4-2016

Social Capital, Informal Governance, and Post-IPO Firm Performance: A Study of Chinese Entrepreneurial Firms

Jerry X. CAO
Singapore Management University, jerrycao@smu.edu.sg

Yuan DING
China Europe International Business School

Hua ZHANG
China Europe International Business School

DOI: https://doi.org/10.1007/s10551-014-2383-5

Published in Journal of Business Ethics, April 2016, Volume 134, Issue 4, Pages 529-551.
http://doi.org/10.1007/s10551-014-2383-5

Social Capital, Informal Governance, and Post-IPO Firm Performance: A Study of Chinese Entrepreneurial Firms

Jerry X. Cao · Yuan Ding · Hua Zhang

Abstract Social capital can serve as informal governance in weak investor-protection regimes. Using hand-collected data on entrepreneurs' political connections and firm ownership, we construct several original measures of social capital and examine their effect on the performance of entrepreneurial firms in China after their initial public offerings. Political connections or a high percentage of external investors tend to enhance firm performance, but intragroup related-party transactions commonly lead to performance decline. These forms of social capital have a strong influence on the performance of Chinese firms, whereas formal governance variables such as board size or board independence have little effect. Although social capital may serve as an informal governance mechanism and effectively substitute for formal governance mechanisms in an emerging market, this role of social capital raises several ethical concerns, notably the development of rent-seeking and crony capitalism.

Keywords Post-IPO performance · Social capital · Agency theory · Entrepreneur · Political connection · China

Introduction

This study investigates the role of informal governance mechanisms for entrepreneurial firms in the Chinese stock market. We address important questions raised in the initial public offering (IPO) literature (Ritter and Welch 2002): what drives post-IPO performance, and can such performance be predicted in a weak investor-protection regime? Using hand-collected data from China's unique regulatory context, we construct several informal governance measures for a firm's social capital, with reference to the theory of social capital (Adler and Kwon 2002; Nahapiet and Ghoshal 1998). We examine the effect of such informal governance, i.e., social capital, on post-IPO firm performance and compare it with formal governance variables. Our research attempts to shed more light on the role of these important factors in entrepreneurial firm performance.

The finance literature establishes that there is generally deterioration in the performance of entrepreneurial firms after their IPOs. Such declines are largely caused by two problems related to corporate governance: (1) consumption of private benefits, and (2) window-dressing of the accounts. For example, Jain and Kini (1994) show that ownership retention by the pre-IPO shareholders is positively related to post-IPO accounting performance. However, Mikkelson et al. (1997) investigate ownership-related proxies such as shareholding concentration, existence of blockholders, and secondary sales, and find that these factors seldom explain the decline in post-IPO accounting performance. Most of the empirical evidence on these factors is derived from studies of IPOs in the US market. This evidence, however, may not reflect the situation in emerging markets, where the pure agency issue[1] is not highly relevant, and ownership is often concentrated. The

J. X. Cao
Singapore Management University, Singapore, Singapore

Y. Ding · H. Zhang (✉)
China Europe International Business School (CEIBS), Shanghai, China
e-mail: zhua@ceibs.edu

[1] In contrast to the agency problem known to exist when ownership is diffused, the main conflict in China is between controlling and minority shareholders, because the controlling shareholders have highly concentrated ownership (Shleifer and Vishny 1997). According to Bae et al. (2012), controlling shareholders' expropriation of minority shareholder investments is the key channel through which corporate governance affects firm value.

current lack of understanding on the important questions of post-IPO performance and investor protection in emerging institutional environments warrants more research.

Although most existing studies examine the role of formal measures for governing institutions (Acemoglu and Robinson 2000; Acemoglu et al. 2001, 2002; Acemoglu 2003; La Porta et al. 1999; Djankov et al. 2002), it is becoming important to understand the effects of informal corporate governance on firm performance (Aguilera et al. 2008). The common wisdom is that social networks or ties like *guanxi* often play significant roles in emerging markets such as Asia.[2] We therefore study the role of informal institutions in China and explore the relative influence of informal and formal governance measures.

Our research is the first to investigate how the entrepreneur's social capital serves as informal governance in emerging markets. We borrow the social capital theory from sociology to form novel measures of informal governance mechanisms. Adler and Kwon (2002) define social capital as a mechanism to capture the collective actions and resultant outcomes associated with interaction between groups. In their pioneering work, Nahapiet and Ghoshal (1998) propose that social capital is "the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit" (p. 243). Adler and Kwon (2002) present two distinct views of social capital, the first reflecting an actor's relations with other external actors, and the second related to the structure of relations between actors in a collectivity: "A focus on external relations foregrounds what has been called 'bridging' forms of social capital, whereas a focus on internal ties within collectivities foregrounds 'bonding' forms of social capital" (p. 19).

In accordance with Adler and Kwon (2002), we propose to consider political connections and external investors as measures of bridging social capital. Both these measures of social capital capture a firm's external relationships with outside stakeholders. They are highly relevant measures for emerging markets such as China, for two reasons. First, in emerging economies, an entrepreneur's capability to create an effective political network is a key success factor (Ireland et al. 2008; Le and Nguyen 2009; Morck and Yeung 2004). Second, the prevalence of large blockholders in emerging markets means that the type II agency problem (conflict between large shareholders and minority investors) eclipses the traditional type I agency problem (between owners and managers) (La Porta et al. 1999; Villalonga and Amit 2006). The way an entrepreneur/controller deals with external shareholders before and after an IPO thus becomes a key component of bridging social capital in the context of emerging markets.

Bonding social capital can be proxied by intragroup and related-party transactions, because entrepreneurial firms are often controlled by business groups. It is common in Eastern Asia (including China) for a business group (often a conglomerate) to list part of its business, but keep other parts of its operations away from the public market's scrutiny.[3] Related-party transactions within business groups define the internal boundaries of intragroup firms which function as a business group.

Using hand-collected data on entrepreneurs' political connections and firm ownership, we construct several original measures of social capital and examine their effect on the performance of entrepreneurial firms in China after their IPOs. Political connections or a high percentage of external investors tend to enhance firm performance, but intragroup related-party transactions commonly lead to performance decline. We include formal governance variables such as board independence or size, and find that they do not affect IPO firm performance.

By linking the entrepreneurs' social capital attributes to their firms' post-IPO performances, this study makes several contributions to the literature. First, the performance of firms' IPOs has been an important issue in China, because many IPOs are perceived by retail investors as "safe" investments. Governance issues in the newly listed firms have typically been ignored by small public investors, who invest heavily and actively in the Chinese IPO market. Private enterprises find capital raising through IPOs as a critical means of access to equity financing. Therefore, our evaluation of IPO performance is sorely needed.

Our research also contributes to the literature in the sense that we propose to study an informal governance mechanism based on social capital variables. We show that formal governance measures such as board independence have very little influence on firm performance, while informal governance measures play important roles. This study therefore brings fresh empirical evidence to enrich the recent debates on business ethics and the links between *guanxi*, firm performance (Zhang and Zhang 2006), and Chinese private entrepreneurs' participation in politics (Tian et al. 2008). We construct new measures of bridging and bonding social capital that distinguish between external and internal relationships. These new measures enable

[2] Peng and Heath (1996) find that it is informal constraints rather than formal institutions that play the more important role in regulating emerging markets. Peng (2002) emphasizes the importance of interactions between formal and informal constraints for organizations in emerging markets such as Asia.

[3] Khanna and Palepu (2000) explain that when institutions intended to enhance the efficiency of input and output markets are underdeveloped, family firms and business groups can act as substitutes for the inefficient external capital and labor markets.

us to understand the different governance roles related to disciplining and entrenchment effects.

The remainder of the study proceeds as follows. The second section describes the institutional background to entrepreneurial IPOs in China. The third section summarizes the theory of social capital, and develops hypotheses on the relationships between bridging and bonding social capital as they relate to the post-IPO performance of listed entrepreneurial firms. The fourth section presents the sample, the data sources, and the construction of variables. The fifth section discusses the results of our empirical analysis and their ethical implications. Conclusions are drawn in the sixth section, which also presents theoretical and practical implications, the limitations of the study, and directions for future research.

Institutional Background to Entrepreneurial Firm IPOs in China

The stock market has gained considerable momentum in China since the early 1990s. Chinese shares were valued at 21.15 trillion yuan (US$2.79 trillion) on August 9, 2007, exceeding the nation's previous-year GDP for the first time.[4] At the end of October 2011, a total of 2,304 companies were listed on China's two stock exchanges in Shanghai and Shenzhen, with total market capitalization of US$24.30 trillion yuan (US$3.86 trillion). As stated by the Chinese government, the main purposes for launching the stock market 20 years ago were to raise the much-needed capital for state-owned enterprises (SOEs) and to facilitate SOEs' restructuring as "modern corporations" (the process called *gongsihua* in Chinese). Equity market financing in China thus shows a tremendous bias in favor of SOEs over non-SOEs. However, the number of privately owned firms listed on the Chinese stock market has still increased substantially: this is both a reflection and a consequence of general private-sector development.

China's first privately owned listed firm appeared in 1992, but during the 1992–1997 period, the number of such firms was negligible compared to the rapid increase in market capitalization and the total number of listed firms. In 1997, fewer than 6 % of listed firms were privately owned, despite the private sector's growing importance in the Chinese economy. In 1998, the market witnessed the start of a boom in privately owned listed firms. As of 2007, 491 (34 %) of the 1,453 publicly listed firms were private; some were privatized former SOEs, and some were newly founded directly in the private sector. The sample used in this study only includes firms from the second group (entrepreneurial firms). As private ownership in China has been given a new lease of life in recent history, with all private companies built from scratch only since the economic reform of 1978, the founders of these firms are still actively involved in their management, and have de facto control of the companies.

Consistent with the public sector's important role in China's economic reform, the government is heavily involved in stock market regulation. Due to certain unique features of the Chinese stock market's regulatory setting, our sample provides a good research laboratory to study IPOs.

The first of these unique features is that due to the IPO approval system in China, it is very difficult for a firm to obtain the listing status. Every proposed IPO must be approved by the CSRC's Public Offering Examination Committee, and this is a lengthy process. The firm must first go through a so-called "restructuring period," when it is restructured into a limited stock corporation. This period lasts a minimum of 1 year for a firm that was already a corporation, and can last up to 3 years for other firms. Then comes a one-year "tutorship" period, during which the firm adopts modern corporate governance structures. After these two stages, the firm is examined by the CSRC's Public Offering Examination Committee, which mainly looks at its ownership structure, its large shareholders, the quality of its accounting information and its growth prospects. This process lasts for 6 months. If approval is given, the stock exchange (either Shanghai or Shenzhen) then works with the firm to arrange the IPO. It therefore takes a firm an average of 3 years to prepare for an IPO, and in the longer duration cases, four and a half years or more.[5] Furthermore, the process can be interrupted and prolonged by macroeconomic policy considerations. As SOEs often benefit from preferential "fast-track" listing, they are excluded from our sample, which consists entirely of purely private entrepreneurial firms.

A second feature of China's regulatory system is that Chinese IPOs cannot involve secondary share sales (in which existing shareholders sell their shares). Only new shares can be issued to the public. The lock-in period when the largest shareholders are prohibited from selling their shares is the longest in the world at 3 years. This unique regulation means that controlling shareholders do not actually sell their equity ownership at the time of the IPO. For each firm included in our study, we clearly identify the controlling shareholder, who is the entrepreneur/founder of the firm. The top management team is often the founder him/herself, plus family members or delegates close to the family. Therefore, throughout the whole 6-year study

[4] 'Mainland stocks become world giants after defying global rout', *South China Morning Post*, August 15, 2007, p. B20.

[5] As the Chinese stock market was not doing well during the period 2002–2006, the whole process took four or even 5 years for some firms in our sample.

period around each IPO (3 years before and 3 years after the IPO), the entrepreneur/founder/controlling shareholders are the forces behind all of the major decisions made by the newly listed entrepreneurial firms. Information on this control structure is found in the firms' disclosed filing statements.

Our sample only includes entrepreneurial firms that have gone through IPOs. As these firms, unlike their state-owned counterparts, have full autonomy to make their IPO decisions, their decisions are not driven by political considerations. Therefore, entrepreneurial firms' motivations for undertaking IPOs are largely consistent with those documented in US studies. The extant literature shows that the two most prominent reasons for IPOs are (1) raising funds to further grow the firm and (2) creating a public market for entrepreneurs (and other shareholders) to cash in their shares.[6] However, Chinese regulatory restrictions, such as the prohibition of secondary sales during the IPO and the ensuing three-year lock-in period, make immediate cashing in during or just after an IPO impossible for the entrepreneur. Therefore, if the main motivation for an IPO is to create a public market so the entrepreneur can cash in his investment in the future, a rational entrepreneur should only make the minimum required capital share available to external investors—just enough to achieve listed status. Opening the share ownership wider would signal the entrepreneur's interest in developing a better and stronger relationship with external investors (or "bridging").

Literature Review and Hypotheses

To explain the influence of social capital on the post-IPO performance of listed entrepreneurial firms in China, this study investigates two types of social capital: bridging social capital and bonding social capital. These categories are derived from social capital theory.

Social Capital Theory

Social capital is created through social relations that can be mobilized to facilitate the attainment of needed resources, influence, or sponsorship (Adler and Kwon 2002). Social capital is embedded in relationships that facilitate collaboration and cooperation to achieve mutual benefits. Network relationships involve feelings of gratitude, reciprocity, respect, or friendship (Carolis et al. 2009). Other researchers (Dess and Shaw 2001) point out that a firm's social capital can be difficult to quantify, as social capital reflects not only a complex set of dynamic relationships within a group, but also the unique circumstances and interactions between that group and its external environment.

Adler and Kwon (2002) state that social capital is a form of capital because it has the following six features: 1. It is a long-lived asset, into which other resources can be invested with the expectation of a future flow of benefits. 2. It is both appropriable and convertible. 3. It can either be a substitute for or can complement other resources. 4. It needs maintenance. 5. Some forms of social capital are collective goods, in the sense that they are not the private property of those who benefit from them. 6. Investments in the development of social capital do not seem amenable to quantified measurement.

Being embedded in a social network promotes mutual knowledge and recognition (Bourdieu 1985). The benefits derived from a firm's social capital can take the form of both tangible and intangible assets, such as funding and financial information (Jonsson and Lindbergh 2011). Social network members are sources of information and opportunity. In certain circumstances, social capital may be used to build a firm's social status or reputation. Social capital has been found to be important in providing legitimacy (Aldrich and Fiol 1994; Zimmerman and Zeitz 2002), mitigating the liabilities of being a new organization (Stinchcombe 1965), enabling firm growth (Zimmerman and Zeitz 2002), and preventing failure (Miner et al. 1990; Westhead 1995). Social capital links the entrepreneur with opportunities crucial to a firm's success (Bull and Willard 1993; Ellis 2000), provides a firm with support, credibility, and contacts (Ostgaard and Birley 1996), and can facilitate innovation while reducing risks (Lipparini and Sobrero 1994).

As institutions tend to constrain possible opportunities within acceptable boundaries, they often determine the way entrepreneurs can legitimately explore and exploit social capital (Clemens and Cook 1999). The social capital that entrepreneurs possess is influenced by context and, in particular, by institutional arrangements (Spence et al. 2003). North (1990) analyzes institutional arrangements by distinguishing between formal and informal institutions. The term "formal institutions" refers to the institutionalized rules, regulations, laws, and supporting apparatuses that establish order in economic, legal, and political frameworks. "Informal institutions" include the norms, beliefs, values, and conventions that form the sociocultural relations in a society. In transitional economies, as Ireland et al. (2008) explain, "while formal institutional policies and structures supporting capitalism have steadily emerged, informal institutions remain divided between old and new economic systems. By deterring widespread adoption of entrepreneurial behavior, informal institutions persisting from the socialist system undermined the transition of formal institutions during the 1990s, which were

[6] For details, see the literature review by Ritter and Welch (2002, p. 1796) and the CFO survey by Brau and Fawcett (2006).

intended to promote entrepreneurship. Furthermore, economic turmoil, lack of social justice, growing inequality, and deteriorating welfare services have created dissatisfaction with the emerging capitalist economic system" (p. 108). Therefore, social capital (which is one aspect of informal institutions) becomes even more crucial for entrepreneurs operating in such economies.

In their study of Vietnamese entrepreneurial firms, Le and Nguyen (2009) state that "networking is crucial for small- and medium-sized enterprises (SMEs), particularly in emerging economies as they seek to access resources for development" (p. 867). They argue that in the absence of effective market institutions, networks play an important role in spreading knowledge about a firm's existence and practices. Networks also help a firm to learn appropriate behavior, and therefore obtain necessary support from key stakeholders and the general public. As a result, personal relationships and networks are often seen as effective substitutes for well-established institutions (Ahlstrom and Bruton 2006; Xin and Pearce 1996). The extant literature suggests that networking between entrepreneurs, bankers, government officials, or friends and relatives may increase a firm's legitimacy and play an important support role for both lending institutions and corporate borrowers (Ahlstrom and Bruton 2006; Le et al. 2006; Peng 2001; Peng and Luo 2000). For corporate borrowers, networks can act as a vehicle for gaining access to resources, information and support from other parties (Hoang and Antoncic 2003).

Bridging Social Capital and Firm Performance

Adler and Kwon (2002) distinguish between bridging and bonding social capital: "The bridging view focuses primarily on social capital as a resource that inheres in the social network tying a focal actor to other actors. On this view, social capital can help explain the differential success of individuals and firms in their competitive rivalry: the actions of individuals and groups can be greatly facilitated by their direct and indirect links to other actors in social networks" (p. 19).

Carolis et al. (2009) point out that "the bridging form of social capital is most prominent in the entrepreneurship literature given its relevance to the formation of new ventures" (p. 529). Burt (1992) suggests that social capital creates advantages in "… the way in which social structure renders competition imperfect by creating entrepreneurial opportunities for certain players and not for others" (p. 57). Studies in both entrepreneurship (Aldrich and Zimmer 1986; Birley 1985; Uzzi 1996; Walker et al. 1997) and social capital (Adler and Kwon 2002; Burt 1992; Nahapiet and Ghoshal 1998; Tsai and Ghoshal 1998) have stressed the importance of connections and networks in the establishment and success of new ventures.

There are two direct benefits of the bridging form of social capital: information and influence. Social capital can facilitate access to information, which is a critical component of entrepreneurial opportunities (Shane and Venkataraman 2000). Social capital accelerates the timing, relevance and quality of information (Adler and Kwon 2002; Burt 1992). For example, Carolis et al. (2009) state that "individuals with close ties to universities, perhaps through alumni associations, may develop relationships with researchers and thus have access to information about emerging technologies that can be commercialized. These individuals then have early access to promising technologies before this becomes public knowledge" (p. 530). Another benefit of social capital is influence. Individuals may accumulate favors owed by others in their network, and then call in those favors at a later date.

Several previous studies find that bridging social capital helps people or firms to improve their performance in general (Burt 2004; Maurer and Ebers 2006; Shaw et al. 2005). Aarstad et al. (2010) note that "the concept explains resources that are leveraged through collaborations with external agents" (p. 1003). Burt (1992) describes social capital as a key ingredient for success: "[it is] the structure of the player's network and the location of the player's contacts in the social structure of the arena [that] provides… [an] advantage" (p. 8).

In the context of transitional economies, the forms of bridging social capital that are linked to the political sphere attract particular interest from researchers. In their work on Central and Eastern Europe, Ireland et al. (2008) emphasize the importance of studying the influence of politico-economic systems on entrepreneurs' behavior. These authors argue that interactions between political and economic systems remain especially salient in emerging and transitional economies: "Understanding the economy is not possible without taking into account the political system and the ease with which changes may occur in it" (p. 109). These authors further comment that "the attitudes of political actors toward entrepreneurship have significant implications for how value (in all forms) is produced, distributed, and exchanged throughout a society" (p. 110). The predominantly political dimension of entrepreneurs' social capital in this context may be explained by certain features common to all emerging countries, and by other features unique to transitional economies.

One feature found in most emerging countries (as mentioned earlier) is weak formal institutions. Recent studies argue that substitutive informal institutions exist in environments where either formal institutions are not routinely enforced, or state structures are weak and lack authority (Helmke and Levitsky 2003; North 1990). In post-Soviet Russia, for instance, managers rely on extensive networks of connections and relationships governed by

informal norms of reciprocity to find their way around formal procedures. Such connections are useful for arranging favorable borrowing terms, postponing payments, jumping queues, speeding up bank operations, or settling business disputes (Tonoyan et al. 2010). These networks also help private firms to protect against the lack of ownership rights and contract laws, or the arbitrary enforcement of business regulations (Ahlstrom and Bruton 2006). In this kind of system, actors draw disproportionately on "closed business networks" of friends, relations, and bureaucrats to compensate for the shortage of formal institutions. This reliance on networks magnifies the returns on political rent-seeking by network brokering elites, and the system is conducive to corruption, as it provides a suitable environment for agreeing and honoring corrupt deals (Fischer and Reuber 2007; Morck and Yeung 2004).

In former and current socialist countries, the state still plays a large role in distributing scarce resources. Compared with SOEs, privately owned SMEs receive little support from the government, and they typically lack market legitimacy. In such countries, the market mechanism often coexists with (and is influenced by) a government-led redistributive mechanism, which suggests that government officials still have a strong influence on business practices (Boisot and Child 1996; Li and Zhang 2007; Nguyen et al. 2006). The political dimension has a greater influence on entrepreneurs' actions in a country like China, where as Tian et al. (2008) explain, "the government still controls many scarce resources, such as access to capital, the authority to examine and approve projects, government purchasing, the authority to examine and to approve the qualification of firms listing in the stock market, the authority to use the land, …" (p. 631). Furthermore, since politicians are rewarded for capital market development in China, politicians tend to give helping hands to both state-owned and privately owned firms in their jurisdictions with which they have connections (for instance, by accelerating their IPO process), in order to improve their political credentials (Piotroski and Zhang 2014).

Managers' ties with government officials—the official networks—represent a special type of managerial resource in these countries (Chung 2006; Li and Zhang 2007; Nguyen et al. 2006; Peng and Luo 2000). These networks help private firms to navigate through cumbersome procedures with state agencies, gain access to scarce resources, and enter closely regulated industries, thereby improving their business performance (Chung 2006; Peng 2001; Peng and Luo 2000; Xin and Pearce 1996). For example, Tu et al. (2013) document that politically connected acquirers receive preferential treatment and acquire higher quality firms when SOEs in China become fully privatized.

The power of official networks is evidenced in various emerging economies (Peng 2001) such as China (Li and Zhang 2007; Peng and Luo 2000; Xin and Pearce 1996), Vietnam (Le and Nguyen 2009), and Eastern European countries (Smallbone and Welter 2001). Story (2012) even states that "cultivating relations with officials is not just a fact of life for doing business in the mainland (China)—it can mean the difference between success or failure."

Considering all these factors, we arrive at our first hypothesis:

Hypothesis 1 Post-IPO performance improves with the listed entrepreneurial firm's bridging social capital, specifically the political connections of the founder and his/her team.

Another important feature of emerging markets is the prevalence of large blockholders in listed companies, which is a very different situation from that described by Berle and Means (1932). As a result, conflicts between large internal shareholders and small external shareholders become the predominant corporate governance issue in emerging markets. Studies concerning both Asian listed companies (Claessens et al. 2002) and European listed companies (Faccio and Lang 2002) find that the market tends to discount the stock prices of companies that have more severe conflicts of interests between insiders and outsiders. Some controlling shareholders, who are aware that the relationships and interactions between controlling internal shareholders and smaller external shareholders are of crucial importance to the firm's long-run performance, make various attempts to mitigate the small external shareholders' concerns by voluntarily submitting themselves to scrutiny by external shareholders. These controlling shareholders may, for example, promote the role of the shareholders' meeting and the board (Wan and Ong 2005), increase the board's independence (Rosenstein and Wyatt 1990), improve information disclosure (Eng and Mak 2003), enhance the quality of auditing (Becker et al. 1998), or pay out more dividends (Chen et al. 2005; Faccio et al. 2001). All of these measures can eventually enhance the firm's value. However, external shareholders are also becoming more active in exerting influence on firms, not only by monitoring but also by advising and providing business connections. Krishnan et al. (2011) find that high-reputation venture capitalists, acting as external shareholders, provide not only monetary contributions, but also non-monetary contributions such as monitoring and business advice. These external shareholders can thus improve the post-IPO performance of their portfolio companies. The checks and balances, advice, and other resources provided by external shareholders can thus be viewed as benefits received by internal controlling shareholders through the bridging social capital that they build up with external

investors. However, the entrepreneur/controller's attitudes toward external investors vary considerably from one firm to another. Although some firms are open and willing to share power with outsiders, others still prefer tight control and low transparency. As explained in the first section, given the regulatory restriction on secondary sale of existing shares and the three-year lock-in period for founders, cashing in is not an option for the founder at the time of the IPO. Therefore, more shares floated to the public during the IPO can be considered as an indication that the entrepreneur/controller is open to external shareholders and willing to dilute his/her position, with the possible result of more intensive monitoring by outsiders. All these factors lead to our second hypothesis:

Hypothesis 2 Post-IPO performance improves with the listed entrepreneurial firm's external investor bridging social capital, as measured by the percentage of shares floated during the IPO.

Bonding Social Capital and Firm Performance

Contrary to the bridging view of social capital that sees resources as located in the firms' external connections, the bonding view focuses on the organization's own actors and their internal group characteristics. In this view, the social capital of a collectivity (organization, community, or nation) lies not so much in that collectivity's external ties to outside actors as in its internal structure—or the linkages between individuals and groups within the collectivity. More specifically, social capital lies in those features of a collectivity, which give it cohesiveness, and thereby facilitate the pursuit of collective goals (Adler and Kwon 2002). Dense connections between the parties within a group or collective enhance self-enforcing values and behavior, allowing the group to function and achieve common goals (Carolis et al. 2009).

In the context of emerging economies, accumulating bonding social capital can create great value for the entrepreneur. As seen earlier, most emerging countries have poorly developed formal institutions (North 1990). This state of affairs limits not only the effectiveness of regulation and enforcement, but also the availability of external finance and labor resources. When institutional efficiency is low, there will be more "relational contracting," i.e., relationship-based transactions or personalized exchanges. Arm's-length transactions are more prevalent in a high-efficiency institutional context (Peng 2003). Consistent with the above theories, Khanna and Palepu (2000) find that diversified business groups in India generally outperform their peers due to the existence of an intragroup "internal market," which can act as a substitute for underdeveloped external capital and labor markets. In such cases of intragroup dealing, the entrepreneur/controlling shareholder's bonding social capital is beneficial for the post-IPO performance of IPO firms.

However, there is an alternative, dark side to this "internal market." Many entrepreneurs pursue overall value maximization for the whole business group, sometimes at the expense of external investors who hold shares in the business group's listed entity (Chang 2003). When this happens, the accumulation of bonding social capital through intensive intragroup connections can have a negative effect on a listed entity's post-IPO performance. Related-party transactions have been widely used as a measure of intragroup connections, and some researchers find that such transactions are one of the main channels through which controlling shareholders attempt to prop up listed companies (Friedman et al. 2003), or to tunnel them (Johnson et al. 2000). Even when the group aims to prop up rather than tunnel one of its entities, the greater number of related-party transactions hampers the listed entity's independence and causes a soft-budget constraint issue, which makes the companies unaccountable and inefficient (Kornai 1979; Stiglitz 1994).

In this study, we use the intensity of an entrepreneurial listed firm's transactions with the related parties of its business group as a proxy for intragroup bonding social capital. Although the existing theories presented earlier in this study do not provide any grounds for a directional link between bonding social capital and the post-IPO firm performance, we expect to find that bonding social capital has some (positive or negative) influence on post-IPO firm performance. Our third hypothesis is thus as follows:

Hypothesis 3 Post-IPO performance is influenced by the listed entrepreneurial firm's bonding social capital, as measured by the intensity of intragroup related-party transactions.

Methodology

Data and Sample

Our sample includes all entrepreneurial firms that conducted IPOs from the initial establishment of the Chinese stock market in 1996 until 2007. 2007 is chosen as the cut-off year to allow for the inclusion of 3 years of post-IPO data until 2010. Privately owned entrepreneurial companies, unlike their state-owned counterparts, have full autonomy in making their IPO decisions, which are driven by economic rather than political considerations.

In China, there are two ways for private companies to become listed on the stock market: either by an IPO, or by a "backdoor" listing (for example, through a reverse

Table 1 Summary of IPOs and IPO characteristics by year

Year	No. of IPOs	Percentage of total number of IPOs (%)	Average proceeds (RMB million)	Average IPO first-day return (%)
1996	4	2.17	83.50	171.52
1997	16	8.08	187.00	158.64
1998	6	6.06	278.00	229.62
1999	10	10.64	374.00	136.90
2000	22	16.30	446.00	155.44
2001	9	11.39	398.00	176.58
2002	10	14.71	342.00	90.94
2003	15	22.39	333.00	57.01
2004	36	36.00	265.00	68.12
2005	7	50.00	247.00	22.55
2006	29	43.94	279.00	97.65
2007	17	13.49	332.00	213.83

This table reports the number of sample firm IPOs, number of IPOs as a percentage of the total, average amount of proceeds raised, and average first-day return for each year during the sample period (1996–2007). IPO first-day return is the difference between IPO first-day closing price and IPO offering price divided by offering price

takeover). Our sample does not include such backdoor-listed firms, as information on their pre-listing performance is not available. The final sample consists of 181 entrepreneurial firm IPOs. The time distribution of these IPOs is shown in Table 1. The data needed for our analysis are either hand-collected from the companies' prospectuses and annual reports, or collected from Wind Data Company and CSMAR Data Company, which are the two leading business data providers in China. Details of the data sources are reported in Appendix.

Description of Variables

Return on assets (ROA) is used as the main measure of accounting performance, and return on equity (ROE) is used as a robustness check. ROA is a popular measure of profitability and efficiency in asset utilization, and ROE measures the return for shareholders. However, ROA and ROE have a downward bias for the period immediately after an IPO, as the proceeds raised increase the assets immediately, but there is a time lag before the proceeds are invested and the output of those investments translates into net income. We control for this bias by adding IPO proceeds as a percentage of pre-IPO equity in a regression analysis. The pre-IPO (post-IPO) accounting performance is measured by the average ROA and ROE for the three consecutive years before (after) the IPO year, and the change in accounting performance is the difference between the average ROA and ROE before and after the IPO. For market performance, we use the post-IPO three-year abnormal stock return, which is the firm's stock return during the period of 36 months starting from the first trading day after the IPO, net of market returns during the same period.

As presented in the hypothesis development section, we use three proxies to capture the entrepreneur's social capital:

(1) Political connections of the entrepreneur and the top management.[7] This is a dummy variable that equals one if the entrepreneur or a management team member has political connections (defined as having past working experience in government or in SOEs, being a member of the National People's Congress or National Political Consultative Conference, or a Chairman of a National Industry Association).[8] This variable is the proxy for the entrepreneur's political bridging social capital. As noted by Zhang and Zhang (2006), "*guanxi* is essentially a special asset owned by an individual and, as such, it does not benefit the firm until the individual joins in the firm and would like to contribute it to the firm" (p. 389). We believe that the social capital possessed by the entrepreneur and the top management should be beneficial to the firm.

(2) Percentage of new shares floated as a measure of existing shareholders' ownership retention. As secondary sales are not allowed in a Chinese IPO and only new shares can be issued to the public, the percentage of new shares floated directly indicates the ownership retention by existing shareholders, and their willingness to share power with incoming external investors. This variable is the proxy for the entrepreneur's external investor bridging social capital.

(3) The intensity of intragroup transactions, measured by the ratio of total related-party transactions in the three post-IPO years over total sales in the three post-IPO years. This variable is the proxy for the entrepreneur's intragroup bonding social capital.

When we run the regression analysis, we also control for corporate governance characteristics and financial variables that are likely to influence firm performance. As board composition is of great importance to entrepreneurial

[7] In Chinese entrepreneurial companies, most founders are actively involved in the management of their firms. Of the 82 sample companies that have political bridging social capital, there are only five in which the founding entrepreneurs do not occupy any management position. Even for these five firms, it could be argued that the firms still reflect the entrepreneur's efforts to build political bridging social capital by engaging managers with such social capital.

[8] Tian et al. (2008) present a comprehensive study on how Chinese private entrepreneurs participate in politics.

firms' post-IPO performance (Kroll et al. 2007, Walters et al. 2010), the governance variables are mainly board-related. The governance variables and control variables include the following:

(1) Whether the chairman of the board is also the CEO (dummy);
(2) Board size (natural log of the number of board directors);
(3) Board independence (ratio of the number of independent directors over the total number of board directors);
(4) IPO proceeds as a percentage of pre-IPO equity;
(5) Total assets (in natural log form);
(6) Total market capitalization (in natural log form);
(7) IPO first-day return for the firm;
(8) IPO first-day return for the market;
(9) Firm/year dummies[9]; and
(10) Industry dummies.

Details of the definitions of these variables are presented in Appendix.

Empirical Results

Summary Statistics

Table 2 and Fig. 1 summarize the change in accounting performance and market performance before and after the IPO year. The mean and median differences in ROA before and after the IPO are −6.13 and −5.40 %, respectively, and this change is statistically significant in terms of both the *t* test and the Wilcoxon signed-rank test. The ROE shows an even more significant post-IPO decline relative to its pre-IPO level.

One possible explanation for the post-IPO decline in accounting performance is that investment of the IPO proceeds may not give quick payoffs. Therefore, we also look at two other measures: change in sales as a percentage of the pre-IPO level, and change in the asset turnover (the ratio of sales over total assets). The mean and median changes in sales are 213.28 and 147.23 %, respectively, which indicates that more than half of the sample firms doubled their sales after their IPO. The asset turnover rates drop significantly after the IPO, indicating that asset utilization declined even though sales increased significantly. Altogether, the summary statistics show that the overall accounting performance deteriorates after an IPO despite strong sales growth, which is consistent with the findings in the extant literature (Jain and Kini 1994; Mikkelson et al. 1997). However, without running the multivariate regression while controlling for other contributing factors, the possibility that post-IPO investment has not yet translated into increased sales cannot be ruled out.

Regarding market performance, the mean and median three-year abnormal stock returns are 22.0 and −14.1 %, respectively, which indicates that more than half of the sample firms were outperformed by the market during their three-year post-IPO period. However, the huge difference between mean and median suggests the existence of outliers. We therefore conduct a 1 % winsorization (two-sided) on abnormal stock returns, and regression analysis is then run on the winsorized variable.

Panel B, Table 2 reports the social capital characteristics of the sample firms. In total, 82 firms have built up political bridging social capital. Of these firms, 58 began this political bridging before their IPO, and 32 began after the IPO.[10] On average, the sample firms issue 30 % of new shares to external investors. Regarding the intragroup bonding social capital, the related-party transactions represent an average of 0.64 % of the sales value.

Panel C of Table 2 shows the sample firms' corporate governance and financial characteristics. For 23.76 % of the sample firms, the chairman of the board is also the CEO. The average number of directors on the board is 9.12, and 22.2 % of directors are independent.

Before the regression analysis, we first conduct univariate tests to investigate the relationship between social capital and accounting or market performance. The results are reported in Table 3. The sample is broken down based on (1) political bridging social capital, (2) external investor bridging social capital, and (3) intragroup bonding social capital. Univariate tests show that political bridging social capital has a strong bearing on accounting and market performance after an IPO, but the effects of the external investor bridging social capital and the intragroup bonding social capital are less substantial.

Post-IPO Accounting Performance and the Firm's Social Capital

We now relate the change in accounting performance to the firms' social capital proxies by an OLS regression analysis. The specific model tested is:

[9] The application of year fixed effects is very necessary, since our sample period includes the Split Share Structure Reform period in China between 2005 and 2006, which terminated trading constraints on restricted shares in China and also threatened the price premium on their freely traded counterparts. The literature documents that this reform brought about profound changes in the power balance between large and small shareholders, as well as in large shareholders' incentives vis-à-vis the firm's accounting and market performances (Hou and Lee 2013; Cumming and Hou 2014).

[10] Of these 32 firms, eight had political bridging social capital prior to their IPO.

Table 2 Summary statistics

Stats	Mean	Median	*T* test	Wilcoxon rank-sum test
Panel A: Change in accounting and market performance				
Change in sales as percentage of pre-IPO sales	213.28 %	147.23 %	10.26***	11.51***
Change in asset turnover	−0.32	−0.29	−7.79***	−10.12***
Change in ROA	−6.13 %	−5.40 %	−15.40***	−11.17***
Change in ROE	−5.74 %	−2.78 %	−20.34***	−11.53***
Post-IPO three-year abnormal stock return	22.0 %	−14.1 %	–	–

	Mean	Median	SD
Panel B: Social capital variables			
Political bridging social capital (dummy variable)	0.27	0.00	0.45
Pre-IPO political bridging social capital (dummy variable)	0.33	0.00	0.47
Post-IPO political bridging social capital (dummy variable)	0.18	0.00	0.38
External investor bridging social capital (percentage of new shares issued)	30.21 %	28.00 %	6.37 %
Intragroup bonding social capital (related-party transactions)	0.64	0.37	0.88
Panel C: Corporate governance and financial characteristics			
If CEO is chairman	23.76 %	0.00 %	42.68 %
Number of board directors	9.12	9.00	2.41
Number of independent directors as percentage of total	22.20 %	33.33 %	17.45 %
Proceeds raised as percentage of pre-IPO equity	258.51 %	225.21 %	157.11 %
Ln (total asset)	19.44	19.38	0.67
Ln (market value)	20.99	20.96	0.57

Panel A reports the sample means, median, *t* test statistics, and Wilcoxon rank-sum test of whether sample mean and median are equal to zero for post-IPO change between accounting performance and post-IPO three-year abnormal stock return. Change in sales as a percentage of pre-IPO sales is the difference between a sample firm's three-year average sales after the IPO and the three-year average sales before the IPO as percentage of three-year average sales before the IPO. Change in asset turnover is the difference between a sample firm's three-year average asset turnover after the IPO and the three-year average asset turnover before the IPO. Asset turnover is the ratio of a firm's sales revenues over total assets. Change in ROA (ROE) is the difference between a sample firm's three-year average ROA (ROE) after the IPO and the three-year average ROA (ROE) before the IPO. ROA (ROE) is the ratio of net income over total assets (equity). Post-IPO three-year stock abnormal return is a sample firm's stock return during the period of 3 years starting from the next trading day after the IPO, net of the market return. Market return is the arithmetic mean of return for all stocks outstanding on the market during the same period. Asterisks denote statistical significance at the 1 % (***), 5 % (**), and 10 % (*) level, respectively

Panels B and C report the sample means, medians, and standard deviations of social capital variables, and corporate governance, and financial characteristics, respectively. Political bridging social capital is a dummy variable that equals one if the entrepreneur or a management team member has political connections, which is defined as having past working experience in government or SOEs, being a member of the National People's Congress or National Political Consultative Conference, or being a Chairman of a National Industry Association. Pre-IPO Political bridging social capital is a dummy variable that equals one if the firm has developed political connections before the IPO. Post-IPO political bridging social capital is a dummy variable that equals one if the firm has no political connections before the IPO, and has developed political connections only after the IPO. External investor bridging social capital is the percentage of new shares floated to the public in the IPO. Intragroup bonding social capital is the ratio of total related-party transactions in the three post-IPO years over total sales in the three post-IPO years

"CEO is chairman" is a dummy variable that equals one if the chairman of the board is also the CEO in the year before the IPO, and zero otherwise. Number of board directors is the number of board directors in the year before the IPO. Number of independent directors as percentage of total is the ratio of the number of independent directors over the total number of board directors in the year before the IPO. Proceeds raised are the amount of IPO proceeds as a percentage of the firm's equity for the year before the IPO. Ln (total assets) is the arithmetic mean of total assets of the three consecutive years before the IPO year (in natural log form). Ln (market value) is the arithmetic mean of market values after the IPO (in natural log form) for three consecutive year-ends (last trading day of the year)

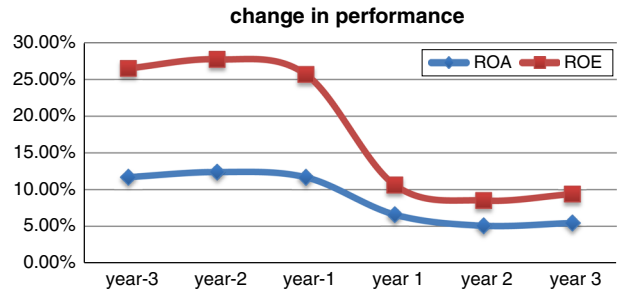

Fig. 1 Change in performance over sample period. This figure presents the sample mean of ROA (net income over total assets) and ROE (net income over equity) for the three consecutive years before the IPO and the three consecutive years after the IPO

ROA, which is consistent with H1 that political connections of the founder and his/her team improve the post-IPO performance of listed entrepreneurial firms. In more specific terms, with all else being constant, if a sample firm with no previous political connection successfully establishes political social capital, the change in that firm's ROA will increase by 2.5 percentage points (note that the sample mean is −6.13 %). This finding indicates that in an emerging, transitional economy like China, the political dimension of bridging social capital is vitally important for the growth of entrepreneurial firms.

The percentage of new shares issued (external investor bridging social capital) is also significantly and positively associated with the change in ROA, which supports H2 that

$$\begin{aligned}\text{Change in ROA} = {} & \beta_0 + \beta_1\,\text{Political bridging social capital} \\ & + \beta_2\,\text{External investor bridging social capital} \\ & + \beta_3\,\text{Intragroup bonding social capital} + \beta_4\,\text{Governance variables} \\ & + \beta_5\,\text{Control variables} + \boldsymbol{\varepsilon}\end{aligned} \tag{1}$$

where Governance variables include (1) if the CEO is chairman, (2) board size, and (3) board independence; and Control variables include (1) first-day return (firm), (2) IPO first-day return (market), (3) proceeds raised, (4) Ln (total assets), (5) industry dummies, and (6) firm/year dummies.

The results are reported in Table 4.

In Model 1, only corporate governance variables and control variables are loaded as independent variables. Of these governance variables, only board independence is significantly associated with the change in ROA, but with a negative sign, indicating that board independence has a negative effect on post-IPO accounting performance. This finding is consistent with that of Kroll et al. (2007) and Walters et al. (2010). The indication is that for young firms, a board where the majority of members are from the original top management team (rather than independent outsiders) is beneficial to the long-run performance of firms. It is interesting to note that the adjusted R^2 of Model 1 is 18.4 %, and this increases to 34.1 % for Model 2, in which social capital variables and control variables are loaded as independent variables. Such a huge difference shows that in China, social capital has a much greater effect than formal governance mechanisms on post-IPO accounting performance. Furthermore, when governance variables and social capital variables are both loaded (Models 3–6), board independence is no longer significant.

The dummy variable for political bridging social capital is positively and significantly associated with the change in external investor bridging social capital is beneficial for the post-IPO performance of listed entrepreneurial firms. In more specific terms, a one-standard deviation increase in the percentage of new shares issued to the public leads to a 2.1-percentage point increase in its change in ROA. This result implies that the openness and willingness of internal controlling shareholders to share power with external shareholders creates bridging social capital, which favors better post-IPO performance.

The significant and negative coefficient for related-party transaction intensity (intragroup bonding social capital) relates to H3. It indicates that the more related-party transactions a firm conducts, the worse its post-IPO accounting performance is. As discussed in the hypothesis development section, one view of intragroup bonding social capital predicts that related-party transactions will help compensate for the weakness of the external market and improve the post-IPO performance of listed entrepreneurial firms; while another view predicts the opposite, arguing that related-party transactions cause unaccountability and low efficiency. Our findings suggest that for our sample of listed Chinese entrepreneurial firms, the negative effect of related-party transactions outweighs the positive effect. In terms of economic significance, a one-standard deviation increase in the intensity of related-party transactions can reduce the change in ROA by 1.3 percentage points.

Control variables include two variables related to the IPO first-day return. In China, during our study period,

Table 3 Univariate test results

	Firms with no political bridging social capital		Firms with political bridging social capital		*T* test	Wilcoxon rank-sum test
	Mean	*p* 50	Mean	*p* 50		
Panel A						
Change in sales as percentage of pre-IPO sales	1.83	1.37	2.56	1.68	−1.71*	−1.25
Change in asset turnover	−0.39	−0.36	−0.22	−0.18	−2.10**	−3.29***
Change in ROA	−0.07	−0.06	−0.05	−0.05	−2.75***	−3.39***
Change in ROE	−0.18	−0.17	−0.15	−0.13	−2.07**	−2.34**
Post-IPO three-year abnormal stock return	−0.01	−0.14	0.49	−0.12	−1.33	−1.11
No. obs.	99		82			
Stats	Firms with low external investor bridging social capital		Firms with high external investor bridging social capital		*T* test	Wilcoxon rank-sum test
	Mean	*p* 50	Mean	*p* 50		
Panel B						
Change in sales as percentage of pre-IPO sales	2.01	1.42	2.24	1.53	−0.57	−0.09
Change in asset turnover	−0.39	−0.35	−0.27	−0.24	−1.46	−1.91*
Change in ROA	−0.07	−0.06	−0.06	−0.05	−1.33	−0.90
Change in ROE	−0.17	−0.15	−0.17	−0.16	0.14	0.36
Post-IPO three-year abnormal stock return	0.52	0.02	−0.05	−0.20	1.58	1.90*
No. obs.	85		96			
Stats	Firms with low intragroup bonding social capital		Firms with high intragroup bonding social capital		*T* test	Wilcoxon rank-sum test
	Mean	*p* 50	Mean	*p* 50		
Panel C						
Change in sales as percentage of pre-IPO sales	2.53	1.55	1.73	1.37	1.95*	1.41
Change in asset turnover	−0.28	−0.26	−0.36	−0.33	0.89	1.00
Change in ROA	−0.06	−0.05	−0.06	−0.05	0.51	0.43
Change in ROE	−0.16	−0.15	−0.18	−0.16	0.84	0.72
Post-IPO three-year abnormal stock return	0.49	−0.12	−0.05	−0.17	1.50	0.79
No. Obs.	91		90			

Means, median, *t* test statistics, and Wilcoxon rank-sum tests of differences between firms with and without political bridging social capital, between firms with low and high external investor bridging social capitals, and between firms with low and high intragroup bonding social capitals in their post-IPO change in accounting performance and post-IPO three-year abnormal stock return. Change in sales as percentage of pre-IPO sales is the difference between a sample firm's three-year average sales after the IPO and the three-year average sales before the IPO as a percentage of three-year average sales before the IPO. Change in asset turnover is the difference between a sample firm's three-year average asset turnover after the IPO and the three-year average asset turnover before the IPO. Asset turnover is the ratio of a firm's sales revenues over total assets. Change in ROA (ROE) is the difference between a sample firm's three-year average ROA (ROE) after the IPO and the three-year average ROA (ROE) before the IPO. ROA (ROE) is the ratio of net income over total assets (equity). Post-IPO three-year stock abnormal return is a sample firm's stock return during the period of 3 years starting from the next trading day after the IPO, net of the market return. Market return is the arithmetic mean of return for all stocks outstanding on the market during the same period. Asterisks denote statistical significance at the 1 % (***), 5 % (**), and 10 % (*) level, respectively

the IPO issue price was determined by the regulator, based on a fixed PE ratio, and the first-day return reflects investors' expectations of the firm's future performance, rather than a firm's decision to "leave money on the table." Furthermore, to capture the investors' impression of the overall market performance, we use not only the sample firm's IPO first-day return, but also the average IPO first-day return of all companies conducting an IPO in the month a given sample firm went public. As discussed before, there may be a time lag before the IPO proceeds are invested and the outputs of those investments translate into net income. We therefore control for

Table 4 OLS regression of the effect of social capital on post-IPO accounting performance (see Eq. 1)

Dep. variable	Change in ROA					
	(1)	(2)	(3)	(4)	(5)	(6)
Political bridging social capital		0.028*** (3.554)	0.025*** (3.160)			
Pre-IPO political bridging social capital				0.026*** (2.760)		0.025*** (2.616)
Post-IPO political bridging social capital					0.019* (1.750)	0.015 (1.387)
External investor bridging social capital		0.312*** (4.260)	0.329*** (4.138)	0.342*** (4.266)	0.348*** (4.275)	0.341*** (4.274)
Intragroup bonding social capital		−0.014** (−2.509)	−0.015*** (−2.642)	−0.014** (−2.473)	−0.015** (−2.544)	−0.015** (−2.539)
Proceeds raised	−0.000 (−0.014)	−0.011*** (−3.070)	−0.008** (−2.033)	−0.009** (−2.020)	−0.006 (−1.510)	−0.009** (−2.040)
Ln (total assets)	0.019** (2.510)	0.021*** (3.165)	0.026*** (3.679)	0.027*** (3.679)	0.028*** (3.803)	0.027*** (3.714)
If CEO is chairman	0.003 (0.301)		0.003 (0.333)	0.000 (0.036)	0.011 (1.221)	0.002 (0.168)
Board size	−0.030 (−1.602)		−0.038** (−2.150)	−0.039** (−2.205)	−0.043** (−2.420)	−0.039** (−2.211)
Board independence	−0.142** (−2.318)		−0.083 (−1.442)	−0.079 (−1.362)	−0.074 (−1.260)	−0.078 (−1.346)
IPO first-day return (firm)	0.013* (1.781)		0.005 (0.824)	0.004 (0.636)	0.010 (1.596)	0.004 (0.623)
IPO first-day return (market)	−0.000 (−0.706)		0.000 (0.147)	0.000 (0.256)	−0.000 (−0.189)	0.000 (0.299)
Firm/year dummies	Included, but not reported for brevity					
Industry dummies	Included, but not reported for brevity					
Constant	−0.257 (−1.593)	−0.469*** (−3.428)	−0.474*** (−3.118)	−0.480*** (−3.130)	−0.468*** (−3.004)	−0.485*** (−3.171)
Adjusted R^2	0.184	0.341	0.348	0.337	0.299	0.341
F statistic	2.151	3.728	3.423	3.306	3.009	3.293
No. obs.	175	170	169	169	175	169

This table reports the OLS regression of the effect of social capital on change in ROA. Change in ROA is the difference between a sample firm's three-year average ROA after the IPO and the three-year average ROA before the IPO. ROA is the ratio of net income over total assets. Political bridging social capital is a dummy variable that equals one if the entrepreneur or a management team member has political connections, which is defined as having past working experience in government or SOEs, being a member of the National People's Congress or National Political Consultative Conference, or a Chairman of a National Industry Association. Pre-IPO Political bridging social capital is a dummy variable that equals one if the firm has developed political connections before the IPO. Post-IPO political bridging social capital is a dummy variable that equals one if the firm has no political connections before the IPO, and has developed political connections only after the IPO. External investor bridging social capital is the percentage of new shares floated to the public in the IPO. Intragroup bonding social capital is the ratio of total related-party transactions in the three post-IPO years over total sales in the three post-IPO years. Proceeds raised is the amount of IPO proceeds as a percentage of the firm's equity for the year before the IPO. Ln (total assets) is the arithmetic mean of total assets of the three consecutive years before the IPO year (in natural log form). "If CEO is chairman" is a dummy variable that equals one if the chairman of the board is also the CEO in the year before IPO, and zero otherwise. Board size is the natural log of number of board directors in the year before the IPO. Board independence is the ratio of the number of independent directors over the total number of board directors in the year before the IPO. IPO first-day return (firm) is the sample firm's IPO first-day return, which is the difference between the IPO first-day closing price and IPO offering price divided by offering price. IPO first-day return (market) is the average IPO first-day return of all companies conducting an IPO in the same month our sample firm went public. Firm/year dummies and industry dummies are added but not reported. T statistics are in parentheses. Asterisks denote statistical significance at the 1 % (***), 5 % (**), and 10 % (*) level, respectively

that factor by adding the ratio of IPO proceeds over the sample firms' pre-IPO equity. Firm size is measured by the natural log of total assets. Firm/year dummies (based on IPO year) and industry dummies (based on 4-digit CIGS industry classifications) are also added as control variables. With all of the governance variables and control variables added in Model 3, the direction and significance of coefficients for the social capital variables

remain stable. It is worth noting that the governance variables, such as chairman/CEO duality or board independence, are hardly significant once social capital variables are loaded as independent variables.

In the unreported robustness check, we also test the change in ROE performance. The results remain broadly similar.

The Endogeneity Issue and Causality

As entrepreneurs do not randomly establish social capital, this study involves an endogeneity issue that must be addressed to achieve a better understanding of the relationship between social capital and post-IPO performance.

For political bridging social capital, the reverse causality explanation would be that a firm with better performance is better able to develop political connections. To address this concern, we split political connections into those developed before the IPO and those developed after the IPO. Post-IPO political connections are more likely to be developed by firms with superior post-IPO firm performance.

Of our sample firms, 58 have pre-IPO political connections, and 32 have post-IPO political connections. It is interesting to note that of the 58 firms with pre-IPO political connections, only eight developed further political connections in the post-IPO period, which indicates that pre- and post-IPO political connections are substitutes, and that the firms without pre-IPO political connections are more eager to develop them after the IPO.

The sample firms' pre-IPO and post-IPO political connections are reported in Table 4, in Columns 4 and 5, respectively. The coefficient remains significant, but the significance declines slightly compared with Columns 2 or 3. This difference shows that as the firms with pre- and post-IPO political connections seldom overlap, these two dummies indicate a contrast not only between firms with and without political connections, but also between firms with pre- and post-IPO political connections, when both have superior performances.[11] These findings show that endogeneity is not likely to be a serious issue here. However, for reasons of prudence, the following analysis focuses solely on pre-IPO political connections. Arguably, there is still a possibility that firms with good prospects are more likely to attract managers with political connections. As we look only at the post-IPO performance change net of pre-IPO performance, this endogeneity concern can be largely mitigated. Also, the time lag between pre-IPO political bridging social capital and post-IPO performance makes the causation clearer.

Regarding the percentage of shares floated (our proxy for external investor bridging social capital), an alternative explanation is that the causal relationship runs from post-IPO performance to shares floated, as the founders usually have an information advantage and are better able to predict future performance. However, if that is the case, we should see a negative association between the percentage of shares floated and post-IPO performance, because if insider information leads the founder to anticipate a drop in performance, he will try to sell more shares to the public in the IPO, and vice versa.

For the intragroup bonding social capital proxy (i.e., related-party transaction intensity), endogeneity is less likely to be an issue, as there are contradictory theoretical predictions regarding the effect of related-party transaction intensity on post-IPO performance.

Post-IPO Market Performance and the Firm's Social Capital

After investigating the effect of social capital on the post-IPO accounting performance of Chinese entrepreneurial companies, we explore whether those factors have a bearing on post-IPO market performance. The OLS regression model is:

$$\begin{aligned}\text{Post-IPO three-year abnormal stock return} = {} & \beta_0 + \beta_1 \text{Political bridging social capital} \\ & + \beta_2 \text{External investor bridging social capital} \\ & + \beta_3 \text{Intragroup bonding social capital} \\ & + \beta_4 \text{Governance variables} + \beta_5 \text{Control variables} + \boldsymbol{\varepsilon}\end{aligned} \tag{2}$$

where Governance variables include: (1) if the CEO is chairman, (2) board size, and (3) board independence; and Control variables include: (1) IPO first-day return (firm), (2) IPO first-day return (market), (3) proceeds raised, (4) Ln (market value), (5) change in ROA, (6) industry dummies, and (7) firm/year dummies.

In Table 5, the dependent variable is the post-IPO three-year abnormal stock return, which is the sample firm's

[11] When both the pre- and post-IPO connections are loaded in Column 5, the significance bounces back.

Table 5 OLS regression of the effect of social capital on post-IPO market performance (see Eq. 2)

Dep. variable	Post-IPO three-year stock abnormal return					
	(1)	(2)	(3)	(4)	(5)	(6)
Political bridging social capital		0.651** (2.291)	0.704** (2.252)			
Pre-IPO political bridging social capital				0.683* (1.886)		0.630* (1.759)
Post-IPO political bridging social capital					0.881** (2.279)	0.853** (2.171)
External investor bridging social capital		0.253 (0.094)	−0.842 (−0.263)	−0.646 (−0.200)	−1.200 (−0.385)	−0.523 (−0.164)
Intragroup bonding social capital		−0.488** (−2.365)	−0.491** (−2.245)	−0.462** (−2.105)	−0.464** (−2.245)	−0.488** (−2.254)
Proceeds raised	−0.090 (−0.670)	−0.180 (−1.420)	−0.156 (−0.982)	−0.150 (−0.936)	−0.097 (−0.648)	−0.164 (−1.036)
Ln (market value)	0.929*** (3.597)	0.974*** (3.935)	0.930*** (3.434)	0.929*** (3.410)	0.912*** (3.461)	0.919*** (3.421)
If CEO is chairman	0.244 (0.719)		0.177 (0.491)	0.102 (0.278)	0.280 (0.832)	0.177 (0.488)
Board size	0.012 (0.018)		0.076 (0.114)	0.057 (0.086)	−0.013 (−0.021)	0.046 (0.070)
Board independence	−1.220 (−0.587)		−1.415 (−0.652)	−1.281 (−0.587)	−1.373 (−0.656)	−1.235 (−0.573)
IPO first-day return (firm)	0.001 (0.003)		−0.079 (−0.340)	−0.105 (−0.443)	−0.014 (−0.064)	−0.120 (−0.510)
IPO first-day return (market)	−0.001 (−0.363)		−0.001 (−0.130)	−0.000 (−0.057)	−0.001 (−0.256)	0.000 (0.019)
Change in ROA	3.900 (1.372)		1.037 (0.321)	1.544 (0.479)	2.569 (0.860)	0.829 (0.259)
Firm/year dummies	Included, but not reported for brevity					
Industry dummies	Included, but not reported for brevity					
Constant	−17.698*** (−3.043)	−19.545*** (−3.547)	−17.861*** (−2.885)	−17.861*** (−2.868)	−16.783*** (−2.794)	−17.752*** (−2.891)
Adjusted R^2	0.051	0.114	0.087	0.077	0.097	0.103
F statistic	1.269	1.692	1.423	1.369	1.494	1.493
No. obs.	175	173	169	169	175	169

This table reports the OLS regression of the effect of social capital on post-IPO three-year stock abnormal return. Post-IPO three-year stock abnormal return is a sample firm's stock return during the period of 3 years starting from the next trading day after the IPO, net of the market return. Market return is the arithmetic mean of return for all stocks outstanding on the market during the same period. Political bridging social capital is a dummy variable that equals one if the entrepreneur or a management team member has political connections, which is defined as having past working experience in government or SOEs, being a member of the National People's Congress or National Political Consultative Conference, or a Chairman of a National Industry Association. Pre-IPO Political bridging social capital is a dummy variable that equals one if the firm has developed political connections before the IPO. Post-IPO political bridging social capital is a dummy variable that equals one if the firm has no political connections before the IPO, and has developed political connections only after the IPO. External investor bridging social capital is the percentage of new shares floated to the public in the IPO. Intragroup bonding social capital is the ratio of total related-party transactions in the three post-IPO years over total sales in the three post-IPO years. Proceeds raised is the amount of IPO proceeds as a percentage of the firm's equity for the year before the IPO. Ln (market value) is the arithmetic mean of market values after the IPO (in natural log form) for the three consecutive year-ends (last trading day of the calendar year). "If CEO is chairman" is a dummy variable that equals one if the chairman of the board is also the CEO in the year before the IPO, and zero otherwise. Board size is the natural log of the number of board directors in the year before the IPO. Board independence is the ratio of the number of independent directors over the total number of board directors in the year before the IPO. IPO first-day return (firm) is the sample firm's IPO first-day return, which is the difference between the IPO first-day closing price and the IPO offering price divided by the offering price. IPO first-day return (market) is the average IPO first-day return of all companies conducting an IPO in the same month our sample firm went public. Firm/year dummies and industry dummies are added but not reported. T statistics are in parentheses. Asterisks denote statistical significance at the 1 % (***), 5 % (**), and 10 % (*) level, respectively

stock return during the period of 3 years starting from the next trading day after the IPO, net of the market return during the same period. If a firm undertakes an IPO on April 1, 2005, then this period runs from April 2, 2005 (if it is a trading day) to April 2, 2008 (or if that day is not a trading day, the last trading day prior to April 2, 2008). The

Table 6 Determinants of entrepreneurial firms' propensity to establish social capital (see Eqs. 3, 4)

	Political bridging social capital Logit	Pre-IPO political bridging social capital Logit	Post-IPO political bridging social capital Logit	External investor bridging social capital OLS	Intragroup bonding social capital OLS
If CEO is chairman	0.45 (−0.88)	1.398** (2.289)	−0.739 (−0.944)	−0.018* (−1.973)	0.027 (0.205)
Board size	−0.443 (−0.459)	−0.388 (−0.358)	−0.582 (−0.363)	0.042** (2.456)	−0.107 (−0.419)
Board independence	1.95 (0.698)	1.839 (0.632)	−1.682 (−0.435)	−0.034 (−0.660)	0.382 (0.503)
Ln (total assets)	−0.271 (−0.785)	−0.434 (−1.052)	−0.353 (−0.732)	−0.039*** (−6.169)	0.113 (1.200)
Average pre-IPO ROA	−7.708 (−1.539)	−6.184 (−1.094)	−9.502 (−1.169)	−0.512*** (−6.003)	−1.678 (−1.326)
Firm/year dummies	Included, but not reported for brevity				
Industry dummies	Included, but not reported for brevity				
Constant	25.053*** (3.508)	27.872	10.801 (1.032)	0.872*** (6.479)	−0.831 (−0.416)
Pseudo R^2	0.1429	0.0066	0.1814		
LR χ^2	29.22	44.52	21.59		
Adjusted R^2				0.531	0.465
F statistic				7.146	5.730
No. obs.	148	148	98	175	175

This table reports the logit and OLS regressions of the effect of firms' governance and financial characteristics on the probability of establishing social capital. Political bridging social capital is a dummy variable that equals one if the entrepreneur or a management team member has political connections, which are defined as having past working experience in government or SOEs, being a member of the National People's Congress or National Political Consultative Conference, or a Chairman of a National Industry Association. Pre-IPO Political bridging social capital is a dummy variable that equals one if the firm has developed political connections before the IPO. Post-IPO political bridging social capital is a dummy variable that equals one if the firm has no political connections before the IPO, and has developed political connections only after the IPO. External investor bridging social capital is the percentage of new shares floated to the public in the IPO. Intragroup bonding social capital is the ratio of total related-party transactions in the three post-IPO years over total sales in the three post-IPO years. Proceeds raised is the amount of IPO proceeds as a percentage of the firm's equity for the year before the IPO. Ln (total assets) is the arithmetic mean of total assets of the three consecutive years before the IPO year (in natural log form). "If CEO is chairman" is a dummy variable that equals one if the chairman of the board is also the CEO in the year before the IPO, and zero otherwise. Board size is the natural log of number of board directors in the year before IPO. Board independence is the ratio of number of independent directors over total number of board directors in the year before the IPO. IPO first-day return (firm) is the sample firm's IPO first-day return, which is the difference between the IPO first-day closing price and the IPO offering price divided by the offering price. IPO first-day return (market) is the average IPO first-day return of all companies conducting an IPO in the same month our sample firm went public. Firm/year dummies and industry dummies are added but not reported. T statistics are in parentheses. Asterisks denote statistical significance at the 1 % (***), 5 % (**), and 10 % (*) level, respectively

market return is calculated as the arithmetic mean of returns for all stocks outstanding on the market during the same period. If the alternative measure of weighted average market return is used, the results remain stable.

The independent variables are largely the same as in Table 4, except that firm size is now proxied by the average year-end market value (in log form) during the three-year period. We also control for accounting performance by using the post-IPO change in ROA, because higher abnormal stock returns may simply be due to better accounting performance.

As in Table 4, Model 1 of Table 5 includes only governance and control variables as the independent variables. However, none of the governance variables are significantly associated with post-IPO market performance. Furthermore, the adjusted R^2 increases from 5.1 % for Model 1 to 11.4 % for Model 2, in which governance variables are replaced with social capital variables. Once again, the difference suggests that social capital has a greater effect than formal governance mechanisms not only on post-IPO accounting performance, but also on post-IPO market performance. In Table 5, the direction and significance of the coefficients for pre-IPO political social bridging capital and for intragroup bonding social capital show that these two factors have the same effect on market performance as on accounting performance. More precisely, political social capital has a positive and significant effect on post-IPO market performance, which is consistent with H1. Moreover, intragroup bonding social capital significantly and negatively affects post-IPO market

performance, supporting H3. The economic significance of these two variables is also far from negligible. If a sample firm succeeds in establishing political social capital, it will increase its 3-year post-IPO abnormal return by 70 percentage points (note that the sample mean is 22 %); while a one-standard deviation increase in intragroup bonding social capital will result in a reduction of post-IPO abnormal returns by 43 percentage points. However, H2 on the effect of external investor bridging social capital is not supported. As discussed before, the above regressions are conducted on winsorized abnormal stock returns to eliminate the influence of outliers. In an unreported robustness check, the results based on unwinsorized abnormal stock return are largely similar.

Determinants of Establishment of Social Capital by Entrepreneurial Firms

What types of entrepreneurial firms are most likely to establish social capital? Table 6 reports regression results that relate to the probability of establishing social capital.

The logit model tested (Columns 1–3) is as follows:

$$\begin{aligned}\text{(Pre/post-IPO) Political bridging social capital} = {} & \beta_0 + \beta_1 \text{ If CEO is chairman} \\ & + \beta_2 \text{ Board size} + \beta_3 \text{ Board independence} \\ & + \beta_4 \text{ Ln (total assets)} + \beta_5 \text{ Average Pre-IPO ROA} \\ & + \beta_6 \text{ Industry dummies} + \beta_7 \text{ Firm/year dummies} + \boldsymbol{\varepsilon}\end{aligned} \tag{3}$$

The OLS model tested (Columns 4–5) is as follows:

$$\begin{aligned}\text{External investor bridging social capital/Intragroup bonding social capital} = {} & \beta_0 + \beta_1 \text{ If CEO is chairman} + \beta_2 \text{ Board size} \\ & + \beta_3 \text{ Board independence} + \beta_4 \text{ Ln (total assets)} \\ & + \beta_5 \text{ Average Pre-IPO ROA} + \beta_6 \text{ Industry dummies} \\ & + \beta_7 \text{ Firm/year dummies} + \boldsymbol{\varepsilon}\end{aligned} \tag{4}$$

These tests show that no variables are associated with the likelihood of a firm establishing social capital. However, they do indicate that the chairman/CEO is more likely to build pre-IPO political connections, but less likely to share power with external investors by issuing additional portions of shares. Also, firms with poor pre-IPO performance and small firms are more likely to issue greater portions of new shares.

Overall, the results shown in Table 6 suggest that concerns for firm performance, quality or corporate governance might not be the main motives for establishing social capital. This suggests that our previous findings are less likely to be affected by endogeneity issues, as high-quality firms tend to have social capital in place before going public.

Discussion of the Results, and Implications for Business Ethics

The empirical results obtained in the above statistical analysis validate most of the hypotheses we developed based on social capital theory. The results for political bridging social capital and intragroup bonding social capital are consistent and significant, statistically and economically, for both post-IPO accounting and post-IPO market performance. The positive effect of external investor bridging social capital is significant for accounting performance, but not for market performance. It is important to note that all of these results are obtained after controlling for major firm-level formal governance features and financial characteristics that have been proved in previous studies to influence firm performance.

First, we find that political social capital is positively associated with post-IPO accounting and market performance. This empirical result validates the existing argument in the business ethics literature. For example, Zhang

and Zhang (2006) note that "it is the interpersonal networks with the governmental officials—and not any kind of interpersonal networks with other individuals—which have a more far-reaching influence on firms' performances" (p. 389). Our result, meanwhile, contrasts sharply with the studies by Fan et al. (2007) and Hung et al. (2012) on a Chinese SOE sample, which both find that in the case of SOEs, politically connected firms' post-listing performance is worse than the performance of non-connected firms. In China, like other transitional and emerging economies, political bridging social capital plays an important role in the growth of entrepreneurial firms, given that the state still controls the lion's share of economic resources (Story 2012). Moreover, as Tian, Gao and Cone (2008) confirm, "ideology is also an important reason that drives private enterprises to participate in politics" (p. 631). In Chinese society, which is still officially dominated by traditional Marxist ideology, entrepreneurs often feel insecure about their legitimacy in society (Li and Zhang 2007). By obtaining political connections, entrepreneurs can legally promote their ideology (Tian et al. 2008). They may also be able to prevent expropriation of their assets and reduce rent-seeking by different regulatory authorities (dela Rama 2012). Tian et al. (2008) explain "the reasons why private entrepreneurs wish to engage in political activities are similar to those of previously marginalized groups in the West" (p. 631). It is interesting to note the finding of Fan et al. (2007) that for partially privatized SOEs, a politically connected CEO is associated with inferior post-IPO accounting and stock performance. These authors argue that when an SOE has a politically connected CEO, it is easier for politicians to extract resources from the enterprise for the sake of objectives inconsistent with value maximization. The contrast between previous findings concerning SOEs and the results of this study indicates that for privately owned entrepreneurial firms, unlike their state-owned counterparts, the positive effect of political social capital outweighs the negative effect of government intervention.

A second finding is that the percentage of shares issued is significantly and positively associated with changes in post-IPO accounting performance, although this link is not validated for post-IPO market performance. As explained previously, in China the type II agency problem is predominant, as opposed to the prevalence of type I agency problems in the US. Therefore, internal controlling shareholders can create greater bridging social capital with external investors by issuing more shares. External investors tend to play their monitoring and consulting roles more actively, and help listed entrepreneurial firms to improve their corporate governance quality. As a result, the firm tends to perform better in accounting terms. This result also aligns with certain interpretations of stakeholder theory. As Wijnberg (2000) explains, "the corporation should be considered as existing to allow the decision maker … to make decisions that involve the interests of different stakeholders" (p. 329). Expanding this stakeholder theory further, Russo and Perrini (2010) argue that "this is not only to say that corporations have to act in a responsible way to avoid growing stakeholder pressures, but to achieve a better or 'good' society" (p. 209).

A third finding is that the intensity of related-party transactions after the IPO is significantly and negatively associated with the post-IPO accounting and market performance. As related-party transactions capture the intragroup bonding social capital, this evidence suggests that intragroup bonding social capital may add value to the whole business group controlled by the entrepreneur through the "internal market." However, the negative effects of these transactions (i.e., the lack of independence or accountability and the likelihood of expropriation) still outweigh their positive effects on the performance of the listed entity. As dela Rama 2012 explains, "the strength of business-affiliated business group transactions can also be the source of its weakness. In an era that emphasizes transparency, the related-party transactions of business groups must ensure it can withstand such scrutiny. Financial markets ultimately punish business groups that have less than transparent business arrangements" (p. 526). Our result empirically validates this argument.

A fourth finding is that among the control variables, those proxying formal governance mechanisms such as chairman/CEO duality, board size, and board independence show hardly any effect on firm performance. As we pointed out at the beginning of this study, in emerging and transitional economies such as China, the lack of efficient "formal institutions" (North 1990) tends to make social capital (which is a form of informal institution) even more crucial for entrepreneurs operating in those economies.

In many emerging markets, including China, the hostile environments in which business operates are characterized by the presence of corrupt sub-systems, which are "relatively stable networks rather than exceptional, independent, individual events" (Nielsen 2003, p. 125). Dyer and Mortensen (2005) explain that "hostile environments create a situation where individual entrepreneurs face significant moral dilemmas. They can either comply with the law, thus forfeiting the success of their businesses and their own economic well-being, or they can attempt to work within the context of a corrupt system in order to survive. Most choose survival" (p. 253). However, "buying into" this Darwinian discourse presents some major business ethics problems (Sanders 2010). Most of the political connections observed can be classified as "utilitarian relationships." Zhang and Zhang (2006) describe such relationships as follows: "Because developing, cultivating and maintaining

Guanxi is a time- and money-consuming endeavor, both of the exchange partners usually have a conscious and elaborate cost–rent consideration, which in turn sharply influences their decision-making procedure … In its most extreme form, the utilitarian type is inevitably closely associated with corruption and bribery" (p. 383). There are two major risks behind the proliferation of this type of relationship. The first risk is that it may provoke a huge misallocation of resources in society. In fact, as noted by Krueger (1974), people invest heavily in rent-seeking behavior to influence wealth redistribution rather than wealth production. Also, the progressive increase in the power of corporate political action may allow politically connected firms to deeply entrench their interests, and so create a group with dangerous mixed interests in politics and business. The ultimate risk is that eventually the whole Chinese economy could "[fall] into the mud pit of crony capitalism" (Wu 2004).

Conclusion

This study proposes to consider social capital as a reflection of informal governance mechanisms, and examines its role in the post-IPO accounting and stock performance of entrepreneurial firms. The uniqueness of China's regulatory and institutional background allows us to examine the informal governance role played by the entrepreneur's social capital in the capital market.

Unlike most existing studies in this field that draw exclusively on agency theory, this study takes a new angle to analyze entrepreneurial firm performance in the context of an emerging and transitional economy. We develop and test several proxies for social capital in the context of China's capital market. The distinguishing feature of emerging economies is their low institutional efficiency and the prevalence of relational contracts. Social capital, therefore, exerts a huge influence on a firm's performance, and formal governance mechanisms such as board size or board independence have virtually no explanatory power for IPO performance.

We find that political bridging social capital (the most important type of social capital) helps in improving companies' post-IPO performance, and the bridging social capital developed from interaction between controlling internal shareholders and small external shareholders is also beneficial for post-IPO performance. However, bonding social capital, derived from the connections between the business group and the listed entity, tends to reduce a firm's post-IPO performance.

In addition to its academic contribution, this study also yields strong practical implications. The first implication is that for entrepreneurs in an emerging and transitional economy, acquiring adequate political bridging social capital needs to be understood as part of the business strategy. Furthermore, the benefits and costs of intragroup bonding capital should be carefully balanced. Although related-party transactions may benefit the listed entity and the whole group in some circumstances, the "dark side" of these transactions should not be ignored, especially as regards the interests of external shareholders who invest only in the listed entity.

For investors, our findings provide some insights that should be helpful in selecting promising and trustworthy entrepreneurial firms. In terms of promoting "investor activism," our findings can also serve as a roadmap for external investors if they intend to scrutinize firms' management more closely.

For regulators and policymakers in emerging and/or transitional economies, the first implication of our findings is that development of the market economy and construction of formal institutions should be the highest priorities. Although political social capital can bring benefits for entrepreneurial companies, such political connections naturally involve side effects. As dela Rama (2012) explains, "a sustainable and strong private sector requires a strong public sector so that the latter has the capacity to regulate and the resources to apply laws. A regulator that is not politicized and that can make robust independent decisions will give more confidence to the majority of private sector participants" (p. 517). In the long run, such "relational transactions" between firms and political leaders need to gradually recede, and be replaced by "arm's-length transactions." One regulatory implication is that regulators can play an effective role in protecting small external investors and monitoring the behavior of internal controlling shareholders.

Despite the above contributions to both theory and practice, this study is subject to some limitations, which also indicate certain directions for future research. First, the study is focused on only one country and its specific market environment. However, as China is the largest and fastest-growing emerging transitional economy in the world, our implications can be generalized to other economies. A cross-country comparison between various emerging and transitional economies is therefore one possible direction for future study.

Second, there is some question over the validity of measurement for our variables, and our measures probably capture only a few aspects of social capital. Given the breadth and complexity of social capital phenomena, future research could use the theoretical framework constructed in this study to develop appropriate social capital measures for each country's unique institutional environment.

Third, this study examines the associations between social capital and entrepreneurial firm performance, and

the choices involved in building social capital can be endogenous. This endogeneity issue is only partially addressed here, by distinguishing between pre- and post-IPO political connections. One possible direction for future research would be to use experimental settings, for instance, involving policy regime changes or sudden deaths of entrepreneurs.

Acknowledgments The authors would like to thank Douglas Cumming, Wenxuan Hou, Edward Lee (editors) and one anonymous reviewer, the participants at the European Accounting Association Annual Meeting (Ljubljana, Slovenia, May 2012), the 2012 Asian Finance Association (AsianFA) Annual Meeting (Taipei, July 2012), and the Conference on Sustainable and Ethical Entrepreneurship, Corporate Finance and Governance, and Institutional Reform in China (Beijing, April 2013) for their helpful comments and advice. The authors acknowledge financial support from the CEIBS Research Fund. The research assistance to Yvonne Yuan, Sophie Xiao, and Yuanyang Song is greatly appreciated. The authors also thank Ann Gallon for her much appreciated editorial help.

Appendix: Definition of Variables and Sources of Data

Variables	Definition	Data sources
Change in ROA	The difference between a sample firm's three-year average ROA after the IPO and the three-year average ROA before the IPO. ROA is the ratio of net income over total assets	Pre-IPO data are hand-collected from the firm's prospectus, and post-IPO data are collected from the Wind database
Change in ROE	The difference between a sample firm's three-year average ROE after the IPO and the three-year average ROE before the IPO. ROE is the ratio of net income over equity	Pre-IPO data are hand-collected from the firm's prospectus, and post-IPO data are collected from the Wind database
Post-IPO three-year stock abnormal return	A sample firm's stock return during the period of 3 years starting from the next trading day after the IPO, net of the market return. Market return is the arithmetic mean of return for all stocks outstanding on the market during the same period	Individual stock return and market return are both collected from the CSMAR database
Change in sales as percentage of pre-IPO sales	The difference between a sample firm's three-year average sales after the IPO and the three-year average sales before the IPO as a percentage of three-year average sales before the IPO	Pre-IPO data are hand-collected from the firm's prospectus, and post-IPO data are collected from the Wind database
Change in asset turnover	The difference between a sample firm's three-year average asset turnover after the IPO and the three-year average asset turnover before the IPO. Asset turnover is the ratio of a firm's sales revenue over total assets	Pre-IPO data are hand-collected from the firm's prospectus, and post-IPO data are collected from the Wind database
Political bridging social capital	Dummy variable that equals one if the entrepreneur or a management team member has political connections, which is defined as having past working experience in government or SOEs, being a member of the National People's Congress or National Political Consultative Conference, or a Chairman of a National Industry Association	Pre-IPO data are hand-collected from the firm's prospectus, and post-IPO data are hand-collected from the firm's annual report
Pre-IPO Political bridging social capital	Dummy variable that equals one if the firm has developed political connections before the IPO. Having political connections is defined as having an entrepreneur or management team member who has past working experience in government or SOEs, is a member of the National People's Congress or National Political Consultative Conference, or a Chairman of a National Industry Association	Relevant data are hand-collected from the firm's prospectus
Post-IPO political bridging social capital	Dummy variable that equals one if the firm has no political connections before the IPO, and has developed political connections only after the IPO. Having political connections is defined as having an entrepreneur or management team member who has past working experience in government or SOEs, is a member of the National People's Congress or National Political Consultative Conference, or a Chairman of a National Industry Association	Hand-collected from the firm's annual report
External investor bridging social capital	Percentage of new shares floated to the public in the IPO	Hand-collected from the firm's prospectus

continued

Variables	Definition	Data sources
Intragroup bonding social capital	The ratio of total related-party transactions in the three post-IPO years over total sales in the three post-IPO years	Collected from the Wind database
Proceeds raised	Amount of IPO proceeds as a percentage of the firm's equity for the year before the IPO	Collected from the Wind database
Ln (total assets)	Arithmetic mean of total assets for the three consecutive years before the IPO year (in natural log form)	Hand-collected from the firm's prospectus
Ln (market value)	Arithmetic mean of post-IPO market value (in natural log form) for three consecutive year-ends (last trading day of the year)	Collected from the Wind database
If CEO is chairman	Dummy variable that equals one if the chairman of the board is also the CEO in the year before the IPO, and zero otherwise	Hand-collected from the firm's prospectus
Board size	Natural log of number of board directors in the year before the IPO	Hand-collected from the firm's prospectus
Board independence	Ratio of number of independent directors over total number of board directors in the year before IPO	Hand-collected from the firm's prospectus
IPO first-day return (firm)	The sample firm's IPO first-day return, which is the difference between the IPO first-day closing price and the IPO offering price divided by the offering price	Collected from the Wind database
IPO first-day return (market)	The average IPO first-day return of all companies conducting an IPO in the same month our sample firm went public. A firm's IPO first-day return is the difference between the IPO first-day closing price and the IPO offering price divided by the offering price	Collected from the Wind database
Firm/year dummies	Dummy variables based on IPO year of the sample companies	Collected from the Wind database
Industry dummies	Dummy variables based on 4-digit industry classifications	Collected from the Wind database

References

Aarstad, J., Haugland, S. A., & Greve, A. (2010). Performance spillover effects in entrepreneurial networks: Assessing a dyadic theory of social capital. *Entrepreneurship Theory and Practice, 34*(5), 1003–1020.

Acemoglu, D. (2003). Why not a political coase theorem? Social conflict, commitment and politics. *Journal of Comparative Economics, 31*(4), 620–652.

Acemoglu, D., Johnson, S., & Robinson, J. (2001). The colonial origins of comparative development: An empirical investigation. *American Economic Review, 91*(5), 1369–1401.

Acemoglu, D., Johnson, S., & Robinson, J. (2002). Reversal of fortune: Geography and institutions in the making of the modern world income distribution. *Quarterly Journal of Economics, 117*(4), 1231–1294.

Acemoglu, D., & Robinson, J. (2000). Why did the west extend the franchise? Democracy, inequality and growth in historical perspective. *Quarterly Journal of Economics, 115*(4), 1167–1199.

Adler, P. S., & Kwon, S.-W. (2002). Social capital: Prospects for a new concept. *Academy of Management Review, 27*(1), 17–40.

Aguilera, R., Filatotchev, I., Gospel, H., & Jackson, G. (2008). Contingencies, complementarities, and costs in corporate governance models. *Organization Science, 19*(3), 475–492.

Ahlstrom, D., & Bruton, G. D. (2006). Venture capital in emerging economies: Networks and institutional change. *Entrepreneurship Theory and Practice, 30*(2), 299–320.

Aldrich, H. E., & Fiol, C. M. (1994). Fools rush in? The institutional context of industry creation. *Academy of Management Review, 19*, 645–670.

Aldrich, H., & Zimmer, C. (1986). Entrepreneurship through social networks. In D. Sexton & R. Smilor (Eds.), *The art and science of entrepreneurship* (pp. 3–23). Cambridge, MA: Ballinger.

Bae, K. H., Baek, J. S., Kang, J. K., & Liu, W. L. (2012). Do controlling shareholders' expropriation incentives imply a link between corporate governance and firm value? Theory and evidence. *Journal of Finance Economics, 105*(2), 412–435.

Becker, C. L., Defond, M. L., Jiambalvo, J., & Subramanyam, K. R. (1998). The effect of audit quality on earnings management. *Contemporary Accounting Research, 15*(1), 1–24.

Berle, A. A., & Means, G. C. (1932). *The Modern corporation and private property*. New York: Harcourt, Brace & World Inc.

Birley, S. (1985). The role of networks in the entrepreneurial process. *Journal of Business Venturing, 1*(1), 107–118.

Boisot, M., & Child, J. (1996). From fiefs to clans and network capitalism: Explaining China's emerging economic order. *Administrative Science Quarterly, 41*(4), 600–628.

Bourdieu, P. (1985). The forms of capital. In J. G. Richardson (Ed.), *Handbook of theory and research for the sociology of education*. New York: Greenwood.

Brau, J. C., & Fawcett, S. E. (2006). Initial public offerings: An analysis of theory and practice. *Journal of Finance, 61*(1), 399–436.

Bull, I., & Willard, G. (1993). Towards a theory of entrepreneurship. *Journal of Business Venturing, 8*(3), 183–195.

Burt, R. S. (1992). *Structural holes: The social structure of competition*. Cambridge, MA: Harvard University Press.

Burt, R. S. (2004). Structural holes and good ideas. *American Journal of Sociology, 110*(2), 349–399.

Carolis, D. M. D., Litzky, B. E., & Eddleston, K. A. (2009). Why networks enhance the progress of new venture creation: The

influence of social capital and cognition. *Entrepreneurship Theory and Practice, 33*, 527–545.

Chang, S. J. (2003). Ownership structure, expropriation, and performance of group-affiliated companies in Korea. *Academy of Management Journal, 46*(2), 238–253.

Chen, Z., Cheung, Y.-L., Stouraitis, A., & Wong, A. W. S. (2005). Ownership concentration, firm performance, and dividend policy in Hong Kong. *Pacific-Basin Finance Journal, 13*(4), 431–449.

Chung, H. (2006). Managerial ties, control and deregulation: An investigation of business groups entering the deregulated banking industry in Taiwan. *Asia Pacific Journal of Management, 23*(4), 505–520.

Claessens, S., Djankov, S., Fan, J., & Lang, L. (2002). Disentangling the incentive and entrenchment effects of large shareholdings. *Journal of Finance, 57*, 2741–2772.

Clemens, E. S., & Cook, J. M. (1999). Politics and institutionalism: Explaining durability and change. *Annual Review of Sociology, 25*, 441–466.

Cumming, D., & Hou, W. (2014). Valuation of restricted shares by conflicting shareholders in the Split Share Structure Reform. *European Journal of Finance*, *20*(7–9), 778–802.

dela Rama, M. (2012). Corporate governance and corruption: Ethical dilemmas of Asian business groups. *Journal of Business Ethics, 109*, 501–519.

Dess, G. G., & Shaw, J. D. (2001). Voluntary turnover, social capital, and organizational performance. *Academy of Management Review, 26*(3), 446–456.

Djankov, S., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2002). The regulation of entry. *Quarterly Journal of Economics, 117*(1), 1–37.

Dyer, W. G., Jr, & Mortensen, S. P. (2005). Entrepreneurship and family business in a hostile environment: The case of Lithuania. *Family Business Review, 18*(3), 247–258.

Ellis, P. (2000). Social ties and foreign market entry. *Journal of International Business Studies, 31*(3), 443–469.

Eng, L. L., & Mak, Y. T. (2003). Corporate governance and voluntary disclosure. *Journal of Accounting and Public Policy, 22*(4), 325–345.

Faccio, M., & Lang, L. (2002). The ultimate ownership of Western European corporations. *Journal of Financial Economics, 65*, 365–395.

Faccio, M., Lang, L. H. P., & Young, L. (2001). Dividends and expropriation. *American Economic Review, 91*, 54–78.

Fan, J. P. H., Wong, T. J., & Zhang, T. Y. (2007). Politically connected CEOs, corporate governance, and post-IPO performance of China's newly partially privatized firms. *Journal of Financial Economics, 84*, 330–357.

Fischer, E., & Reuber, R. (2007). The good, the bad, and the unfamiliar: The challenges of reputation formation facing new firms. *Entrepreneurship Theory and Practice, 31*(1), 53–75.

Friedman, E., Johnson, S., & Mitton, T. (2003). Propping and tunnelling. *Journal of Comparative Economics, 31*, 732–750.

Helmke, G., & Levitsky, S. (2003). Informal institutions and comparative politics: A research agenda. *Perspective on Politics, 2*(4), 725–740.

Hoang, H., & Antoncic, B. (2003). Network-based research in entrepreneurship: A critical review. *Journal of Business Venturing, 18*, 165–187.

Hou, W., & Lee, E. (2013). Split Share Structure Reform, corporate governance, and the foreign share discount puzzle in China. *European Journal of Finance* (forthcoming).

Hung, M., Wong, T. J., & Zhang, T. (2012). Political considerations in the decision of Chinese SOEs to list in Hong Kong. *Journal of Accounting and Economics, 53*(1–2), 435–449.

Ireland, R. D., Tihanyi, L., & Webb, J. W. (2008). A tale of two politico-economic systems: Implications for entrepreneurship in Central and Eastern Europe. *Entrepreneurship Theory and Practice, 32*, 107–130.

Jain, B. A., & Kini, O. (1994). The post-issue accounting performance of IPO firms. *Journal of Finance, 49*, 1699–1726.

Johnson, S., Porta, R. L., Lopez-de-Silanes, F., & Shleifer, A. (2000). Tunneling. *American Economic Review, 90*, 22–27.

Jonsson, S., & Lindbergh, J. (2011). The development of social capital and financing of entrepreneurial firms: From financial bootstrapping to bank funding. *Entrepreneurship Theory and Practice, 37*(4), 661–686.

Khanna, T., & Palepu, K. (2000). Is group affiliation profitable in emerging markets? An analysis of diversified Indian business groups. *Journal of Finance, 55*, 867–891.

Kornai, J. (1979). Resource-constrained versus demand-constrained systems. *Econometrica, 47*(4), 801–819.

Krishnan, C. N. V., Ivanov, V. I., Masulis, R. W., & Singh, A. K. (2011). Venture capital reputation, post-IPO performance, and corporate governance. *Journal of Financial and Quantitative Analysis, 46*, 1295–1333.

Kroll, M., Walters, B. A., & Le, S. A. (2007). The impact of board composition and top management team ownership structure on post-IPO performance in young entrepreneurial firms. *Academy of Management Journal, 50*, 1198–1216.

Krueger, Anne. O. (1974). The political economy of the rent-seeking society. *American Economic Review, 64*, 291–303.

La Porta, R., Lopez-de-Silances, F., & Shleifer, A. (1999). Corporate ownership around the world. *Journal of Finance, 54*(2), 471–517.

Le, N. T. B., & Nguyen, T. V. (2009). The impact of networking on bank financing: The case of small and medium-sized enterprises in Vietnam. *Entrepreneurship Theory and Practice, 33*, 867–887.

Le, T. B. N., Venkatesh, S., & Nguyen, V. T. (2006). Getting bank financing: Study of Vietnamese private firms. *Asia Pacific Journal of Management, 23*(2), 209–227.

Li, H., & Zhang, Y. (2007). The role of managers' political networking and functional experience in new venture performance: Evidence from China's transition economy. *Strategic Management Journal, 28*, 791–804.

Lipparini, A., & Sobrero, M. (1994). The glue and the pieces: Entrepreneurship and innovation in small-firm networks. *Journal of Business Venturing, 9*(2), 125–140.

Maurer, I., & Ebers, M. (2006). Dynamics of social capital and their performance implications: Lessons from biotechnology start-ups. *Administrative Science Quarterly, 51*(2), 262–292.

Mikkelson, W. H., Partch, M. M., & Shah, K. (1997). Ownership and accounting performance of companies that go public. *Journal of Financial Economics, 44*, 281–307.

Miner, A. S., Amburgey, T. L., & Stearns, T. M. (1990). Interorganizational linkages and population dynamics: Buffering and transformational shields. *Administrative Science Quarterly, 35*(4), 689–713.

Morck, R., & Yeung, B. (2004). Family control and the rent-seeking society. *Entrepreneurship Theory and Practice, 28*(4), 391–409.

Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review, 23*(2), 242–266.

Nguyen, V. T., Le, T. B. N., & Freeman, N. J. (2006). Trust and uncertainty: A study of bank lending to private SMEs in Vietnam. *Asia Pacific Business Review, 12*(4), 547–567.

Nielsen, R. P. (2003). Corruption networks and implications for ethical corruption reform. *Journal of Business Ethics, 42*, 125–149.

North, D. C. (1990). *Institutions, institutional change and economic performance*. New York: Cambridge University Press.

Ostgaard, T. A., & Birley, S. (1996). New venture growth and personal networks. *Journal of Business Research, 36*, 37–50.

Peng, M. W. (2001). How entrepreneurs create wealth in transition economies. *Academy of Management Executive, 15*(1), 95–110.

Peng, M. W. (2002). Towards an institution-based view of business strategy. *Asia Pacific Journal of Management, 19*(2/3), 251–267.

Peng, M. W. (2003). Institutional transitions and strategic choices. *Academy of Management Review, 28*, 275–296.

Peng, M. W., & Heath, P. S. (1996). The growth of the firm in planed economies in transition: Institutions, organizations, and strategic choice. *Academy of Management Review, 21*(2), 492–528.

Peng, M. W., & Luo, Y. (2000). Managerial ties and firm performance in a transition economy: The nature of a micro-macro link. *Academy of Management Journal, 43*(3), 486–501.

Piotroski, J. D., & Zhang, T. (2014). Politicians and the IPO decision: The impact of impending political promotions on IPO activity in China. *Journal of Financial Economics, 111*(1), 111–136.

Ritter, J. R., & Welch, I. (2002). A review of IPO activity, pricing, and allocations. *Journal of Finance, 57*, 1795–1828.

Rosenstein, S., & Wyatt, J. G. (1990). Outside directors, board independence, and shareholder wealth. *Journal of Financial Economics, 26*(2), 175–191.

Russo, A., & Perrini, F. (2010). Investigating stakeholder theory and social capital: CSR in large firms and SMEs. *Journal of Business Ethics, 91*, 207–221.

Sanders, P. (2010). Managing under duress: Ethical leadership, social capital and the civilian administration of the British Channel Islands during the Nazi occupation, 1940–1945. *Journal of Business Ethics, 93*, 113–129.

Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review, 25*, 217–226.

Shaw, J. D., Duffy, M. K., Johnson, J. L., & Lockhart, D. E. (2005). Turnover, social capital losses, and performance. *Academy of Management Journal, 48*(4), 594–606.

Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The Journal of Finance, 52*(2), 737–783.

Smallbone, D., & Welter, F. (2001). The distinctiveness of entrepreneurship in transition economies. *Small Business Economics, 16*(4), 249–262.

Spence, L. J., Schmidpeter, R., & Habisch, A. (2003). Assessing social capital: Small and medium sized enterprises in Germany and the U.K. *Journal of Business Ethics, 42*, 17–29.

Stiglitz, J. (1994). *Whither socialism? Wicksell lectures*. Cambridge: MIT Press.

Stinchcombe, A. (1965). Social structure and organizations. In J. G. March (Ed.), *Handbook of organizations* (pp. 142–193). Chicago: Rand-McNally.

Story, J. (2012, March 3). Survival rules in the party state. *South China Morning Post*.

Tian, Z., Gao, H., & Cone, M. (2008). A study of the ethical issues of private entrepreneurs participating in politics in China. *Journal of Business Ethics, 80*, 627–642.

Tonoyan, V., Strohmeyer, R., Habib, M., & Perlitz, M. (2010). Corruption and entrepreneurship: How formal and informal institutions shape small firm behavior in transition and mature market economies. *Entrepreneurship Theory and Practice, 34*(5), 803–831.

Tsai, W., & Ghoshal, S. (1998). Social capital and value creation: The role of intrafirm networks. *Academy of Management Journal, 41*(4), 464–478.

Tu, G., Lin, B., & Liu, F. (2013). Political connections and privatization: Evidence from China. *Journal of Accounting and Public Policy, 32*(2), 114–135.

Uzzi, B. D. (1996). The sources and consequences of embeddedness for economic performance of organizations. *American Sociological Review, 61*, 674–698.

Villalonga, B., & Amit, R. (2006). How do family ownership, control, and management affect firm value? *Journal of Financial Economics, 80*, 385–417.

Walker, G., Kogut, B., & Shan, W. (1997). Social capital, structural holes and the formation of an industry network. *Organization Science, 8*(2), 109–126.

Walters, B. A., Kroll, M., & Wright, P. (2010). The impact of TMT board member control and environment on post-IPO performance. *Academy of Management Journal, 53*, 572–595.

Wan, D., & Ong, C. H. (2005). Board structure, process and performance: Evidence from public-listed companies in Singapore. *Corporate Governance: An International Review, 13*(2), 277–290.

Westhead, P. (1995). Survival and employment growth contrasts between types of owner-managed high technology firms. *Entrepreneurship Theory and Practice, 20*(1), 5–27.

Wijnberg, N. M. (2000). Normative stakeholder theory and Aristotle: The link between ethics and politics. *Journal of Business Ethics, 25*, 329–342.

Wu, J. (2004). Market economy should watch out for crony capitalism. *Decision and Information, 1*, 31–33. (in Chinese).

Xin, K. R., & Pearce, J. L. (1996). Guanxi: Good connections as substitutes for institutional support. *Academy of Management Journal, 39*, 1641–1658.

Zhang, Y., & Zhang, Z. (2006). Guanxi and organizational dynamics in China: A link between individual and organizational levels. *Journal of Business Ethics, 67*, 375–392.

Zimmerman, M., & Zeitz, G. (2002). Beyond survival: Achieving new venture growth by building legitimacy. *Academy of Management Review, 27*(3), 414–431.