inland area, or the northwest area.