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A State-Stewardship View on Executive Compensation

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Abstract

We take a state-stewardship view on the corporate governance model and executive compensation policies in economies with strong political involvement. In such a highly politically-oriented institutional environment, the business elites are not just professional managers but are also de facto government officials who are directly state-appointed – even in 'private' firms. They are expected to act as responsible 'stewards' of the state. Consequently, their compensation may differ from what agency theory predicts. We test this state-stewardship view on China and find that Chinese managers are remunerated not for maximizing equity value but for increasing the value of the state-owned assets. Managerial compensation depends on political connections and prestige, and on the firms' contribution to political and macroeconomic goals and the officials' political achievements. These effects were somewhat weakened since the governance reform of 2006, when companies became more market-oriented though state influence still prevails. In a social welfare perspective, the compensation of state-steward managers stimulates not the maximization of shareholder value but the preservation of the state's interests.

Keywords: State-stewardship view, agency theory, executive compensation, political connections

JEL Classifications: G34, H70, M12, P26, P31

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ABSTRACT

We take a state-stewardship view on the corporate governance model and executive compensation policies in economies with strong political involvement. In such a highly politically-oriented institutional environment, the business elites are not just professional managers but are also de facto government officials who are directly state-appointed – even in 'private' firms. They are expected to act as responsible 'stewards' of the state. Consequently, their compensation may differ from what agency theory predicts. We test this state-stewardship view on China and find that Chinese managers are remunerated not for maximizing equity value but for increasing the value of the state-owned assets. Managerial compensation depends on political connections and prestige, and on the firms' contribution to political and macroeconomic goals and the officials' political achievements. These effects were somewhat weakened since the governance reform of 2006, when companies became more market-oriented though state influence still prevails. In a social welfare perspective, the compensation of state-steward managers stimulates not the maximization of shareholder value but the preservation of the state's interests.

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A State-Stewardship View on Executive Compensation

1. Introduction

The executive compensation policies in emerging economies puzzle researchers as the seemingly low registered pay and the other-than-performance pay for managers running large internationally active corporations located in those economies challenge the standard economic theories on corporate governance.[2] Conyon and He (2011) document that the executive pay (salary and bonus) of US top managers is about seventeen times higher than that in China, even after controlling for economic and governance factors. When stock options and equity compensation are considered, the difference augments to approximately 42 times. The majority of the extant literature on corporate governance resorts to agency theory to explain executive compensation policies (e.g. Jensen and Murphy, 1990; Garen, 1994; Core et al., 1999). The interests of the managers (the agent) and shareholders (the principal) can be in conflict, and agency problems may arise if managers abuse their power, for instance, by awarding themselves generous pay packages neither justified by high managerial skills nor related to a meaningful contribution to the firm's performance. Consequently, the compensation scheme should be designed in such a way as to elicit effort from the management while avoiding the above conflicts of interest (Bebchuk and Fried, 2004; Jensen et al., 2004). However, is this agency logic valid for emerging economies? The answer is negative because in countries in political and institutional transition such as China, the state and the political authorities own significant equity stakes and their political influence extends beyond ownership. The use of non-cash compensation is very rare and, if it is used at all, disclosure is incomplete, but perquisite consumption may be more prevalent (Adithipyangkul et al., 2011).[3] Business activities are heavily influenced by the government and other political powers through the government's deliberate policies on resource allocation, as well as the vast presence of government ownership and managers' political connections. In Russia, for example, politically-connected firms represent over 85 percent of the market capitalization (Shleifer, 1998; Faccio, 2006). It is reasonable to

[2] In 2010, *Jiangling Motors*, one of China's biggest commercial vehicle companies and Ford's joint venture partner, achieved sales revenues of over $2.5 billion following strong growth. Its CEO, York Chen, received an annual total compensation of $375,000, at par with his 2009 pay (but higher than that of any other CEO in this sector). In marked contrast, Dieters Zetsche, the CEO of the European automobile giant *Daimler AG*, earned €8.7 million euro ($12 million), twice his pay in 2009 and more than 30 times Chen's salary. This discrepancy in pay is even larger when one considers *Ford* 's CEO Allan Mulally, who received $26.5 million in 2010, 48% more than in 2009 (*Bloomberg, April 1, 2011*).

[3] Stock options were rarely used before 2008, and even subsequently, merely 5% of listed companies report the use of stock options to remunerate their managers.

believe that such strong political influence on business activities results in relatively less market-based managerial compensation schemes.

Several papers have examined executive compensation in emerging economies, in particular, China (e.g. Firth et al., 2006; Chen et al., 2010; Conyon and He, 2011; Chen et al., 2011), but their focus was mainly on testing western corporate governance theories, such as pay-for-performance sensitivity or managerial power theory (Bebchuk et al., 2002; Grabke-Rundell and Gomez-Mejia, 2002), in the Chinese context. Unsurprisingly, the validity of the agency theory in the Chinese corporate world is weak. An alternative theoretical framework incorporating the broader political and institutional determinants of China's corporate governance system is needed (Buck et al., 2007; van Essen et al., 2012a). It is also important to take an institutional perspective as significant shifts of state powers in the economy and businesses have arisen over the last decade. Therefore, in the context of compensation contracting in China, two main research questions emerge: (1) What roles (other than 'agents') do managers play and how are they remunerated? (2) How do such roles and compensation evolve over time?

In this paper, we find that the level and structure of Chinese executive compensation does not tie in with the principal-agent's predications on pay-for-performance. The low compensation of Chinese managers (relative to their international peers) is prevalent in firms with stronger state control, and when self-dealing opportunities are larger. Managers are also rewarded more for maximizing the value of state-owned assets (rather than for maximizing shareholder value). Furthermore, their compensation is not closely linked to ability, but to their political connections and prestige, as well as to their firms' contribution to the local officials' political goals. All these effects have evolved over time, whereby especially the major privatization effort of 2006 (the split-share structure reform) has had a big impact on the roles of managers and their compensation contracts. Some of these findings were also documented in other studies, most recently in Cao et al. (2011), although they have not housed them in a consistent theoretical framework. In our analysis, we take a *state-stewardship view* to explain these unique governance and compensation contracting patterns. For a clear understanding of some key concepts, we make the following two definitional distinctions. First, the "state" is not necessarily the "nation": the former refers in the context of this paper to the interest of the ruling political elites, while the latter represents the interest of the public masses (citizens). Therefore, by calling Chinese managers the state's stewards we mean that their interests are in line with those of the politicians, but not necessarily with the public interest. Second, "state-stewardship" is different from "stewardship": the former describes a state-manager relationship that is institutionalized by coercive or

normative political forces (the manager can still be self-interested), while the latter describes a pro-organizational behavior based on human altruism assumptions. A comparison between the traditional principal-agent perspective and our state-stewardship perspective is offered in Table 1, and will be further illustrated in the following sections.

[Table 1]

Our work makes the following contributions. First, as the traditional agency theory is not able to explain the level, composition, and evolution of executive compensation in China (e.g., Firth et al., 2006, 2007; Conyon and He, 2011), we focus on state influence and managers' political connections from a state-stewardship view on Chinese corporations. This institutional perspective has stronger explanatory power as it incorporates the organizing principle, incentive structures, and enforcement mechanisms of firms and managers within China's authoritarian political system after the economic reform and incomplete privatization. Second, we take an institutional perspective with a focus on institutional change to study how the Chinese state controls the economy - by means of ownership stakes and political connections with the 2006 split-share reform as a watershed. Such institutional change also implies a shift of wealth from the state (the government) to the nation (the private citizens), while the authoritarian state still maintains tight control over (corporate) employees (Xu, 2011). Third, the state-manager relationship has broader implications for China's economic and political development. Economic reform without reforming the human resources policies at the executive level enables the autocratic state to exert political power on corporate decision making, so as to ensure that firms' business activities fulfill the state's political objectives. Therefore, this study also has some welfare implications.

2. Institutional Background

2.1. Privatization and the split-share structure reform

When China started its economic reform in 1978, one of the key elements was the privatization (or 'corporatization' (Clarke, 2003)) of the formerly state-owned enterprises. Two stock exchanges, in Shanghai and Shenzhen, were established in 1990. Listed companies became increasingly accountable to shareholders (in addition to the state). The managerial resource allocation system has been improved since the modern industrial and corporate reforms were initiated in 1978 and continued throughout the 1980s and 1990s

(Groves et al., 1994, 1995). Initially, a dual share structure was established for all listed companies: approximately two-thirds of domestically listed shares (A-shares) were not tradable on the market and were usually owned by the government and state agencies, which hindered the privatization process considerably. In April 2005 (effective from 2006), the Chinese government initiated the split-share structure reform of turning non-tradable shares into tradable ones (called the share issue privatization (SIP)) for all listed domestic firms. More than 1,400 listed companies could 'gradually' convert their tradable shares[4]. Holders of non-tradable shares[5] negotiated and compensated holders of tradable shares in each individual firm by giving them about three shares for every 10 shares on average so as to make the non-tradable shares tradable through negotiated compensation plans which differed from firm to firm. All Chinese listed companies completed their negotiations by the end of 2008, and all of their restricted shares became fully tradable by the end of 2011. Even after the split-share structural reform, the state is still playing a major role in regulating companies' strategic-decision making, developing corporate governance regulation, and setting executive compensation schemes through retaining the executive-level employees as state-appointees, maintaining a stake in privatized firms, and supervising firms via the China Securities Regulatory Commission (CSRC). In many firms, especially those within the electronics, automobile manufacturing, steel, natural resource exploitation and extraction industries, the state has kept majority control while foreign share stakes are restricted. The managers, the board's chairperson, the political secretary of the firm (the Communist Party representative), and other managers are usually directly appointed by the state, and their compensation contracts are directly determined by the Organization Department of the Communist Party and the State Council, rather than by the board of directors. As a consequence, corporate governance and executive compensation contracting in China's state-oriented economy exhibit unique patterns not present in Western economies. The change of state ownership over our sample period for different industries is exhibited in Figure 1. Figure 1a shows the evolution of the state ownership in the top five industries ranked by market capitalization. Figure 1b depicts the industry-average state ownership of all industries included in our sample. The split-share reform is visible from 2005 to 2006; the decline of state ownership has continued in all subsequent years.

[Figures 1a-1b]

[4] In fact, the change of ownership was much more radical. By the end of 2007, 1,254 firms representing over 97% of the Chinese A-share market capitalization at the time had completed the reform.

[5] These are usually the state (including the central or local governments and their affiliates, such as state asset management companies and SOEs) and legal persons (typically domestic business agencies or enterprises of local government that helped establish the listed firms) (Sun and Tong, 2003). Holders of these non-tradable shares were entitled to the same voting and cash flow rights as holders of tradable shares (Li,Wang, Cheung, Jiang, 2011).

2.2. Corporate governance structure and executive compensation structure

China's corporate governance structure has been set up since the privatization in the early 1990s[6] and is based on western governance codes and corporate law, although China's Socialist-featured company law and related codes (in particular, the CSRC Codes) comprise some singularities. For instance, the Chinese corporate board structure combines some aspects of the Anglo-American one-tier board model and the German two-tier one[7]. In principle, it is loosely based on the two-tier structure, but in practice more like a muddled one-tier Anglo-American board (IIF 2006) whereby the board[8] (i) consists of several independent directors (CSRC requires the independent director ratio of the board to be above one third), (ii) is the main decision-making authority within the firm, and (iii) oversees and aids management practice. In practice, the Chinese supervisory board has only a symbolic function and hence does not play an effective governance role (Tam, 2002; Tenev and Zhang, 2002). Since the bureaucrats (e.g. the party committee) are in charge of the company nominate and remove directors and supervisors alike, the supervisory board members have little say in the major corporate decisions.

In SOEs[9] which still account for over 80% of market capitalization in China, the dominant shareholder is the state, and their boards of directors usually consist of members directly appointed by the central or local government to serve on e.g. the strategy committee (which makes the strategic investment and development decisions) or the compensation committee. At the same level with the board of directors are a supervisory board and a representative Party committee led by the Party Secretary who vouches for the ideological influence over the board and the entire firm.[10] It is clear that this board(s) structure(s) can lead to confusion and induce some ambiguity about the board member duties (*Financial Times*, April 2, 2008). The

[6] The de facto privatization has been underway since mid-1980s under the name of 'shareholding system reform' (in Chinese, *gufenzhi gaige*).

[7] In general, executive directors and non-executive directors of US and UK firms man one organizational body which is chaired by the CEO (as is frequently the case in the US) or not (in the UK). Such one-tier boards also comprise audit, remuneration, and nomination committees. In contrast, firms from German legal origin countries such as Austria, Germany, and Japan, separate the executive and supervisory boards (the latter then only consists of non-executive directors with advisory and monitoring roles who represent shareholders and employees).

[8] Henceforth, when we mention the 'board', we refer to the board of directors consisting of both executive and non-executive directors, but not the supervisory board.

[9] There are two types of SOEs. Most SOEs are directly (or ultimately) controlled by the central government under China's State-owned Assets Supervision and Administration Commission (SASAC) of the State Council, and enjoy monopoly power in certain industries such as energy and telecommunication. Other SOEs are controlled by local government under the local SASAC.

[10] The main difference and connections between the supervisory board and the party committee is that the supervisory board is usually chaired by an employee representative from the All China Federation of Trade Unions (China's only government-sanctioned union), and among the other board members is typically an official from the company's internal party committee and at least one other person elected by shareholders. Company directors and other senior managers are not allowed to sit on the board of supervisors.

counterpart of the Western CEO of a Chinese SOE is usually called 'general manager' who does not own shares of the company. In many cases, especially in large SOEs, the functions of general manager (CEO) and chairperson of the board are combined by one person, a phenomenon which is usually termed as *managerial duality*. Figure 2 illustrates the unique internal governance structure of Chinese companies (especially of SOEs).

[Figure 2]

Under such special corporate governance arrangements, executive compensation schemes in SOEs have been based on the highly structured civil service pay scale which mainly reflects the differences in region, industry, and seniority. Even in private firms which account for less than 20% market capitalization, the influence of the state is still salient, usually through government policies and politically-connected executives (*Economist*, September 3, 2011). Moreover, the communist tenets advocating similarity in pay across all ranks of members of society also put regulatory ceilings on their registered compensation (including cash salaries and bonuses)[11]. In addition, stock options and equity-based pay are very rare in Chinese companies. Despite these caps, managers are often compensated by perquisites such as free housing and gray income which is not recorded on the balance sheets, and bribery and self-dealing are not exceptional (Adithipyangkul et al., 2009; Jiang et al., 2010).

3. A State-stewardship View on China

Since the ground-breaking work by Donaldson and Davis (1991), scholars have resorted to the stewardship theory of management as a basis for managers' and shareholders' philosophical alignment. This theory, a sociological and psychological approach to governance, hinges on the assumption that executives feel a strong sense of attachment to and psychological ownership of their firm, and hence are more likely to behave as stewards. This perspective stands in marked contrast with agency theory in which managers are assumed to act in their own interest at the expense of shareholders. Higher levels of 'psychic income' (Gimeno et al., 1997) should make 'organizationally centered' executives (Davis et al., 1997: 25) accept lower cash compensation to continue working in the organization. We adapt this stewardship concept to the Chinese context, and use this term to describe the fact that Chinese managers are in principle (required to be) accountable to the state. Chinese managers are usually appointed by the state, and maintain close political connections with the government. As a result they actually act like the stewards of the state, and work

[11] Under government regulations, the executive compensation can only be up to 10-12 times that of an average worker.

towards fulfilling both the economic objectives of the firm and the political ones of the state. Different from the stewardship theory which makes a human managerial altruism assumption on the manager, our perspective admits that Chinese managers can still be self-interested. However, the institutionalization of state-stewardship ensures that acting in the interest of the state is also in managers' own interest. We illustrate the formation and institutionalization of state-stewardship from three angles: (a) the organizing principles of the company, (b) the incentive structures of the manager, and (c) the enforcement mechanisms imposed by the state.

In terms of the organizing principle, the state is involved in every level of activity of the firm, both at the political and economic one. The political organizing principle requires that firms' business activities be fundamentally state-driven, be aligned with goals such as safeguarding the political power/social demand, and be conform with the ideological requirements. The economic organizing principle requires that firms' business activities achieve economic growth in state-related sectors' and maintain some degree of monopoly power in some 'national strategic industries'.

The incentive structures for state-appointed (or state-influenced) managers are based on a political cadre promotion system with different hierarchical levels. Each level of the cadre is equipped with a different set of benefits, but by nature, all are entitled as government officers to enjoy miscellaneous political and economic types of rewards. For instance, under the career promotion system, a manager who wants to secure his job and ensure promotion has to show loyalty to the party.

The enforcement mechanisms rely on the coercive power of the state to punish the stewards when they violate the state's will or when their behavior and performance are perceived as unsatisfactory. The punishment comprises lowering a SOE manager's rank (seniority) in the civil service hierarchy or removing a manager from his political cadre position. Moreover, the government regularly rotates its officers and state-appointed managers between political and corporate positions to make sure that they are absolutely loyal to the government (the party).

This state-stewardship concept is not static but has evolved over the past two decades. The massive privatization has reformed the ownership of Chinese enterprises, transiting from entirely state-owned to semi-state owned or privately owned, especially after the split-share structure reform. Correspondingly, the form of control by the Communist-Party-led state has transited from pure state ownership to state-stewardship. We argue that the reforms only privatized the ownership structure and composition but

did not really reform the human resources policies at the managerial level. To maintain its control legitimacy, the state *boosts the economy* through privatization (which leads to more efficient allocation of resources and improves production efficiency), and *controls the economy* through maintaining its stewardship system within firms to carry out its political objectives. Table 2 shows a comparison between these two major types of control exerted by China's state, in terms of their representative periods, control methods, governance models, and managerial incentive structures.

[Table 2]

Within this state-stewardship framework, we revisit the executive compensation issues at three levels: the personal-level (managerial background), the firm-level (ownership, performance, and internal governance mechanisms), and the macroeconomic level, that have been investigated in the literature from the agency perspective. To do so, we develop five testable hypotheses and contrast them with agency predictions in the next section.

4. Hypotheses

4.1. State control, gray income, and executive compensation

Our first set of hypotheses explores this question: What drives the managerial compensation in China? (Or why is Chinese compensation so low?) We have seen above that the state puts more emphasis on political and macroeconomic objectives rather than on firm profitability. Consequently, a manager's incentive structure may be geared towards the former objectives. As state's stewards, government-appointed managers are government officials who face the threat of punishment for lack of political loyalty (dismissal) but are also offered lower firm-based pecuniary rewards, and lower pay-for-corporate performance. In addition, they are subject to regulatory salary ceilings (e.g. salary grades and brackets based on rank). The prevailing presence of state ownership and state control in Chinese firms is the legacy of China's incomplete privatization, which can be viewed as exogenous from a corporate perspective. Especially for the largest companies and companies in key industries of 'national strategic importance' such as oil and telecommunication, the state wants to retain its absolute control ('*retain the large*'). More concentrated state ownership is usually associated with various non-pecuniary benefits for the management such as higher prestige, stronger political cadre promotion incentives, but also with stronger (coercive) state influence, and a stronger concern for public criticism (Kuhnen and Niessen, 2012) – a reason for setting regulatory salary ceilings.

Agency theory predicts a negative relationship between *institutional* ownership concentration and executive compensation, because the major shareholders adopt a monitoring role in mitigating the agency problems between shareholders and managers and are expected to avoid excess managerial compensation (Hartzell and Starks, 2003). However, a positive relation is expected in an environment that lacks effective incentives and monitoring mechanisms due to managerial entrenchment (Bebchuk and Fried, 2003). It is widely believed that even though the ownership is concentrated in Chinese firms, the fact that the controlling shareholder is the state results in little effective monitoring (IIF 2006). In our state-stewardship view, the institutionalized state-manager relationship ("state-stewardship") makes managers accept lower compensation in companies in which the state retains control. Therefore, we hypothesize that a higher proportion of shares owned by the state results in less cash compensation as there is then a higher probability that the pay schedules for civil servants or political representatives will be applied and higher non-monetary rewards can be enjoyed (subsidized housing, better health insurance). If this hypothesis is true, we will expect a negative association between the state ownership stakes (whereby the state can be a direct or ultimate owner), and managerial pay:

H1a. Managerial compensation is lower in firms with stronger state ownership, and in firms whose ultimate controller is the state. The effect of state ownership has become less important since the 2006 reform.

In this state-stewardship framework, besides receiving non-pecuniary benefits, executives in Chinese companies with stronger state ownership may also stealthily compensate their low pay packages by means of gray income through colluding with politicians and state agencies (Wang and Xiao, 2011). Gray income (unlike perquisite consumptions which are legal) resulting from 'tunneling' is prevalent among firms in developing countries with strong state influence such as Russia (Johnson et al., 2000) and China (Jiang et al., 2010). For example, the latter study documents that during the period 1996-2006, the management siphoned tens of billions of RMB from listed firms by means of inter-corporate loans to blockholders. Information on such inter-corporate loans is publically available but the loans do not require a 'fair value' test. Furthermore, these loans were not made as part of the firms' normal course of business, they did not even accrue interest, and even when some interest was accrued, neither the interest nor the principal were typically ever paid back. It is fair to expect that managers of the firms where this type of tunneling was rampant, personally benefited by colluding with dominant shareholders (often even state authorities or agencies) and sharing the private benefits the blockholders have extracted from the firm. Jiang et al. (2010) argue that China is an

environment highly conducive to tunneling behavior.[12] They also show that this practice was not uncommon, and more so in local-government controlled firms than for firms controlled by the central-government. Inter-corporate loans were booked as 'other receivables' on the balance sheet. The lack of clout of the market regulators caused the tunneling practices to persist in spite of the security regulations issued between 2001 and 2006. In 2006, eight government ministries threatened public disclosure and personal action against top management to stop the abuse.

Agency theory which assumes a conflict of interest between shareholders and the managers would predict – in contrast to the state-stewardship framework - a positive relationship between managerial compensation and tunneling by controlling shareholders (Noe, 2009). This is because, in order to benefit from tunneling, controlling shareholders would "bribe" the manager by offering him higher compensation. The split-share reform has been shown in the literature to enhance governance and curb controlling shareholders' expropriation of minority shareholders. In contrast, from our viewpoint, managers are the state's stewards, they collude with shareholders who are usually government authorities stealing from the public. We therefore expect a negative correlation between managers' contractual compensation and the size of the other receivables on the balance sheet because managers with low income may be more prone to resort to tunneling and managers who significantly increase income through tunneling care less about their (low) cash compensation. After the 2006 split-share reform, non-tradable shares became tradable on the stock markets and ownership became more dispersed. Consequently, the use of tunneling by managers and major shareholders to extract private benefits from minority shareholders (public investors) has been reduced so that such gray income opportunities may have become smaller. Therefore, we hypothesize that:

H1b. Managerial compensation in China is lower in firms with higher other receivables. The opportunities to complement pay by means of tunneling (through other receivables) have decreased since the 2006 reform.

4.2. Value maximization: agents vs. state's stewards

Our second hypothesis examines whom Chinese managers are responsible to. State control may decrease managerial pay but may also insulate managers who are inefficient (from a corporate perspective) (Conyon and He, 2011) but still adhere to the political objectives of the state. From an agency perspective,

[12] Jiang et al. (2010) give the following reasons: (i) all Chinese listed firms have a dominant/controlling shareholder; (ii) prior to 2006, the trading of controlling shares was restricted, thus limiting the ownership benefits of price appreciation to the controlling shareholder, and increasing her incentive to obtain benefits through other channels; (iii) the legal system offers few options for minority shareholders to take private enforcement action against blockholder misconduct; (iv) public enforcement, including fines and prison terms for tunneling, has been hampered by the limited authority of security market regulators.

managerial pay should be linked to performance that maximizes shareholder value, whereas from a state-stewardship view, a manager is motivated less by pecuniary rewards but more so by political objectives, which translates into political promotions and prestige. To measure performance, we use the return on assets (ROA) which measures the net income to the assets (still to a large extent) controlled by the state, and Tobin's Q, which captures the market-based return to the shareholder's equity. If there is indeed a discrepancy between being responsible to the state and not to the shareholders, we would observe that managerial compensation is more related to the ROA but less to Tobin's Q (Van Essen et al., 2012b). Since the split-share structure reform of 2006 when most non-tradable shares were sold to the market as tradable equity and corporate governance became more market-oriented, we expect that the increase in market-orientation is reflected in the stronger pay for market-based performance. Therefore,

H2. The managerial compensation in China is significantly positively correlated with the return on assets, but not with the market-based return (e.g. Tobin's Q) in the pre-2006 period. Subsequently, we expect that the former relation is attenuated and that pay is significantly positively related to the market-based return.

4.3. Political connections and managerial backgrounds

If corporate performance in China is a less important benchmark for managerial pay, what are the main corporate characteristics and managerial traits that are related to higher compensation? Let us first examine whether pay is related to a manager's personality, ability, and political-connections. If the state-stewardship concept is valid, we expect managers not to be rewarded for their real abilities to generate financial returns, but to their connectedness to the state and the politicians, and to their degree of compliance to the state order. China is notable for being an environment where friendly connections with government officials can pave the way through the bureaucratic labyrinth (*Wall Street Journal, September 6, 2011*), even easing access to capital that is scarce for pure private-sector enterprises (Fan et al., 2007). Furthermore, a political background increases one's prestige in China substantially. Managers of listed firms who are politically connected are perceived to belong to both the business and political elites which reflects their high status in the social hierarchy of the Chinese society (Li and Zhang, 2007). Therefore, one could hypothesize that managers are paid in line with this hierarchical status. As the direct ownership stakes held by the state have decreased since the (partial) privatization, the importance of state control through political connections has increased, which may be reflected in higher pay for connectedness (especially since 2006) but not necessarily for ability.

In contrast, agency theory implies that politically connected managers are paid more *only if* their connections are beneficial to the firms, e.g., in easing financial constraints and securing large contracts, because they increase shareholder value. However, it has been well documented that executives' political connections actually lead to worse financial performance due to politicians' rent extraction from companies they manage, especially in developing countries (Shleifer and Vishny, 1994; Faccio et al., 2006). Therefore, under the agency framework, the board of directors should not allot higher compensation to politically connected managers, while under the state-stewardship framework such managers will be paid more by the state.

H3a. Politically connected managers receive higher compensation. This relation is stronger in the post-2006 period.

Under the rule of the communism tenets, the state and its stewards may window-dress their relationship in order to avoid public criticism. They may appease the public by setting relatively higher compensation for some easily observable managerial traits, such as degrees from prestigious universities or academic scholarship. These factors significantly contribute to one's prestige in China which has a long history and tradition (Confucianism) of respecting knowledge and intellectuals. Moreover, in the light of China's lagging intellectual and educational development in modern history (the past 60 years), Chinese hold people who have been educated at foreign top universities or have worked overseas in high esteem. Whereas agency theory states that managerial pay ought to be closely linked to a manager's abilities, under our state-stewardship view managers' actual abilities to efficiently manage their firms are expected to be less important in terms of compensation (Rose and Shepard, 1997; Graham et al., 2012). Obviously, academic and international experience is not just a factor of prestige, it may also increase Chinese executives' abilities to manage state assets and generate more benefits for the state in their function as responsible stewards. We distinguish between prestige and ability variables by also testing whether experience in specialized fields (technology, finance, and accounting) is priced in the manager's compensation.

We classify the managerial characteristics according to three dimensions: the *prestige*, *ability*, and *personal* dimensions in order to explore which types of characteristics account for higher compensation. Prestige increases for managers with *Political Experience*, with *International Work Experience*, with *Overseas Education*, with *Academic Experience*, with a higher *Educational Degree*. Ability is captured by *Accounting Experience*, *Financial Experience*, and *Technological Experience*. The personal dimension is determined by *Gender*, *Nationality*, and *Age* (which may also proxy for seniority and entrenchment within

the firm). Based on our above discussion, we expect that managerial pay significantly positively correlates with a manager's political and prestige dimensions, but less so to ability and personal characteristics. Therefore, we hypothesize that:

H3b. Managerial compensation is significantly positively related to the manager's 'prestige', mirrored by international work experience, overseas education, or academic background, but less related to the manager's 'ability', reflected by their work experience in specialized industries.

4.4. The role of internal corporate governance and symbolic management

Our fourth set of hypotheses is on the internal corporate governance mechanisms (mainly the structure of the board) that could regulate managerial compensation. An effective board structure could alleviate moral hazard problems and reduce agency costs (Rosenstein and Wyatt, 1990). The effectiveness of the board structure (especially in monitoring managers) should be stronger when firms become more market-oriented, and executive compensation could consequently be driven more towards the Western pay-for-performance model.

Based on our state-stewardship view that managers and the state share the same interests which may conflict with that of the citizens, we question the effectiveness of board structures in relation to regulating managerial compensation in China. The state has little incentive to implement a real corporate governance reform leading to more independence from the state. Some studies suggest that as China's corporate governance gradually converges to the Western market-based model, especially since the issuance of the 2002 CSRC Code which requires the presence of more independent directors and the separation of management and supervision. Since then, board structure should play a stronger role in aligning managerial pay to firm performance (e.g. Conyon and He, 2011; Cao et al., 2011). However, the blending of the Anglo-Saxon model and the German model of corporate governance actually dilutes the effectiveness of the independent directors and the supervisory board, and board committees, and duplicates administrative costs. Furthermore, as is the case with the nomination of managers, directors are also usually selected by the government and many of them have political connections. In this sense, they are also stewards of the state, and share the same interests as ('collude' with) the managers instead of monitoring them. Therefore, externally visible structures (such as committees, procedures, and formal organizational positions) are mainly used to meet legal requirements or social procedures in China, rather than to reform corporate governance in substance (Markoczy et al., 2013). This practice, often coined as "symbolic management" is used to conform to societal rules, norms, and expectations but not to the essence of the regulation (Westphal

and Graebner, 2010; Westphal and Zajac, 1994, 1998). For example, Peng (2004) has confirmed that appointing outside directors to board positions in Chinese firms often serves a symbolic purpose without actually improving corporate governance. IIF (2006) also reports that independent directors have little leeway to influence corporate strategy in China. Also, the setting up of compensation committees is voluntary under the recommendation of CSRC in 1999, and can also be used as a symbolic management tool in China, which Markoczy et al. (2013) confirm.

In this light, the symbolic management view can be housed in our state-stewardship perspective that explains executive compensation in Chinese firms. As the state's stewards, the boards do not function to effectively monitor managers and constrain managerial pay, and many of the board structures (such as the ratio of independent directors and the existence of compensation committees) are merely symbolic – they are either not related to or even positively related to pay. In addition, they would not induce stronger pay-for-performance (Van Essen et al., 2012a). In contrast, agency theory predicts that well functioning internal corporate governance mechanisms should be related to lower managerial pay and stronger pay-for-performance (Bebchuk and Fried, 2004). For the Chinese context however, we hypothesize that:

H4a. Managerial compensation is not related or even positively related to symbolic features of board structures such as the ratio of independent directors and the setting up of a compensation committee. These board structures do not strengthen pay-for-performance.

Another important internal governance feature is the phenomenon of managerial duality. Managerial duality whereby the manager is also the chairman of the board, and in some cases, even the secretary of the party committee, is still prevalent in Chinese corporations[13]. In an agency framework, managerial duality creates conflicts of interests as the manager is put in a position where he has to evaluate and monitor his own performance.[14] The managerial power theory within the agency framework states that duality gives the manager more power over the board, and that top management is likely to abuse their power by rewarding themselves a high compensation (Grabke-Rundell and Gomez-Mejia, 2002). However, given that most managers who hold dual positions in China usually also have significant political stakes and aligned interests with the state as its stewards, it is not likely that they would put their own political fate at risk. Since the

[13] A good example of this managerial duality is the General Manager of PetroChina Jiang Jiemin, who served as the Deputy Provincial Governor of the Qinghai Province and the deputy secretary of the province during 2000-2003. He has been the General Manager of CNPC, the chairman, the president and the party secretary of PetroChina all at the same time, and he is also an alternate member of the 17th CPC Central Committee. However, Jiang's compensation was not high: according to *Reuters*, Jiang's 2010 compensation was only RMB 916,000 (approximately $140,000).

[14] For example, Core, et al. (1999) provide empirical evidence that managerial duality is associated with significantly higher managerial compensation.

2006 reform, the state has significantly decreased its ownership stakes but has shifted control towards dominating the recruitment/hiring policies of executive employees. The state relies more on appointing (re)liable managers and such liability becomes particularly important when the manager holds a duality position. Therefore, while the agency view predicts a positive relation between managerial pay and managerial duality over our *whole* sample period, the state-stewardship perspective predicts that managerial duality be more positively related to managerial compensation in the post-2006 period. We hypothesize that:

H4b. Managerial compensation in China is weakly positively related to managerial duality in the pre-2006 period, but is more significantly positively related to managerial duality in the post-2006 period.

4.5. Local and national political goals

Whereas the above mentioned political dimension is based on issues beyond the individual and firm level, our final hypothesis deals with the macroeconomic determinants of managerial compensation. The organizing principles of the state require that firms' business activities should be fundamentally state-driven, and be conform with the ideological requirements. Macroeconomic performance at the regional level is an important political indicator of how well local politicians are doing in terms of reaching the political goals of the state and the government(s). Following this logic, we argue from our state-stewardship view that managerial compensation also reflects those political goals (in Chinese: *Zheng Ji*). We focus on three major political/economic goals that the Chinese government cares about most: GDP growth, employment, and inward foreign direct investment (FDI). More precisely, as the executives in the local state-controlled firms are usually selected by the local provincial officers who control huge amounts of resources and enjoy broad autonomies (Xu, 2011), or have closer connections and aligned interests with the local government, their compensation should be positively correlated with the local provincial GDP growth and employment. To test the link between managerial compensation and macroeconomic factors, we use gross domestic product (GDP), total employment of the local province where the firm is headquartered, and the number of employees hired by the firm, as measures of how the managers as state's stewards fulfill the local governors' political aims. Prior to 2006, inward FDI (attracting foreign capital and obtaining technological knowhow) was emphasized in the national economic strategy. Subsequently, GDP growth was stressed, also as a consequence of the global economic crisis. It should be noted that the political priorities differ across regions, for instance, the eastern coastal provinces with their high level of economic development versus the inner continental provinces (northern and western regions). The more developed regions have been the engines of China's economic growth, and there the local governors' priorities hinge on GDP growth, whereas in less

developed regions, attracting foreign direct investment to upgrade the industrial structure is the focus. The agency theory would make no such prediction as there are no mechanical linkage between managerial pay and macroeconomic factors *after controlling for provincial macroeconomic effects* which capture those unobserved macroeconomic factors such as local income, local property prices, labor market prosperity, social safety net, as well as other geographical and demographical factors. Although the values of some macroeconomic variables vary over time, their relative cross-province differences are stable and can be controlled through province fixed effects. Therefore, we hypothesize that:

H5. Managerial compensation is positively related to the local macroeconomic (political) achievement indicators such as growth in GDP, inward FDI, and corporate employment.

5. Data and Descriptive Statistics

5.1. Data

We test our hypotheses on firms listed on the Shanghai and Shenzhen exchanges[15]. We collect our data from the Wind Database, CSMAR, and Peking University's China Center for Economic Research (CCER) database, which comprise all A-share companies[16] listed on the above exchanges since 1990. Financial and operational data, along with information about industry classification, location of headquarters (city and province) are collected from Wind. Information on executive compensation, stock ownership, corporate governance, and board structure are gathered from CSMAR, and information on the ultimate shareholders' names is from CCER. In addition, we manually collected the variables capturing CEOs' characteristics and backgrounds from their curricula published on Wind and CSMAR. To supplement the managerial background data, we collect the profiles from the annual reports, more specifically from the 'Profile of Directors and Senior Managers' sections that comprise the manager's name, gender, education, academic and professional background, and career history. The dataset consists of 17,272 firm-year observations covering more than 92% of all listed firms in mainland China over the period 2001 to 2011. We excluded the financial and insurance companies, and the firms labeled by the stock exchanges as *Special Treatment* (ST). The latter are firms in financial distress or experiencing financial difficulties (e.g. negative net earnings for two consecutive years) as defined by CSRC. We follow the *Industry Classification Guide of Listed*

[15] We exclude Chinese firms listed in Hong Kong or abroad as they operate in a different institutional environment and are subject to different regulations.

[16] A-shares are stocks valued in RMB and available only to Chinese citizens; B-shares are also denominated in RMB but traded in such foreign currencies (USD or Hong Kong dollar).

Companies issued by CSRC in April 2001 to partition our sample firms into 21 industries. Table 3 summarizes the variable definitions, and Table 4 exhibits the summary statistics on the main variables[17].

[Tables 3 and 4]

Firms could manipulate their financial and compensation information, e.g. the gray income accrued to executives. However, the number of falsified financial statements in China appears to be fairly limited; Firth el al. (2011) find that only 271 firms have the restatements during 2000–2005 (3.7% of all observations). In addition, as aforementioned, equity-based pay such as stock options are rare in China, even in recent years. These help justify the reliability of using cash compensation (salaries and bonuses) as the proxy for managerial pay.

5.2. Methodology

We estimate the determinants of managerial pay using fixed effects models as the Hausman tests indicates that the covariates are not uncorrelated with the unobserved firm effects. As some of key independent variables are time-invariant (e.g. managers' personal background), we also estimate random effect models. The dependent variable is top managerial pay, which is defined as the logarithm of the total compensation of the top three highest-paid top managers as there is no transparency requirement at the individual manager or director level. Our independent variables comprise state ownership (shares directly owned by the state, and the dummy variable indicating whether the ultimate controller of the firm is the state), firm performance (ROA, Tobin's Q), macro-economic factors (the natural logarithm of the local province's annual GDP, of the annual inward FDI, and of corporate employment[18]), board structure (independent director ratio, the existence of a compensation/strategy committee, CEO-chairman duality, top management team size, board size), political connections, managerial backgrounds (education, international experience) and ability (specialized experience). We control for industry, year, and province fixed effects. We cluster standard errors at the firm level to further adjust for correlation of unobserved characteristics across firms.

Endogeneity is potentially an issue as there may be reverse causality between managerial pay and most firm-level variables. However, under China's unique institutional arrangement, state ownership, managerial

[17] A correlation check indicates there is no multicollinearity problem between these variables.

[18] As both the macro(-economic) variables and the dependent variables are in natural logarithms, the beta coefficient also measures the effects of change of these variables, since the first-order approximation of its Taylor serial is its growth rate.

backgrounds, board structures are mostly directly determined by the state, and can thus be viewed as exogenous rather than being affected by managerial compensation. Probably, the only potentially endogenous variables are those measuring firm performance: while managerial compensation can be determined by corporate performance, performance results from managerial effort and incentives which may hinge on compensation. Such endogeneity problems may be especially severe in a Western context where managers receive a significant amount of their total compensation in the form of stock options or restricted stock, and it's hard to unbundle the short-term and long-term financial incentives (Datta et al., 2009). However, this is much less of a concern in the case of China because equity-based compensation is rare, and executive compensation packages are produced bureaucratically, with weak links to share price (Buck et al., 2008). There has been no tradition of (marked-oriented) pay-for-performance for individual executives owing to the Chinese national culture with high collectivism and high power-distance tolerance. We still address this endogeneity issue by implementing an instrument variable approach as a robustness check on our results.

6. Results and Discussion

6.1. Benchmark results

It is important not just to test the state-stewardship for the whole sample period but also to distinguish between the periods before and after the regulatory structural break of 2006 (the split-share reform) and study the economic transition patterns. To examine the impact of the state on top managerial compensation, we estimate the regression including the degree of state ownership (or whether the state is the ultimate shareholder) (for definitions, see Table 3). A first important observation is that state ownership has a significantly negative impact on managerial pay for the full sample (full sample in Table 5), but this relation only occurs for the pre-2006 period when a 1% increase in state ownership results in an average 0.225% decrease in the managerial pay, *ceteris paribus*. That entails that, for instance, a 30% higher percentage of state ownership drives down the managerial compensation by about 7%. This supports H1a in that managers in more state-oriented companies receive a lower pecuniary compensation, especially when the state control is strong (through direct ownership). This effect disappears from 2006 when the state significantly reduced its (non-tradable) share stakes and direct state control became weaker. Similar results are found when we replace the State direct ownership with State ultimate shareholder dummy as an explanatory variable.

An alternative explanation on the negative association between state ownership control and managerial pay may lie in the tradeoff between incentive and insurance: state ownership and the resulting state appointments insulate top executives from turnover. Therefore, SOE managers may be willing to accept lower compensation in exchange for higher job security. However, we find that managerial turnover is not significantly larger in private firms than in SOEs[19]. Moreover, the job security argument does not explain the statistical significance of the coefficients of Political Experience either: politically-connected managers are supposed to have more secure positions and would hence earn less if the above turnover argument were true.

Jiang et al. (2010) suggest that high other receivables represent inter-company loans to firms of blockholders. As the use of this type of loans has been shown to enable tunneling, managers of firms with high other receivables are suspected of collude with blockholders, which are usually state agencies and politicians. In the context of these opportunities for self-dealing, managers may care less about their regular cash income. Other receivables are always significantly negative in Table 5 (for the full and pre-2006 samples), which supports H1b and indicates that gray income and cash compensation are to some extent substitutes. The fact that the negative relation is not statistically significant in the more recent years implies that this type of tunneling by managers (along with dominant shareholders) is no longer (or less) prevalent and that the government crackdown on this type of self-dealing has been successful (and/or that other channels have been found for tunneling). These results are salient given that we have already controlled for ownership concentration which to some extent captures the agency argument that blockholders can 'bribe' managers.

One concern about this result would be that the causality is likely to go in the opposite direction: managers are more likely to engage in gray income-generating behaviors because they have lower monetary compensation. If this were the case, we would expect the negative relation to be stronger in firms with more concentrated state ownership as the manager needs to compensate more for his low pay through gray income. In unreported regressions, we include an interaction term between state ownership and other receivables. However, its coefficients are not statistically significant, neither before nor after 2006, a finding which is also supported by our tests on subsamples of SOEs and private firms.

We document a strong relation between firm performance and managerial compensation (Table 5). For

[19] To check this, we collected information on managerial turnover in the pre-2006 subsample, and generated a dummy variable that equals 1 if there was a change in managers in the year under consideration, and 0 otherwise. The average managerial change for SOEs is 24% while the average managerial change for private firms is 20%.

the full sample, the economic significance of the ROA coefficient (12.5% [2.3%×5.44]) is four times bigger than that of Tobin's Q (3.15% [1.4%×2.25]) which implies that the accounting performance is in general more important than the market-based benchmark. A more detailed analysis reveals that ROA is only positively significant in the pre-2006 sample whereas both the accounting and market-based measures are significant for the post-2006 sample. This provides some support for H2 in that the managerial compensation depends on accounting returns, but only since 2006 also on the market-based return. This finding is conform with China's move towards a more market-based economy.

An alternative explanation may be under an optimal contracting framework. For example, Kang and Liu (2008) find that the sensitivity of managerial compensation with respect to stock performance is positively correlated with the measure of stock price informativeness. Before the 2006 split-share reform, most shares were held by the government and its affiliated agencies in China were non-tradable, and the stock market was not efficient which implies that stock prices were at best a coarse measure of underlying firm fundamentals. Therefore, the state linked managerial pay to some other measures such as ROA to capture managerial performance. After the 2006 reform, all the non-tradable shares were gradually floated on the stock market, thus increasing the stock market efficiency (Murillo et al., 2011). As a result, executive compensation could now also tied more closely to firm stock performance such as Tobin's Q. However, this assumes that bonuses are paid out linked to stock price increases and the compensation contract is revised every year, which is not the case in China (Adithipyangkul et al., 2011). Furthermore, it has been empirically shown that stock price informativeness has actually decreased in China since the split-share reform, due to the risk-sharing induced by the broadened investor base which leads investors to collect less information on the firm's future payoff[20] (Chang et al., 2012; Li et al., 2011), which significantly weakens this explanation.

Managers with political experience receive a higher compensation, and this relation between pay and the political background is stronger in the post-reform period. Managers with a political background received 4.5% more compensation prior to 2006, but this increased to 5% post 2006 (a difference which is statistically significantly different but economically small)[21]. This echoes – although only weakly – Xu's

[20] Peress (2010) argues that enlarged investor base would reduce the risks born by each shareholder. In general, those investors will then be less incentivized to collect information on the firm's future payoff. Since stock price informativeness reflects the aggregation of information gathered by each investor, there will be a decrease in stock price informativeness following the expansion of investor base. As stock splits merely increase the number of shares outstanding without raising extra capital, it leads to a smaller proportionate ownership size and stronger risk sharing effect.

[21] We generate a dummy variable indicating whether the observation belongs to the post-2006 sample (or not), and an

(2011) claim about the government's control over executive personnel: stronger political ties are reflected in higher executive compensation. These findings fail to reject H3a.

Next, we relate the top managers' 'prestige', which is captured by their international work experience, overseas education, educational level, and academic background, to their compensation. We find that international work experience is financially compensated (and even increasingly so), certainly for reasons of prestige in the home country, but possibly also because this type of experience may bring valuable expertise to the company. It should be noted that since Chinese firms turned more market-oriented, international exposure is rewarded more (Table 5) but top management's specialized expertise in finance, accounting, or technology is not priced. We also observe that managers with a higher level of education, overseas education, or an academic (university) background receive higher pay. From a human capital view, specialized expertise, international experience, and education could all contribute to managers' competence, but in China, only those factors with a strong connotation to prestige are priced in terms of higher managerial compensation. This result gives some support our H3b, and is reinforced by the Chinese culture in which prestige factors play a prominent role. The fact that managerial pay is strongly related to what are considered in China as prestige factors, but less to ability factors, implies that the Chinese compensation policy is somehow a window-dressing corporate governance practice aiming at cherry picking managers who are loyal to the state. We also control for age, which is strongly positively related to compensation, and gender which has a negative (but not statistically significant) impact.

Regarding the internal corporate governance structure, we find that the larger the size of the board and of the management team (which is shown in Figure 2 not to be part of the board and has a low correlation with board size), the higher the pay of the top management. The proportion of independent directors does not have an impact on compensation implying that independent directors are not effective in regulating managerial pay. In addition, managerial pay is higher in firms with a compensation committee, but not with a strategy committee. The fact that independent director ratio and other board structures are irrelevant while compensation committee is positively related to pay supports H4a that they do not function to *constrain* managerial pay. Our results are also consistent with the findings in Markoczy et al. (2013) that firms set up compensation committees as a symbolic management tool to create the appearance of legitimacy by paying

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interaction term between this dummy variable and the manager's "political experience" variable. The F-test rejects the null hypothesis that the coefficients of these variables are jointly zero, implying the coefficients of "political experience" in the pre-2006 and post-2006 samples are statistically significantly different (the effect of including the post-2006 dummy in the regression is significant).

high managerial compensation. In unreported regressions, we create a variable interacting compensation committee dummy with ROA, and find that compensation committees weaken the pay-performance sensitivity. We find similar results for the independent director ratio, and for board structure variables when they are interacted with Tobin's Q (the interaction term does not affect the significance of Tobin's Q in isolation). In general, these findings suggest that the symbolic board structures do not reduce managerial pay and do not induce pay-for-performance. Furthermore, managerial duality does not significantly influence managerial compensation prior to 2006, but subsequently gained significance. The coefficient of the interaction term between managerial duality and political experience (not reported) is significant and positive for SOEs. This is consistent with our prediction in H4b: given the state's reduction of control based on ownership concentration, it wants to appoint more (re)liable or trusted people whom they give more responsibilities and thus compensate better.

One may be concerned that the above findings on board structures may be explained by the managerial power theory. That is, powerful managers can dominate the corporate governance mechanisms (such as the nomination of independent directors and board committees) which enable them to receive higher compensation and contracts with lower pay-for-performance. However, this argument is weakened by the fact that the coefficients of the independent director ratio are never statistically significant. In addition, the positive effect of the interaction between managerial duality and political experience (not reported) indicates that higher pay is based on managers' political reliability rather than managerial power. Another concern about the positive effect of compensation committees may be that one of the roles of the compensation committee is to attract talented managers with higher pay (Markoczy et al., 2013). However, this argument is not supported by its weaker association with pay-for-performance, and the fact that the pay is not linked to managerial expertise in specialized fields.

Interestingly, Table 5 shows that the coefficients of local GDP (*Ln(GDP)*) and inward foreign direct investment (*Ln(inward FDI)*), which measure the local provincial governors' political goals and achievements, are significant but in different time periods[22]: the growth of inward FDI is significant pre-2006, whereas GDP growth only plays a role post-2006. This implies that the priority in local governors' political goals has evolved over time: prior to 2006, attracting foreign investment to upgrade the industrial structures and obtain technological knowhow was a major political concern, but since 2006, the stronger

[22] As Ln(GDP) and Ln(Inward FDI) are highly correlated (over 80%), we do not include these variables in the same regression.

market-orientation and widespread financial crisis put more pressure on the state and local governors to boost economic growth so as to maintain legitimacy and political stability. Table 5 also reveals that the number of employees of the firm (*Ln(Employees)*), which proxies for both the level of responsibilities of top management and the firm's contribution to local employment, is positively related to pay. Securing employment has gained importance over time, especially since the economic crisis struck. This supports H5: managerial compensation is tied to macroeconomic political goals and achievement indicators.

We do not find the typical pay-performance relationship documented in some other papers, such as Conyon and He (2011), Chen et al. (2011), and Cao et al. (2011). One key distinction between our model and theirs is that we control for the political dimension such as state ownership, managers' political connections, political achievement variables, etc. We argue that ignoring the strong state involvement could bias the empirical findings and reduce the ability to judge how Chinese managers are actually evaluated. Furthermore, given the large heterogeneity in industrial and regional development within China's economy, what is missing in previous studies are industry and province fixed effects.

[Table 5]

6.2. State-owned enterprises versus private firms

In the previous section, we have found that contrary to the predictions of agency theory, managerial compensation is negatively related to state ownership/control and other receivables, positively related to managers' prestige factors and local governors' political goals. Compensation is not related to shareholder value before 2006 (e.g. Tobin's Q), managers' past professional experience, and board structure (with exception of the compensation committee - which can be argued - could regarded as a 'symbolic management' tool). We expect that the impact of the above explanatory variables differ across firm type, and be stronger for SOEs. In this section, we analyze two subsamples: SOEs in which the proportion of state-owned shares amounts to more than 30% and 'privately-owned' firms with state ownership below that threshold. We expect that SOEs and private firms generally have different operating objectives and are subject to specific levels of political monitoring. It should be noted that the Chinese definition of a private firm is different from that in western economies: although the average ownership in a Chinese private firm stake can be low, the influence of the party (through the board, party representatives in the company, etc.) is still significant.

Table 6 compares the results for SOEs and private firms for the full sample period and the two

sub-periods. For SOEs, the previous results supporting our state-stewardship hypotheses still hold for both types of SOE classifications: (1) State ownership is significantly negatively correlated with managerial pay for SOEs, while such effect is not significant in private firms (including the State Ultimate Shareholder variable in our regressions yields similar results; not shown). (2) As before, the tunneling effect through other receivables is significant in the pre-2006 sample but not in the post-2006 sample, and it is particularly strong for private firms. This strengthens our argument that managers collude with the dominant shareholders (see Jiang et al. (2010) and Li et al. (2012)) to extract private benefits especially in private (less state-owned) firms. (3) ROA still has a positive influence on managerial pay, whereas Tobin's Q only has a significant impact after 2006. The increased focus on market-based performance is visible both for SOEs and for private firms, and the pay-to-market performance tie is stronger in private firms. (4) Prestige (such as international work experience and the level of education) translates into higher compensation, especially for SOEs, while specialized experience does not. (5) Managerial political background is more important for private firms (with less state ownership control) than for SOEs, which indicates a tradeoff between state ownership and managerial political connections between two types of firms. (6) Internal corporate governance mechanisms such as the proportion of independent director are still not statistically significant for SOEs, but are for private firms prior to 2006. The symbolic role of the compensation committee remains strong, and has become stronger for SOEs than for private firms after 2006. Managerial duality is significant and positive in private firms in which ownership control by the state is weaker, especially after 2006. The coefficient on the interaction term between managerial duality and political experience (unreported) is only significant in the private firm post-2006 subsample but neither for SOEs nor for pre-2006 samples. (7) Political goals (firm employment and provincial economic performance) variables still matter for managerial pay. In general, our perspective is still robust within SOE and private subsamples.

[Table 6]

6.3. The regional analysis

One important characteristic of China is its geographic heterogeneity. Even though we have controlled for province fixed effects, an analysis by region is warranted. There are 31 provinces/regions in mainland China that they are grouped based on geographic and demographic characteristics (excluded are Hong Kong and Macau, and included are five ethnic minority autonomous regions: Inner Mongolia, Xinjiang, Tibet, Ningxia, Guangxi, and four municipalities: Beijing, Shanghai, Tianjin, and Chongqing). We group the

provinces into North China, South China, East China and West China[23], and also analyze the regional North, Northwest, and Southwest[24] separately given their lower level of industrialization and development.[25]

Table 7 displays that the effects of state influence vary substantially across regions.[26] For example, in East China which is the most economically developed and market-oriented region, the influence of state ownership is insignificant (model (1) in Table 7). The East China region consists of mostly coastal provinces which opened their ports to foreign trade already more than one century ago. In the West, North, or Northwest regions (models (3), (4), and (6)), state influence is much stronger than in the South (model (2)) or Southwest (model (7)), which can be explained by the fact that these regions were historically considered as strategically located. Most of the ancient imperial capitals were established in these regions (for example, Xi'an, the capital city of Shaanxi Province, was the capital for six imperial dynasties) and they are now the key places in which the state is implementing the pervasive '*Western Development Strategy*' (in Chinese, *Xibu Dakaifa Zhanlve*). It is therefore not surprising that the tradition of state-influence remains most significant in these regions. Furthermore, a comparison between the minority autonomous region sample and the municipality sample shows that political connections, symbolic management (compensation committees), and political goals are more important in municipalities which are directly controlled by the state. These state-stewardship factors are less emphasized in autonomous regions. In addition, managerial pay is tied to market-based returns (Tobin's Q) in autonomous regions but not in municipalities. It is also interesting to note that wherever the state ownership does not have a significant impact on managerial pay, the manager's political background variable has a significant effect, which implies a potential tradeoff between state ownership and political connections. This confirms our argument that state-ownership and state-stewardship are substitutes for the state to maintain control over the firms.

[Table 7]

6.4. Robustness Checks

[23] Our regional partition of China's provinces is slightly different from the conventional administrative division that classifies China into six regions. We distinguish between: (i) North China (including the North East and North but excluding Inner Mongolia): Heilongjiang, Jilin, Liaoning, Beijing, Tianjin, Hebei, Shanxi. (ii) South China: Guangdong, Guangxi, Hainan. (iii) West China (including Southwest, Northwest, Inner Mongolia and Guangxi): Sichuan, Chongqing, Yunnan, Guizhou, Tibet, Shaanxi, Gansu, Qinghai, Ningxia, Xinjiang, Inner Mongolia, Guangxi. (iv) East China: Shandong, Jiangsu, Zhengjiang, Anhui, Fujian, Shanghai.

[24] Regional North includes the following municipalities and provinces: Beijing, Tianjin, Hebei, Shanxi, Inner Mongolia; Northwest includes Liaoning, Jilin, and Heilongjiang; Southwest includes Sichuan, Yunnan, Guizhou, Tibet, and Chongqing.

[25] For reasons of conciseness, we only report the results for the full sample by region.

[26] In unreported regressions, we replace state ownership by state control and reach similar conclusions.

6.4.1 Results from alternative panel data models

To test the robustness of our results, we conduct some more empirical tests with different specifications. Our afore-mentioned results are based on a random effect model controlling for year, industry, and province fixed effects. As alternative estimation methods, we use pooled OLS models (while controlling for year, industry and province), pure random effect models (without controlling for year, industry and province effects), and firm-fixed effect models. Obviously, the non-time-variant variables yield no results in a firm-fixed effects model. The first three models of Table 8 report that the coefficients on the state ownership variable are significantly negative and the coefficients on the politically-connected managers are significantly positive. Other receivables have a significant negative relationship with managerial pay. The pay for performance (ROA and Tobin's Q) is positively significant. The coefficients on independent directors are again not significant when we control for year, industry, and province fixed effects, but are significant when we use a pure random effects model. We argue that the insignificance of the results with fixed effects models make more sense: given the large heterogeneity among different industries and regions, we need to control for provincial and industrial variation by including their fixed effects. The same arguments apply to the sign and significance of internal governance variables – again, we find that only the coefficient on the compensation committee (a symbolic feature) is significant, while that on independent director ratio is not. The results of the managerial characteristics remain as before; prestige factors are positively and significantly influencing managerial pay whereas the variables capturing ability are not.

6.4.2 Pay and performance revisited: an IV strategy

Most studies deal with the pay-performance causation issue by including the one-year lagged value of profitability measures as independent variables. An alternative (and maybe more robust) approach is an instrumental variable (IV) strategy with a good instrument at the firm-, industry- or regional-level financial and economic factors (as they are most relevant to corporate performance) provided that this instrument does not directly influence managerial pay[27]. The Chinese unique social and cultural background gives us a plausible IV: the interlocking network of directors among Chinese firms. A key issue of Chinese business is the extensive use of personal connections (in Chinese, *Guanxi*) and network strategies (Ren et al., 2009).

[27] A valid IV should be correlated with the endogenous regressor (performance measure) but orthogonal to any other omitted characteristics (i.e., uncorrelated with the outcomes of interest through any channel other than their effect via the endogenous performance variable). However, one major difficulty is that likely candidates at the level of formal economic factors may be significantly affected by the state's political influence, and may thus be correlated with managerial pay through those channels. Therefore, we turn to individual-level factors.

Such connections and networks are part of the informal institutions that also influence business activities and economic development (North 1990). Director interlocks are an important form of such network ties that can shape firm behavior and hence performance (Renneboog and Zhao, 2011). Such a professional network may give access to information within the network (Davis 1991) and enables network members to handle uncertainties better (Shropshire, 2010, Shipilov et al., 2010). However, in the Chinese context, we expect *interlocked director* networks to have little direct impact on managerial compensation, because managers are not directors, usually do not own an equity stake (in contrast to the directors), and are usually appointed by the state (even in 'private' firms, the state has a large impact on top managerial appointments). Director networks in China are highly developed because of (past) informal and political connections (Ren et al., 2009) but are not the result of current and past firm performance.

A network based on director interlocks can be represented by the *information centrality* which measures the position of the firm within the network and is based on the 'information' contained in all possible geodesic paths between pairs of nodes (firms).[28] We use this information centrality variable to run a 2SLS regression, controlling for the same variables and fixed effects as in the regressions explained in sections 6.1 to 6.3[29,30]. The last two columns of Table 8 report the IV results from a 2SLS estimation, with information centrality of the director networks as an instrument variable for ROA[31]. The one but last column is the first-stage estimation with ROA as dependent variable, and information centrality along with all other key and control variables as independent variables. We find that information centrality is loading significantly on ROA. Academic experience and specialized expertise in technology lead to higher reported accounting returns whereas international work experience, overseas education, educational level do not. Expectedly, stronger state ownership and political experience do not yield a higher ROA. The last column is

[28] The centrality measurement method assumes that each link in a network path is independent, with the variance of a single link between nodes being unity. Therefore, the variance of a path is simply its length. This measure captures the communication in corporate interlocks that occurs along reachable, non-geodesic pathways (Stephenson and Zelen, 1989: 3). We calculate this information centrality measure using software Ucinet 6 as in Borgatti, Everett, and Freeman (2002). We then estimate the information centrality of a vertex *i* (firm *i*) as the harmonic mean of all the information measures between *i* and all other vertices in the network, and the information measure between two vertices *i* and *j* is the inverse of the variance of the weighted function. The information centrality is therefore calculated as $\mathrm{Ii} = \frac{n}{\sum_{j=1}^{n} 1/I\ ij}$, where I refers to the centrality or information of (i), the harmonic average of the information associated with the path from (i) to the other nodes.

[29] We do exclude a few variables which could serve as alternative channels for networks. We exclude the tunneling variable (because director network may affect managerial pay through the tunneling network), as well as size, capital intensity, and sales growth rate (which may all be influenced by information centrality and serve as alternative channels for information centrality to affect firm performance). Political experience is included in the model as it not related to our networks measure (the correlation is only -0.02).

[30] Due to the data availability issue, we perform this IV exercise on the pre-2006 sample only.

[31] We only instrument on ROA since we found that Tobin's Q was not a key determinant for managerial pay before 2006.

the second-stage estimation with managerial pay as dependent variable and the predicted ROA along with all other variables as independent variables. One can easily verify that the results remain similar as in previous estimations, and most key variables (state ownership, political experience, ROA, Ln(inward FDI), international prestige, education degree, compensation committee, etc.) are highly significant. Compensation is lower in state-controlled firms and higher when top managers have built up political experience. Only "prestige" is significantly and positively associated with managerial pay, and the existence of the compensation committee is positively related to higher compensation while the ratio of independent director is not. Political goals still play a role, as manifested by the significant coefficient on corporate employment. All of our five hypotheses are still receiving support in the IV estimations. In addition, the fact that the IV results are not significantly different from our basic results (of sections 6.1-6.3) implies that the endogeneity problem may not be that severe in our basic specifications[32].

[Table 8]

In sum, the empirical evidence so far largely confirms our five sets of hypotheses developed under the state-stewardship framework.

6.5. Generalizability and alternative explanations

Is our state-stewardship view context-specific or can it be generalized to other emerging markets with strong political involvement in business? Essentially, to answer this question is to ask: whether political institutions (e.g., autocratic regime, state ownership and control, political connections under administrative rules, etc) are the key determinants of corporate governance outcomes, including executive compensation. One potential alternative explanation on the China's executive compensation is related to the unique Chinese cultural and social norms. One can argue that the prevailing social norms in China prevent executives from being paid excessively more than other employees and paid for performance. However, it is empirically found that firms in Hong Kong, Taiwan and Singapore which are also Chinese communities with similar cultural origin but different political regimes, have corporate governance structure and executive compensation schemes that are conform to the agency theory (Sun, Zhao, & Yang, 2010), rather than the institutional-based state-stewardship view. Meanwhile, in many transitional economies (under the Socialist legal origin), executive compensation is found to be not tied to profitability but rather to political connection and political goals (e.g., Jones & Kato, 1996; Eriksson, 2005). These conform that the executive

[32] The F-statistics against the null that the excluded instrument (information centrality) is irrelevant in the first-stage regression is larger than 10, which indicates that information centrality qualifies as a strong instrument variable.

compensation patterns in China and other emerging economies under strong state involvement are a direct result of political institutions and institutional change, rather than cultures and social norms. Such effects remain even after massive privatization in these economies.

7. Conclusion

This paper proposes a state-stewardship view (which competes with the agency perspective) to explain China's state-manager relationship, as well as the corporate governance model and executive compensation schemes which are under the political influence of the state. As the world's largest country transiting from a fully state-controlled economy to a more market-oriented one through partial privatizations of firms, China offers the right context to test this theory. We hypothesize that Chinese executives act as responsible stewards of the state and run their companies in such a way that the firm's objectives are aligned with those of the state. Consequently, managers' compensation schemes are set to reflect their loyalty to the state and abilities to fulfill both the political objectives and the economic targets (with the political aims dominating). Since the 2006 reforms, the state influence has transited from state control through ownership to state-stewardship. Our state-stewardship framework hinges on five testable hypotheses. We use firm-level micro data for almost all public non-financial listed firms for the period 2001 to 2011 as well as regional-level macro data to test our hypotheses at three levels: the personal level, the corporate level, and the macroeconomic level. Chinese managers are paid much less than their international counterparts. The lower is the compensation in China, the larger is the ownership stake held by the state (or the stronger is the ultimate control of the state). Such lower pay seems to be compensated by higher gray income through colluding on tunneling activities. Also, the management seems to be remunerated not for maximizing shareholder shareholders (proxied by Tobin's Q) but that of the state-owned assets (proxied by ROA). In addition, compensation is not linked to ability or personality, but to political connections and prestige. Furthermore, internal governance mechanisms such as the percentage of independent directors and the compensation committee on the board are symbolic and do neither constrain managerial pay nor strengthen pay-for-performance. Moreover, CEO-chairman duality is used by the state to give more responsibilities to reliable state-stewards. Finally, managerial pay is closely tied to local officials' political goals and achievements, even after controlling for provincial fixed effects. These effects are stronger in the pre-2006 period because subsequent to the split-share reform, companies became more market-oriented.

Our empirical results lead to a critical evaluation of the relationships among the state, the firm, and the managers. Whereas most academic studies apply the western agency theory on China's corporate governance model and executive compensation, we take a state-stewardship perspective and argue that the state is actually seized by and represents the interest of the ruling government and its politicians rather than its citizens, as argued by North's (1990) predatory theory of the state and the seminal work by Acemoglu and Johnson (2005). Note that our basic argument is that Chinese managers are the stewards of the *state*, but not necessarily of the *nation* – the private citizens. In this context, the motivation of the manager would be substantially different. The threat to political and social order calls for a hierarchical social structure, which distributes rents according to individuals' social status and loyalty to the state. As China has been a communist country with a single ruling party for decades, the ideas of socialism still have a strong impact on how companies are run. As a powerful social elite, the state-steward managers in China have the same interests as the state (the government), namely extracting rents that should adhere to the nation (which stands for the society at large or the collective private citizens). The state and its steward-managers form the same interest group and expropriate the private sector (and the citizens). The legitimacy of the elite's privileged rights over private sectors is central to our question.

References

Acemoglu, D., Johnson, S., 2005. Unbundling institutions. J. Political Econom. 113, 949-995.

Adithipyangkul, P., Alon, I., Zhang, T., 2009. Executive perks: compensation and corporate performance in China. Asia Pacific J. Management 28, 401-425.

Bebchuk, L.A., Fried, J.M., Walker, D.I., 2002. Managerial power and rent extraction in the design of executive compensation. University of Chicago Law Rev. 69, 751-846.

Bebchuk, L.A., Fried, J.M., 2003. Executive compensation as an agency problem. J. Economic Perspectives 17, 71-92.

Bebchuk, L.A., Fried, J.M., 2004. Pay without Performance: The Unfulfilled Promise of Executive Compensation. Harvard University Press, Cambridge, MA.

Borgatti, S.P., Everett, M.G., Freeman, L.C., 2002. Ucinet for Windows: Software for Social Network Analysis. Harvard, MA: Analytic Technologies.

Buck, T., Liu, X., Skovoroda, R., 2008. Top executive pay and firm performance in China. J. International Business Studies 39, 833-850.

Cao, J., Lemmon, M., Pan, X., Qian, M., Tian, G., 2011. Political promotion, CEO incentives, and the relationship between pay and performance. Wharton Financial Institutions Center working paper #11-53: http://fic.wharton.upenn.edu/fic/papers/11/p1153.htm.

Cao, J., Pan, X., Tian, G., 2011. Disproportional ownership structure and pay-performance relationship: Evidence from China's Listed Firms. J. Corporate Finance 17, 541-554.

Chang, E.C., Lin, T.-C., Ma, X., 2012. Risk sharing and stock price informativeness: evidence from stock-split natural experiment. China International Conference in Finance proceedings.

Chen, J.J., Liu, X., Li, W., 2010. The effect of insider control and global benchmarks on Chinese executive compensation. Corporate Governance: An International Review 18, 107-123.

Chen, J., Ezzamel, M., Cai, Z., 2011. Managerial power theory, tournament theory, and executive pay in China. J. Corporate Finance 17, 1176-1199.

Clarke, D.C., 2003. Corporate governance in China: an overview. China Econom. Rev. 14, 494-507.

Conyon, M.J., He, L., 2011. Executive compensation and corporate governance in China. J. Corporate Finance 17, 1158-1175.

Core, J.E., Holthausen, R., Larcker, D., 1999. Corporate governance, chief executive officer compensation, and firm performance. J. Financial Econom. 51, 371-406.

Datta, S., D'Mello, R., Iskandar-Datta, M., 2009. Executive compensation and internal capital market efficiency. J. Finan. Intermediation. 18, 242-258.

Davis, G.F., 1991. Directors without principles? The spread of the poison pill through the intercorporate network. Admin. Sci. Quart. 36, 583-613.

Davis, J.H., Schoorman, F.D., Donaldson, L., 1997. Toward a stewardship theory of management. Acad. Management Rev. 22, 20-47.

Donaldson, L., Davis, J.H., 1991. Stewardship theory or agency theory: CEO governance and shareholder returns. Australian J. Management 16, 49-65.

Eriksson, T. 2005. Managerial pay and executive turnover in the Czech and Slovak Republics. Economics of Transition, 13, 659-677.

Faccio, M., 2006. Politically connected firms. Amer. Econom. Rev. 96, 369-386.

Faccio, M., Masulis, R.W., McConnell, J.J., 2006. Political connections and corporate bailouts. J. Finance 61, 2597-2635.

Fan, J.P.H., Wong, T.J., Zhang, T., 2007. Politically connected CEOs, corporate governance, and post-IPO performance of China's newly partially privatized firms. J. Financial Econom. 84, 330-357.

Firth, M., Fung, P.M.Y., Rui, O.M., 2006. Corporate performance and CEO compensation in China. J. Corporate Finance 12, 693-714.

Firth, M., Fung, P.M.Y., Rui, O.M., 2007. How ownership and corporate governance influence chief executive pay in China's listed firms. J. Business Research 60, 776-785.

Firth, M., Rui, O.M., Wu, W., 2011. Cooking the books: Recipes and costs of falsified financial statements in China. J. Corp. Finan. 17, 371-390.

Garen, J.E., 1994. Executive compensation and principal-agent theory. J. Political Econom.102, 1175-1199.

Gimeno, J.F., Folta, T.B., Cooper, A.C., Woo, C.Y., 1997. Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms. Admin. Sci. Quart.42, 750-783,

Grabke-Rundell, A., Gomez-Mejia, L.R., 2002. Power as a determinant of executive compensation. Human Resource Management Review 12, 3-23.

Graham, J.R., Li, S., Qiu, J., 2012. Managerial attributes and executive compensation. Rev. Financial Stud. 25, 144-186.

Groves, T., Hong, Y., McMillan, J., Naughton, B., 1994. Autonomy and incentives in Chinese state enterprises. Quart. J. Econom. 109, 183-209.

Groves, T., Hong, Y., McMillan, J., Naughton, B., 1995. China's evolving managerial labor market. J. Political Econom. 4, 873-892.

Hartzell, J.C., Starks, L.T., 2003. Institutional investors and executive compensation. J. Finance 58, 2351-2374.

IFF Task Force Report, 2006. Corporate governance in China: an investor perspective. Institute of International Finance: Washington.

Jensen, M.C., Murphy, K.J., 1990. Performance pay and top-management incentives. J. Political Econom. 98, 225-264.

Jensen, M.C., Murphy, K.J., Wruck, E., 2004. Remuneration: where we've been, how we got to here, what are the problems, and how to fix them. ECGI Working Paper Series, No. 44–2004, July 2004. (Also in the Negotiation, Organizations and Markets Research Paper Series, Harvard Business School NOM Research Paper No. 04-28.)

Jiang, G., Lee, C.MC., Yeung, H., 2010. Tunneling through intercorporate loans: the Chinese experience. J. Financial Econom. 98, 1-20.

Johnson, S., La Porta, R., Lopez-de-Silanes, F., Shleifer, A., 2000. Tunneling. Amer. Econom. Rev. 90, 22-27.

Jones, D.C., Kato, T. 1996. The determinants of chief executive compensation in transitional economies: evidence from Bulgari. Labour Economics 3(3), 319-336.

Kang, Q., Liu, Q., 2008. Stock trading, information production, and executive incentives. J. Corporate Finance 14, 484-498.

Kuhnen, C.M., Niessen, A., 2012. Public opinion and executive compensation. Management Sci. 58, 1249-1272.

Li, K., Wang, T., Cheung, Y.L., Jiang, P., 2011. Privatization and risk sharing: evidence from the split share structure reform in China. Rev. Financial Stud. 24, 2499-2525.

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 J. 28, 791-804.

Markoczy, L., Sun, S.L., Peng, M.W., Shi, W., Ren, B., 2013. Social network contingency, symbolic management, and boundary stretching. Strategic Management J., forthcoming.

Murillo, C., Ribas, R.P., Wang, Y.A., 2011. Is the stock market just a side show? Evidence from a structural reform. Available at SSRN: http://ssrn.com/abstract=1954234.

Noe, T.H., 2009. Tunnel-proofing executive suite: transparency, temptation, and the design of executive

compensation. Rev. Financial Stud. 22, 4849-4880.
North, D.C., 1990. Institutions, Institutional Change and Economic Performance. Cambridge University Press, Cambridge.
Peng, M.W., 2004. Outside directors and firm performance during institutional transitions. Strategic Management J. 25, 453-471.
Peress, J., 2010. The tradeoff between risk sharing and information production in financial markets. J. Econom. Theory 145, 124-155.
Ren, B., Au, K., Birtch, T., 2009. China's business network structure during institutional transitions. Asia Pacific J. Management 26, 219-240.
Renneboog, L., Zhao, Y., 2011. Us knows us in UK: on director networks and managerial compensation. J. Corporate Finance 17, 1132-1157.
Rose, N.L., Shepard, A., 1997. Firm diversification and CEO compensation: managerial ability or executive entrenchment? Rand J. Economics 28: 489-514.
Rosenstein, R., Wyatt, J.G., 1990. Outside directors, board independence, and shareholder wealth. J. Financial Econom. 26, 175-191.
Shipilov, A.V., Greve, H.R., Rowley, T.J., 2010. When do interlocks matter? Institutional logics and the diffusion of multiple corporate governance practices. Acad. Management J. 53, 846-864.
Shropshire, C., 2010. The role of the interlocking director and board receptivity in the diffusion of practices. Acad. Management Rev. 35, 246-263.
Shleifer, A., 1998. State versus private ownership. J. Economic Perspectives 12, 133-150.
Shleifer, A., Vishny, R., 1994. Politicians and firms. Quart. J. Econom.109, 995-1025.
Stephenson, K., Zelen, M., 1989. Rethinking centrality: methods and examples. Social Network 11, 1-37.
Sun, Q., Tong, W.H.S., 2003. China share issue privatization: the extent of its success. J. Financial Econom. 70, 183-222.
Sun, L., Zhao, X., Yang, H. 2010. Executive compensation in Asia: A critical review and outlook. Asia Pac J. Management 27
Tam, O.K., 2002. Ethical issues in evolution of corporate governance in China. J. Business Ethics 37, 303-320.
Tenev, D., Zhang, C., 2002. Corporate Governance and Enterprise Reform in China. World Bank and the International Finance Corporation, Washington, D.C.
Van Essen, M., Heugens, P.P., Otten, J., Van Oosterhout, J.H., 2012a. An institution-based view of executive compensation: A multilevel meta-analytic test. J. International Business Studies 43, 396-423.
Van Essen, M., Oosterhout, J., Carney, M., 2012b. Corporate boards and the performance of Asian firms: A meta-analysis. Asia Pacific J. Management 29, 873-905.
Wang, K., Xiao, X., 2011. Controlling shareholders' tunneling and executive compensation: Evidence from China. J. Accounting and Public Policy 30, 89-100.
Westphal, J.D., Graebner, M., 2010. A matter of appearances: how corporate leaders manage the impressions of financial analysts about the conduct of their boards. Acad. Management J. 53, 15–44.
Westphal, J.D., Zajac, E.J., 1994. Substance and symbolism in CEOs' long-term incentive plans. Admin. Sci. Quart. 39, 367–390.
Westphal, J.D., Zajac, E.J., 1998. The symbolic management of stockholders: corporate governance reforms and external constituent reactions. Admin. Sci. Quart. 43, 127–153.
Xu, C., 2011. The fundamental institutions of China's reforms and development. J. Econom. Lit. 49, 1076-1151.

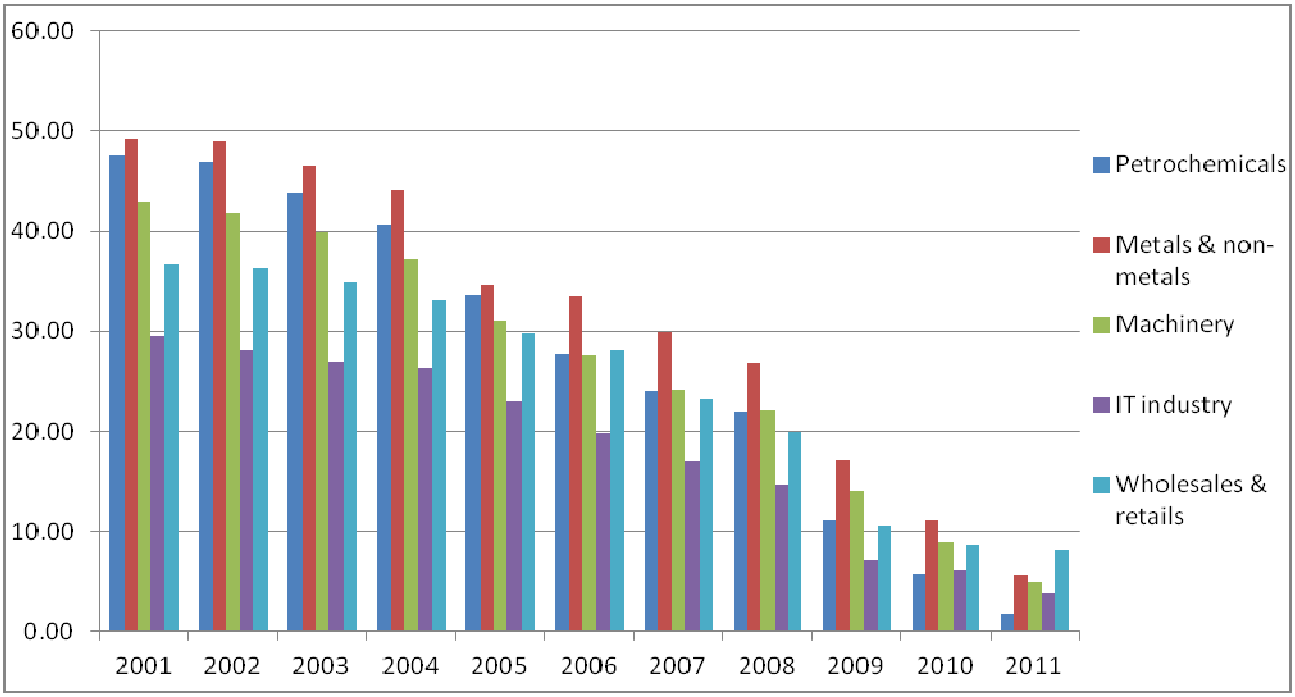

Figure 1a.

Change of mean state ownership of the top five industries by market capitalization

The vertical axis denotes the percentage of industry-average state ownership.

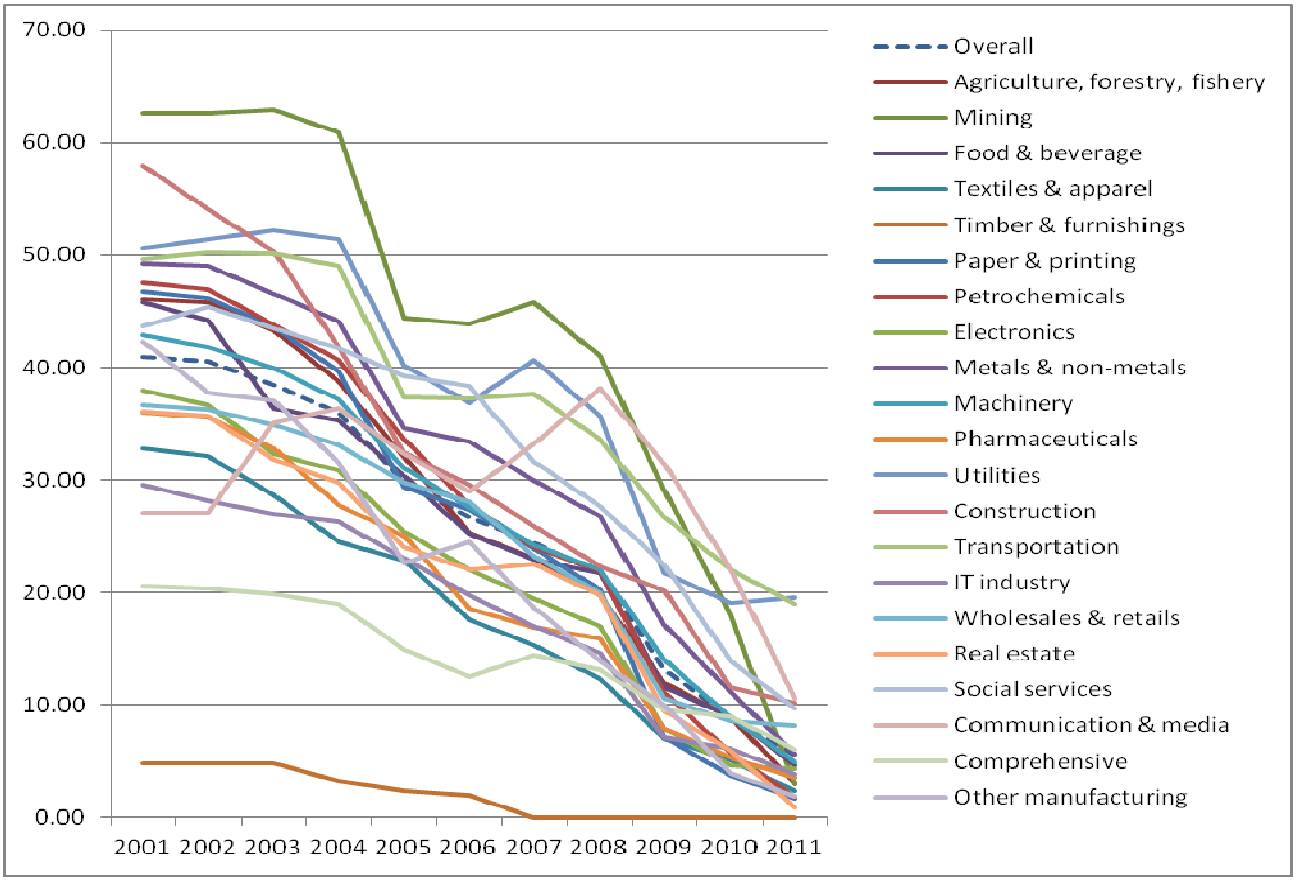

Figure 1b. Change of mean state ownership of all sample industries

The vertical axis denotes the percentage of industry-average state ownership. The figure comprises all industries included in our sample (based on the CSRC Industry Code).

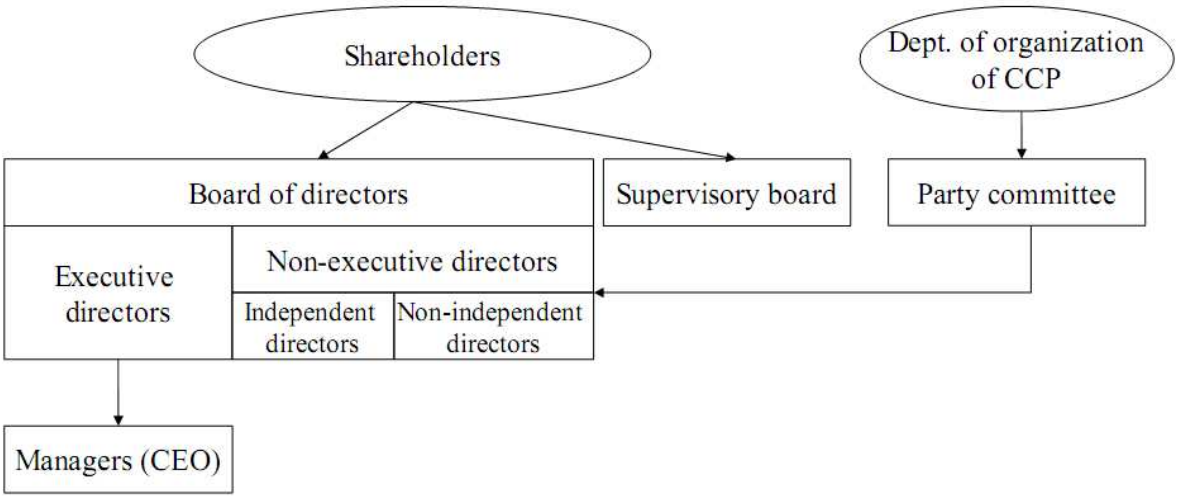

Figure 2. China's corporate governance structure after privatization

Figure 2a illustrates a conceptual internal governance structure of a typical Chinese company since the privatization. The two-tier board structure (the board of directors and the supervisory board) is similar to the German model but the combination of executive and non-executive directors within the board of directors is similar to the US/UK model. The Chinese Communist Party (CCP) usually assigns a Party committee to ensure ideological control. Members of the Party committee usually also sit on the board of directors.

Table 1. Comparing Principal-agent and State-Stewardship Perspectives

	Principal-Agent Perspective	State-stewardship Perspective
Key Idea	Owner-manager relationship should reflect the efficient organization of information and risk-bearing costs.	Owner-manager relationship reflects a high degree of loyalty and effective interaction skills in order to reach multiple (economic, social, and political) high performance goals.
Human Assumptions	● Self-interest; ● Bounded rationality; ● Risk aversion.	● Bounded rationality; ● Mutual and voluntary acceptability of bargains; ● Human ambivalence.
Context	● Separation of ownership and control	● Partial separation of ownership and control (e.g., split-share reform)
Problem Domain	● Owner and manager have conflicts of 1) goal alignment and 2) risk sharing	● Multiple economic, social, and political goals could conflict; ● Interdependence of these interests.
Problem Issue	● Information asymmetry between owner and manager; ● Agency (moral hazard and adverse selection); ● Risk sharing between owner and manager.	● Company's economic interests are in conflict with the government's political and social interests and agenda. ● State's direct intervention could be in conflict with market-based principles and damage other shareholder's interests.
Solutions	● Comprehensive contract formation; ● Incentives compensation policy for managers. ● Controlling agency costs 1) behavior & 2) outcome observations.	● Two-way communication and influences under an administrative orders (e.g., political connections serve as a major channel); ● Formal contracts are incomplete; social and psychological informal contracts are required; ● Ex-post allocation of power is important (Such as turnover/promotion mechanisms); ● Ownership and voting rights become state's major tools of control after the split-share reform).
Decision Making	● An aggregative process between the interests of owners and agents; ● Leadership involves the brokerage of coalitions among different interests	● An integrating process among multiple interests of multiple stakeholders; ● Leadership involves a trusteeship
Organization Evolvement	● Instantaneous response to owner/agent interests	● A slow adaptation of the system with institutionalization.

Table 2. From State-ownership to State-stewardship

	Pre-2006	Post-2006
State-manager relationship	State ownership and control	State-stewardship (focusing more on managers' political connections)
Governance model (organizing principle)	Unification of ownership and control (large non-tradable government controlled share blocks); more political oriented "command" governance model	Partial separation of ownership and control (dispersed state ownership); more market-oriented "administrative" governance model
Control rights	The state possessed all control rights (in some partially privatized SOEs, voting rights proportional to shareholdings)	Voting rights proportional to shareholdings
Dividend Policy	No dividends. Most profit re-invested in focal SOEs.	Proposal: at least 10% of profit paid to all shareholders (including state) as dividend.
Method of state control	Mainly control through government ownership (large number of non-tradable shares), regulations and the state's ultimate control (voting rights).	Mainly control through appointment of executive personnel and administrative orders.
Incentive structure	Fulfilling political, social, and economic objectives, political and social goals are dominating.	Fulfilling political and economic objectives, economic ones growing in importance

Table 3
Description of Variables

Variable	Description
Dependent Variable:	
Ln(Compensation)	The natural logarithm of the total compensation in cash of the top three highest-paid top managers. Source: CSMAR (unit: RMB)
State Ownership and Control:	
State Direct Ownership	The percentage of firm's shares owned by the State. Source: WIND.
State Ultimate Shareholder	This dummy variable equals one if the ultimate controlling shareholder is the state or a government agency, and zero otherwise. The ultimate controlling shareholder is defined as the largest shareholder (in terms of the number of shares held), or the shareholder whose voting rights exceed those of the largest shareholder (who may be the largest in terms of cash flow rights), or the shareholder who holds more than 30% of cash flow and voting rights, or who can determine the nomination of more than half of the directors through exerting voting rights. The definition of ultimate controller is similar as in the papers by La Porta, Lopez-de-Silanes, Shleifer and Vishny (1999) and Claessens, Djankov, Fan and Lang (2000). Source: CCER database and CSMAR.
Self-dealing and Gray Income:	
Other Receivables	Other receivables as on the balance sheet
Firm Performance:	
ROA	Annual return on assets. Source: WIND.
Tobin's Q	The ratio of the market value of equity to the book value of equity. Source: WIND.
Managerial Expertise, Background and Education:	
Political Experience	This dummy variable equals one if the manager is or was an official in the central government, local government, or the military, and zero otherwise. Source: manually collected from managers' CVs.
International Work Experience	This dummy variable equals one if the manager has worked or is working in a foreign multinational firm, a foreign joint venture, an overseas subsidiary of a Chinese company, or has worked abroad (including Hong Kong, Macau, and Taiwan), and zero otherwise. Source: manually collected from managers' CVs.
Overseas Education	This dummy variable equals one if the manager was educated or obtained a degree abroad, and zero otherwise. Source: manually collected from managers' CVs.
Accounting Experience	This dummy variable equals one if the manager has worked in an accounting firm or position before, and zero otherwise. Source: manually collected from managers' CVs.
Financial Experience	This dummy variable equals one if the manager has worked in the financial industry before, and zero otherwise. Source: manually collected from managers' CVs.
Technology Experience	This dummy variable equals one if the manager has worked in a technology-related firm or position before, and zero otherwise. Source: manually collected from managers' CVs.
Academic Experience	This dummy variable equals one if the manager has worked in academia as a university professor or researcher before, and zero otherwise. Source: manually collected from managers' CVs.

Gender	This dummy variable equals one if the manager is female, and zero if he is male. Source: manually collected from managers' CVs.
Foreign Nationality	The dummy variable equals one if the manager is non-Chinese, and zero if Chinese. Source: manually collected from managers' CVs.
Education Level	The score ranges from 0 to 4: zero if his highest education level is below junior college; one in case of junior college; two in case of a bachelor degree; three if the manager has graduated with a master's degree; and four if graduated with a doctoral degree. Source: manually collected from managers' CVs.
Age	The manager's age in the year reported. Source: manually collected from managers' CVs.
Internal Corporate Governance:	
Independent Director Ratio	This ratio is the number the independent directors divided by the total number of directors. Source: CSMAR.
Board Size	Total number of the company's board members. Source: CSMAR.
Management Team Size	Total number of the company's total management team members. Source: CSMAR.
Compensation Committee	This dummy variable equals one if the company has a compensation committee, and zero otherwise. Source: CSMAR.
Strategy Committee	This dummy variable equals one if the company has a strategy committee, and zero otherwise. Source: CSMAR.
Managerial Duality	This dummy variable equals one if the positions of the general manager (president) and chairman are held by the same person, and zero otherwise. Source: CSMAR.
Director Interlocks	Number of independent directors who are holding director positions in other listed firms in the year under consideration. Source: manually collected from independent directors' CVs.
Information Centrality	A firm's relative position ("closeness") to the center of its directors' social network (calculated based on the geodesic paths between any pair of firm-nodes – by means of Ucinet 6)
Firm Employment and Provincial Economic Performance:	
Ln(Local GDP)	The natural logarithm of the gross domestic product (GDP) of the province where the firm is headquartered. Source: NBS (unit: 10,000 million RMB)
Ln(Inward FDI)	The natural logarithm of the flow of inward foreign direct investment (IFDI) of the local province where the firm is headquartered. Source: China Statistical Yearbook (unit: USD10,000)
Ln(Employees)	The natural logarithm of the total number of people employed by the firm. Source: WIND
Control Variables:	
Leverage	The ratio of the book value of total debts to the book value of total assets. Source: WIND
Sales Growth	Annual sales growth rate. Source: WIND
Firm Size	The natural logarithm of the total book assets value. Source: WIND
Capital Intensity	The ratio of capital expenditure to net sales. Source: WIND
Ownership Concentration	Percentage of total shares owned by the five largest blockholders.

Table 4
Descriptive Statistics

Variable	Obs.	Mean	Median	Std. Dev.	Min	Max
Dependent Variable:						
Managerial compensation (000 RMB)	15,314	884	600	1160	0	43300
State Ownership:						
State direct ownership	15,544	24.56%	16.98%	25.79%	0%	100%
State ultimate shareholder	14,650	0.64	1	0.48	0	1
Self-dealing and Gray Income:						
Other receivables/Assets	15,356	3.60%	1.60%	4.68%	0.11%	17.63%
Firm Performance:						
ROA	15,618	3.90	3.73	5.44	-9.61	14.24
Tobin's Q	15,519	2.17	1.89	2.25	0.92	9.21
Managerial Expertise, Background and Education:						
Political experience	16,419	0.20	0	0.40	0	1
Overseas education	16,422	0.04	0	0.20	0	1
International work experience	16,417	0.06	0	0.23	0	1
Education level	16,292	2.36	2	0.90	0	4
Academic experience	16,420	0.11	0	0.31	0	1
Technology experience	16,421	0.43	0	0.49	0	1
Accounting experience	16,421	0.12	0	0.32	0	1
Financial experience	16,421	0.06	0	0.24	0	1
Foreign nationality	16,424	0.01	0	0.10	0	1
Age	16,353	46.43	46	6.89	21	75
Gender	16,423	0.05	0	0.22	0	1
Internal Corporate Governance:						
Independent director ratio	15,499	36.95%	33.33%	18.59%	0%	88.89%
Compensation committee	14,183	0.66	1	0.47	0	1
Strategy committee	14,187	0.51	1	0.50	0	1
Managerial duality	15,508	0.15	0	0.36	0	1
Board size	15,505	8.81	9	2.46	0	24
Management team size	15,464	7.08	6	3.95	1	64
Firm Employment and Provincial Economic Performance:						
Local GDP	15,021	13568.8	10552.06	11209.39	138.73	53004
Inward FDI	16,132	7.51×10^5	5.85×10^5	7.23×10^5	0	4.01×10^6
Employees	15,545	4205.03	1621	16959.4	1	5.53×10^5
Control Variables:						
Sales growth rate	15,715	18.02%	14.92%	29.61%	-34.51%	87.63%
Capital intensity	15,782	0.21	0.09	0.28	0.00	1.10
Firm size (Ln(Assets))	15,642	21.35	21.21	1.24	10.84	28.66
Leverage	16,666	0.63	0.49	7.12	0	877.26
Ownership concentration	15,329	0.55	0.56	0.14	0.29	0.78

* All monetary terms are in RMB.
** Other receivable/assets, ROA, Tobin's Q, sales growth rate, capital intensity, ownership concentration are winsorized at 5% level.
*** A correlation check suggests there is no multicollinearity between the explanatory and control variables.

Table 5.
Tests for the State-Stewardship View on Managers

The dependent variable is the natural logarithm of the top 3 highest paid managers' compensation. Independent variables are state ownership (%), a state ultimate shareholder dummy, ROA (winsorized at the 95% level), Tobin's Q (winsorized at the 95% level), independent director ratio , board size, management team size, compensation committee dummy, strategy committee dummy, managerial duality dummy (equals 1 if the manager and chairman is the same person), logarithm of local province's GDP and inward FDI, and of the total number of employees of the firm, a series of managerial background dummies, and control variables (leverage, sales growth rate, capital intensity, firm size (total asset value), and the ownership concentration of the top 5 blockholders. More information on variable definitions can be found in Table 3. *, **, and *** stand for significance at the 10%, 5% and 1%, respectively. Standard errors are clustered at the firm level and reported in parentheses. GLS estimations are used.

	Full sample				Pre-2006 period				Post-2006 period			
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
State Ownership:												
State direct ownership	-0.091**	(0.029)			-0.225***	(0.057)			0.004	(0.034)		
State ultimate shareholder			-0.013	(0.017)			-0.061**	(0.028)			0.014	(0.021)
Self-dealing and Gray Income:												
Ln(Other Receivables)	-0.011**	(0.005)	-0.010**	(0.005)	-0.020**	(0.008)	-0.019**	(0.008)	-0.001	(0.005)	-0.000	(0.006)
Firm Performance:												
ROA	0.023***	(0.001)	0.023***	(0.002)	0.020***	(0.002)	0.021***	(0.002)	0.020***	(0.001)	0.020***	(0.001)
Tobin's Q	0.015***	(0.003)	0.014***	(0.003)	0.004	(0.009)	0.004	(0.009)	0.012***	(0.003)	0.012***	(0.001)
Managerial Expertise, Background and Education:												
Political experience	0.041***	(0.015)	0.038**	(0.015)	0.045*	(0.026)	0.046*	(0.026)	0.049**	(0.022)	0.047**	(0.022)
Overseas education	0.057*	(0.031)	0.041	(0.032)	0.091	(0.059)	0.075	(0.059)	0.074*	(0.041)	0.050	(0.043)
International work experience	0.116***	(0.027)	0.112***	(0.027)	0.091**	(0.044)	0.077*	(0.044)	0.154***	(0.042)	0.147***	(0.043)
Education level	0.028***	(0.007)	0.028***	(0.007)	0.024*	(0.013)	0.025*	(0.013)	0.023**	(0.010)	0.024**	(0.010)
Academic experience	0.025	(0.019)	0.021	(0.019)	0.080**	(0.034)	0.073**	(0.034)	0.016	(0.028)	0.017	(0.029)
Technology experience	0.031**	(0.013)	0.030**	(0.013)	0.036	(0.024)	0.036	(0.024)	-0.007	(0.018)	-0.011	(0.019)
Accounting experience	-0.008	(0.017)	-0.009	(0.017)	-0.022	(0.027)	-0.020	(0.027)	0.029	(0.034)	0.016	(0.035)
Financial experience	-0.037	(0.025)	-0.032	(0.025)	-0.034	(0.048)	-0.033	(0.048)	-0.063*	(0.035)	-0.059*	(0.035)
Foreign nationality	0.231***	(0.072)	0.258***	(0.073)	0.139	(0.144)	0.156	(0.144)	0.154*	(0.091)	0.208**	(0.094)
Age	0.005***	(0.001)	0.004***	(0.001)	0.001	(0.002)	0.001	(0.002)	0.006***	(0.001)	0.006***	(0.001)
Gender	-0.031	(0.028)	-0.040	(0.029)	-0.086	(0.055)	-0.091*	(0.055)	-0.029	(0.037)	-0.037	(0.037)

Table 5. (continued)

Tests for the State-Stewardship View on Managers

	Full sample				Pre-2006 period				Post-2006 period			
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Internal Corporate Governance:												
Independent director ratio	0.020	(0.036)	0.011	(0.037)	0.050	(0.112)	0.048	(0.112)	-0.008	(0.039)	-0.019	(0.040)
Board size	0.012***	(0.003)	0.012***	(0.003)	0.005	(0.005)	0.005	(0.005)	0.019***	(0.005)	0.019***	(0.005)
Management team size	0.013***	(0.002)	0.012***	(0.002)	0.044***	(0.005)	0.043***	(0.005)	0.019***	(0.002)	0.018***	(0.002)
Compensation committee	0.076***	(0.016)	0.078***	(0.017)	0.089***	(0.027)	0.088***	(0.027)	0.051**	(0.023)	0.055**	(0.024)
Strategy committee	0.005	(0.014)	0.003	(0.014)	0.015	(0.029)	0.024	(0.029)	0.001	(0.016)	-0.003	(0.016)
Managerial duality	0.041**	(0.017)	0.042**	(0.017)	0.039	(0.032)	0.038	(0.032)	0.040**	(0.020)	0.039*	(0.021)
Firm Employment and Provincial Economic Performance:												
Ln(Local GDP)	-0.028	(0.032)			0.048	(0.109)			0.121***	(0.043)		
Ln(Employees)	0.017**	(0.008)	0.018**	(0.008)	-0.035***	(0.013)	-0.036***	(0.013)	0.039***	(0.009)	0.041***	(0.009)
Ln(Inward FDI)			0.038***	(0.013)			0.050**	(0.026)			0.020	(0.020)
Control Variables:												
Leverage	0.002***	(0.001)	0.002***	(0.001)	-0.053*	(0.030)	-0.055*	(0.030)	0.002***	(0.001)	0.002***	(0.001)
Sales growth rate	-0.009	(0.017)	-0.007	(0.017)	-0.017	(0.026)	-0.019	(0.026)	-0.006	(0.019)	-0.007	(0.020)
Capital intensity	-0.029	(0.027)	-0.030	(0.020)	-0.105***	(0.033)	-0.105***	(0.033)	-0.001	(0.036)	-0.003	(0.037)
Firm Size	0.241***	(0.010)	0.238***	(0.010)	0.287***	(0.021)	0.281***	(0.021)	0.194***	(0.012)	0.193***	(0.012)
Ownership concentration	0.107*	(0.059)	0.077	(0.059)	0.243*	(0.136)	0.072	(0.125)	0.040	(0.069)	0.030	(0.069)
Constant	6.565***	(0.339)	6.416***	(0.256)	6.232***	(1.065)	6.227***	(0.530)	6.814***	(0.474)	7.755***	(0.352)
Year fixed effect	Yes		Yes		Yes		Yes		Yes		Yes	
Industry fixed effect	Yes		Yes		Yes		Yes		Yes		Yes	
Province fixed effect	Yes		Yes		Yes		Yes		Yes		Yes	
No. of observations	12401		12042		4916		4886		7485		7156	
R-squared adjusted	53%		54%		41%		40%		44%		45%	

Table 6. SOEs versus Private Firms

The dependent variable is the natural logarithm of the top 3 highest paid managers' compensation. Independent variables are state ownership (%), ROA (winsorized at the 95% level), Tobin's Q (winsorized at the 95% level) , independent director ratio , board size, management team size, compensation committee dummy, strategy committee dummy, managerial duality dummy (equals 1 if the manager and chairman is the same person), logarithm of local province's GDP and inward FDI, and of total number of employees of the firm, a series of managerial background dummies, and control variables (leverage, sales growth rate, capital intensity, firm size (total asset value), and the ownership concentration of the top 5 blockholders. More information on variable definitions can be found in Table 3. *, **, and *** stand for significance at the 10%, 5% and 1%, respectively. Standard errors are clustered at the firm level and reported in parentheses. GLS estimations are used.

	Full sample				Pre-2006 sample				Post-2006 sample			
	SOE		Private		SOE		Private		SOE		Private	
	State ownership > 30%		State ownership < 30%		State ownership > 30%		State ownership < 30%		State ownership > 30%		State ownership < 30%	
State Ownership:												
State direct ownership	-0.268***	(0.101)	0.054	(0.093)	-0.724***	(0.173)	0.226	(0.221)	-0.323***	(0.128)	0.088*	(0.103)
Self-dealing and Gray Income:												
Ln(Other Receivables)	-0.006	(0.007)	-0.015**	(0.006)	-0.009	(0.010)	-0.033**	(0.014)	0.011	(0.010)	-0.006	(0.007)
Firm Performance:												
ROA	0.026***	(0.002)	0.020***	(0.001)	0.026***	(0.003)	0.013***	(0.004)	0.023***	(0.002)	0.019***	(0.002)
Tobin's Q	0.014***	(0.005)	0.009**	(0.004)	-0.001	(0.013)	-0.001	(0.012)	0.010*	(0.006)	0.012***	(0.004)
Managerial Expertise, Background and Education:												
Political experience	0.018	(0.023)	0.039*	(0.021)	0.007	(0.034)	0.073*	(0.043)	0.042	(0.041)	0.045*	(0.026)
Overseas education	0.109**	(0.050)	0.039	(0.042)	0.078	(0.076)	0.055	(0.091)	0.151**	(0.075)	0.071	(0.049)
International work exper.	0.101**	(0.043)	0.097***	(0.035)	0.121**	(0.058)	0.026	(0.070)	0.250***	(0.088)	0.095**	(0.047)
Education level	0.024**	(0.011)	0.015	(0.010)	0.015	(0.016)	0.001	(0.021)	0.013	(0.018)	0.034***	(0.011)
Academic experience	0.036	(0.027)	0.040	(0.027)	0.073*	(0.042)	0.119**	(0.056)	-0.003	(0.051)	0.010	(0.033)
Technology experience	0.005	(0.019)	0.050***	(0.018)	0.019	(0.029)	0.027	(0.040)	-0.065**	(0.030)	0.035	(0.022)
Accounting experience	-0.013	(0.024)	-0.006	(0.025)	-0.017	(0.034)	-0.032	(0.043)	0.022	(0.059)	0.029	(0.041)
Financial experience	-0.070*	(0.042)	-0.024	(0.032)	0.019	(0.069)	-0.077	(0.067)	-0.030	(0.068)	-0.045	(0.040)
Foreign nationality	0.254	(0.211)	0.237***	(0.081)	-0.128	(0.383)	0.259	(0.168)	0.655**	(0.323)	0.133	(0.097)
Age	0.000	(0.001)	0.005***	(0.001)	0.001	(0.002)	-0.003	(0.003)	-0.001	(0.002)	0.008***	(0.002)
Gender	-0.030	(0.048)	-0.033	(0.036)	-0.106	(0.074)	-0.037	(0.079)	0.058	(0.081)	-0.054	(0.042)

Table 6 (continued). SOEs versus Private Firms

	SOE		Private		SOE		Private		SOE		Private	
	State ownership > 30%		State ownership < 30%		State ownership > 30%		State ownership < 30%		State ownership > 30%		State ownership < 30%	
Internal Corporate Governance:												
Independent director ratio	-0.129**	(0.064)	0.076	(0.047)	-0.146	(0.131)	0.304	(0.200)	-0.031	(0.077)	0.019	(0.048)
Board size	0.003	(0.004)	0.015***	(0.005)	-0.002	(0.006)	0.008	(0.009)	0.013*	(0.007)	0.021***	(0.006)
Management team size	0.016***	(0.002)	0.014***	(0.002)	0.039***	(0.006)	0.048***	(0.008)	0.014***	(0.004)	0.018***	(0.003)
Compensation committee	0.079***	(0.023)	0.054**	(0.024)	0.059*	(0.032)	0.117***	(0.046)	0.071*	(0.038)	0.022	(0.029)
Strategy committee	0.021	(0.022)	0.000	(0.019)	0.020	(0.035)	0.025	(0.050)	-0.008	(0.029)	-0.002	(0.019)
Managerial duality	0.012	(0.029)	0.064***	(0.022)	0.021	(0.042)	0.057	(0.049)	-0.037	(0.041)	0.067***	(0.024)
Firm Employment and Provincial Economic Performance:												
Ln(Local GDP)									0.156**	(0.069)	0.100**	(0.049)
Ln(Employee)	-0.007	(0.012)	0.033***	(0.010)	-0.034*	(0.017)	-0.018	(0.021)	0.029**	(0.015)	0.039***	(0.011)
Ln(Inward FDI)	0.014	(0.019)	0.038*	(0.020)	-0.001	(0.029)	0.143***	(0.049)				
Control Variables:												
Leverage	-0.020**	(0.008)	0.002***	(0.001)	-0.106**	(0.050)	-0.016	(0.039)	-0.012	(0.010)	0.002***	(0.001)
Sales growth rate	-0.015	(0.025)	-0.013	(0.022)	-0.034	(0.033)	-0.026	(0.041)	0.024	(0.034)	-0.007	(0.024)
Capital intensity	-0.109***	(0.030)	0.029	(0.029)	-0.149***	(0.043)	-0.068	(0.051)	-0.073	(0.064)	0.011	(0.046)
Firm Size	0.235***	(0.016)	0.244***	(0.013)	0.251***	(0.026)	0.329***	(0.035)	0.183***	(0.019)	0.210***	(0.014)
Ownership concentration	0.379***	(0.126)	0.005	(0.072)	0.878***	(0.221)	0.083	(0.196)	0.224**	(0.151)	-0.028	(0.081)
Constant	7.335***	(0.387)	6.350***	(0.365)	7.382***	(0.637)	4.076***	(0.951)	7.298***	(0.752)	6.700***	(0.543)
Year FE	Yes		Yes		Yes		Yes		Yes		Yes	
Industry FE	Yes		Yes		Yes		Yes		Yes		Yes	
Province FE	Yes		Yes		Yes		Yes		Yes		Yes	
No. of obs.	5207		6825		2993		1895		2294		5191	
R-squared adj.	59%		50%		46%		38%		51%		44%	

Table 7. Regional subsamples (2001-2011)

The dependent variable is the natural logarithm of the top 3 highest paid managers' compensation. Independent variables are state ownership (%), ROA (winsorized at the 95% level), Tobin's Q (winsorized at the 95% level) , independent director ratio , board size, management team size, compensation committee dummy, strategy committee dummy, managerial duality dummy (equals 1 if the manager and chairman is the same person), logarithm of local province's GDP and inward FDI, and of total number of employees of the firm, a series of managerial background dummies, and control variables (leverage, sales growth rate, capital intensity, firm size (total asset value), and the ownership concentration of the top 5 blockholders. More information on variable definitions can be found in Table 3. *, **, and *** stand for significance at the 10%, 5% and 1%, respectively. Standard errors are clustered at the firm level but not reported so as to save space. GLS estimations are used.

	(1) East		(2) South		(3) West		(4) North		(5) Regional North		(6) Northwest		(7) Southwest		(8) Auto-region		(9) Municipality	
State Ownership:																		
State direct ownership	-0.078	(0.049)	0.281***	(0.091)	-0.124*	(0.069)	-0.110*	(0.059)	-0.090	(0.070)	-0.311***	(0.121)	0.002	(0.091)	-0.093	(0.137)	-0.040	(0.053)
Self-dealing and Gray Income:																		
Ln(Other Receivables)	-0.008	(0.049)	0.014	(0.014)	-0.015	(0.011)	-0.022**	(0.010)	-0.022*	(0.012)	-0.037*	(0.019)	-0.006	(0.015)	-0.016	(0.023)	-0.007	(0.009)
Firm Performance:																		
ROA (winsorized)	0.024***	(0.002)	0.020***	(0.003)	0.026***	(0.002)	0.017***	(0.003)	0.020***	(0.003)	0.028***	(0.004)	0.020***	(0.003)	0.027***	(0.005)	0.017***	(0.002)
Tobin's Q (winsorized)	0.019***	(0.005)	0.022**	(0.009)	0.019***	(0.006)	0.002	(0.007)	0.011	(0.008)	-0.004	(0.740)	0.030***	(0.008)	0.036***	(0.013)	0.005	(0.006)
Managerial Expertise, Background and Education:																		
Political experience	0.051**	(0.025)	-0.012	(0.041)	0.069*	(0.036)	0.035	(0.036)	0.093**	(0.044)	0.075	(0.067)	0.078*	(0.047)	-0.008	(0.067)	0.099***	(0.033)
Overseas education	0.009	(0.051)	0.104	(0.092)	0.149*	(0.088)	0.071	(0.066)	0.092	(0.082)	0.264	(0.175)	0.120	(0.106)	-0.171	(0.321)	0.083	(0.053)
International work exper.	0.083**	(0.042)	0.194***	(0.066)	0.031	(0.074)	0.050	(0.060)	0.002	(0.066)	0.171	(0.196)	0.016	(0.086)	0.043	(0.166)	0.060	(0.043)
Education level	0.032***	(0.012)	-0.018	(0.023)	0.017	(0.016)	0.049***	(0.017)	0.045**	(0.021)	0.066**	(0.030)	-0.006	(0.021)	0.070**	(0.032)	0.001	(0.015)
Academic experience	0.021	(0.032)	0.032	(0.050)	-0.016	(0.047)	0.025	(0.040)	0.019	(0.046)	-0.101	(0.096)	0.047	(0.057)	-0.105	(0.103)	0.078**	(0.034)
Technology experience	0.043**	(0.021)	-0.036	(0.038)	0.110***	(0.030)	0.056*	(0.029)	0.051	(0.035)	0.065	(0.054)	0.082**	(0.040)	0.156***	(0.058)	0.076***	(0.027)
Accounting experience	-0.032	(0.027)	0.072	(0.051)	0.006	(0.041)	0.036	(0.037)	0.045	(0.044)	0.032	(0.072)	-0.063	(0.054)	0.138*	(0.084)	0.049	(0.030)
Financial experience	-0.090**	(0.044)	0.081	(0.064)	-0.194***	(0.059)	0.071	(0.054)	0.004	(0.067)	-0.301***	(0.105)	-0.171**	(0.081)	-0.203*	(0.109)	0.066	(0.045)
Foreign nationality	0.360***	(0.091)	-0.267	(0.241)	0.347	(0.303)	0.503***	(0.170)	0.721**	(0.365)	-0.157	(0.371)	1.036**	(0.499)	0.116	(0.418)	0.619***	(0.130)
Age	0.006***	(0.001)	0.003	(0.003)	0.006***	(0.002)	0.006***	(0.002)	0.012***	(0.003)	-0.002	(0.004)	0.006**	(0.003)	0.010**	(0.005)	0.005**	(0.002)
Gender	-0.035	(0.041)	-0.127*	(0.076)	0.060	(0.069)	-0.019	(0.074)	-0.143	(0.099)	-0.059	(0.108)	0.144	(0.104)	0.087	(0.115)	-0.065	(0.056)

Table 7 (Continued). Regional subsamples (2001-2011)

	(1) East		(2) South		(3) West		(4) North China		(5) Regional North		(6) Northwest		(7) Southwest		(8) Auto-region		(9) Municipality	
Internal Corporate Governance:																		
Independent director ratio	0.058	(0.082)	0.065	(0.079)	0.059	(0.075)	-0.105	(0.085)	-0.073	(0.113)	-0.130	(0.183)	0.139	(0.085)	0.109	(0.216)	-0.150	(0.096)
Board size	0.012**	(0.005)	0.042***	(0.009)	0.011	(0.007)	-0.003	(0.007)	-0.009	(0.008)	-0.001	(0.012)	0.021**	(0.009)	0.010	(0.015)	0.000	(0.006)
Management team size	0.013***	(0.003)	0.017***	(0.004)	0.017***	(0.004)	0.008**	(0.004)	0.004	(0.005)	0.017**	(0.007)	0.013***	(0.005)	0.027***	(0.007)	0.004	(0.004)
Compensation committee	0.068***	(0.026)	0.032	(0.051)	0.136***	(0.040)	0.039	(0.037)	0.007	(0.045)	0.171**	(0.069)	0.144***	(0.054)	0.065	(0.072)	0.124***	(0.032)
Strategy committee	0.032	(0.022)	-0.020	(0.042)	-0.119***	(0.035)	0.082***	(0.031)	0.087**	(0.038)	-0.103*	(0.058)	-0.129***	(0.049)	-0.084	(0.062)	0.008	(0.027)
Managerial duality	0.054**	(0.027)	0.044	(0.047)	0.037	(0.041)	-0.008	(0.038)	-0.020	(0.052)	0.035	(0.082)	0.078	(0.053)	0.007	(0.078)	0.091**	(0.036)
Firm Employment and Provincial Economic Performance:																		
Ln(Local GDP)			0.131***	(0.131)	0.020	(0.030)							-0.049	(0.043)			0.191***	(0.054)
Ln(Employee)	0.020	(0.013)	0.073***	(0.020)	-0.016	(0.017)	-0.008	(0.017)	-0.001	(0.020)	-0.080***	(0.031)	-0.020	(0.023)	0.004	(0.036)	0.001	(0.013)
Ln(Inward FDI)	0.035	(0.021)					0.158***	(0.026)	0.138***	(0.031)	-0.059	(0.036)			0.022	(0.032)		
Control Variables:																		
Leverage	0.004	(0.008)	-0.004	(0.009)	0.002***	(0.001)	-0.147***	(0.042)	-0.059	(0.046)	-0.063	(0.095)	0.002***	(0.001)	-0.112	(0.116)	0.009	(0.008)
Sales growth rate	-0.056**	(0.027)	-0.057	(0.047)	0.003	(0.037)	0.073**	(0.036)	0.026	(0.044)	-0.002	(0.062)	-0.000	(0.050)	-0.013	(0.066)	0.019	(0.031)
Capital intensity	-0.032	(0.036)	0.044	(0.058)	-0.122***	(0.043)	-0.066	(0.042)	-0.083	(0.054)	-0.072	(0.074)	-0.170***	(0.058)	-0.127	(0.081)	-0.090**	(0.040)
Firm Size	0.211***	(0.018)	0.211***	(0.029)	0.275***	(0.024)	0.251***	(0.021)	0.250***	(0.025)	0.323***	(0.042)	0.294***	(0.032)	0.206***	(0.047)	0.227***	(0.019)
Ownership concentration	0.088	(0.098)	0.090	(0.157)	0.044	(0.148)	0.308**	(0.140)	0.266	(0.176)	0.641**	(0.265)	-0.125	(0.199)	-0.119	(0.279)	0.216*	(0.129)
Constant	6.453***	(0.430)	5.584***	(0.634)	5.602***	(0.475)	4.855***	(0.495)	4.892***	(0.582)	6.201***	(0.821)	5.996***	(0.659)	6.688***	(0.873)	5.626***	(0.537)
Year fixed effect	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Industry fixed effect	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Province fixed effect	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
No. of observations	4289		1810		2384		2340		1591		800		1220		770		2376	
R-squared adj.	48%		50%		48%		57%		59%		58%		53%		49%		58%	

Table 8. Other Robustness Checks

The dependent variable is the natural logarithm of the top 3 highest paid managers' compensation. Independent variables are state ownership (%), a state ultimate shareholder dummy, ROA (winsorized at the 95% level), Tobin's Q (winsorized at the 95% level) , Independent director ratio , board size, management team size, compensation committee dummy, strategy committee dummy, managerial duality dummy (equals 1 if the manager and chairman is the same person), logarithm of local province's GDP and inward FDI, and of total number of employees of the firm, a series of managerial background dummies, and control variables (leverage, sales growth rate, capital intensity, firm size (total asset value), and the ownership concentration of the top 5 blockholders. More information on variable definitions can be found in Table 3. *, **, and *** stand for significance at the 10%, 5% and 1%, respectively. Standard errors are robust or clustered at the firm level (for panel data estimations) and reported in parentheses. The standard errors for the second stage of 2SLS estimation are after adjustment. GLS estimations are used for all specifications.

	Pooled OLS (2001-2011)		Random Effects (2001-2011)		Firm fixed effects (2001-2011)		IV result (2SLS) 2001-2005			
	Coeff	Std. Err.	Coeff	Std. Err.	Coeff	Std. Err.	1st stage (ROA)		2nd stage (Compensation)	
State Ownership:										
State direct ownership	-0.129***	(0.030)	-0.204***	(0.029)	-0.083*	(0.047)	-1.102	(0.741)	-0.170***	(0.059)
Self-dealing and Gray Income:										
Ln(Other Receivables)	0.007	(0.005)	-0.019***	(0.005)	-0.015**	(0.007)				
Firm Performance:										
ROA (winsorized)	0.036***	(0.001)	0.024***	(0.001)	0.019***	(0.002)	0.002***	(0.000)	0.088***	(0.017)
Tobin's Q (winsorized)	0.016***	(0.004)	0.022***	(0.003)	0.013***	(0.004)	(Information centrality)			
Managerial Expertise, Background and Education:										
Political experience	0.029*	(0.016)	0.033**	(0.016)	0.047**	(0.024)	-0.017	(0.376)	0.049*	(0.026)
Overseas education	0.087**	(0.034)	0.070**	(0.033)	0.030	(0.054)	0.834	(0.877)	-0.048	(0.060)
International work experience	0.122***	(0.025)	0.148***	(0.028)	0.109***	(0.038)	-0.760	(0.670)	0.180***	(0.046)
Education level	0.048***	(0.007)	0.057***	(0.008)	0.018	(0.012)	-0.112	(0.183)	0.024*	(0.013)
Academic experience	0.045**	(0.020)	0.015	(0.020)	0.018	(0.028)	1.110**	(0.478)	0.002	(0.039)
Technology experience	0.020	(0.013)	0.017	(0.014)	0.023	(0.021)	0.717**	(0.336)	-0.020	(0.027)
Accounting experience	0.012	(0.019)	-0.046***	(0.018)	-0.014	(0.027)	-0.023	(0.388)	0.008	(0.027)
Financial experience	-0.036	(0.029)	0.003	(0.026)	-0.033	(0.039)	0.649	(0.749)	-0.048	(0.049)
Foreign nationality	0.273***	(0.067)	0.206***	(0.076)	0.253**	(0.104)	2.306	(2.152)	0.083	(0.154)
Age	0.006***	(0.001)	0.008***	(0.001)	0.004**	(0.001)	0.014	(0.024)	-0.002	(0.002)
Gender	-0.081***	(0.027)	-0.029	(0.030)	-0.023	(0.043)	1.234	(0.759)	-0.169***	(0.056)

Table 8 (Continued). Other robustness checks

	Pooled OLS (2001-2011)		Random Effect (2001-2011)		Firm fixed effect (2001-2011)		IV result (2SLS) 2001-2005			
	Coeff	Std. Err.	Coeff	Std. Err.	Coeff	Std. Err.	1st stage (ROA)		2nd stage (Compensation)	
Internal Corporate Governance:										
Independent director ratio	-0.019	(0.045)	0.284***	(0.034)	0.021	(0.058)	3.451*	(1.932)	-0.133	(0.124)
Board size	0.023***	(0.003)	0.012***	(0.003)	0.006	(0.005)	0.024	(0.066)	0.036***	(0.004)
Management team size	0.019***	(0.002)	0.013***	(0.002)	0.009***	(0.003)	-0.178*	(0.099)	0.006	(0.005)
Compensation committee	0.095***	(0.020)	0.196***	(0.016)	0.069***	(0.023)	-0.242	(0.385)	0.111***	(0.027)
Strategy committee	0.024	(0.016)	0.056***	(0.014)	0.000	(0.019)	0.045	(0.420)	0.022	(0.029)
Managerial duality	0.028	(0.019)	0.053***	(0.018)	0.045*	(0.027)	-0.043	(0.487)	0.032	(0.031)
Firm Employment and Provincial Economic Performance:										
Ln(Local GDP)			0.305***	(0.012)						
Ln(Employee)	-0.008	(0.007)	-0.015**	(0.008)	0.028*	(0.015)	0.741***	(0.142)	-0.013	(0.018)
Ln(Inward FDI)	0.042**	(0.018)			0.033*	(0.020)	-0.655	(0.495)	0.113***	(0.027)
Control Variables:										
Leverage	0.002***	(0.000)	0.002***	(0.001)	0.002***	(0.000)	-5.090***	(0.192)	0.333***	(0.091)
Sales growth rate	0.002	(0.023)	-0.002	(0.017)	-0.007	(0.019)				
Capital intensity	-0.100***	(0.023)	-0.096***	(0.020)	-0.004	(0.029)				
Firm Size	0.252***	(0.009)	0.306***	(0.010)	0.211***	(0.021)				
Ownership concentration	-0.116***	(0.050)	-0.149**	(0.060)	0.339***	(0.118)	8.433***	(1.499)	-0.189	(0.199)
Constant	5.888***	(0.281)	3.326***	(0.185)	6.958***	(0.438)	2.305	(7.132)	10.733***	(0.381)
Year fixed effect	Yes		No		Yes		Yes		Yes	
Industry fixed effect	Yes		No		No		Yes		Yes	
Province fixed effect	Yes		No		No		Yes		Yes	
Firm fixed effect	No		No		Yes		No		No	
No. of observations	12032		12401		12032		5776		5564	
R-squared adj.	55%		43%		43%		20%		33%	

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