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Political connection, CEO incentives and firm performance: evidence from China's listed firms

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POLITICAL CONNECTION, CEO INCENTIVES AND FIRM PERFORMANCE: EVIDENCE FROM CHINA'S LISTED FIRMS

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CERTIFICATION

I, Xiaofei Pan, declare that this thesis, submitted in partial fulfilment of the requirements for the award of Doctor of Philosophy, in the School of Accounting & Finance of the Faculty of Commerce at the University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. This document has not been submitted for qualifications at any other academic institution.

Xiaofei Pan

15 March 2011

DEDICATION

This dissertation is dedicated to my parents,

Shujun Pan and Changan Zhao

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ABSTRACT

Ever since SOEs were reformed and restructured in 1978, corporate governance has been a major topic in China. As the two main aspects of corporate governance, managerial compensation and CEO turnover have been used as CEO incentives to monitor and align their interests with the shareholders. Their relationship with firm performance has also been studied extensively. In addition, the political and regulatory environment plays an important role in the Chinese market because it is underdeveloped and many of China's listed firms are state owned and politically connected. Therefore, the main concern of this research is the effectiveness of corporate governance in China.

This thesis first examines the association between political connection and CEO turnover and the CEO turnover performance relationship to provide evidence on the effectiveness of corporate governance. This thesis further identifies the implicit incentives for CEOs, namely the political promotion generated from their concerns about a political career, and investigated the interaction with explicit monetary incentive. Finally, this thesis examines the compensation incentive for CEOs and the effect that ownership structure has on the relationship between CEO pay and firm performance.

With regard to monitoring CEOs, this thesis investigates the relationship between political connection and CEO turnover and its relationship with firm performance. This research found that CEO turnover is associated with poor firm performance, a pattern that is more significant in privately controlled firms. This thesis also provided evidence

that politically connected CEOs are less likely to be dismissed and political connections can weaken the CEO turnover-performance relationship. Moreover, the turnover-performance relationship within politically connected firms is weaker with managerial ownership. This thesis also documents an improvement in firm performance following turnover. The evidence suggests a substitute effect of political connection for disciplinary mechanisms, and political connections influence the turnover-performance relationship through managerial ownership when firms confront an underdeveloped market environment.

In addition, this thesis identifies an important incentive system in SOEs; CEO political promotion. Many CEOs are politically appointed by the government and as such, are more concerned about being assessed by government officials. As a unique incentive mechanism exercised in China's SOEs this thesis finds that the probability of CEO political promotion is positively related to firm performance. Interestingly, this thesis also finds that the incentive effect of CEO political promotion is a substitute for CEO compensation-based incentive. This thesis also points out that the incentive of CEO political promotion helps mitigate weak explicit incentives in China's SOEs. These results are robust corrected for endogeneity between CEO political promotion and firm performance, including a new definition of political promotion.

Finally, this thesis examines the relationship between managerial compensation and firm performance using data from China's listed firms. The results show that the pay-performance relationship is positive and significant in China's listed firms. As the largest shareholder is always acting as the controlling shareholder who exercises

effective monitoring, this thesis further divides the total sample into three groups based on their actual owners: SOEs affiliated to State Asset Management Bureaus (SAMBs), SOEs affiliated to the central and local Government (SOEs), and privately controlled firms. This thesis found that the positive pay-performance relationship in SOEs and privately controlled firms remains, however, CEO pay is positively related to firm accounting performance in SOEs, while market performance is positively related in privately controlled firms. This thesis also examines the effects of ownership structure on the pay-performance relationship by measuring the ownership structure by two variables: cash flow rights and excess control rights (the divergence between the control rights and cash flow rights of the largest shareholder). Previous studies suggested a positive incentive effect of cash flow rights and a negative entrenchment effect of excess control rights (Claessens et al., 2002; Lemmon and Lins, 2003). Consistent with the evidence from previous studies, the estimation results show that cash flow rights have a positive effect on accounting performance based pay schemes in SOEs and market performance based pay schemes in privately controlled firms. This thesis also provides evidence that excess control rights have a negative effect on different CEO pay schemes in either SOEs or privately controlled firms. This thesis also distinguishes firms with and without foreign investors, and finds evidence that firms with foreign investors compensate their CEOs more highly than those without.

Overall, this thesis examines the main aspect of corporate governance, CEO pay-performance relationship and the CEO turnover-performance relationship, and provides evidence that political connections and ownership structure exercise significant effects

on corporate governance. Specifically, political connections can entrench poorly performing CEOs and weaken the turnover performance relationship. After being identified, political promotion shows a positive effect on motivating CEOs and substitutes for a monetary incentive, which suggests that facing the environment with an underdeveloped legal system and weak corporate governance, political connections are not always inconsistent with the aim of maximizing firm value. Furthermore, the ownership structure of the controlling shareholder can affect the application of performance based pay schemes across listed firms, among which cash flow rights have positive effects while excess control rights have negative effects on monetary incentives.

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ABBREVITIONS

SOEs	State Owned Enterprises
SAMBs	State Assets Management Bureaus
SOECLs	State Owned Enterprises affiliated to either central or local governments
SASAC	State-Owned Assets Supervision and Administration Commission of the State Council
NPC	National People's Congress
CPPCC	Chinese People's Political Consultative Conference
ACFIC	All-China Federation of Industry and Commerce
CEO	Chief Executive Officer
CSRC	China Securities Regulatory Commission
CCER	China Centre for Economic Research
CSMAR	China Stock Market & Accounting Research Database
ROA	Return on Assets
ROS	Return on sales
RET	Stock return
Q	Tobin's Q
ST	Special Treatment
PT	Particular Transfer
OLS	Ordinary Least Square
2SLS	Two-stage Least Square
U.S.	United States
U.K.	United Kingdom

LIST OF PUBLICATIONS

The following publications are derived from this thesis:

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Chapter 1: Introduction

1.1 Introduction

Executive compensation is at the core of a firm's corporate governance and is an important component of their incentive structure. Because ownership and control were separated, managers were granted more power in decision making and began to accept primary responsibility for maximizing shareholder wealth. Therefore, the issue of how to effectively monitor and compensate top executives and give them incentives is a serious concern because it helps to evaluate the quality of the corporate governance system (Kato and Long, 2005). Moreover, Faccio (2006) pointed out that political connection was a common phenomenon around the world, especially in countries where the legal and institutional system was underdeveloped, and he argued that in these countries firms had incentives to become politically connected to take advantage of any preferential treatment by government. Meanwhile, politically connected firms tended to maintain concentrated ownership and which forced controlling shareholders to adopt managerial pay schemes according to their own objectives (Firth et al., 2006a; Chen et al., 2011). However, the effect of political connection and ownership structure on internal monitoring and incentives has not yet been answered, thus this thesis seeks to fill this void by examining the relationship between political connection and CEO turnover-performance and pay-performance sensitivity using China's listed firms as an example.

Chinese firms were used in this thesis for two reasons. First, China is the largest transitional economy and one of the fastest growing economies in the world (Allen et al., 2005). Second, its unique institutional settings provide a unique laboratory in which to examine the effect of political connection and ownership structure on CEO incentive and monitoring mechanisms. Since 1978, China has adopted state owned enterprises (SOEs) reform where the central theme is corporatization and privatization. In the early 1990s when two stock exchanges were established in Shanghai and Shenzhen, many SOEs were privatized by issuing shares to the public and listing them on these stock exchanges. The aim of corporatization and privatization is to establish a modern enterprise system and separate ownership from control and in addition, due to a lack of investor protection and a low level of law enforcement, China has a poor corporate governance system, so shareholders may believe that internal monitoring is more reliable than external monitoring mechanisms. It is therefore essential that a management incentive and monitoring system aligns the interests of managers and shareholders.

This thesis aims to investigate the effects of political connection on CEO incentives and monitoring mechanisms. In this thesis, political connection is defined as CEOs who are current or former officials of either the central government, local government, the military, or members of government related entities, including the National People's Congress (NPC), the Chinese People's Political Consultative Conference (CPPCC) and the All-China Federation of Industry and Commerce (ACFIC). Political connections can provide firms with access to credit, regulatory protection, and financial assistance from

government. This characteristic motivates companies to establish these in order to influence the political process and seek government protection. Moreover, these connections can entrench CEOs because firms are unlikely to surrender these preferential resources (Fan et al., 2007; Faccio, 2010; Faccio et al., 2010). This thesis therefore addresses the following question: does political connection affect CEO monitoring mechanisms through the turnover-performance relationship.

In addition, this thesis provides a more comprehensive look at political connections and investigates the incentive that political promotion has on the CEO pay-performance relationship. China's managerial labour market includes a unique political component where government has the authority to select and appoint CEOs to SOEs. This component provides political promotion incentives for CEOs where they are more concerned about their political careers and have less working opportunities outside this political labour market (Bo, 2009). This thesis defines political promotion as CEOs who left their managerial positions for higher or more prestigious posts which were politically connected. This incentive for political promotion is implicit and unobservable, so empirically this study first used a regression to estimate the probability of political promotion and then examined the effect of political promotion on CEO pay-performance relationship with the value of predicted probability of political promotion.

This thesis also examines the effect of ownership structure on the CEO incentive mechanism. One important feature of China's listed firms is the concentrated ownership structure by way of political connection and pyramid structure (La Porta et al., 1999; Chen et al., 2011). As a result, controlling shareholders have substantial control rights

but relatively small cash flow rights by which they could expropriate from minority shareholders, so the divergence between control rights and cash flow rights of controlling shareholders may affect the application of performance based pay incentives.

In this sense China is an excellent environment in which to conduct this research because alongside its economic development has unique characteristics such as political connection, ownership structure, and employee wage structure, which are different from other transitional economies and developed countries. Therefore, to better understand the substantial effects generated from China's unique environment, this thesis will review its institutional background as described in the following section.

1.2 Institutional background

1.2.1 Political connection in China's listed firms

Political connection exists in both SOEs and privately controlled firms. After the SOEs began restructuring in 1978, the state relinquished some authority because the government wanted to adopt a market-oriented economy, but it still maintained absolute control over many large and strategic SOEs in sensitive industries. More importantly, the state kept control over the personnel system, maintaining the right to appoint, select, and dismiss many top executives in these SOEs, an action which naturally resulted in corporate political connections. In addition, since the separation in the early 1980's of government functions from enterprise management, many government officials revealed their political connections by taking up managerial positions in SOEs.

Meanwhile, private investors also have incentives to build political connections in order to seek rents from the government because of underdeveloped legal and institutional system in China and lack of protection for outside investors. There were two waves of political connections established in privately controlled firms. Early the 1990s after Deng Xiaoping's inspection of South China, many government officials were encouraged to become self employed and establish their own businesses. The second wave refers to the fact that during the early 2000s, some government officials gave up their original positions for posts in privately controlled firms. Furthermore, privately controlled firms would also like to appoint politically connected CEOs, especially when they encounter financial distress (Li et al., 2006). Political connection in privately controlled firms is treated as a resource and protection from the government which can improve firm performance and overcome state or market failure (Li et al., 2008).

1.2.2 SOEs reform and ownership structure

In 1978 China started its economic reforms and introduced a market oriented economy that has grown enormously. The main part of these reforms is reform of the SOEs with the aim of transforming traditional SOEs into profitable, modern firms, and also modernise the enterprise system[1]. Before economic reforms commenced, every enterprise was controlled by the central government, but since the SOE reformation began, the state tried to relinquish their shareholdings and de-centralise. Before the

[1] It usually refers to corporatization and privatization. Corporatization is referred to the process of transformation from former SOEs into modern firms. Privatization is referred to the fact that SOEs issued shares to the public and listed on the stock exchanges.

State-owned Assets Supervision and Administration Commission of the State Council (SASAC) was established in 2003, SOE reform took place in three stages.

Stage one was from 1978 to 1984 where the aim was to give the SOEs enough autonomy and incentives and set up internal profit retention and sharing systems. Stage two was from 1985 to 1992 where, according to the modern enterprise theory proposed by Coase (1932), the aim was to emphasise the separation between management and ownership. This eventually converted into a contract responsibility system between managers and shareholders, and decision making rights being shifted from state level to management level. Stage three was from 1993 to 2002 where modern enterprise systems were established in SOEs. In the Third Plenary session of the Fourteenth Chinese Communist Party (CCP) Congress held in 1993, a modern enterprise system was called for the first time in order to further improve firm performance and operational efficiency. In the Tenth session of the National People's Congress in 2003, the SASAC has been established by merging some functions of three ministries, including the Central Work Committee for SOEs, the National Economic and Trade Commission, and the Ministry of Finance. The aim of SASAC was to completely take over the SOEs, including regulating state owned assets management, and restructuring and evaluating them, and so on. SASAC represents the central government and is responsible for improving the profitability of SOEs and enhancing the management of state-owned assets invested in them. The establishment of SASAC can be regarded as the beginning of the fourth reform stage.

Since the reform of SOEs began in 1978, the state was giving enough autonomy to enterprises and trying to relinquish its shareholdings, but it was unwilling to give up its controlling position. Since the early 1990s when two important stock exchanges were established in China, most SOEs were partially privatised and listed on the stock exchanges, and issued shares to the public. However, agents of the central government, such as legal entities, still retained enough shares to control the voting, so the dilemma of giving enough autonomy to SOEs while still controlling the vote, distinguishes China from other transitional economies and provides an excellent environment to study managerial compensation.

According to the Corporate Law of China and the Chinese Securities Regulatory Commission (CSRC) regulation, listed firms generally issue three types of shares, state shares, legal person shares, and common A shares. Of these, the central government and its agents such as government bureaucratic agencies, SOEs, and other legal entities own the state shares, and they are non-tradable[2]. Common A shares are widely held by individuals and private organizations, and they are freely traded on the stock exchanges, and every share issued by listed firms are entitled to the same voting and cash flow rights. One distinct characteristic of China's listed firms is the continued existence of one dominant shareholder whose ownership is higher than the second largest shareholder, and this dominant shareholder is always the central government and its agents. This indicates that in most instances, governments at various levels still have substantial control over these partially privatized SOEs.

[2] Under the special situations, these state shares and legal person shares can be traded under the authority of CSRC.

1.2.3 Wage reform and managerial compensation in China's listed firms

Alongside economic reform in SOEs went wage reforms designed to offer better incentives and improve firm performance (Estrin, 2002). There were three waves of wage reforms in 1950, 1956 and 1984, respectively. In 1950 just after the People's Republic of China was established, the first wave of reform aimed at reconciling different wage systems into one wage system where wages were distributed according to his or her work. During this stage however, different areas and industries had different wage structures so in 1956, the aim was to unify the wage system at state level. The consequences of this second reform were that employees began to receive cash salaries and compensation, while managers were compensated on the basis of their corporate hierarchy and civil service pay scale, which had no relationship to either firm performance or individual contribution. And therefore, any variation in wages only reflected differences across regions, industries, and the regional consumer price index.

The third stage consisted of two sets of reforms promulgated in 1984 and 1992. In 1984 the Ministry of Labour (MOL) announced that wage budgets should be linked to the economic performance of an enterprise, measured by firm profitability or a combined indicator of economic returns (Yueh, 2004). The goal was to provide profit centred incentives. In 1992 the SOEs were allowed to set their own internal wage structure within the overall budget established by the central government. Although autonomy was awarded, the wage budget still had to be approved by the Ministry of Labour.

Since 1995, every listed company was permitted to set their own wages relative to firm performance (Yueh, 2004). In 2003, SASAC was established and extended the implementation of a 'yearly salary system' for top executives. It issued regulations requiring that CEO compensation must consist of salary and bonus, and relate to a firm's economic performance. Thereafter, the relationship between CEO pay and firm performance has been further strengthened in SOEs and this change in the pay-performance relationship will be discussed in more detail in following chapters. However, long term incentives such as stock options and restricted stocks, which were prevalent in developed countries, were not granted to top executives in China's listed firms until 2006 because of the lack of incentives and high rate of turnover (Firth et al., 2006b). Even after 2006 the number of firms who granted stock options and restricted stocks to top executives was less than 5% of the total number of listed firms. For example, at the end of 2010 there were only 47 firms granting stock options and restricted stocks, while there were more than 1800 firms listed on two stock exchanges.

In addition, according to the Labour Law, privately controlled firms are free to set their own wage structure and corporate hierarchy. Any agency problems that exist in privately controlled firms are between managers and public investors. In order to achieve better firm performance and provide enough incentive for managers, privately controlled firms tend to set a comparatively higher remuneration to keep top executives and widen the pay gap within the top management team. This gives more power to managers who can then make all the major decisions.

1.3 Motivation and contributions

Corporate governance is an important aspect in the success of China's economic reforms and it has received extensive attention from academics. Their studies mainly focused on the incentive (CEO compensation) and disciplinary (CEO turnover) mechanisms aimed at improving corporate governance.

However, no one has considered the effect that political connection and ownership structure has on CEO incentives and disciplinary mechanisms. The unique market environment in China provides an opportunity to further study these corporate governance issues. This thesis will fill this gap and shed light on these issues by examining China's listed firms.

This thesis makes several major contributions to the extant literature on corporate governance. Firstly, it adds to the extant literature by examining the effect of political connection on CEO turnover and the CEO turnover-performance relationship. It provides further evidence on whether political connections affect CEO turnover and whether it substitutes internal governance by lowering turnover-performance sensitivity. Political connections provide an effective method for CEOs to entrench themselves.

Secondly, this thesis identifies CEO political promotion, the implicit incentive for CEOs in SOEs, which is unique under China's politically controlled personnel system. It provides evidence that political promotion is positively associated with firm performance and the incentive of political promotion substitutes for the incentive of compensation, which is quite low and insufficient in China. This alternative incentive is

helpful to understand the weak link between managerial compensation and firm performance observed by previous studies (Firth et al., 2006; Kato and Long, 2006).

Thirdly, this thesis shows how the cash flow rights and excess control rights of the largest shareholders affect the CEO pay-performance relationship. This study argues that in China the largest shareholders exercise substantial control where ownership is concentrated. It is suggested that cash flow rights have a positive effect and excess control rights have a negative effect on accounting performance based pay scheme in SOEs affiliated to central and local governments, and on market performance based pay scheme in privately controlled firms.

Finally, this thesis helps understand corporate governance and CEO incentive and monitoring mechanisms in the context of China.

1.4 Structure of this study

Chapter 2 examines political connection and its association with CEO monitoring mechanism, namely CEO turnover. Political connection is a common phenomenon in SOEs and privately controlled firms, although with different incentives and motivations. Based on previous studies in other countries as well as China, political connection can benefit firms by providing financial assistance, convenient access to bank loans, relaxed tax regulations, and preferential corporate bailout. However, politically connected firms also need to devote substantial resources to their rent seeking activities, which may well eliminate any advantage from political connections (Faccio, 2010). Therefore, exactly

what benefits political connection has on corporate governance, i.e. CEO turnover and turnover-performance relationship is still a question to be answered.

Chapter 3 examines the effectiveness of compensation-based incentive and political promotion-based incentive for CEOs in China's listed SOEs. Apart from the external managerial labour market there is also an internal political labour market which provides political incentives for managers to improve firm performance. This incentive depends largely on China's unique personnel control system and characteristics of listed SOEs. Moreover, as two incentive mechanisms have been exercised in China, are they a substitute or do they complement each other?

The largest shareholder is the dominant shareholder, so any scheme for setting managerial compensation depends on who is the largest shareholder. Because the objectives and motivations of the largest shareholders vary considerably, this thesis conjectures that CEO pay scheme and pay-performance relationship may be different across firms with different types of large shareholders. To test this primary hypothesis, this thesis examined the effect of different types of largest shareholder on CEO performance-based pay schemes. Besides a multivariate analysis of the total sample, this thesis further divides firms into groups based on the ultimate type of shareholders, and predicted that firms with different types of largest shareholders may have different performance based pay schemes. The theoretical background is that under the efficiency incentive mechanisms, CEO pay should be a function of firm performance (Murphy, 1999). More importantly, this thesis examined the effects of ownership structure, i.e. the cash flow rights and control rights of the largest shareholder, and how it affected the

pay-performance relationship. This is the main subject of Chapter 4. Chapter 5 is the concluding chapter.

Furthermore, before the empirical analysis in each Chapter, the assumptions of both two-sample t-test and multivariate analysis are investigated to draw the conclusions. Specifically, for the two-sample t-test, both paired Student's t-test and Wilcoxon signed-rank test are adopted. If the assumptions are met, the Student's t-test results are trustworthy, and if the assumptions are not met, the Wilcoxon signed-rank test is the alternative which is not constrained by the assumptions. For comparison, I report both Student's t-test and Wilcoxon signed-rank test results. For the multivariate analysis, the assumptions are also checked. In particular, several assumptions are fulfilled in the proper design of the regression which is discussed in detail in each Chapter. Another assumption is that the variables are consistent with the normal distribution. If this assumption is not met, the log specification is used to satisfy this assumption. I have also tried to remove the outliers to improve the variable normality.

Since 1998, listed firms in China are required to disclose managerial compensation and turnover in their annual reports. In 2001, China gained access to the WTO and since then a new code of corporate governance and new accounting and auditing practices have been applied. This thesis collected this data to examine CEO incentive and monitoring in China's listed firms.

Chapter 2: Political connection and managerial entrenchment: evidence from CEO turnover in China

2.1 Introduction

This chapter examines the impact of political connection on CEO turnover and the turnover-performance relationship. A substantial amount of literature analyzing this topic has emerged in recent years (Faccio et al., 2006; Fan et al., 2007; Li et al., 2008; Claessens et al., 2008; Chen et al., 2010; Faccio, 2010; Faccio et al., 2010), much of it focusing on the sources of value such as preferential access to credit, regulatory protection, and financial assistance from government. While these benefits can enhance firm value there is an acknowledged downside associated with political connection deriving from the substantial resources dedicated to rent seeking activities (Faccio, 2010). Fan et al. (2007) provided evidence from China that supports the negative effect that political connection has on firm performance in SOEs, although several papers document a positive effect in privately controlled firms (Li et al., 2006; Li et al., 2008).

CEO turnover is an important disciplinary mechanism for managerial incentive as a credible threat to replace under-performing CEOs. CEO turnover and its relationship with firm performance has been studied extensively (Denis et al., 1997; Volpin, 2002; Huson et al., 2004; Cheng et al., 2008; Conyon and He, 2008; Chang and Wong, 2009). These studies treat CEO turnover as an internal monitoring mechanism. They document a negative relationship between CEO turnover and firm performance and also found an improvement in firm performance after a CEO had been replaced. However, there is no

existing research that analyses the implications of political connections on the CEO turnover-performance relationship. This thesis attempts to fill this gap.

Political connections in China are a common phenomenon. With the corporatization and privatization of SOEs in China since 1978, state shareholders have decentralized authorities to some extent, but still hold control rights on personnel decisions. Central and local governments still have authority over the selection, appointment, and dismissal of top executives in SOEs, whereas privately controlled firms are also likely to build up political connections or maintain their previous connections if their firms were converted from former state owned enterprises. These connections benefit private firms by providing preferential access to financial resources such as loans and help them avoid strict regulatory oversight (Dinc, 2005; Faccio et al., 2006; Claessens et al., 2008). In addition, China is a transitional economy with weak law enforcement and weak institutional constraints. The state is involved in many Chinese companies which are believed to operate with low efficiency (Wei et al., 2005) and have poor corporate governance (Firth et al., 2006b). Thus, whether CEOs are disciplined appropriately and monitored effectively is still an open question. The Chinese context provides me with an excellent laboratory to examine and explain the effects of CEO political connections on corporate governance systems, particularly the sensitivity between CEO turnover and firm performance.

From a comprehensive sample of CEO turnover in China's listed firms, this thesis found a significantly negative relationship between CEO turnover and firm performance that is much stronger in privately controlled firms than in SOEs. As with previous

studies (Faccio et al., 2006; Fan et al., 2007; Chen et al., 2010), this thesis defined political connection where CEOs were former or are current officers affiliated to the government, and identified that nearly 45% of the CEOs in the sample are politically connected in some way, of which 34.55% are in SOEs, and 10.45% are in privately controlled firms. This thesis provides strong empirical evidence that CEOs are less likely to be replaced if they were politically connected, and even stronger when in privately controlled firms. This thesis also found that managerial ownership was inversely related to CEO turnover. Among those CEOs with managerial ownership, those that are politically connected exhibit a significantly weaker turnover-performance relationship than their non-connected peers.

My findings indicate that a CEO's political connection can serve as a substitute disciplinary mechanism by lowering their sensitivity of turnover to firm performance. The evidence clearly suggests that politically connected CEOs are more entrenched and more likely to retain their positions when firms are not performing well.

This research contributes to the extant literature on corporate governance by providing a comprehensive analysis of CEO turnover performance in China, and by offering the first empirical findings on whether political connections affect CEO turnover. Political connections provide an effective way for CEOs to entrench themselves in corporate governance.

The remainder of this chapter is structured as follows. Section 2 provides a brief review of extant literature. Section 3 lists detailed hypotheses. Section 4 discusses the

data and research methods. Section 5 presents empirical results. Section 6 presents my conclusions.

2.2 Literature review

The turnover of top executives has been the main topic of discussion within the corporate governance area. International evidence shows that replacing top executives is an alternative mechanism to disciplining them for under-performing because their turnover is often associated with poor firm performance and low managerial ownership (Kaplan, 1994a, 1994b; Kang and Shivdasani, 1995; Franks et al., 2001; Conyon and Florou, 2002; Volpin, 2002). Specifically, Weisbach (1988) found that poor firm performance is related to forced CEO turnover. Huson et al. (2001), using U.S. data from 1971 to 1994, found that changes to the mechanism of internal governance and intensity of the takeover market were not associated with CEO turnover and sensitivity to firm performance. Denis et al. (1997) provided evidence that CEO turnover was negatively related to the ownership stake held by officers and directors, and positively related to the presence of an outside blockholder.

Several studies in China also examined top executive turnover and its relationship to firm performance (Groves et al., 1995; Aivazian et al., 2005; Fan et al., 2007; Cheng et al., 2008; Chang and Wong, 2009). Among these studies, Kato and Long (2006) showed that CEO turnover was negatively related to a firm's financial performance, and Firth et al. (2006b) provided a similar result by focusing on the relationship between chairman turnover and firm performance. Moreover, Conyon and He (2008) examined both CEO

and chairman turnover using a sample of 1200 Chinese listed firms from 1999 to 2006. They found that the turnovers of top management were inversely related to a firm's profitability, which was consistent with the agency model. In this analysis I focused on CEO turnover by following Kato and Long (2006) and Conyon and He (2008).

Two different sets of evidence were provided in studies that examined the function of political connections. The first was that political connections can benefit firms by relaxing tax regulations, preferential corporate bailout, convenient financing, and facilitating rent seeking (Faccio et al., 2006; Claessens et al., 2008; Chen et al., 2010). These studies suggest that political connections have a positive effect on firm value and performance. The second argues that politically connected firms also have to devote substantial resources to their rent seeking activities, which may well eliminate any advantage gained from any existing political connections (Fan et al., 2007; Faccio, 2010). They treat political connections as government intervention and a desire to satisfy the objectives of social services. The evolving studies on China provided both sets of evidence. The study of Fan et al. (2007) from a sample of IPO firms from 1993 to 2001, mainly focused on the intervention of political connections and argued that politically connected firms under performed more than those without political connections,. Li et al. (2008) used a sample of China's privately controlled listed firms and provided evidence that politically connected CEOs have a positive effect on firm performance.

Previous studies have not examined the effect of political connections on CEO turnover so this research hopes to shed some light on this issue by using a sample of all the non-financial firms listed in two Chinese stock exchanges.

2.3 Institutional background and hypotheses

For the last thirty years China has adopted economic reforms and SOE restructuring. Decision making rights have been decentralized from government to firm level while the state still controls many SOEs, particularly the appointment of top managerial positions in state controlled firms, even though the state relinquished control in some areas. Thus, political intervention has a significant impact on the corporate governance systems. Moreover, as many studies argued, the state is not the real owner of SOEs but the agents of government acting on behalf of the government. Therefore, it is natural that state shareholders have multiple objectives rather than the traditional agency model of maximizing firm value. How to monitor top management and whether the current internal monitoring mechanism is effective needs to be examined.

In the early 1990s, some SOEs were allowed to issue shares and trade on the two stock exchanges set up in Shanghai and Shenzhen. The motivation behind this corporatization and privatization process was the government's desire to adopt a market oriented economic system. In this sense, CEOs were acting more like their counterparts in western countries by maximizing shareholder wealth. The agency theory argues that CEOs are more likely to be terminated or replaced due to poor firm performance, which suggests a negative relationship between CEO turnover and firm performance. The

relationship between CEO replacement and poor firm performance has been proved by many previous studies from China (Kato and Long, 2005; Firth et al., 2006b; Chang and Wong, 2009). From this therefore, this thesis constructed the first hypothesis:

H1: CEO turnover is negatively related to firm performance.

The evolving literature has studied political connections extensively (Li et al., 2008; Wu et al., 2008; Chen et al., 2010). They suggest that political connections can be either in SOEs or privately controlled firms. A unique characteristic of Chinese SOEs is the existence of a politically controlled personnel system where government at different levels have the ultimate authority over the appointment and dismissal of many top executives, which directly results in politically connected CEOs. Moreover, one feature of SOE reform was the separation of government functions from enterprise management, from which many government officials chose to take up managerial positions in enterprises rather than their original positions in the government.

Alternatively, since the Chinese market is apparently underdeveloped and inefficient, and lacking protection for outside investors, privately controlled firms have incentives to establish political connections to extract rents from the government and obtain relief from some of their problems (Faccio, 2010). There were two waves of political connections established in privately controlled firms that mainly consisted of politically connected CEOs. The first wave happened as early as the 1990's, just after Deng Xiaoping's inspection of south China, when many government officials chose to become self-employed and established their own businesses. The second wave referred to the fact that during the early 2000's, some government officials gave up their original

positions and held posts in privately controlled firms. Furthermore, privately controlled firms would also like to appoint politically connected CEOs, especially when they encounter financial distress (Li et al., 2006). This political connection in privately controlled firms is regarded as a resource and protection from the government which can help improve firm performance and overcome state or market failure (Li et al., 2008). Consequently, private investors are more likely to retain their politically connected CEO's to maintain their power and performance. Therefore, due to the benefits resulting from political connections, this thesis conjectures that politically connected CEOs are entrenched and less likely to be dismissed:

H2: CEO turnover rate is negatively related to CEO political connection.

As discussed above, politically connected CEOs are less likely to be terminated, which suggests there is a weaker relationship between CEO turnover and firm performance. In addition, the State-Owned Assets Supervision and Administration Committee of State Council (SASAC), the agent of the government, issued a regulation 'Interim regulations on the evaluation of the SOE affiliated to the central government top executive operating performance' mentioning the 'talking system' which referred to the fact that if SOEs controlled by the SASAC performed poorly, the top executives would not be punished or dismissed immediately. The SASAC will send experts to help these SOEs overcome their failure to perform (SASAC, 2003). A similar situation exists in SOEs controlled by the local SASAC. Moreover, because these politically connected CEOs are more likely to act as representatives of the government, they care more about the growth of the state owned assets invested in SOEs, and other objectives such as the

supply of labour and a region's budgetary deficit (Chang and Wong, 2009). Additionally, politically connected CEOs in privately controlled firms have a closer relationship with the government and always perform better than their peers without political connections. Moreover, private investors are motivated to retain all of the benefits arising from their political connections and are less likely to dismiss politically connected CEOs, even they underperform. Therefore, a political connection will lead to a weaker turnover performance relationship:

H3: CEO turnover performance relationship is weaker if the CEO is politically connected.

State owned firms operate with multiple objectives such as providing a social service, not just focusing on maximizing firm value (Clarke, 2003). In this sense, CEO turnover in state owned firms may also be determined by some other indicators. Nevertheless, private investors appoint CEOs as their representatives to maximize shareholder wealth which means that private controlling shareholders have enough incentives to monitor top management and dismiss them for poor performance (Firth et al., 2006b). Therefore, this research has the following hypothesis:

H4: CEO turnover performance relationship is weaker in SOEs but stronger in privately controlled firms.

The last hypothesis related to managerial ownership of politically connected CEOs. In many cases, firms award CEOs some equity to better align managerial behavior with the interests of shareholders, because doing so can help increase firm value (Hu and Zhou, 2008; Benson and Davidson, 2009). Therefore, in order to fully utilize the

convenience resulting from political connections, politically connected CEOs are more entrenched and less likely to be removed because they may have a close relationship with their firms:

H5: CEO turnover performance relationship is weaker if politically connected CEOs are holding managerial ownership.

2.4 Sample selection and research methods

2.4.1 Sample selection

This thesis was able to obtain information on specific CEO characteristics from the Chinese Stock and Market Accounting Research (CSMAR) database, and firm specific characteristics from the SinoFin database. The original sample consisted of every firm listed on the Shanghai and Shenzhen stock exchanges from 2002 to 2007. This thesis started the sample from 2002 because the new accounting and audit standards have been exercised in listed firms since 2001. As with previous studies, this study deleted ST and *ST [3] firms from my population. To address the specifically regulated industry considerations, this study excluded those financial industry firms with unique accounting standards, and observations with missing information. The final sample consists of 1096 listed firms and 6297 firm year observations. Table 2.1 gives detailed information on CEO turnover; the total number of which was 1422. It also gives detailed information on the destination of departing CEOs.

[3] ST stands for special treatment. The stock exchanges flag a listed firm ST when irregularities appear in its financial or accounting statements. These firms also have negative net profits for two consecutive years. *ST refers to listed firms that have negative net profits for three consecutive years and have a high probability of being delisted from the stock exchanges.

This study manually collected data of CEO political connections by searching the annual reports of listed firms. For each firm in each year, this thesis compiled a CEO profile that includes age, gender, education, experience, and professional background. From this I traced their political connections by examining whether they were former or current officers of either the central government, local government, the military, or members of the standing committee of the National People's Congress (NPC), the standing committee of the Chinese People's Political Consultative Conference (CPPCC) and All-China Federation of Industry and Commerce (ACFIC).

It was difficult to distinguish between forced and voluntary turnovers based on public information because the press was unlikely to mention whether CEO turnover was or was not forced. Therefore, in order to effectively monitor CEO turnover as a punishment related to poor firm performance, this study adopted the following procedure. This study was able to obtain the reasons for CEO turnover from the CSMAR database and divided them into 'normal' and 'forced' groups for ease of exposition. This study first identified that the normal turnover group included 745 cases where the stated reasons were retirement, contract expiration, resignation, completion of acting duties, health, personal reasons, changes in controlling shareholder, legal disputes, and corporate governance reform. For the remaining turnovers, this study traced the destinations of departing CEOs to identify either normal or forced turnovers. Of the remaining 677 cases, this study recognized 225 cases which were considered to be normal turnovers. These include 10 cases where CEOs took up positions in the government, 92 cases where they were promoted to chairman or vice chairman of

boards, 51 cases where they took up managerial positions in parent companies, 70 cases where they remained as chairman or vice chairman, and 2 cases where they were going abroad to receive an education.

This thesis treated the remaining 452 cases as forced turnovers. These include 94 cases where CEOs took up less prestigious positions within firms, 22 cases where they left and took up a position in unlisted or smaller firms, 42 cases where they were dismissed, and 294 cases in which were unable to trace the destinations of those who left or unknown reasons for turnovers. This thesis classified cases where no reason was given for a forced turnover because there were comprehensive reasons why CEO's departed so it was unlikely that information on turnover was not available if CEO turnover was a voluntary departure. Moreover, Firth et al. (2006b) argued that resignation may be a face saving device for CEOs who would otherwise be punished or dismissed so this thesis reclassified resignations as forced turnovers. Of the original sample of forced turnovers, this study excluded 31 cases where their tenure was less than one year because poor performance in one year would be unlikely. This study also added 20 cases where the stated reason was retirement, but the age of departing CEOs was less than 60. Finally, this study identified 981 cases as normal turnovers and 441 as forced turnovers, which represent 68.99% and 31.01% of the total turnovers, respectively.

2.4.2 Methodology

This study used the following logistic regression to examine the effects of political connection on CEO turnover and turnover performance relationship.

$$\begin{aligned} Turnover_{it} = {} & \alpha_0 + \alpha_1 Perf_{it-1} + \alpha_2 Political_{it} + \alpha_3 Perf_{it-1} * Political_{it} + \alpha_4 Mown_{it} \\ & + \alpha_5 Mown_{it} * Political_{it} + \alpha_6 Private + \alpha_7 Private_{it} * Political_{it} \\ & + \alpha_8 Size_{it} + \alpha_9 Age_{it} + \alpha_{10} Tenure_{it} + \alpha_{11} Board_{it} + \alpha_{12} Pond_{it} \\ & + \alpha_{13} Lev_{it} + \alpha_{14} Duality_{it} + Industy + Year + \varepsilon_{it} \end{aligned} \quad (1)$$

where *Turnover* is measured by forced turnover, as discussed above, which can reflect the effectiveness of CEO monitoring mechanisms. *Perf* is firm performance, measured as the return on assets (ROA) and return on sales (ROS). *Political* is a dummy variable, coded 1 if a CEO is politically connected and 0 otherwise. *Size* means firm size, defined as the log of firm total assets. *Age* is the log of CEO age. *Tenure* is the log of years that a CEO has been in that position. *Board* is the log of the total number of directors on the boards. *Pond* is the proportion of independent directors on the boards. *Lev* is the level of firm leverage. *Duality* is a dummy variable coded 1 where a CEO is also the chairman of the board and 0 otherwise. This study also includes *i* and *t* representing the industry and year to control the industry and year fixed effects[4].

Following Huson et al. (2001) and Chang and Wong (2009), this study used the current year performance if CEO turnover occurred in the second half of a year and previous year performance if it occurred in the first half of a year. By doing so, this study partially covered the endogeneity issue.

[4] The statistical softwares used in this thesis for the empirical analysis include STATA and Eviews.

2.4.3 Summary statistics

Table 2.2 summarizes the summary statistics of variables for this study. Panel A shows that the rate of total turnover was 23% which is similar to those reported by the previous studies. This study also used a set of control variables in the regression. The average tenure of CEOs was 3.26 years, which is longer than the one reported by Chang and Wong (2009). The mean value of CEO duality indicates that 12% of the total observations have CEOs who also serve as chairman of their firms. The results in Panel B show that there was a significant decrease in the annual turnover rate during the sample, decreasing from 27.42% in 2002 to 20.63% in 2007. The average annual turnover rate was 22.82%. The results also show that normal turnover accounts for the majority, around 70%, of total turnovers. As discussed above, forced turnovers were due to poor performance which reflected the disciplinary power of the internal monitoring mechanism, while normal turnovers includes retirement, health problems, promotions, moving laterally, and taking up other prestigious positions.

2.5 Empirical results

2.5.1 Univariate tests

Table 2.3 shows the turnover rates by quartiles of firm performance of the full sample and tests for equality between the lowest and highest quartiles. This study divided firms into four quartiles based on industry adjusted ROA in Panel A and industry adjusted ROS in Panel B. The results show that CEO forced turnover rates increased as firm performance decreased. The results in Panel A show that forced turnover is significantly

higher in firms with poor ROA than those with good ROA. In Panel B poor ROS is associated with forced turnovers, for example those firms with the poorest ROA (bottom quartile) replace their CEOs in 9.39 percent of cases whereas only 4.57 percent of CEOs were replaced for firms with highest ROA, and this difference of 4.82 (9.39-4.57) percent is significant (t-test value is 5.35). The general results support my hypothesis that forced CEO turnover is positively related to poor firm performance.

Table 2.4 shows the results of the univariate tests of CEO turnover. This study divided the total sample of firms into two groups, with and without political connections, and then sorted them based on performance and managerial ownership, to see whether the rate of CEO turnover had significant differences. In Panel A, Table 2.4 for example, this study divided the total sample into two sub-samples based on industry adjusted ROA. For firms with a higher firm performance, the CEO turnover rate was 4.80% in politically connected firms, which was significantly lower than 6.32% in non-politically connected firms (t-value is -1.92). This study then repeated the comparative analysis by sorting firms based on industry adjusted ROS and obtained similar results to those reported in Table 2.4. The overall evidence suggests that politically connected CEOs were less likely to be replaced but the political connections in firms with managerial ownership further weakened the performance turnover relationship. These results are basically consistent with the main hypotheses.

Table 2.5 lists further results of the comparison of mean (median) value of CEO turnover, firm, and CEO characteristics. The results between two groups based on whether CEOs are politically connected are shown in Panel A. In column 1, CEO

turnover is significantly lower for firms with CEO political connections (t-value is -2.06), and so too is firm performance (t-value is -5.84). The results between SOEs and privately controlled firms are shown in Panel B. The comparison of CEO turnover is insignificant, which indicates there is no difference in turnover between SOEs and privately controlled firms, although the average performance in SOEs is better than privately controlled firms. The results also suggest that CEOs in SOEs work for a longer time and are older than their counterparts in privately controlled firms (t-values are 4.27 and 12.36, respectively). The results shown in Panel C are between two groups with and without CEO turnover. The general comparison results suggest that CEO and firm characteristics between these two groups do not have significant difference except firm size and CEO tenure.

2.5.2 Multivariate tests

As Table 2.6 shows, the Pearson correlations between each pair of variables (contemporaneous value) are lower, which indicates that multicollinearity does not exist.

Table 2.7 shows the logistic regression estimated results of CEO political connections on the performance turnover relationship for the whole sample which basically supports my hypotheses. In Panel A of Table 2.7, industry adjusted ROA was used to measure firm performance and industry adjusted ROS was used in Panel B of Table 2.7. The general results in Table 2.7 show that a firm's poor performance was definitely related to CEO turnover, a result consistent with the evidence in Table 2.3, and supports hypothesis 1 that poor performing CEOs are more likely to be replaced.

CEO's political connections are negatively associated with CEO turnover while the results are not robust in all specifications. The evidence here supports hypothesis 2 that CEOs with political connections are generally less likely to be replaced. The interactive term between firm performance and political connection remains positive and significant at the 1% level in all specifications, which strongly supports hypothesis 3 that political connections lower the sensitivity of CEO's performance and turnover. This offers new evidence in the literature that political connections help entrench poorly performing CEOs. *Mown*, the proportion of shares held by CEOs is negatively associated with CEO turnover but the coefficient is insignificant. The interactive term between Mown and political connection, however, is negatively associated with CEO turnover, which suggests that politically connected CEOs, particularly those with more ownership equity, are less likely to be replaced. Similarly, the interactive term between political connection and private firm dummy has a negative coefficient. CEOs in privately controlled firms with political connections are less likely to be replaced than those in state owned firms. One possible explanation for this is that CEOs with political connections bring benefits to privately controlled firms and hence have a lower rate of turnover.

Control variables such as age had a positive effect on turnover, while tenure had a negative effect, although corporate governance variables such as the size of a board and proportion of independent directors, including duality, had no effect on turnover. Unlike previous studies this thesis does not find any relationship between firm size and leverage, and CEO turnover.

As discussed above, this study repeated the analysis by including resignation as forced turnover. Both univariate and multivariate analyses using the new forced turnover are broadly similar to those reported here.

2.5.3 Robust Analysis

The analyses so far have concentrated on using annual firm performance as the criteria for replacing top management and the results support the hypotheses that CEO turnover is associated with poor firm performance. My argument is that CEOs may focus on short term performance and have an incentive to manipulate cash flows and earnings (Chang and Wong, 2009). However, as the summary statistics have shown, their average tenure is 3.26 years, and this thesis suspects that using annual performance may not completely reflect a CEO's ability or contribution. Because a bad firm performance could have resulted from risks such as policy, changes in regulation, and macro-economic factors. Therefore, this study created two additional performance measures, AROA (AROS) and DROA (DROS). AROA (AROS) is the average industry adjusted ROA (ROS) over a CEO's tenure, and DROA (DROS) is a dummy variable equal to 1 if a firm's ROA (ROS) is higher than the median ROA (ROS) and 0 otherwise. This study replaced annual firm performance with these two additional measures, re-estimated main regression and found results that were broadly similar to those reported in Table 2.7.

Political connection is not completely exogenous, since certain firms, e.g., poorly performing ones, may be more likely to hire CEOs with political connections. This

research needed to control this endogeneity in the multivariate analysis. Table 2.8 reports the results of the two stage regression. In the first stage this study used a logistic model to obtain fitted values of the political connection dummy by regressing it on firm performance, and a set of selected control variables. In the second stage the fitted values were used instead of the political connection dummy in regressions that are otherwise the same as those reported in Table 2.7. By doing so this thesis could control the selection of CEOs with political connections, while the second stage regression used the predicted probability of political connection as a variable of interest.

The general results of the two stage regression are similar to the OLS regression, although some variables were less significant in the 2SLS regression. For example, the interactive terms of ROA and political connection remain significant and positive, suggesting that political connection reduced the sensitivity of CEO turnover to firm performance.

2.6 Post turnover performance

2.6.1 Comparisons between politically and non-politically connected firms

The previous results suggest that CEO turnover is related to poor firm performance and replacing incumbent CEOs is expected to improve profitability and performance when firms encounter some financial distress. The results further suggest that this relationship is different across firms with and without politically connected CEOs. Therefore, this thesis takes advantage of the sample to examine whether changes in performance surrounding CEO turnover are different between these two groups.

Table 2.9 shows the univariate tests of the changes in firm performance surrounding the turnover of politically connected and non-politically connected CEO groups. This study summarized the mean and median of industry adjusted ROA and ROS from three years before to three years after CEO turnover (year t indicates the year when CEO turnover occurred, year t-1 indicates one year before CEO turnover, and year t+1 indicates one year after CEO turnover).

For the politically connected CEOs group in Panel A, the mean (median) ROA shows a decline from three years before replacement up to year t when a CEO was replaced. After their replacement, mean (median) ROA increased steadily all through the following three years reaching 1.63 (2.41) in year t+3. The summary results for ROS have a similar trend to those of ROA: the mean (median) ROS has been decreasing from three years before CEO turnover and began to increase after CEO turnover reached 2.47 (3.83) in year t+3. For the non-politically connected CEOs group in Penal B, mean (median) of both ROA and ROS were decreasing from year t-3 to year t and began to increase to 2.35 (3.02) and 3.63 (4.55) in year t+3, respectively. The evidence indicates that CEO turnover is associated with poor firm performance and can help improve post turnover performance.

However, this study is concerned about the difference between firms with and without politically connected CEOs. This study compared firm performance between the t-3 group, t group, and t+3 group, and also compared average firm performance before CEO turnover and t group, and average firm performance after CEO turnover and t group, for two groups of firms with and without politically connected CEOs. The

results of these comparisons shown in Panel C in Table 2.9 are for firms with politically connected CEOs, indicating that mean (median) ROA has dropped marginally by 1.83 (0.71) percent (t-value is 1.67). After the CEO has been replaced the mean (median) ROA increased to 1.63 (2.41) which was higher than those of t group but insignificant (t-value is -1.08). The comparison of average firm performance shows consistent evidence that the CEO was replaced due to poor firm performance, and average firm performance increased significantly afterwards (t-value is -1.95). The comparison of ROS has similar results to those of ROA but the range was higher. Mean (median) ROS decreased by 7.34 (1.76) percent from t-3 to t (t-value is 1.99), and increased by 4.92 (1.42) percent from t to t+3 (t-value is -1.14).

The results of the comparison shown in Panel D in Table 2.9 are for firms without politically connected CEOs. The results indicate that the mean (median) ROA was reduced by 2.56 (0.73) percent significantly (t-value is 2.38), and increased by 2.25 (1.08) in year t+3 (t-value is -1.96). Average firm performance before and after CEO turnover was significantly higher than the year t group (t-values are 2.16 and -1.96, respectively). The comparison of ROS shows a broadly similar trend to the comparison of ROA.

The overall evidence is consistent with my conjecture and regression results, which reflects the effectiveness of management monitoring and a weakened turnover-performance relationship in firms where a CEO is politically connected. More important, the results also show that post turnover performance in non-politically connected firms

was better than in politically connected firms which suggests an entrenchment effect exists with politically connected CEOs.

Besides the above univariate tests, this study also applied the following regression to test the effect of political connection on firm performance after CEO replacement, using the sample of firms where CEO turnover occurs:

$$\Delta Perf_{it} = \alpha_0 + \alpha_1 Political_{it} + \alpha_2 Size_{it} + \alpha_3 Board_{it} + \alpha_4 Pond_{it} + \alpha_5 Lev_{it} + \alpha_6 Age_{it} + \alpha_7 Tenure_{it} + \varepsilon_{it} \quad (2)$$

where $\Delta Perf$ is the change of firm performance that used in the above univariate tests. This measurement was chosen because this study was concerned about the improvement in firm performance after CEO replacement and wanted to examine whether firm performance increased with CEO turnover. All other variables are defined the same as those in equation (1). The results of the estimation are shown in Table 2.10.

In Table 2.10, this study reported the results where the dependent variable was measured as the difference of firm performance between the average of year t+1, t+2 and t+3 and year t[5]. The general multivariate results[6] suggest that for listed firms where CEOs are politically connected, post turnover improvement in performance was less significant than for firms without politically connected CEOs.

2.6.2 Turnover and non-turnover comparison

This study was also interested in comparing the post turnover performance within politically connected firms. Table 2.11 shows the univariate tests of changes in firm

[5] I also apply other three firm performance measures, namely the difference of firm performance between year t+3 and t, t-3 and t, and average of (t-3, t-1) and t. The results using these three variables are consistent with the above univariate tests.

[6] The general multivariate results mean the results from the multiple linear regression.

performance surrounding CEO turnover between firms with and without CEO turnover[7]. Consistent with the univariate tests in Section 2.6.1, this thesis summarized the mean and median of both industry adjusted ROA and ROS from three years before CEO turnover to three years after. .

For politically connected firms without CEO turnover in Panel B Table 2.11, the mean (median) ROA remains positive before the turnover and dropped to negative after the turnover, and the mean (median) ROS shows a similar trend. This thesis tested the equality of the changes in firm performance surrounding CEO turnover and reported the results in Panel D. The comparison results indicate that firm performance is not significantly different across the years for groups of firms without CEO turnover, while the results for groups of firms with CEO turnover indicate that firm performance increased significantly after they were replaced. .

This thesis also compared the changes of firm performance between these two groups and the results are shown in Panel E Table 2.11. The difference test results in Panel E suggest that an increase in firm performance of firms with CEO turnover was significantly higher than those firms without CEO turnover. Together with the evidence from the summary statistics of politically connected firms with CEO turnover, the results indicate that the CEO monitoring mechanism is effective in politically connected firms. More important, the overall evidence suggests an entrenchment effect of politically connected CEOs, i.e. politically connected CEOs will retain their managerial

[7] In order to match the samples, for the group of firms without CEO turnover, I assume there is a 'CEO turnover' happened when CEO tenure is four (because the average tenure for CEOs is 3.26). I also tried three years as a robustness tests.

positions even if they underperformed. However, once politically connected CEOs were replaced, their post turnover performance improved significantly.

To provide supportive evidence, this thesis applied the following regression to examine the effect of political connection on post performance after CEO turnover using the sample of firms with political connection:

$$\Delta Perf_{it} = \alpha_0 + \alpha_1 Turnover_{it} + \alpha_2 Size_{it} + \alpha_3 Board_{it} + \alpha_4 Pond_{it} + \alpha_5 Lev_{it} + \alpha_6 Age_{it} + \alpha_7 Tenure_{it} + \varepsilon_{it} \quad (3)$$

where *Turnover* is a dummy variable equal to 1 if a CEO was replaced and 0 otherwise. All other variables are defined the same as in equation (2). The regression results are reported in Table 2.12. The general results indicate that CEO turnover in politically connected firms can improve firm performance more significantly than firms without CEO turnover.

2.7 Conclusion

China is the greatest transitional economy in which political intervention and influence often have important implications on social and economic activity. Political connection of CEOs in state-owned firms or privately controlled firms is sometimes argued for securing protection of property rights but also as a major source of rent seeking. Due to the lack of legal protection for investors, minority shareholders often have limited influence on management. The internal monitoring mechanism, especially CEO turnover therefore plays an important role in disciplining management. This thesis therefore examined the effect of CEO political connection on corporate governance, focusing particularly on the CEO turnover and turnover-performance relationship.

This research is the first to provide empirical evidence that CEO political connection has a substantial impact on CEO turnover and the relationship between turnover and firm performance. This analysis also provides evidence for the differential effect that political connection has for SOEs and privately controlled firms.

Using a large sample of China's listed firms, this thesis found that CEO turnover is associated with poor firm performance, and such turnover-performance sensitivity is stronger in privately controlled firms compared to state-owned ones. This thesis documents that political connection has a negative effect on CEO turnover. This suggests that political connection reduces the likelihood of CEOs being replaced. Furthermore, the evidence shows political connection lowers the sensitivity of turnover to performance. This finding indicates a substitution effect on internal disciplinary mechanisms by making poor quality CEOs with political background more entrenched. In addition, privately controlled firms are more likely to retain politically connected CEOs relative to SOEs. The performance turnover relationship of politically connected CEOs is much weaker if they hold managerial ownership. Following forced turnover of CEOs, firm performance ex post improves, especially for CEOs without political connection.

The overall evidence suggests that in an emerging economy, political connections have a significant influence on corporate governance. Political connections have an undesirable management entrenchment effect by adversely affecting internal monitoring mechanisms.

Chapter 3: Political promotion, CEO incentives, and the relationship between pay and performance

3.1 Introduction

A number of papers argue that government intervention in business activities is motivated by rent extraction (e.g., Stigler, 1971; Peltzman, 1976; Shleifer and Vishny, 1994; Shleifer, 1998). The potential for government intervention is particularly high in China where the state is often (directly or indirectly) the largest shareholder and where the central government retains ultimate control of personnel in the corporate sector. Because the government has the right to appoint the CEOs of many listed SOEs, these CEOs often have implicit political aspirations as well as an explicit role as a CEO. To the extent that political promotion is based largely on non-economic factors, then incentives for promotion may interfere with any incentives to maximize firm value. Consistent with this "grabbing hand" view of state intervention, Fan et al. (2007) document that Chinese listed SOEs with politically connected CEOs have lower stock returns, earnings and sales growth compared to firms without politically connected CEOs.

An alternative view however, is that the central government values strong economic performance. Consistent with this view, Qian and Xu (1993) found a significantly positive correlation between the change in a region's economic performance and a change in its political position. Similarly, Li and Zhou (2005) document a positive relationship between the likelihood of a provincial leader being promoted within the

government and their regional economic performance. Also, as noted by Li (1998), starting in the early 1980s, the central government mandated that almost all bureaucrats at various levels should be familiar with capitalist ideas. Hence, in China's SOEs, top managers are often in a selection and evaluation process for bureaucratic promotion. Under this view, incentives for political promotion will also provide strong incentives for CEOs to maximize firm value.

This thesis empirically investigated the implicit incentives arising from political connections and conjectured that CEOs in China's SOEs face limited outside job opportunities and are therefore more concerned about assessment by government officials than with options in the managerial labor market, especially given that political promotion carries higher payment and more prestige, thus providing managers with strong incentives to increase their probability of political promotion (Groves et al., 1995; Li and Zhou, 2005; Bo, 2009).

With respect to compensation policy, Groves et al. (1995) provide evidence that managerial pay began to exhibit a stronger link to profits and a weaker link to sales following the initial reforms of Chinese SOEs undertaken by the government in the 1980's. Consistent with the predictions of agency theory, Mengistae and Xu (2004) found that the sensitivity of CEO compensation to performance was decreasing in the variance of the performance measures and increasing in the marginal return to executive action. Firth et al. (2006a) also found that pay responds positively to performance in Chinese SOEs, but argue that the implied pay-performance sensitivities are too low to provide meaningful incentives.

This study expanded on this literature by examining the link between political promotion and firm performance and how promotion incentives interact with compensation policy in China's SOEs, from which this study reports two main findings. First, the likelihood of a CEO receiving a political promotion is positively related to firm performance, which is not consistent with the view that political incentives are misaligned with maximizing value. Second, this study shows that the positive relationship between pay and firm performance weakens when the CEO has a higher likelihood of political promotion. This finding is consistent with the idea that incentives for political promotion are a substitute for explicit compensation incentives, as predicted by models of career concerns (Baker et al., 1988; Gibbons and Murphy, 1992; Brickley et al., 1999; Gillan et al., 2009). These results do not appear to be driven by reverse causation—namely the idea that bureaucrats appoint colleagues that they would like to promote to manage better performing firms, nor by differences in CEOs that are originally hired from within versus from outside the firm.

This research contributes to the literature in several ways. First, this research provides new evidence on the importance of politically based career concerns that provide incentives by exploiting the unique institutional environment of Chinese SOEs. Although several studies document a link between managerial turnover and performance in Chinese SOEs (Groves et al., 1995; Firth et al., 2006b; Hu and Leung, 2008), with the exception of Bo (2009), none of them focus on the determinants of political promotion. Second, this research adds to the understanding of how, in an institutional environment with weak corporate governance, alternative mechanisms

based on political incentives can provide executives with sufficient motivation, and ultimately enhance the performance and growth of the state economy. In doing so, the results provide one explanation for the strong performance of Chinese firms despite the low-powered monetary incentives given to CEOs. Finally, this research adds to literature that examines the role of political connections more generally (e.g. Faccio, 2006; Faccio et al., 2006; Fan et al., 2007; Boubakri et al., 2008). This research points out both the costs and benefits of political connections. Benefits include protection from the central government and easy access to preferential treatment like bank loans and raw materials, lighter taxation, and relaxed regulations.[8] Costs include rent extraction by bureaucrats and entrenched managers. The overall analysis further suggests that care should be taken when evaluating the role of government intervention in business activities.

This chapter is organized as follows. Section 2 reviews the relevant literature. Section 3 describes the incentive structure and develops our hypotheses. Section 4 presents the data sample and methodology. Section 5 outlines the empirical results and Section 6 reports the robustness tests. Section 7 concludes the paper.

[8] In the Chinese context, Li et al. (2006) suggest that private entrepreneurs are more likely to enter politics when market institutions are relatively underdeveloped, suggesting that, for private firms in China, the benefits of access outweigh the costs.

3.2 Literature review

A number of other studies have examined various aspects of corporate governance in China. Groves et al. (1995) provide evidence that the reform of Chinese SOEs undertaken by the government in the 1980s resulted in the initial development of incentive systems suggestive of competitive western labour markets. Specifically, they found that after the reforms, managers of SOEs tended to be promoted (demoted) following good (poor) firm performance and that pay began to exhibit a stronger link to profits and a weaker link to sales. Mengistae and Xu (2004) found that the sensitivity of CEO compensation to performance was decreasing in the variance of the performance measures and increasing in the marginal return to executive action. Firth et al. (2006a) also found that pay responds to performance in Chinese SOEs, but that the link between pay and performance is weaker for SOEs controlled by the state. Firth et al. (2006b) found that managerial turnover was negatively related to profitability but unrelated to stock returns, and that sensitivity of turnover to performance was higher if legal entities are the major shareholders. Hu and Leung (2008) found that a state owner was more likely to replace top executives and appoint a politically connected CEO when SOEs encountered economic distress, and performance improved following their appointment.

In China, where most CEOs of SOEs were selected, appointed, and dismissed by government personnel departments, politically appointed CEOs and top executives might also consider their political careers. Similar to us, Bo (2009) argued that the potential for political promotion motivates CEOs to work hard and the need to improve an enterprise's economic performance motivates the government to set up political

motivations. In a related study, Qian and Xu (1993) found a significantly positive correlation between a change in economic performance and a change in a region's political position. Similarly, Li and Zhou (2005) document a positive relationship between the likelihood of a provincial leader being promoted and their regional economic performance. All such evidence illustrates the effects that political career concerns have on economic performance.

More generally, the role of political connections has been studied extensively (e.g. Faccio, 2006; Faccio et al., 2006; Fan et al., 2007; Boubakri et al., 2008). In the Chinese context, Li et al. (2006) suggested that private entrepreneurs were more likely to enter politics when market institutions were relatively underdeveloped, suggesting that, for private firms, the benefits of access outweigh the costs.

3.3 Institutional background and hypotheses

3.3.1 Managerial compensation in China's listed firms

Before the introduction of China's economic reforms in 1978, SOE managers were representatives of a central government that maintained complete control over the activities of state controlled firms. More specifically, SOE managers were bureaucrats appointed directly by the central government personnel department. During this period, all profits realized by SOEs were repatriated to the central government and managers were paid according to the highly structured civil service pay scale, whose variations reflected only wage differences across regions, industries, and position within the firm.

In the early stages of the reforms, which began in 1978, CEO pay was still constrained by the equality or near equality of pay differentials between top executives and workers (Firth et al., 2006a). In 1985, however, the Ministry of Labor suggested that CEO pay be linked to firm economic performance, but this did not prove to be significant managerial incentives because SOEs were still under the previous system where profits were redistributed by the state (Yueh, 2004). Beginning with privatization in the early 1990s and the establishment of two stock exchanges in Shanghai and Shenzhen, there has been a gradual introduction of performance based pay systems (Groves et al., 1995; Mengistae and Xu, 2004). In particular, the establishment of the State-Owned Assets Supervision and Administration Commission of the State Council (SASAC) in 2003 has strengthened the pay-performance relationship in SOEs and many regulations have been promulgated by SASAC to motivate CEOs who report to the central government with performance based pay schemes. For example, the SASAC issued "Interim regulations on the evaluation of the top executive operating performance" in 2003, describing how to evaluate executive performance and including a requirement that a CEO should resign if they fail to perform, and updated these regulations in 2006, and again in 2010. Meanwhile, local SASACs also issued regulations similar to those promulgated by the central SASAC to encourage the use of performance based incentives in the SOEs that reported to local governments. For example, the Beijing SASAC promulgated Interim regulations on the administration of top executive pay in Beijing's SOEs in 2004 (Beijing SASAC, 2004). Based on the

discussion above and the results of previous research this study conjectures the following:

H1: CEO pay is positively related to firm performance.

3.3.2 China's politically controlled personnel system and political promotion

With the corporatization and privatization of SOEs in China beginning in 1978, many decision rights associated with running a firm, such as decisions regarding profit retention and profit sharing schemes, have shifted from the state level to firm level (Firth et al., 2006a). Nevertheless, although the state has decentralized authority in most aspects, it retains control over personnel decisions and has ultimate authority over the selection, appointment, and dismissal of top SOE executives (Fan et al., 2007). Specifically, in SOEs affiliated with the central government, this decision is in the hands of SASAC, while in other SOEs it has been decentralized to local SASACs (Chan, 2004; Bo, 2009).

One characteristic that distinguishes China from other economies is an additional layer in the managerial labour market, namely the internal political labour market. In the U.S., for example, Baker et al. (1988) argued that CEOs typically stand at the top of the corporate hierarchy which eliminates internal promotion incentives, whereas CEOs in Chinese SOEs are appointed by the state, and opportunities outside the managerial labour market are limited (Li and Zhou, 2005; Bo, 2009). In addition to discharging their fiduciary duties, these CEOs are also concerned about any assessment from government officials that allows them to climb the political ladder (Groves et al., 1995;

Firth et al., 2006b). Promotion within the political arena brings reputation, more prestige, and other implicit compensation. As part of the reform process, China has stressed the importance of economic development (Qian and Xu, 1993; Allen et al., 2005; Li and Zhou, 2005). To the extent that bureaucrats who control the personnel system value economic performance, this study proposes the following hypothesis:

H2: The likelihood of political promotion is positively related to firm performance.

Alternatively, to the extent that political promotion is based on non-economic factors, this thesis expects that the likelihood of political promotion will be either unrelated or perhaps even negatively related to firm performance.

Finally, this study expects that CEOs in SOEs face both explicit and implicit incentives, namely compensation based and political promotion based incentives. Based on literature about career concerns (e.g., Baker et al., 1988), to the extent that both explicit and implicit incentives are positively related to firm performance this study proposes the following hypothesis:

H3: Political promotion-based incentives substitute for compensation-based incentives.

3.4 Sample and methodology

3.4.1 Data

This research is based on all the SOEs listed on the Shanghai and Shenzhen stock exchanges from 2005 to 2009. Before 2005 most SOEs disclosed the aggregate pay of the three top executives and only a few listed firms disclosed individual CEO pay in their annual reports. This study obtained information on specific CEO characteristics

from the Chinese Stock and Market Accounting Research (CSMAR) database and data on firm characteristics from the SinoFin database (both of these databases were used by previous studies of Chinese listed firms (e.g., Kato and Long, 2005; Firth et al., 2006a, 2007). As with previous studies, this study deleted ST and *ST[9] firms from the population. This study also excluded firms in the finance industry because of their unique accounting standards and also excluded observations with missing information on the main variables used in my analysis. The final sample consists of 756 listed firms and 3390 firm-year observations.

3.4.2 Variable definitions

CEO turnover, political connections and political promotions

To identify political promotions this study obtained CEO turnover and departure information of the listed firms in my sample period from the CSMAR database over the period 2005 to 2009. This study identified CEO political promotion by manually collecting information on the destinations of departing CEOs from the listed firm's annual reports from 2005 to 2009. This study traced the reasons for CEO turnover and destinations of departing CEOs to identify those who were promoted to political posts, including officers of either the central government, local governments, or the military, or members of the standing committee of the National People's Congress (NPC), the standing committee of the Chinese People's Political Consultative Conference (CPPCC), or the secretary of the party committee in the SOEs they retired from their CEO position,

[9] ST stands for special treatment. The stock exchanges flag a listed firm ST when irregularities appear in its financial statements. These firms also have negative net profits for two consecutive years. *ST refers to listed firms that have negative net profits for three consecutive years and have a high probability of being delisted from the stock exchange.

or the secretary of the Party committee, or a member of the party committee of their parent companies[10].

Table 3.1 summarizes the turnovers and the destinations of departing CEOs. In this sample, 1,042 CEOs left office for the following reasons: change of job, retirement, contract expiration, change of controlling shareholders, resignation, dismissal, health problem, personal reasons, corporate governance reform, completion of acting duties, and no reason given.[11] Of the 461 cases in the change of job category from our original sample, 141 cases fell into the category of being promoted, i.e. the departing CEOs subsequently took up a more prestigious position, accounting for 30.59% of the total cases where CEOs changed jobs. This study identified 173 cases where the destination of the departing CEO was not available. This study assumed that these cases do not include promotion based on the following: First, the data provided comprehensive information on business activities and it is unlikely there would be no information if departing CEOs were promoted to a better position, and second, the information not available may be a face saving device for demoted CEOs (Firth et al., 2006; Chang and Wong, 2009).

From the sample of promoted CEOs this study further excluded 37 cases where the promoted position was not politically related, which left 104 cases of political promotion. These cases can be divided into the following groups where (1) CEOs took

[10] This political promotion definition is consistent with the definition of political connections used in previous studies of Chinese firms (Li et al., 2006; Fan et al., 2007) in the sense that the political connection in previous literature refers to whether CEOs currently hold or formerly held the above-mentioned political posts; while the political promotion here refers to whether CEOs get politically promoted to these political posts after their turnover. After all, CEOs can get politically promoted either they are formally politically connected or not politically connected.

[11] The reasons also include arrested. I exclude this category because in my total sample, I do not have any observations falling in this category.

up a position in the government, (2) CEOs were promoted to board chairman or vice-chairman as well as secretary or vice secretary of a party committee, and (3) CEOs took up a new management and political position in the parent company. These classifications account for 17.3%, 69.3%, and 13.4% of the total political promotion cases, respectively. For example, a case falling into the first group was Mr. Zhu Yanfeng, former CEO of Changchun First Auto Works Co., Ltd. who had been in this position since March 1997, and then took up the position of vice governor of Jilin province on 11th December 2007. A case falling into the second group was Mr. Yu Xiangqian, former CEO of TANDE Co., Ltd., who left a managerial position and took up the position of board chairman as well as secretary of party committee on 4th August 2007. A case falling into the third group was Mr. Wang Weidong, former chairman and CEO of Tianjin Hi-Tech Development Co., Ltd. was assigned a managerial and political position of CEO in its parent company on 4th July 2006.

Finally, based on these classifications this study constructed a dummy variable, Promotion, equal to 1 if the CEO is promoted politically and 0 otherwise.

Managerial compensation

Since 1998, China's listed firms have disclosed information on managerial compensation in their annual reports. As mentioned previously, before 2005, firms only reported the aggregate compensation of the top three executives. This study also followed Firth et al. (2007) and defined the CEO's total compensation as the sum of salary, bonus, and other cash compensation. After 2006, some firms started to use other forms of incentive compensation such as stock options and restricted stock. These data

are reported separately from cash compensation, and this study excluded these forms of compensation in the analysis. Only about 50 firms in the sample were affected by this exclusion. Moreover, I am also concerned about the time-dependent issue of CEO pay which may lead to the biased results. To cover this issue, I use the log specification of CEO pay in the univariate and multivariate analysis.

Firm performance

The primary measures of firm performance were return on assets (ROA) and return on sales (ROS), defined as the ratio of net income to the book value of total assets, and the ratio of net income to sales, respectively. Most of the analysis used industry adjusted measures of ROA and ROS calculated as the difference between the firm specific and industry median value of the performance measure. This study focused on firm accounting performance rather than stock return performance because stock prices are less likely to be good indicators of CEO performance, due to noise trading in China's emerging stock market (Chang and Wong, 2009). Furthermore, state owned shares are non-tradable, which suggests that state shareholders are less likely to discipline CEOs based on stock prices.[12]

Table 3.2 lists the definitions of every variable that used in this analysis, including the control variables, which were took mainly from Firth et al. (2007).

[12] On 29th April 2005, the split share structure reform took place which aims to make these non-tradable shares tradable. Non-tradable shareholders compensated tradable shareholders by relinquishing part of non-tradable shares. However, the remaining non-tradable shares still account for the majority of total shares and continue to face a number of restrictions that preclude active trading on the open market.

3.4.3 Sample statistics

Table 3.3 lists the summary statistics of variables for the full sample. Panels A and B provide details on CEO compensation and the measures of firm performance, respectively. Panel C presents summary statistics for measures of CEO, firm characteristics and corporate governance, and panel D gives detailed information on the frequency of CEO political promotions in our sample. The statistics in Table 3.3 show that, among other variables, mean (median) of CEO pay is 728,500 (284,150) RMB, which correspond to approximately $104,000 ($41,000) USD. By way of comparison, Firth et al. (2007) report mean (median) compensation of 85,000 (60,000) in the year 2000. Thus, CEO compensation has continued to increase over the period 2001-2009, the end of the sample period.

Panel B shows that average firm size measured by total assets is 6,770 million RMB. Return on assets (ROA) is 2.87% on average, and return on sales (ROS) averages 4.62%. Leverage, measured as total liabilities divided by assets, averaged 51.31%.

As shown in Panel C, the average tenure of a CEO was only 3.84 years, indicating that their rate of turnover is higher in China than the US, where an average CEO serves approximately 7 years. The table also shows that the average board size in China is 8.5 directors, and they are dominated by inside (executive) directors, with on 3.5% being outsiders.

Panel D, presents the frequency of political promotions by year. The number of political promotions ranges from a low of 16 in 2009 to a high of 28 in 2005. The total number of political promotions was 104.

3.5 Empirical results

In this section this study examines how political and monetary incentives are used in Chinese SOEs. This study first examines the determinants of CEO political promotion and then explore how promotion incentives are related to monetary incentives.

3.5.1 CEO political promotion and firm performance

To provide some preliminary information explaining how firm performance is related to political promotion, Table 3.4 presents univariate comparisons of CEO and firm characteristics for politically promoted CEOs in the year before promotion versus every other sample year. The mean (median) ROA and ROS of the promotion group are 4.27% (3.12%) and 6.04% (4.23%), both of which are significantly higher than the performance measures in the non promotion group, 2.84% (2.73%) for ROA and 4.62% (3.88%) for ROS. The results are consistent with the view that political promotion is at least partially based on economic performance.

The mean (median) CEO pay is 262,327RMB (213,875RMB) in the promotion group compared to 741,782RMB (285,320RMB) for firm years in the non promotion group. The difference is statistically significant at the 1% level. The table also indicates that CEOs receiving political promotions are of similar age, but have served approximately 0.7 years longer as CEO, and are slightly less likely to also hold the title of Chairman of the board at the time of promotion compared to the average CEO in the

non promotion group. Firm size, leverage, and employment are similar across the two groups. The fact that firms managed by politically promoted CEOs exhibit stronger performance but have lower compensation than other firms provides some preliminary evidence that career concerns associated with political promotion provide implicit incentives to maximize value that substitute for direct monetary incentives.

3.5.2 Political career concerns and compensation in Chinese SOEs

To test the hypotheses regarding the importance of career concerns in Chinese SOEs this study is ultimately interested in the determinants of political promotion and how these politically promotion based incentives interact with direct monetary incentives. This study proceeded in two steps using an instrumental variables approach that reflects the endogeneity of the promotion decision. This method is similar to that used by Faulkender and Petersen (2006) who tested the effects of credit market access on firm capital structure. This study first estimated a logit model using the Promotion indicator as the dependent variable. The independent variables include lagged firm performance measures (ROA and ROS), firm size, CEO age and tenure, board size, and the fraction of independent directors. To identify the promotion equation this study included the indicator variable Type, which is equal to one if the central government is the ultimate controlling shareholder of the firm. This study expected the incidence of political promotion to be higher in firms under the direct control of the central government. The regression also included industry and year fixed effects. In computing the measures of lagged firm performance, this study followed Huson et al. (2001) and

Chang and Wong (2009) by using current year firm performance if promotion occurred in the second six months of the year, and the past year's performance if the promotion occurred in the first six months of the year. To the extent that political promotion is based on economic performance, this study expected the past performance of the CEO to be positively related to the likelihood of political promotion.

In the second stage this study estimated the following regression model of CEO pay:

$$\begin{aligned} Pay_{it} = {} & \alpha_0 + \alpha_1 Perf_{it-1} + \alpha_2 Perf_{it-2} + \alpha_3 Promõtion_{it} + \alpha_4 Promõtion_{it} * Perf_{it-1} \\ & + \alpha_5 Size_{it} + \alpha_6 Board_{it} + \alpha_7 Pond_{it} + \alpha_8 Lev_{it} + \alpha_9 Age_{it} + \alpha_{10} Tenure_{it} \\ & + \alpha_{11} Duality + Industry + Year + \varepsilon_{it} \end{aligned} \quad (1)$$

where *Pay* is the natural log of CEO compensation. *Perf* is firm performance (ROA or ROS), and $Promõtion$ is the fitted value of the promotion indicator obtained in the first stage regression. The regressions also includes firm size and leverage, CEO age and tenure, a measure of CEO duality coded as one if the CEO is also chairman of the board, and 0 otherwise, board size, the fraction of independent directors and industry and year fixed effects.

In addition, to examine the extent to which political incentives substitute for performance-based pay incentives this study included the interactive term between promotion and firm performance measures.

Panel A of Table 3.5 reports the results from the first stage logistic regression where the promotion indicator is the dependent variable. In both models the coefficient estimates on the lagged firm performance measures were positive and significant at the 5% level. The positive effects of firm performance were consistent with the hypothesis

that the economic performance of a CEO is an important factor in determining whether they will be promoted. Moreover, the effects are economically significant. For example, the coefficient on ROA indicates that 1% increase in ROA is associated with a 4.24% increase in the likelihood of CEO political promotion. Promotion is also positively associated with board size and tenure, and is negatively related to age. As expected the coefficient estimate on the Type variable was positive, indicating that political promotion is more likely when the ultimate controlling shareholder is the central government.

Panel B of the table reports the results from the second stage pay regressions. The first column shows the results when ROA is used to measure performance, and the second column, those when ROA is replaced with ROS. Consistent with previous studies (Firth et al., 2007; Mengistae and Xu, 2004), CEO pay is positively related to both one and two year lagged ROA and ROS. In addition, the estimates on the control variables were also reasonable and consistent with previous research of Chinese firms.

More importantly for my purposes the results supported the view that political incentives substitute for direct monetary incentives. In particular, the negative coefficient estimates on the fitted value of promotion and its interaction with firm performance indicate that CEOs with a higher likelihood of political promotion received lower pay and pay that was less sensitive to performance, as would have been predicted by the career concerns models (e.g., Baker et al., 1988).

3.6 Additional investigations

In this section this thesis presents a number of additional tests that serve to assess the robustness of the main results.

3.6.1 OLS results for CEO pay and political promotion

The main results reported in Table 3.5 acknowledge the endogenous nature of the CEO promotion decision. As a basis for comparison, Table 3.6 reports the results from an OLS regression of the pay regression in Eq.(1), but this thesis uses the actual indicator defining political promotion rather than the fitted value from the first-stage logistic regression in Table 3.5. Specifically, the promotion indicator is equal to one in the year that a CEO is promoted and zero in all other years. Consistent with the results in Table 3.5, the coefficients on the lagged performance measures are positive and statistically significant. The coefficient estimates on the two year lagged are also positive, but the coefficient estimate on two year lagged ROS is not statistically significant. Also similar to the results presented in Table 3.5, the estimated coefficient on the promotion indicator and its interaction with lagged firm performance were both negative and statistically significant.

In unreported results this thesis repeated the OLS regression described above, but defined the promotion indicator to equal one in all of the years of the CEO's tenure rather than just in the promotion year. The results remain similar to those reported in Table 3.6.

3.6.2 Reverse causality

Another concern about the results is the potential for reverse causality. Specifically, because the government maintains the ultimate authority regarding CEO appointments it is possible that government officials assign candidates that they would like to promote politically to firms with good economic performance. To assess this possibility, this thesis performed two additional tests.

First, Table 3.7 presents the results comparing differences in firm performance and across firms with CEOs that were ultimately politically promoted, and the remaining firms with CEO turnover. For the firms in both groups this thesis computed an average of the performance measures in the year before the year in which the current CEO obtained their managerial position (t-1), the year a CEO assumed the position (t), and one year after they assumed the position (t+1). I then computed an average of the performance measures in the year before a CEOs turnover (T-1), and the year of the turnover (T) (performance was measured as ROA in Panel A and ROS in Panel B). The results show that around the time when CEOs were initially assigned to a managerial position (at t-1, t and to a lesser extent t+1), there were no significant differences in firm performance between the two groups in either ROA (in Panel A) or ROS (in Panel B), suggesting that politically promoted CEOs are not systematically assigned to firms with better performance. In contrast, around the years of CEO turnover, the performance of firms with politically promoted CEOs was significantly better than the performance of firms with CEOs departing for other reasons.

As an additional test of reverse causality, Panel A of Table 3.8 reports the results from a comparison of firm performance within a group of firms with politically promoted CEOs. This thesis examined changes in firm performance between the first year when a CEO was initially assigned the position and the year when they were promoted. This thesis also compared changes in performance from the year before the politically promoted CEO assumed the position and the promotion year. In both cases, the results showed that performance improved significantly between the time a CEO assumed the position and the promotion year. For example, the mean (median) change in performance between year t and T was 1.96% (1.82%) for ROA and 2.01% (2.32%) for ROS. Panel B reports similar tests for departing CEOs in the non-political promotion group. There was no evidence in this group of performance improvements over the CEOs' tenure.

3.6.3 Internal versus external CEOs

As a final check on the results this thesis examined differences in CEO characteristics between CEOs that were recruited from the internal labour market versus those that were hired in the external labor market. If one type of CEO was more likely to be in line for political promotion, then my results could reflect differences in internal versus external labor markets rather than the effects of politically based incentives. To address this possibility, Table 3.9 reports the results from logistic models where the dependent variable is equal to one if a CEO is politically promoted and equal to zero otherwise. The specifications are similar to those reported in Panel A of Table 3.5, but

where this thesis also added an indicator, Internal, equal to one if a CEO was hired internally and an interaction between the internal hire indicator and the firm performance measures. As seen in the table, neither the coefficient estimate on the internal indicator, nor the coefficient estimate on the interactive term is statistically significant. Thus, it does not appear that the results are being driven by differences in the types of CEOs recruited internally versus those that come from the external labour market.

3.7 Conclusions

In China, because the government has the right to appoint the CEOs of many listed SOEs, and these CEOs often have implicit political aspirations as well as an explicit role as a CEO, the political nature of the latter provides them with an informal incentive mechanism. To the extent that political promotion is largely based on non-economic factors, then incentives for promotion may interfere with any incentives to maximize firm value. Alternatively, to the extent that the central government values strong economic performance, politically based career concerns may provide managers with powerful incentives to maximize firm value. This research examines the determinants of political promotion of CEOs and explores how politically based incentives interact with direct monetary incentives given to CEOs.

This thesis found that the likelihood that a CEO receives a political promotion exhibits a strong positive relationship to firm performance, which indicates that political career concerns are consistent with incentives to maximize value in Chinese SOEs.

Moreover, as with the models of career concerns, this thesis documents that political incentives substitute for direct monetary incentives. Overall, the analysis indicates that both explicit (compensation based) and implicit (political promotion based) incentives are effective in shaping managerial behavior.

This research is the first to document empirical evidence that CEOs' political career concerns provide strong incentives that indirectly align their interests with those of shareholders. This thesis fills a void in understanding China's significant growth in state related sectors despite facing an environment with low monetary incentives and poor corporate governance. The evidence suggests that state control and political connections are not necessarily inconsistent with good economic incentives.

Chapter 4: Disproportional ownership structure and pay-performance relationship: evidence from China's listed firms

4.1 Introduction

In recent years two strands of research on the effect that ownership structure has on the pay-performance relationship has begun to emerge. The first focused on the effects of cash flow rights and excess control rights on CEO pay (Masulis et al., 2009; Barontini and Bozzi, 2010). With US dual-class firms Masulis et al. (2009) found that the divergence between insider's control and cash flow rights had a positive effect on CEO pay, while from a sample of Italian listed firms, Barontini and Bozzi (2010) acknowledged there was a negative effect. The second focused on the effects of different types of ultimate shareholders, particularly between state and non-state owned firms in a transition economy (Ke et al., 1999; Kato and Long, 2005; Firth et al., 2006). They all found that the pay-performance relationship was significantly different across firms with alternative styles of controlling shareholders and proved that it was determined by them.

Extant research on the effects that separation of ownership and control has on firm performance and value is well established (Cleassens et al., 2002; Lemmon and Lins, 2003; Laeven and Levine, 2008; Masulis et al., 2009; Gompers et al., 2010). Indeed it is common practice to have concentrated ownership and dominant shareholders in modern publicly traded companies where the largest shareholders exercise control through their voting rights despite having relatively small amounts of cash flow rights. The

divergence between control rights and cash flow rights (excess control rights) gives them the ability and incentive to expropriate the wealth of other investors and pursue their own interests, which are often diametrically opposed to those of minority investors. Therefore, while the largest shareholder can mitigate agency conflict between shareholders and managers, it leaves the conflict between largest shareholders and minority shareholders as primarily an agency problem. This problem becomes particularly severe in transition economies where ownership is concentrated and investors lack legal protection (Shleifer and Vishny, 1997; Lin et al., 2010).

The separation of control and cash flow rights might affect the pay-performance relationship. This is important for corporate governance because in an economy with concentrated ownership, the largest shareholders have strong incentives to directly monitor managers by relating CEO pay to firm performance (Murphy, 1999). Nevertheless, the largest shareholders will also maintain their private benefits by having CEO pay schemes unrelated to the wealth of minority shareholders. This study examines the effect that ownership structure, specifically the cash flow rights and control rights of the largest shareholders, has on the pay-performance relationship in China's listed firms.

One key feature of these firms is that many of them are state owned enterprises (SOEs) carved out of former state controlled firms [13]. In the SOEs, controlling shareholders own substantial control rights in excess of their cash flow rights through a long principal-agent chain, a significant pyramid structure, and cross shareholdings of

[13] Privately controlled listed firms have only existed in China since 2001.

ownership. Guided by the reform and privatization process, the state relinquished controls over some SOEs by either selling the shares to the public or allowing takeovers. Along with the IPOs of privately controlled firms since 2001, publicly trading SOEs have evolved into an important component of China's listed firms. Since state controlled and non-state controlled firms have different operating objectives due to the nature of their ownership (e.g. they are subject to different regulations), this has had different results on the pay-performance relationship between them. Therefore, this Chinese context provides an excellent laboratory for me to examine and explain the effects that ownership structure, particularly the cash flow rights and divergence between control rights and cash flow rights, has on the pay-performance relationship.

Within state-controlled firms the controlling shareholders actually belong to different state owned entities and government agents, which means that each group uses a performance-based pay scheme that best suits their objectives. It was argued that these state controlled firms operate with multiple objectives that varied between maximizing the wealth of shareholders, maintaining urban employment levels, and controlling sensitive industries (Clarke, 2003). However, his study only covers the early years of economic reform in China. To gain a clearer understanding of this issue, this thesis classified state controlled firms into two types of ownership based on ultimate controlling shareholders, i.e., state assets management bureaus (SAMBs), and state owned enterprises (SOEs). SAMB is a government agency charged with managing and controlling state owned assets where CEOs work as representatives of the government, so their pay scheme may not be based on performance. Public listed SOEs differ from

the SAMBs. One reason for the existence of publicly listed SOEs is to transform them into modern market oriented firms to maximize profitability.

In 1985, China introduced market oriented wage reform along with other economic reforms in state controlled firms where general managers worked as bureaucrats and were paid according to the civil service pay scale. In 1985, the Ministry of Labor announced that CEO payment in SOEs should be linked to firm economic performance (the Ministry of Labor, 2000). However, this scheme did not provide sufficient incentive because these SOEs were still under the previous system where profits and wages were redistributed by the state (Yueh, 2004). With the establishment of two stock exchanges in the early 1990s and the State-Owned Assets Supervision and Administration Commission of the State Council (SASAC) in 2003, the SOEs were restructured and listed on the two stock exchanges. Since 2003, many regulations have been promulgated by SASAC to evaluate SOEs performance and its alignment with CEO pay. Specifically, SASAC issued 'Interim regulations on the evaluation of the top executive operating performance' in SOEs affiliated to the central government (SOECGs) in 2003, which clearly stated that top executive pay should be aligned to total profits and sales and described how to evaluate executive performance (SASAC, 2003)[14]. In 2006 and 2010, SASAC updated this regulation by adding some extra rules such as the punishment of top executives when they were under performing (SASAC,

[14] Furthermore, in 2007 and 2008, the SASAC announced two 'supplementary provisions' of this regulation which made further efforts on aligning executive pay to firm performance in SOEs (SASAC, 2007, 2008). Meanwhile, in 2004, 2006 and 2009, the SASAC also promulgated the 'Interim regulations on the administration of top executive pay in SOECGs', 'Interim regulations on the evaluation and administration of SOECG performance' and 'Interim regulations on the evaluation and administration of state owned financial institutions firm performance' (SASAC, 2004, 2006b, 2009).

2006a, 2010). Obviously, by putting these regulations into practice, SASAC has decreed that profitability be the primary measure of firm performance, and CEO pay is to be linked to it (SASAC, 2004, 2006b). Meanwhile, to curtail CEO's from expropriating shareholder wealth through excessive perks, SASAC also promulgated 'Instructions on regulating top executive 'on-job' consumptions in SOECGs' in 2006 (SASAC, 2006c)[15].

These reforms and regulations of executive compensation in SOEs are largely aimed at aligning the interests of shareholders and management. Extant literature found a positive pay-performance relationship in both SOE and privately controlled firms but not in SAMB controlled firms (Kato and Long, 2005; Firth et al., 2006, 2007). These results confirmed that the goals of these reforms in SOEs and CEO compensation have only been achieved to some extent.

In China's weak corporate governance environment with its lack of legal protection for investors, the largest shareholders face strong incentives to monitor managers and operations if they are to retain their substantial cash flow rights. However, if their control rights exceed their cash flow rights they are likely to pursue their own interests and may seek to expropriate other investors by tunnelling, related party sales, and transferring profits out of the company (Johnson et al., 2000). Therefore, the largest shareholders' cash flow rights and excess control rights may have different effects on the pay-performance relationship. The first hypotheses states that:

- *H1a: Cash flow rights have a positive effect on pay-performance*

[15] At the local levels, the local SASACs located across the country have also issued regulations based on their local specific characteristics according to the regulations from the central SASAC. For example, Beijing SASAC promulgated 'Interim regulations on the administration of top executive pay in Beijing SOEs' in 2004, which has similar effects of relating CEO pay to firm performance (Beijing SASAC, 2004).

relationship.

- *H1b: Excess control rights have a negative effect on pay-performance relationship.*

One important characteristic of China's listed firms is that the majority of controlling shareholders are state-owned entities or government agents, and the shares they hold are not tradeable on the stock exchanges. As a result, these shareholders have an incentive to set CEO pay based on accounting linked performance indicators which gives them an opportunity to expropriate other investors with more resources, instead of market based indicators which tend to link CEO pay with maximizing their wealth. Accordingly, this thesis argues that state shareholders emphasize maximizing profits rather than stock return. Since shares in privately controlled firms held by the largest shareholders can be freely traded, this study believes that private investors are equally likely to focus on market performance as well as cash flows. Therefore, this study formulates the following hypotheses:

- *H2a: Cash flow rights in state controlled firms have a positive effect on accounting performance based pay-performance relationship, while cash flow rights in non-state controlled firms have a positive effect on market performance based pay-performance relationship.*
- *H2b: Excess control rights in state controlled firms have a negative effect on accounting performance based pay-performance relationship, while excess control rights in non-state controlled firms have a negative effect on market performance based pay-performance relationship.*

Under China's SASAC, SOEs are directly and ultimately controlled by both central and/or local governments where it is mandatory that state owners must receive cash

flows, including profits and dividends, because shares of SOEs are often not tradable unless under the approval of the CSRC and the selling price is only at book value (Xu, 2003). Since 2003, CEOs of SOEs have been evaluated by a combination of annual performance such as return on assets (ROA) and return on sales (ROS) (SASAC, 2003). This thesis therefore hypothesizes that:

- *H3a: Cash flow rights have a positive effect on accounting based pay-performance relationship in SOEs.*
- *H3b: Excess control rights have a negative effect on accounting based pay-performance relationship in SOEs.*

SAMBs[16] are the agency holding state shares that are non-tradable on the market, they do not have cash flow rights from these shares and payouts often have to be remitted directly to different levels of governments (Firth et al., 2006). The objectives of SAMB controlled firms are to carry out the instructions of the central or local governments and to maintain local employment levels rather than maximize the value of a firm. In most instances CEOs in SAMB controlled firms are officials from the government with little or no professional background, no rights to select other top executives, and no responsibility for the economic consequences (Zhang, 1998). This thesis therefore hypothesizes the following:

- *H4: Cash flow rights and excess control rights have no effect on pay-performance relationship in SAMB controlled firms.*

[16] The term SAMB encompasses state asset management bureaus, state asset operating companies, and state agencies like the Ministry of Finance and Ministry of Agriculture. However, SAMBs, located across provinces and cities, are merely agents of the central government that manage state-owned assets and invest them in listed firms.

The results indicate that SOEs relate CEO pay to firm accounting performance (return on assets and return on sales), while privately controlled firms relate CEO pay to market performance (stock return). However, there is no relationship between CEO pay and firm performance in firms controlled by SAMBs. The regression results show that the cash flow rights of the largest shareholders enhance the accounting performance related pay scheme in SOE controlled firms and improve market performance related pay scheme in privately controlled firms. However, the separation between control rights and cash flow rights shows a negative entrenchment effect by significantly reducing the pay-performance relationship in SOE and privately controlled firms. This thesis also found that cash flow rights in SAMB controlled firms do not appear to affect the pay-performance relationship, which confirms the consensus that they really do not have cash flow rights because they must remit earnings back to their superiors (Firth et al., 2006).

This research makes two major contributions to the literature. First, this research not only sheds light on how cash flow rights and excess control rights affect CEO pay, it also submits new evidence on how cash flow rights and excess control rights affect the pay-performance relationship. Cash flow rights have a positive incentive effect on the pay-performance relationship while excess control rights have a negative entrenchment effect. Second, this research furthers the understanding that different performance based pay schemes are used between state owned enterprises (SOEs) and privately controlled firms. Cash flow rights and the divergence between control rights and cash flow rights influence the pay-performance relationship across firms with different types of ultimate

ownership. The evidence suggests that CEO pay in firms with the state as the controlling shareholder is determined by accounting based performance but not sensitive to market based firm performance. This is consistent with the private benefits of controlling shareholders because the CEO pay scheme is to maximize accounting performance in order to extract greater cash flows.

The rest of the chapter proceeds as follows: Section 2 reviews the relevant literature; Section 3 outlines the data and methodology; Section 4 discusses the empirical results; and Section 5 presents the conclusions.

4.2 Literature review

All extant studies document that disproportional ownership structure has two effects on corporate governance; the positive incentive effect of cash flow rights which enable the largest shareholder to monitor CEOs efficiently, and the negative entrenchment effect of excess control rights which makes it easier for the largest shareholder to expropriate wealth from minority shareholders.

The separation of ownership and control by the largest shareholder has been researched extensively, particularly the cash flow rights and control rights stemming from a concentration of ownership. For example, La Porta et al. (1999) argued that the ultimate controlling shareholders often use a pyramid structure and cross shareholding to obtain excessive control rights over their cash flow rights. Cash flow rights are found to have a positive incentive effect while the divergence between control and cash flow rights has a negative entrenchment effect on corporate governance (Claessens et al.,

2002). Similar results were also provided by Lemmon and Lins (2003), Laeven and Levine (2008) and Gompers et al. (2010). Moreover, Johnson et al. (2000) argue that managerial expropriation is an important form of tunnelling which lowers shareholder value. Masulis et al. (2009) agreed and found a positive relationship between control-cash flow rights divergence and CEO pay, while Barontini and Bozzi (2010) found evidence from a sample of Italian listed firms that CEO pay was positively affected by a low divergence of control-cash flow rights. Other studies argued that ownership structure affects the pay-performance relationship. Using a sample of U.S. insurance companies from 1994 to 1996, Ke et al. (1999) found that managerial compensation and ROA was closely related in public-held insurers. With a sample of China's listed firms between 1998 and 2002, Kato and Long (2005) found that state ownership weakened the pay-performance relationship. Firth et al. (2006) argued that firms having foreign investor or SOEs as their largest shareholder tended to relate CEO pay to accounting performance, whereas firms with a private blockholder as a dominant shareholder tended to relate CEO pay to the performance of the stock market. However, these studies only focused on who the controlling shareholder (i.e. owner type) was and their effect on the pay-performance relationship, they did not explain the channel through which these effects were exercised.

This chapter fills the gap by using samples of China's listed firms to examine how and why the largest shareholder ownership structure affects the pay-performance relationship.

4.3 Data and methodology

4.3.1 Sample

This study compiled data from firms listed on the Shanghai Stock Exchange and Shenzhen Stock Exchange between 2002 and 2007 because information on cash flow rights and control rights has only been available since 2002. Following previous studies, this study accounted for the special consideration of regulated industries by eliminating financial firms. ST and *ST[17] companies were also excluded because they might bias my results. Finally, this study excluded observations with incomplete information on all the variables under analysis. The final sample consisted of 1,129 firms and 6,297 firm-year observations. The accounting and financial data were obtained from individual firm's annual reports and the CSMAR database, and the information on managerial compensation, board, and ownership structure from the SinoFin database. CSMAR and SinoFin databases were used in several previous studies (Kato and Long, 2005; Firth et al., 2006, 2007).

There was ample evidence in the literature that in firms where ownership was highly concentrated, the largest shareholders were active in corporate governance and had absolute control over them. Therefore, it was essential to identify the ultimate controlling shareholder in order to examine the effects of ownership structure. By tracing through the chain of ownership, this study identified the ultimate controlling

[17] ST stands for Special Treatment, refers to the listed firms that have already got negative net profits for two consecutive years. *ST refers to the listed firms that have already got negative net profits for three consecutive years and have the probability of being delisted from the stock exchanges.

shareholder of each firm, and classified controlling ownership into three types: SAMBs, SOEs and private ownership.

4.3.2 Methodology

Within the corporate governance framework, most previous studies set up linear models to regress managerial compensation against firm performance and corporate governance variables (Core et al., 1999; Firth et al., 2006, 2007; Canarella and Nourayi, 2008; Cornett et al., 2008). Since this research aims to examine the effects of ownership structure on CEO pay and test the relationship between managerial compensation and firm performance, this study extended previous research by using the regression analyses described below.

The first analysis examines the effect that ownership structure has on the pay-performance relationship of the whole sample:

$$\begin{aligned} Pay_{it} = {} & \alpha_0 + \alpha_1 Cash_{it} + \alpha_2 Perf_{it-1} + \alpha_3 Cash_{it} * Perf_{it-1} + \alpha_4 Size_{it} \\ & + \alpha_5 Board_{it} + \alpha_6 Pond_{it} + \alpha_7 Lev_{it} + \alpha_8 Duality_{it} + \alpha_9 Tenure_{it} \\ & + \alpha_{10} For_{it} + Industry + Year + \varepsilon_{it} \end{aligned} \quad (1)$$

where *i* and *t* represent the firm and year, and ε is the error terms related to unobservable features that explain cross sectional variations in CEO pay. *Pay* is the level of managerial compensation measured by the log of the average top three executive compensation levels. *Cash* is the cash flow rights of the controlling shareholders. In the additional tests this study replaces cash flow rights with excess control rights (*Excess*), defined as the difference between the control rights and cash flow rights of the controlling shareholders, to provide some supplementary evidence.

Perf is firm performance, this study proxy firm performance with four measures, namely the return on assets (ROA), return on sales (ROS), annual stock return (RET) and Tobin's Q (Q), and then regressed them in separate equations. *Size* is the log of the total firm assets, *Board* is the log of the total number of directors on the board, *Pond* is the proportion of independent directors, and *Lev* is the ratio of total debts to total assets. *Duality* is a dummy variable coded 1 if the CEO is also the board chairman and 0 otherwise, and *Tenure* is the log of the CEO's tenure with the firm as CEO. The regression also includes dummy variables to control for industry and year effects.

This study modified the first equation by dividing the ownership of the largest shareholder into state ownership and private investors. The second equation is shown as follows:

$$\begin{aligned} Pay_{it} = {} & \alpha_0 + \alpha_1 PSTATE_{it} + \alpha_2 Perf_{it-1} + \alpha_3 PSTATE_{it} * Perf_{it-1} + \alpha_4 Size_{it} \\ & + \alpha_5 Board_{it} + \alpha_6 Pond_{it} + \alpha_7 Lev_{it} + \alpha_8 Duality_{it} + \alpha_9 Tenure_{it} \\ & + \alpha_{10} For_{it} + Industry + Year + \varepsilon_{it} \end{aligned} \quad (2)$$

where *PSTATE* is the cash flow rights of state controlled firms. All other variables in the second regression are defined the same as the first regression.

Furthermore, this study extended the second equation by dividing state ownership into the two types discussed in Section 1: SAMBs and SOEs. The regression is as follow:

$$\begin{aligned} Pay_{it} = {} & \alpha_0 + \alpha_1 Cash_{it} + \alpha_2 Perf_{it-1} + \alpha_3 PSAMB_{it} * Perf_{it-1} \\ & + \alpha_4 PSOE_{it} * Perf_{it-1} + \alpha_6 PPRI_{it} * Perf_{it-1} + \alpha_7 Size_{it} \\ & + \alpha_8 Board_{it} + \alpha_9 Pond_{it} + \alpha_{10} Lev_{it} + \alpha_{11} Duality_{it} \\ & + \alpha_{12} Tenure_{it} + \alpha_{13} For_{it} + Industry + Year + \varepsilon_{it} \end{aligned} \quad (3)$$

where *PSAMB (PSOE, PPRI)* is the cash flow rights of different types of shareholders if that shareholder is the controlling shareholder. *Cash* is the sum of *PSAMB, PSOE* and *PPRI*. Definitions for all the variables are shown in Table 4.1.

4.3.3 Measurement of variables

Table 4.1 provides definitions of the variables included in our regression models, whose selection is explained below.

Managerial compensation

In China, listed firms have had to disclose their levels of managerial compensation in annual reports since 1998. Because these data are reported as the total of basic salary and bonus aggregation of the top three executives' compensation, this study based the empirical analysis on this information. That is, consistent with other studies on China, this study proxy for managerial compensation using the log of the average top three executives' remuneration (Kato and Long, 2005).

Firm performance

The empirical corporate finance literature measures firm performance using both accounting based performance and market based performance such as return on assets (Hermalin and Wallace, 2001; Kato and Kubo, 2006 and Cheng, 2008), and stock return (Core et al., 1999; Brick et al., 2006 and Firth et al., 2007) respectively. In addition, this study also used return on sales (ROS) to do robustness tests. Therefore, this study used return on assets (ROA), return on sales (ROS), and annual stock return (RET) to proxy for firm performance in separate regressions, which is consistent with previous studies.

In addition to these original performance measures, this study adopted industry adjusted measures of ROA, ROS, and RET by calculating the difference between the firm's annual ROA (ROS, RET) and the median ROA (ROS, RET) of firms in the same industry in the same year. This study reported the empirical results using industry adjusted measures as the main proxy for performance. This study then repeated the analysis using Tobin's Q (Q) as an additional measure of performance, measured as the ratio of market value to firm replacement value. Following Merhebi et al., (2006) and Firth et al., (2007), this study used the lagged values of these variables in the regressions because CEO pay responds to a firm's previous performance.

Cash flow rights and control rights

To examine the effects of ultimate shareholder ownership, this thesis calculated the cash flow rights and control rights by investigating the complete chain of corporate ownership. This thesis defined the control rights as the weakest link in the chain and cash flow rights as the product of ownership stakes along the chain, which is consistent with previous studies (La Porta et al., 1999; Claessens et al., 2002). For example, ultimate controlling shareholder firm A owns 70% shares of listed firm B, which in turn owns 35% shares of listed firm C. This thesis then constructed that firm A controls 35% of firm C, the weakest link in the chain, while the cash flow right is 24.5%, the product of 70% and 35% (70%*35%). Through a pyramid structure, cross shareholding, and dual class stocks, the largest shareholder's control rights were always in excess of the cash flow rights (La Porta et al., 1999). Therefore, in the additional tests, this thesis replaced cash flow rights with excess control rights, defined as the difference between

control rights and cash flow rights, to provide some supportive evidence for the main hypotheses. To determine effective control at any intermediate as well as ultimate level, a cutoff level of 10% was used in all empirical analyses, which follows the argument used by Claessens et al. (2002).

Control variables

Firm size

Previous studies established that CEO pay is its positive and significant relationship to firm size (Conyon, 1997; Core et al., 1999). Not only are larger firms more likely to have relatively complicated operating systems and thus be more likely to hire high quality CEOs (Jensen and Meckling, 1976), but, as documented by Chen et al. (2009) among others, there is a significant and positive relationship between firm size and firm performance in China's listed firms. Accordingly, this thesis used the log of total firm assets, *SIZE,* to proxy for firm size.

Board size

As an internal control mechanism, a board of directors is assumed to ensure that CEOs act in the best interests of their shareholders (Barnhart and Rosenstein, 1998). Small boards of directors are more effective (Yermack, 1996) than large boards because a large number has less influence over CEOs and complicates decision making (Jensen, 1993). Hence, this thesis also controlled board size, *BOARD*, defining it as the log of the number of directors on a board.

Board composition

Because independent directors have no conflicting relationship with current executives they can exercise their monitoring power and make decisions independently (Cheng, 2008). This thesis accounted for this by defining the variable *POND* as the ratio of independent directors to all directors on the boards.

Leverage

Corporate capital structure is an important determinant in shaping the pay for top executives (Basu et al., 2007; Hernan, 2007) and was also found to be linked to firm performance (Demsetz and Villalonga, 2001; Chen et al., 2009), this thesis therefore included the variable *LEV*, defined as the ratio of book value of total debts to total assets.

CEO-Chairman duality

Modern theory suggests that ownership and control should be separated (Jensen and Meckling, 1976) and that higher agency problems exist when the CEO is also the chairman of the board (Yermack, 1996). For instance, Core et al. (1999) found that CEOs received higher pay when they also chaired the board. This thesis therefore included CEO duality, *DUALITY*, as an indicator variable equal to 1 if the CEO was also chairman of the board, and 0 otherwise.

CEO tenure

Although it is usual to relate CEOs' pay to their years of experience as CEO in a firm (Palia, 2001), Murphy (1986) suggested that their ability was not observable at the time of hiring, so payment increased as they proved themselves over the years. However, Cornett et al. (2008) argued that top executives with little experience needed more time to become familiar with their firms and industries but top executives with longer tenure,

although they have more career concerns, enjoyed better reputations and can therefore demand higher pay (Brick et al., 2006). Accordingly, this thesis used the log of CEO tenure, *TENURE*, as a measure of CEO experience.

Foreign investors

In China, listed firms can also issue H and N shares which can only be purchased by foreign investors. As outside blockholders these foreign investors can effectively monitor managers using their professional knowledge. This thesis therefore included the dummy variable, *FOR*, coded 1 if a firm has foreign investors and 0 otherwise.

Other control variables

The equations also include two additional dummy variables: Year, a column vector of a dummy variable to control the economy or market effects over time, and Industry, a column vector of an SIC-code based dummy variable to control variation across industries.[18]

4.3.4 Sample statistics

The first section of Table 4.2 presents descriptive statistics on managerial compensation, firm performance, and firm and CEO characteristics, averaged across 2002 to 2007 for the entire sample. Panels A, B, and C in this table report detailed statistics for managerial compensation in these firms based on years, industries, and dominant shareholders. The means (medians) in Panel A indicate a steady 151.72% (164.81%) increase in CEO pay across our sample period, ranging from 131,023RMB

[18] I follow Firth et al. (2006) and classify firms in our sample into five groups: industrial, commercial, public utility, property, and conglomerate (all other industries). To avoid the dummy variable trap, I use four dummy variables to represent these five categories.

(95,666RMB) in 2002 to 329,811RMB (253,333RMB) in 2007. Nonetheless, these pay levels were much lower than those reported in research for the U.S., U.K., and some other countries (Core et al., 1999; Brick et al., 2006; Merhebi et al., 2006; Kato et al., 2007; Basu et al., 2007), a pay level gap may be attributable to smaller firms, higher rates of CEO turnover, and/or lack of long term incentives[19] (Firth et al., 2002; Kato and Long, 2005).

After identifying three types of firms by ownership, i.e. SAMB, SOE or private, investors as the controlling shareholder, this thesis found that CEO pay varies across industries and firms according to the different types of dominant shareholder (see Table 4.2). For example, the mean (median) of CEO pay in commercial industry was 236,011RMB (178,683RMB), whereas the mean (median) of CEO pay in property industry was 339,343RMB (230,000RMB). Likewise, the mean (median) for SAMB controlled firms was 177,740RMB (129,333RMB), whereas the mean (median) for SOE controlled firms was 241,229RMB (190,400RMB).

Table 4.3 reports the significance of differences in means and medians of CEO pay between the groups. For example the t-statistic (z-statistic) of -6.52 (-9.34) in the comparison of SAMB versus SOE shows that the mean (median) CEO pay was significantly higher for SOE controlled firms than SAMB controlled firms. These results can be further summarized as follows: the negative t-statistics in the comparisons of SAMB versus all the other owner types indicate that CEOs in SAMB controlled

[19] Long-term incentive schemes were rare in China's listed firms accounting for less than 5% of the total listed firms, and stock options and restricted stocks have only been granted to top executives since the end of 2006. For example, since the end of 2006, there were 161 listed firms who granted stock options to their executives. Until the end of 2009, this number decreased to 99 and then only 47 by the end of June 2010. Because of data limitation, I still use cash and bonus compensation in this study.

firms received lower payments, while the positive t-statistics in the comparisons of SOE versus all the other owner types suggest that CEOs in SOE controlled firms received the highest payment among all types of listed firms.

4.4 Empirical results

4.4.1 Pearson correlations

As Table 4.4 shows, the Pearson correlations between each pair of variables (contemporaneous value) are lower, which indicates that multi-collinearity does not exist.

4.4.2 Empirical results

Primarily, this thesis applied the OLS approach to estimate the regression results. However, because endogeneity was one potential problem for this study that firm performance can still be seen as an endogenous variable and a function of other firm specific characteristics, OLS estimation may be biased and inconsistent. Therefore, in order to control for endogeneity, this study estimated regressions relating to the above three equations using 2SLS. In the first stage this study used an OLS model to obtain the fitted values of firm performance by regressing it on a set of lagged control variables in Equation (1). In the second stage the fitted values were used in place of firm performance in regressions that are the same as Equations (1) to (3). The 2SLS results are reported in Table 4.5, Table 4.6 and Table 4.7. Results based on OLS estimation are generally similar to 2SLS estimations.

As shown in Table 4.5, which presents the results for Equation (1) broken out by different firm performance measures, the lagged industry adjusted ROA, ROS, RET and Tobin's Q are positively and significantly associated with CEO pay. This result suggests that top executives tended to be paid more in firms that perform well in the market, or have higher corporate value. For example, the coefficient on industry adjusted ROA indicates that 1% increase in industry adjusted ROA lead to a 1.37% increase in CEO pay level (column 1). In addition, this thesis found a positive effect of stock return on pay. This differs from the earlier findings by Firth et al. (2007) who depended on a much earlier sample period and found that market performance did not provide an incentive to CEOs[20]. This thesis also found a positive and significant effect for Tobin's Q. These new findings of the positive incentive effect of market based performance on CEO pay are largely due to the fact that Chinese listed firms have become more market oriented in recent years.

The negative coefficients of CASH (see Table 4.5) provided evidence that CEO pay is lower in firms where the largest shareholders have higher cash flow rights, and the coefficients are significant. Moreover, all the interactive terms used to test whether ownership is associated with performance based pay for CEOs were positive and significant. This finding supports Hypotheses 1 that cash flow rights have a positive incentive effect on the pay-performance relationship.

In line with previous studies (Conyon, 1997; Hermalin and Wallace, 2001; Girma et al., 2007), the results also showed that larger firms paid their managers higher salaries,

[20] Using a sample of China's listed firms from 1998 to 2000, Firth et al. (2007) find no relationship between CEO pay and market performance.

and with Basu et al.'s (2007) finding of a significantly negative effect of firm leverage, managerial compensation is negatively related to leverage, that is, firms with higher debt pay their managers less. This latter effect may be attributable to debt being seen as monitoring by external debt holders (John and John, 1993).

Variables such as the size of a board and number of independent directors have a positive impact on managerial compensation. This interesting result contrasts directly with Conyon and Peck (1998) and Firth et al. (2007), who found a negative effect of the size of a board and an insignificant effect of the proportion of independent directors. The results, however, are consistent with the evidence that small boards are more effective (Yermack, 1996) and large boards have a more doubtful influence on CEOs (Jensen, 1993). It also suggests that the proportion of independent directors is coming into line with the Chinese Securities Regulatory Commission's (CSRC) mandate that at least one third of board directors, who set CEO pay, should be independent.

This thesis also found a positive relationship between duality and CEO pay, which is similar to Core et al.'s (1999) findings that duality in U.S firms lead to higher CEO pay, but contrary top Conyon's (1997) analysis of British firms. This study does note a positive relationship between CEO tenure and CEO pay, which is not only consistent with most previous studies (Brick et al., 2006; Cornett et al., 2008) but echoes the intuitive assumption of a relationship between CEO pay and years of experience (Palia, 2001). Interestingly, and in line with the conjecture, this thesis also found that CEOs receive higher payment if a firm has foreign investors.

Table 4.6 reports the regression results for Equation (2) with a primary focus on the ownership coefficients and interactive terms. Close examination of the interactive terms also revealed some interesting outcomes. They were positive when the study used profitability to measure performance and negative when performance was measured as stock return and firm value. This result shows that SOEs put great emphasis on profitability while privately controlled firms care more about market performance. In fact, during the period of this study, SOEs achieved a higher average growth in operating sales, which supports Hypotheses 2a. This result differs from Kato and Long (2005) who found that state ownership weakens the pay-performance relationship. While they examined the relationship between CEO pay and performance, this thesis mainly focused on the effect that cash flow rights have on the pay-performance relationship. This thesis found that for the state controlled firms, cash flow rights have a positive effect on accounting based pay-performance relationship but had no effect on market based pay-performance relationship. Therefore, the results suggest that the effect of cash flow rights on the pay-performance relationship between state controlled firms and privately controlled firms depends on different performance based pay schemes.

However, the coefficients were only significant for both Cash*ROA_{t-1} and Cash*ROS_{t-1}, and insignificant for other terms, so I divided state ownership into two types of firms where the ultimate controlling shareholder was SAMB and SOE, respectively, and ran the regression relating to Equation (3).

The estimation results of regression (3) are given in Table 4.7, where this thesis applied the controlling shareholder cash flow rights to measure the ownership structure.

Table 4.7 reports generally negative coefficients on cash flow rights regardless of performance measures, which indicate that cash flow rights will reduce the level of CEO pay. More importantly, this study focused on the interactive terms. These terms are positive when firm performance is measured by ROA and ROS and are statistically significant for SOE controlled firms. The results indicate that CEO pay is related to profitability and the cash flow rights of SOEs enhance the pay-performance relationship in SOE controlled firms, which is consistent with our hypothesis 3a. The coefficients are economically significant. For example, in column 1 of Table 4.7, the coefficient of PSOE*ROAt-1 indicates that 1%increase in SOE cash flow rights lead to a 0.088% increase in pay-performance sensitivity. The interactive terms with stock return measures of performance were positive and only significant when firms have private investors as the controlling shareholders. This result is consistent with our hypothesis 2a that a private controller is more likely to relate CEO pay to market performance, and again this study found evidence that cash flow rights have positive incentive effects on corporate governance. However, the result of the interactive terms between SAMB and firm performance were insignificant, which is consistent with the hypotheses 4. When firms have SAMB as the largest shareholder, they do not appear to adopt performance based pay schemes. The estimated coefficients on control variables are similar with those reported in Table 4.5 and 4.6. Overall, the results support the conjecture made by Firth et al. (2006) who believed that the stronger cash flow rights of SOEs and private investors (vis-à-vis the SAMB) induce such controlling shareholders to align CEO pay to performance whereas a controlling SAMB shareholder does not. This thesis provides

evidence that cash flow rights have a positive effect on accounting based pay-performance relationship when the controlling shareholders are SOEs, due to the fact that their shares are not tradable. This thesis also found that cash flow rights have a positive effect on market based pay-performance relationship for firms whose controlling shareholder is a private investor.

In order to provide some supplementary evidence and disentangle the incentive and entrenchment effects of the largest shareholder, this thesis repeated analyses of regression relating the Equations (1) to (3) by replacing cash flow rights (Cash) with ultimate controlling shareholder excess control rights (Excess). The results are shown in Table 4.8, 4.9 and 4.10. The primary focus was on the interactive terms between ownership and performance. The general results show negative coefficients for most interactive terms which support Hypotheses 1b, 2b, and 3b, that deviation between control rights and cash flow rights have negative entrenchment effects on corporate governance, which is reflected by a weaker pay-performance relationship. This study obtained opposite results when excess control rights were used instead of cash flow rights. These results are broadly consistent with previous studies on the separation of ownership and control (La Porta et al., 1999; Cleassens et al., 2002). Meanwhile, this thesis found there was a positive relationship between CEO pay and excess control rights, which is consistent with the argument that it is easier for a CEO to expropriate wealth where corporate governance is weak, reflected by a higher divergence between control rights and cash flow rights (Core et al., 1999; Claessens et al., 2002).

This study repeated the analyses by winsorizing the top and bottom 1% of the CEO pay variable to exclude any influence from the outliers, and the results are broadly consistent with those shown in the previous tables. All firm performance coefficients were positive and significant. More important, the interactive terms between cash flow rights and firm performance are all positive and PSOE*ROA_{t-1}, PSOE*ROS_{t-1} and PPRI*RET_{t-1} are statistically significant.

4.5 Conclusion

China's ongoing economic reform and corporate restructuring, which focuses primarily on improving management, is accelerating the corporatization of traditional SOEs. CEO and top manager's incentives, being the central theme in such reforms and of great concern to the largest shareholders, are poorly understood. This thesis therefore took advantage of the mandate since 2002 that listed firms in China have to disclose the cash flow rights and control rights of the largest shareholder in their annual reports to examine the effects on the relationship between managerial compensation and firm performance.

The empirical results showed that cash flow rights in the hands of the ultimate controlling shareholder have a positive effect on the pay-performance relationship. In particular, higher cash flow rights can better align CEO pay with firm profitability in SOEs, and stock return in privately controlled firms. This thesis also provided similar evidence to Claessens et al. (2002), that divergence between control rights and cash flow rights have a negative effect on the pay-performance relationship. These

observations suggest that the development of a market economy in China has important implications for CEO pay.

In the Chinese context, this thesis examined the pay-performance relationship in firms where different types of controlling owners have dissimilar objectives and motivations. The multivariate analysis results showed that the pay-performance scheme has been relevant in SOE and privately controlled firms, albeit depending on different performance measures. In SOEs, CEO pay is linked to firm accounting performance (ROA and ROS). This is consistent with controlling state owners whose shares are non-tradable but who are entitled to cash flows. In privately controlled firms, however, CEO pay is sensitive to market performance, which is consistent with literature on US firms.

Overall, this study results suggest that ownership structure and types of controlling shareholders have jointly affected the CEO pay-performance relationship in China. Therefore, to better understand the causes and consequences of CEO compensation, future studies should focus on the unique characteristics of the institutional environment, such as corporate governance and ownership structure.

Chapter 5: Conclusion

The purpose of this research was to examine political connection, CEO incentives and the relationship between CEO pay/turnover and performance in China's listed firms. One motivation was to determine whether the effective compensation and monitoring of top executives can be seen as a successful result of economic reform and good corporate governance, and another was to understand how CEOs are rewarded. To achieve these goals, this thesis first investigated the association between political connection, CEO entrenchment, and the relationship between performance and turnover. Secondly, this thesis examined the incentive of political promotion and its effect on CEO pay-performance relationship to better understand the explicit and implicit incentives for CEOs, and provide some further evidence on how political connections effect the incentive and monitoring mechanisms. Finally, this thesis examined the ownership structure and its effect on the CEO pay-performance relationship. The findings from thesis are as follows:

5.1 Political connection, entrenchment and CEO turnover

In Chapter 2, this thesis examined the entrenchment effect of political connection on CEO turnover and the CEO turnover-performance relationship. Turnover is regarded as an alternative mechanism to monitor CEOs and a negative relationship between CEO turnover and firm performance has been documented by previous studies (Kato and Long, 2005; Firth et al., 2006b; Chang and Wong, 2009). Because political connection

can enhance firm value, this thesis hypothesized that it may affect CEO turnover and the relationship between CEO turnover and firm performance. The results show primarily, that CEO turnover was inversely related to firm performance, measured as return on assets (ROA) and return on sales (ROS).

This thesis was more interested in the effect that political connection had on CEO turnover and its relationship with firm performance so this thesis provided evidence that political connection had a negative effect on CEO turnover, and such a connection can weaken the CEO turnover-performance relationship. These results confirmed the hypotheses that politically connected CEOs may entrench themselves. Moreover, this thesis provided supportive evidence for the hypothesis which stated that if replaced CEOs were politically connected, the increase in firm performance after CEO turnover was significantly lower.

This thesis found that privately controlled firms were likely to retain politically connected CEOs because political connection was treated as a source and protection from the government which was beneficial to the firms, especially in China with its under developed markets and low enforced regulations.

This thesis also found that managerial ownership had a negative effect on CEO turnover and that it was marginally significant. Two alternative measures of firm performance were also applied. One of them was average firm performance over a CEO's tenure, while another was a dummy variable equal to 1 if firm performance was higher than the median level within the same industry. This thesis used these two measures to estimate the regressions and got similar results.

Overall, the evidence suggested that, in China where the legal system and markets were underdeveloped, many companies were likely to build political connections and sought that protection from the government through the mechanism of having politically connected CEOs retained even they are underperforming.

5.2 Political promotion incentive

In chapter 3 this thesis identified an alternative managerial incentive, namely CEO political promotion, and investigated its effect on the CEO pay-performance relationship. Because many CEOs are politically connected and they were more concerned about their political careers, the unique characteristic of managerial labour market was an inclusion of the internal political labour market. Moreover, explicit incentives such as salary and bonus were quite low, so they cannot provide sufficient motivation (Firth et al., 2006a). Therefore, this thesis conjectured that the implicit incentive of CEO political promotion should be a substitute for the explicit incentive of CEO compensation.

This thesis manually collected data on CEO political promotion, and began searching it for information on CEO turnover. This thesis then examined the destinations of departing CEOs to identify CEO political promotion, and defined CEO political promotion as those departing CEOs attaining more prestigious political positions than their previous ones. The use of this explicit measurement was different from Gillan et al. (2009) who were only able to use reputation as a proxy.

The results of the estimation showed that both CEO pay and political promotion were positively and significantly related to firm performance. Importantly, the implicit incentive of political promotion can be exercised as a substitute for the explicit incentive of compensation. As political promotion can be endogenous and determined by firm performance, this thesis considered endogeneity by estimating regressions using the two stage least square (2SLS) method. The general results estimated from using 2SLS were robust enough to correct for endogeneity between political promotion and firm performance. The results were generally similar to applying another measurement of political promotion, defined as a dummy variable equal to 1 for firm year observations of CEOs who eventually got political promotion and 0 otherwise.

In addition, this thesis was concerned about a situation where the government may intentionally put some CEOs in high performing firms whose promotion had already been decided. In order to address this issue this thesis conducted a univariate test by comparing firm performance between a politically promoted group of CEOs and non-politically promoted group of CEOs. The general comparative results showed there was no significant difference in firm performance between these two groups. Moreover, firm performance had been increasing significantly for the politically promoted group, which reflected the effort they exerted to improve firm performance.

This thesis suggested that political career concerns can provide strong incentives for CEOs to work hard and align the interests of management and shareholders. This additional source of CEO incentives can help to explain the significant economic

growth in state-owned firms in China, although it was argued that they have weak corporate governance and inefficient monetary incentives.

5.3 Positive and negative effects of political connection

In Chapter 2, this thesis discussed a negative entrenchment influence of political connection on monitoring CEOs. In Chapter 3, this thesis provided evidence of a positive incentive effect of political connection on motivating CEOs. Putting the evidence together, this thesis argued that political connection can have positive and negative effects on corporate governance, depending on the perspective, at least in the context of China.

On one hand China is an emerging market with a lack of investor protection and an underdeveloped legal system, so political connections can help firms overcome financial distress and give them access to preferential bank loans and government support. However, due to these benefits arising from political connection, politically connected CEOs may entrench themselves and their turnover may also be insensitive to firm performance. This evidence suggested a negative effect of political connection on corporate governance by weakening CEO monitoring.

On the other hand, China has a unique personnel system in state controlled firms in which government has the ultimate authority for selecting and appointing CEOs. Therefore, CEOs were concerned about their political careers and promotion, and had the incentive to deliver good firm performance. In this sense, political connection had a

positive effect on corporate governance by providing incentives for CEOs and mitigating agency problems.

5.4 Ownership structure and pay-performance relationship

This thesis also examined the effect of ownership structure on the CEO pay and pay-performance relationship in Chapter 4, where ownership structure was measured by cash flow rights and excess control rights defined as the divergence between control rights and the cash flow rights of the largest shareholders. The results suggested that cash flow rights had a positive incentive effect on pay-performance relationship, while excess control rights had a negative entrenchment effect on the pay-performance relationship. This thesis also found that cash flow rights reduced CEO pay levels and excess control rights increased CEO pay level which was consistent with some previous studies (Claessens et al., 2002).

After dividing firms into three groups based on the type of the largest shareholder, this thesis found that cash flow rights had a significant impact on accounting performance (such as return on assets and return on sales) based pay scheme in SOE controlled firms and market performance (stock return) based pay scheme in privately controlled firms. This was consistent with the argument that the shares of the largest shareholders in SOE controlled firms were non-tradable and they emphasized profitability, while private investors cared more about the price of stocks and wanted to relate CEO pay to market performance. Moreover, CEO pay had no relationship with firm performance in SAMB controlled firms because the largest shareholders had no

cash flow rights. This thesis also found that the divergence between the control rights and cash flow rights of the largest shareholders can weaken the pay-performance relationship. Cash flow rights gave the largest shareholders incentives to strengthen the association between CEO pay and firm performance. However, if the control rights exceeded cash flow rights, the largest shareholder were likely to obtain their private benefits by expropriating from minority shareholders and reduced the pay-performance sensitivity.

Furthermore, some control variables which could explain CEO pay documented their potential effect on firm performance so this thesis took endogeneity into account and estimated the regressions applying the two-stage least square (2SLS) method. These results also indicated a positive and significant relationship between managerial compensation and firm performance. This supported the argument that managerial compensation should be a function of firm performance and also indicated that an efficient pay scheme had been applied to China's listed firms.

5.5 Summary and conclusions

China's economic reform has come into effect and traditional SOEs became market oriented. Since the establishment of stock exchanges in the early 1990s China's listed firms have adopted a modern enterprise system. Therefore, the effectiveness of corporate governance and how CEOs were motivated and monitored needed to be examined.

This thesis first examined CEO turnover and the association between political connection and CEO turnover, and the performance turnover relationship. The result showed a negative relationship between CEO turnover and firm performance, measured as ROA and ROS, suggesting it was an effective monitoring mechanism. When this thesis considered political connection, this thesis found that the probability of CEO turnover was significantly lower if a CEO was politically connected. Moreover, politically connected CEOs in privately controlled firms were less likely to be replaced than their counterparts in SOEs. This result suggested an entrenchment effect from political connection which was attributed to the benefits arising from them. When this thesis used alternative measures of firm performance, the general results remained similar to those using original measures.

This thesis also examined the effect of political promotion on the pay-performance relationship. This thesis identified an implicit incentive mechanism for CEOs, namely political promotion generated from their political career concerns. This thesis found that the incentive of political promotion substituted for CEO compensation because their pay was comparatively lower, and would not provide sufficient incentive. This thesis also found that political promotion was positively related to firm performance. When this thesis took the endogeneity issue into consideration where political promotion is endogenously determined, the estimated results still held.

Furthermore, this thesis examined the effect of ownership structure on the pay-performance relationship. This thesis provided some supportive evidence for the extant literature. This thesis found that cash flow rights had a positive incentive effect on the

pay-performance relationship while excess control rights had a negative entrenchment effect. Furthermore, this thesis also found that cash flow rights had a positive effect on accounting performance (ROA and ROS) based pay scheme in SOEs, and market performance (stock return) based pay scheme in privately controlled firms. These results confirmed that cash flow rights explained different CEO pay schemes across firms with different types of largest shareholders.

The implication of this thesis is that due to weak investor protection and an underdeveloped legal system, political connection and ownership structure played critical roles and showed both positive and negative effects on corporate governance. Specifically, political connection can entrench CEOs and reduce CEO turnover-performance sensitivity, while political promotion provided implicit incentives for CEOs and substituted for compensation incentives. In addition, cash flow rights entitled the largest shareholders to adopt performance based pay schemes, while excess control rights weakened the pay-performance relationship by tunnelling.

5.6 Limitations and suggestions for future research

One limitation of this research was the measurement of managerial compensation. Some of the extant literature defined CEO compensation as the sum of all components of CEO wealth related to their firms, including the value of stock option grants and restricted stocks grants. However, stock options and restricted stock were only available to top executives in some of China's listed firms after 2006. Because the number of firms granting stock options and restricted stock were relatively small, this research

used cash compensation as a proxy for managerial compensation. In future research examining CEO compensation and pay-performance sensitivity, the focus should be on including the value of stock options and restricted stocks.

Another limitation of this thesis was the sample selection. This thesis used all of China's listed firms but what the situation of corporate governance was in China's unlisted firms was unclear because the data was not available. This current research could be complemented by surveying and collecting information from the unlisted firms.

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Table 2.1 Reasons and frequency of CEO turnover

Turnover reasons	Number of observations	Percentage of sample
1. Normal turnover	981 [a]	68.99%
Retirement	22	1.55%
Contract expiration	298	20.96%
Change in controlling shareholder	12	0.84%
Resignation	300	21.10%
Health	37	2.60%
Personal reason	36	2.53%
Corporate governance reform	25	1.76%
Legal dispute	1	0.07%
Completion of action duties	14	0.98%
Important government position taken up	10	0.70%
Promoted to chairman or vice-chairman	92	6.47%
CEO position taken up at parent company	51	3.59%
Remaining as chairman or vice-chairman	70	4.92%
Going abroad to study	2	0.14%
2. Forced turnover	441 [b]	31.01%
New position ranked lower than CEO position	94	6.61%
CEO position taken up at an unlisted, smaller firm	22	1.55%
Dismissed	42	2.95%
Information unavailable	294	20.68%
Total number of observations	1422	100%

[a] I deleted 20 cases where the stated reason was retirement but the age of departing CEOs was less than 60. I also added 31 cases where the tenure of departing CEOs was less than 1 year. Eventually, I obtained 981 normal turnovers.

[b] I added 20 cases where the stated reason was retirement but the age of departing CEOs was less than 60. I also deleted 31 cases where the tenure of departing CEOs was less than 1 year. Eventually, I obtained 441 forced turnovers.

This table reports the turnover reasons and frequencies of CEO turnover in China's listed firms between 2002 and 2007.

Table 2.2 Summary statistics

Variables	Mean	Median	Lower quartile	Higher quartile
Panel A: Summary statistics of the full sample				
Turnover	0.23	0	0	0
ROA (%)	2.25	2.64	0.84	5.12
ROS (%)	4.05	4.43	1.49	9.80
Firm size (million)	3,940	1,770	1,010	3,390
Lev (%)	49.71	50.25	36.92	62.10
CEO tenure	3.26	3	1.92	4.33
CEO age	46.47	46	41	51
CEO duality	0.12	0	0	0
Board	9.76	9	9	11
Independent directors	3.13	3	3	4

Panel B: Turnover rate across years						
Year	2002	2003	2004	2005	2006	2007
Total turnovers	269	242	231	255	216	209
Percentage [a]	27.42%	23.96%	21.08%	22.87%	20.96%	20.63%
Normal turnovers	198	160	155	176	142	152
Percentage [b]	73.61%	66.12%	67.10%	69.02%	65.74%	72.73%
Forced turnovers	71	82	76	79	74	57
Percentage [b]	26.39%	33.88%	32.90%	30.98%	34.26%	27.27%

[a] Percentage of total turnover is the ratio of number of turnover to the total firm year observations for a specific year.

[b] Percentage of normal and forced turnover is the ratio of normal and forced turnover to the number of total turnover.

Table 2.3 Forced turnover rate according to firm performance quartile

	Firm performance	Forced Turnovers
Panel A: Summary statistics based on ROA (%)		
Bottom quartile	-7.97(-2.56)	0.0939
Second quartile	-0.91(-0.91)	0.0747
Third quartile	1.17(1.15)	0.0658
Top quartile	6.21(4.95)	0.0457
Difference (t-test) [a]		0.0482***(5.35)
Panel B: Summary statistics based on ROS (%)		
Bottom quartile	-35.86(-5.99)	0.0959
Second quartile	-1.49(-1.52)	0.0699
Third quartile	2.09(1.86)	0.0636
Top quartile	20.27(10.79)	0.0507
Difference (t-test) [a]		0.0452***(4.89)

[a] The difference tests displayed in the above table is between the bottom and top quartiles, and t-value is reported.

The value in the firm performance column is mean (median) within the quartiles.

*, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 2.4 Univariate test of CEO turnover according to performance and ownership

	Political connection	Non-political connection	t-test
Panel A: Firms sorted by firm performance (ROA)			
Upper	4.80	6.32	-1.52*(-1.92)
Lower	7.83	8.97	-1.14(-1.36)
t-test	-3.03***(-3.44)	-2.65***(-2.85)	
Panel B: Privately controlled firms sorted by firm performance (ROA)			
Upper	0.95	7.52	-6.57***(-5.43)
Lower	7.96	10.12	-2.16**(-2.06)
t-test	-7.01***(-4.31)	-2.60**(-2.45)	
Panel C: Firms sorted by CEO's equity ownership			
Upper	2.61	2.79	-0.18**(-2.23)
Lower	7.74	9.69	-1.95**(-2.32)
t-test	-5.13***(-6.47)	-6.90***(-8.46)	

Upper and Lower are those firms whose performance is above or below the median value.

Mean value is CEO turnover rate (%) reported in the above table.

*, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 2.5 Comparison of firm and CEO characteristics

	Turnover	ROA	ROS	Leverage	Firm size	Board	Pond	CEO tenure	CEO age	Obs
Panel A: Firms sorted by CEO political connection										
Political	6.32(0)	-1.03(-0.16)	-3.91(-0.13)	50.21(50.17)	21.36(21.26)	2.27(2.19)	0.32(0.33)	3.15(2.67)	46.93(47)	3039
Non-political	7.64(0)	0.24(0.13)	-3.59(0.12)	49.24(50.37)	21.41(21.32)	2.24(2.19)	0.33(0.33)	2.90(2.58)	44.45(43)	3258
t-test	-2.06**	-5.84***	-0.12	1.49	-1.90*	4.31***	-4.49***	5.69***	14.95***	
	(0.91)	(3.69***)	(1.86*)	(0.61)	(1.82*)	(4.05***)	(5.39***)	(3.24***)	(14.62***)	
Panel B: Firms sorted by firm types										
SOEs	6.95(0)	-0.04(0.04)	-1.21(-0.09)	48.57(49.40)	21.49(21.41)	2.27(2.19)	0.32(0.33)	3.08(2.67)	46.28(46)	4659
Private	7.14(0)	-1.35(-0.10)	-10.98(0.27)	52.95(52.36)	21.07(21.01)	2.19(2.19)	0.34(0.33)	2.87(2.5)	43.86(43)	1638
t-test	-0.26	4.26***	1.67*	-4.25***	17.02***	13.48***	-10.80***	4.27***	12.36***	
	(0.12)	(2.09**)	(1.02)	(4.93***)	(14.68***)	(12.48***)	(8.08***)	(3.11***)	(12.80***)	
Panel C: Firms sorted by turnover types [a]										
Forced	N/A	-2.41(-0.79)	-21.98(-1.05)	53.05(52.11)	21.33(21.25)	2.25(2.19)	0.32(0.33)	3.14(2.2)	43.76(43)	441
Normal	N/A	-2.45(-0.74)	-14.48(-1.01)	51.51(51.55)	21.22(21.16)	2.24(2.19)	0.32(0.33)	2.83(2)	43.67(43)	981
t-test		0.07	-0.66	0.60	1.81*	1.19	-0.65	2.94***	0.27	
		(0.78)	(1.03)	(0.33)	(1.52)	(0.21)	(0.15)	(3.05***)	(0.45)	

[a] This comparison sample excludes the firm year observations without CEO turnover.

Mean (median) values are reported in the table above.

Difference test of mean (median) are reported in the table above. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 2.6 Pearson correlation matrix: key variables

	ROA	ROS	Size	Board	Pond	Lev	Age	Tenure	Duality
ROA	1.0000								
ROS	0.3005	1.0000							
Size	0.2436	0.0842	1.0000						
Board	0.0597	0.0296	0.2124	1.0000					
Pond	0.0268	0.0077	0.0052	-0.2554	1.0000				
Lev	-0.5270	-0.1539	0.0793	-0.0001	0.0537	1.0000			
Age	0.0927	0.0408	0.2064	0.0539	0.0070	-0.0586	1.0000		
Tenure	0.1084	0.0374	0.1109	0.0267	0.0848	-0.0272	0.1289	1.0000	
Duality	-0.0329	0.0066	-0.0356	-0.0778	0.0434	0.0062	0.0821	0.0555	1.0000

ROA is firm return on assets (net income divided by total assets); ROS is firm return on sales (net income divided by total sales). Size is log of total firm assets; Lev is the ratio of total debts to total assets; Board is the log of total number of directors on the boards; Pond is the proportion of independent directors on the board/ratio of the number of independent directors to total number of directors. Age is the lof of CEO age; Tenure is the log of years CEO is on the position; Duality is dummy variable equal 1 if the CEO is also holding the position as a chairman and 0 otherwise.

Table 2.7 Logistic regression results of total sample

Dependent variable: CEO forced turnover				
Panel A: regression results where firm performance is measured by industry adjusted ROA				
Constant	-7.14***(-3.86)	-7.53***(-4.04)	-6.94***(-3.60)	-6.92***(-3.62)
ROA_{t-1}	-1.41**(-2.38)	-5.00***(-4.40)	-4.89***(-4.29)	-4.86***(-4.27)
Political	-0.33***(-2.71)	-0.25**(-2.07)	-0.16(-1.19)	-0.09(-0.69)
ROA_{t-1}*Political		4.55***(3.75)	4.29***(3.50)	4.37***(3.55)
Mown	-0.14(-1.55)	-0.12(-1.43)	-0.12(-1.41)	-0.10(-1.39)
Mown*Political				-5.26*(-1.65)
Private			-0.01(-0.01)	-0.06(-0.04)
Private*Political			-0.57*(-1.73)	-0.58*(-1.74)
Size	0.04(0.58)	0.06(0.90)	0.05(0.70)	0.04(0.61)
Age	0.84**(2.12)	0.82**(2.09)	0.77*(1.93)	0.79**(2.02)
Tenure	-1.43***(-26.62)	-1.42***(-26.70)	-1.43***(-27.09)	-1.42***(-26.71)
Board	0.19(0.69)	0.18(0.63)	0.12(0.45)	0.12(0.42)
Pond	1.04(1.33)	0.95(1.23)	0.98(1.27)	0.99(1.27)
Lev	-0.06(-0.04)	-0.09(-0.39)	-0.06(-0.22)	-0.04(-0.17)
Duality	-0.36*(-1.64)	-0.33(-1.55)	-0.28(-1.36)	-0.27(-1.27)
Year	Included	Included	Included	Included
Industry	Included	Included	Included	Included
Pseudo R^2	0.2695	0.2739	0.2759	0.2785
Obs	6297	6297	6297	6297
Panel B: regression results where firm performance is measured by industry adjusted ROS				
Constant	-6.69***(-3.62)	-6.67***(-3.60)	-5.97***(-3.13)	-5.99***(-3.16)
ROS_{t-1}	-0.08**(-2.40)	-0.19**(-2.20)	-0.19**(-2.19)	-0.18**(-2.19)
Political	-0.32**(-2.57)	-0.29**(-2.34)	-0.18(-1.42)	-0.12(-0.92)
ROS_{t-1}*Political		0.23**(2.49)	0.22**(2.48)	0.22**(2.50)
Mown	-0.15(-1.59)	-0.14(-1.58)	-0.14(-1.55)	-0.12(-1.55)
Mown*Political				-5.31*(-1.67)

Private			-0.03(-0.16)	-0.03(-0.18)
Private*Political			-0.57*(-1.72)	-0.58*(-1.75)
Size	0.02(0.28)	0.02(0.19)	-0.02(-0.04)	-0.02(-0.10)
Age	0.82**(2.06)	0.82**(2.06)	0.75*(1.87)	0.78**(1.96)
Tenure	-1.43***(-26.55)	-1.43***(-26.48)	-1.43***(-26.90)	-1.43***(-26.53)
Board	0.19(0.67)	0.21(0.72)	0.15(0.51)	0.14(0.49)
Pond	0.96(1.22)	0.98(1.25)	1.02(1.29)	1.02(1.31)
Lev	0.16(1.53)	0.24**(2.00)	0.28**(2.13)	0.28**(2.12)
Duality	-0.34(-1.59)	-0.36*(-1.65)	-0.31(-1.43)	-0.29(-1.35)
Year	Included	Included	Included	Included
Industry	Included	Included	Included	Included
Pseudo R^2	0.2686	0.2708	0.2729	0.2755
Obs	6297	6297	6297	6297

Dependent variable is a dummy variable equal 1 for CEO forced turnover and 0 otherwise. Firm performance is measured by both return on assets (ROA) and return on sales (ROS), defined as the ratio of net income before tax to firm total assets and net income before tax to firm total sales, respectively. We apply the industry adjusted ROA and ROS in the regressions. *Political* is a dummy variable equal to 1 if the CEO is politically connected and 0 otherwise. *Mown* is the control right of the CEO, defined as the proportion of shares held by the CEO. *Private* is a dummy variable equal to 1 if the firm has a private controlling shareholder and 0 otherwise. *Size* is the log of firm total assets. *Age* is the log of CEO age. *Tenure* is the log of years that CEO has been on this position. *Board* is the log of total directors on the boards. *Pond* is the proportion of independent directors on the boards. *Lev* is firm leverage level. *Duality* is a dummy variable equal to 1 if the CEO is also the chairman of the board and 0 otherwise. Year and Industry dummy variables are also included to control the year and industry fixed effects.

T-statistics, computed using the White (1980) heteroscedasticity robust standard error, are in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 2.8 Regression results of using two stage least square

First stage: Dependent variable is CEO political connection		
Constant	-7.92***(-5.26)	-6.87***(-4.63)
ROA	-2.19***(-4.82)	
ROS		-0.07(-0.29)
Tenure	0.03(0.88)	0.02(0.42)
Age	2.46***(7.57)	2.40***(7.42)
Size	-0.10**(-2.07)	-0.15***(-2.85)
Board	0.49**(2.28)	0.48**(2.23)
Pond	-1.22**(-2.46)	-1.26**(-2.55)
Duality	0.31**(2.08)	0.32**(2.20)
Year	Included	Included
Industry	Included	Included
Pseudo R^2	0.0332	0.0284
Obs	6297	6297
Second stage: Dependent variable is CEO turnover		
Constant	-12.52(-0.76)	-11.82(-0.51)
ROA_{t-1}	-11.70(-1.43)	-0.15(-1.00)
Political	-4.50(-0.38)	-5.83(-0.29)
Mown	-0.05**(-2.00)	-0.03**(-2.37)
ROA_{t-1}* *Political*	12.46**(2.46)	0.42*(1.70)
Private	-0.86(-1.46)	-0.68(-1.10)
Private* *Political*	1.58(1.31)	1.15(0.91)
Mown* *Political*	-0.17**(-1.98)	-0.08**(-2.42)
Size	-0.07(-0.23)	-0.19(-0.28)
Age	3.23(0.46)	3.84(0.33)
Tenure	-1.38***(-12.81)	-1.41***(-15.58)

Board	0.62(0.44)	0.75(0.33)
Pond	-0.14(-0.04)	-0.59(-0.10)
Lev	0.13(0.76)	0.21*(1.91)
Duality	-0.05(-0.06)	-0.06(-0.04)
Year	Included	Included
Industry	Included	Included
Pseudo R^2	0.2731	0.2688
Obs	6297	6297

$\tilde{Political}$ is the fitted value of political connection obtained from the first stage. All the variables are defined the same as previous tables.

T-statistics, computed using the White (1980) heteroscedasticity robust standard error, are in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 2.9 Firm performance surrounding CEO turnover

	Year t-3	Year t-2	Year t-1	Year t	Year t+1	Year t+2	Year t+3
Panel A: Summary statistics of firm performance of politically connected CEO group [a]							
ROA	2.22(2.30)	2.73(2.31)	2.04(1.83)	0.39(1.59)	0.89(1.49)	1.48(1.76)	1.63(2.41)
ROS	4.99(4.17)	6.49(4.28)	1.46(3.07)	-2.35(2.41)	-0.45(2.49)	2.73(3.18)	2.47(3.83)
Observations	85	111	151	192	141	100	83
Panel B: Difference tests of firm performance surrounding politically connected CEO turnover							
Different tests	(t-3 and t)		(average of (t-3, t-1) and t)		(t and average of (t+1, t+3))		(t and t+3)
t-tests of ROA	1.67*(1.77*)		2.86***(2.94***)		-1.95*(-1.15)		-1.08(-1.60)
t-tests of ROS	1.99**(1.88*)		2.12**(1.89*)		-1.98**(-1.03)		-1.14(-1.65*)
Panel C: Summary statistics of firm performance of non-politically connected CEO group [b]							
ROA	2.66(2.67)	2.43(2.55)	1.30(1.94)	0.10(1.94)	1.96(2.66)	2.68(2.51)	2.35(3.02)
ROS	5.69(5.75)	1.89(4.67)	0.09(3.23)	-28.71(3.77)	-4.24(3.90)	2.77(4.47)	3.63(4.55)
Observations	96	134	183	249	196	153	112
Panel D: Difference tests of firm performance surrounding non-politically connected CEO turnover							
Different tests	(t-3 and t)		(average of (t-3, t-1) and t)		(t and average of (t+1, t+3))		(t and t+3)
t-tests of ROA	2.38**(1.78*)		2.16**(2.32**)		-1.96**(-1.64*)		-1.96**(-3.09***)
t-tests of ROS	2.15**(2.79***)		1.71*(1.88*)		-1.81*(-1.70*)		-2.16**(-2.12**)

[a] This group refers to the replacement of politically connected CEOs.

[b] This group refers to the replacement of non-politically connected CEOs.

Note: the value I used for comparisons are industry adjusted ROA and ROS. Mean (median) values and difference tests of mean (median) are reported in the table above.

*, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 2.10 CEO political connection effect on post-turnover performance for firms with CEO turnover

Dependent variable	ΔROA	ΔROS
Political	-0.02*(-1.76)	-0.02**(-2.57)
Size	0.02**(2.53)	0.04**(2.20)
Board	-0.03(-1.15)	-0.13*(-1.64)
Pond	0.01(0.12)	0.03(0.15)
Lev	-0.08**(-2.31)	-0.36***(-3.59)
Age	0.05(1.16)	0.12(1.09)
Tenure	-0.01(-0.12)	0.01(0.83)
Industry	Included	Included
Year	Included	Included
Observations	459	459
Adjusted R^2	0.04	0.05

Dependent variable is the difference of firm performance between average of year (t+1, t+3) and t. All other variables are defined the same as those in previous tables. We only report the results of the main variables here.

T-statistics, computed using the White (1980) heteroscedasticity robust standard error, are in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 2.11 Comparison of firm performance in politically connected firms surrounding CEO turnover

	Year t-3	Year t-2	Year t-1	Year t	Year t+1	Year t+2	Year t+3
Panel A: Summary statistics of firm performance of politically connection firms with CEO turnover							
ROA	2.22(2.30)	2.73(2.31)	2.04(1.83)	0.39(1.59)	0.89(1.49)	1.48(1.76)	1.63(2.41)
ROS	4.99(4.17)	6.49(4.28)	1.46(3.07)	-2.35(2.41)	-0.45(2.49)	2.73(3.18)	2.47(3.83)
Observations	85	111	151	192	141	100	83
Panel B: Summary statistics of firm performance of politically connection firms without CEO turnover [a]							
ROA	0.33(0.16)	0.61(0.19)	0.53(0.05)	0.10(0.16)	0.53(0.03)	-0.84(1.07)	-1.43(0.55)
ROS	1.25(0.69)	2.45(0.15)	1.62(0.28)	0.13(0.28)	0.75(-0.09)	-0.40(1.28)	-0.55(-0.16)
Observations	180	205	236	306	220	156	57

Panel C: Difference tests of firm performance CHANGE surrounding politically connected CEO turnover				
Different tests	(t-3 and t)	(average of (t-3, t-1) and t)	(t and average of (t+1, t+3))	(t and t+3)
t-tests of ROA	1.67*(1.77*)	2.86***(2.94***)	-1.95*(-1.15)	-1.08(-1.60)
t-tests of ROS	1.99**(1.88*)	2.12**(1.89*)	-1.98**(-1.03)	-1.14(-1.65*)

Panel D: Difference tests of firm performance CHANGE surrounding CEO turnover for without CEO turnover group [a]				
Different tests	(t-3 and t)	(average of (t-3, t-1) and t)	(t and average of (t+1, t+3))	(t and t+3)
t-tests of ROA	-0.42(-0.28)	-0.85(0.36)	0.81(-0.49)	-1.34(0.05)

t-tests of ROS	-0.55(-0.98)	-0.76(-0.15)	0.32(-0.86)	-2.27**(-0.73)
Panel E: Difference tests of firm performance CHANGE across above two groups (turnover vs. no turnover)				
Different tests	(t-3 and t)	(average of (t-3, t-1) and t)	(t and average of (t+1, t+3))	(t and t+3)
t-tests of ROA	-1.14(-1.12)	-2.64***(-2.43**)	2.07**(1.70*)	1.21(2.19**)
t-tests of ROS	-1.70*(-1.83*)	-1.64*(-1.83*)	1.66*(1.68*)	1.72*(2.97***)

[a] The comparison results in Panel C,D and E are based on the assumption that CEO turnover is happened when CEO tenure is four (because CEO tenure averages 3.26).

Note: the value I used for comparisons are industry adjusted ROA and ROS. Mean (median) values and difference tests of mean (median) are reported in the table above.

*, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 2.12 CEO turnover effect on post firm performance for politically connected firms

Dependent variable	ΔROA	ΔROS
Turnover	0.06**(2.46)	0.02**(2.04)
Size	0.03***(6.25)	0.03(0.29)
Board	-0.02(-0.14)	-0.04(-0.13)
Pond	0.04(0.93)	0.70(0.76)
Lev	-0.15***(-7.00)	-0.63(-1.45)
Age	0.02(0.73)	-0.03(-0.06)
Tenure	0.05(1.28)	-0.02(-0.31)
Year and industry	Included	Included
Observations	1461	1461
Adjusted R^2	0.05	0.03

Dependent variable is the difference of firm performance between average of year (t+1, t+3) and t. All other variables are defined the same as those in previous tables. We only report the results of the main variables here.

T-statistics, computed using the White (1980) heteroscedasticity robust standard error, are in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 3.1 Destinations of departing CEOs

Destinations	No. of observation	Percentage of sample
Panel A: Promotion		
Important government position	18	1.73%
Promoted to board chairman or vice chairman [a]	72	6.91%
CEO/vice chairman position in the parent firm [b]	14	1.34%
Panel B: Demotion		
New position ranked lower than the CEO position	68	6.53%
CEO position at a smaller firm	18	1.73%
Panel C: Others		
Information unavailable	192	18.43%
Other promotions [c]	37	3.55%
Remaining as board chairman or vice chairman	61	5.85%
Other destinations [d]	562	53.93%
Total	1042	100%

This table reports the destinations of departing CEOs for my sample from 2005 to 2009.

[a] and [b] These CEOs are also taking up the position of secretary of party committee and vice secretary of party committee, which are the representatives of government.

[c] These promotions refer to the situation when the CEOs take up more desirable positions, but are not political related.

[d] Other destinations is initiated by other turnover reasons, including retirement, contract expiration, change of controlling shareholder, resignation, dismissal, health problem, personal reasons, corporate governance reform and completion of acting duties.

Table 3.2 Variables and definitions

Variable	Definition
Panel A: Managerial compensation	
CEO compensation (Pay)	Log of total cash compensation for CEO
Panel B: Firm performance	
Return on assets (ROA)	Net income/total assets
Return on sales (ROS)	Net income/sales
Panel C: CEO characteristics	
Political promotion (Promotion)	Equal to 1 if the political connected CEO is promoted and 0 otherwise.
CEO age (Age)	Log of the age of the CEO
CEO tenure (Tenure)	Log of the number of years as the firm's CEO
CEO duality (Duality)	Equals 1 if CEO also chairs the board
Panel D: Firm characteristics and corporate governance	
Firm size (Size)	Log of total assets
Board size (Board)	Log of the number of directors on the board
% of independent directors (Pond)	Proportion of independent directors on the board
Leverage (Lev)	Total debts/total assets in book value

Table 3.3 Summary statistics for all variables

Variable	Mean	Median	Lower quartile	Higher quartile
Panel A: Executive compensation				
CEO pay	728,500	284,150	152,550	455,290
Panel B: Firm characteristics				
Firm size (RMB millions)	6,770	2,560	1,330	5,270
ROA (%)	2.87	2.73	0.85	5.47
ROS (%)	4.62	3.89	1.28	9.50
Leverage (%)	51.31	52.65	39.11	64.37
Panel C: CEO characteristics and board characteristics				
CEO age	47.04	46	43	51
CEO tenure	3.84	3.67	2.16	5
CEO duality	0.05	0	0	1
Firm size (million)	6,770	2,560	1,330	5,270
Board size	8.53	9	6	10
Independent directors	3.46	3	3	4
Panel D: Frequency of political promotion by year				
2005	28			
2006	18			
2007	17			
2008	25			
2009	16			

Note: The statistics represent the averages of the 5 years from 2005 to 2009. All value variables are in China's currency, the RMB.

Table 3.4 Summary statistics by political promotion category

	Promotion	No promotion	Difference (T-test)
ROA	4.27(3.12)	2.84(2.73)	2.19**(1.95*)
ROS	6.04(4.23)	4.62(3.88)	2.38**(2.08**)
CEO pay	262,327(213,875)	741,782(285,320)	-2.30**(-2.90***)
CEO age	46.25(46)	47.07(46)	-1.95*(-1.00)
CEO tenure	4.52(4.72)	3.81(3.58)	3.11***(2.27**)
CEO duality	0(0)	0.05(0)	-3.22***(-0.48)
Firm size (million)	7190(3020)	6,760(2,550)	0.35(1.67*)
Leverage	0.50(0.53)	0.51(0.53)	-0.67(-0.20)
Employees	5083.2(2785)	4899.2(2159)	0.42(1.88*)
Observations	104	3286	

This table reports mean (median) values for summary statistics. The promotion is set equal to one if the CEO gets promotion, and zero if the CEO does not get promotion. All the variables are described previously in Table 1. The t-values of the t-test of equality are reported in parentheses. The value variables are in terms of Chinese currency, RMB.

Table 3.5 2SLS estimation of the effects of career concerns on compensation

Panel A: Dependent variable is probability of CEO political promotion		
Constant	-1.93(-0.51)	-2.69(-0.71)
ROA_{t-1}	4.24**(2.31)	
ROS_{t-1}		0.26**(2.41)
Size	0.09(0.95)	0.12(1.24)
Board	1.15**(2.52)	1.15**(2.50)
Pond	0.77(1.01)	0.70(0.89)
Age	-2.18**(-2.48)	-2.09**(-2.39)
Tenure	1.10***(4.63)	1.11***(4.67)
Type	0.58**(2.49)	0.58**(2.50)
Industry	Included	Included
Year	Included	Included
Adjusted R^2	0.058	0.052
Obs	3016	3010
Panel B: Dependent variable is CEO pay		
Constant	4.42***(8.50)	4.31***(8.20)
ROA_{t-1}	2.88***(6.66)	
ROA_{t-2}	0.98**(2.62)	
ROS_{t-1}		0.53***(5.37)
ROS_{t-2}		0.18(1.48)
Promõtion	-10.52***(-7.53)	-2.02***(-3.22)
Promõtion *ROA_{t-1}	-29.38**(-2.55)	
Promõtion *ROS_{t-1}		-1.84***(-2.91)
Size	0.22***(13.37)	0.28***(17.96)
Lev	-0.02(-0.25)	-0.25***(-2.88)
Board	-0.39***(-5.92)	-0.20***(-3.30)
Pond	0.17*(1.66)	0.31***(3.07)
Age	1.01***(7.72)	0.61***(5.11)
Tenure	-0.12***(-3.34)	0.07**(2.16)
Duality	0.01(0.12)	-0.01(-0.14)
Industry	Included	Included
Year	Included	Included
Adjusted R^2	0.2246	0.1960
Obs	3016	3010

The results in Panel A are from the first stage of the 2SLS specification for the endogenous variable, namely CEO political promotion. The results shown in Panel B are from the second stage of the 2SLS specification. Type is a dummy variable coded 1 if the ultimate controlling shareholder is the central government and 0 if the ultimate controlling shareholder is local governments. *Promõtion* in the second stage is the fitted value obtained from the first stage, indicating the probability of being promoted. All variables are defined as in Table 1.

T-statistics, computed using the White (1980) heteroscedasticity robust standard error, are in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 3.6 OLS estimation of the effects of career concerns on compensation

Dependent variable: CEO pay		
Constant	4.95***(6.15)	4.48***(5.51)
ROA_{t-1}	2.69***(8.03)	
ROA_{t-2}	1.05**(2.63)	
ROS_{t-1}		0.55***(4.97)
ROS_{t-2}		0.17(1.39)
Promotion	-0.40***(-3.43)	-0.40***(-3.58)
Promotion*ROA_{t-1}	-2.63**(-2.02)	
Promotion*ROS_{t-1}		-1.37**(-2.40)
Size	0.26***(10.98)	0.29***(11.76)
Lev	-0.13(-1.02)	-0.31**(-2.33)
Board	-0.12(-1.40)	-0.13*(-1.71)
Pond	0.35***(2.83)	0.35***(2.89)
Age	0.46**(2.55)	0.49***(2.62)
Tenure	0.10***(3.06)	0.12***(3.40)
Duality	-0.02(-0.25)	-0.03(-0.27)
Industry	Included	Included
Year	Included	Included
Adjusted R^2	0.2195	0.2023
Obs	3016	3010

Dependent variable is CEO pay. Firm performance is measured by either industry adjusted ROA or ROS. *Promotion* is a dummy variable, coded 1 if for the year when the politically connected CEO is promoted and 0 otherwise, *Size* is the firm size, defined as the log of total firm assets, *Lev* is the firm leverage level, defined as the ratio of total debts to total assets, *Board* is the board size, defined as the log of the total number of directors on the board, *Pond* is the percentage of independent directors, *Age* is the log of CEO age, and *Tenure* is the log of years that the CEO has been CEO of the firm.

T-statistics, computed using the White (1980) heteroscedasticity robust standard error, are in parenthesis. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 3.7 Tests of firm performance around CEO assignment and turnover[a]

	Promotion group	Non-promotion group	Difference (t-test)
Panel A: Firm performance is measured by ROA (%)			
t-1[b]	2.03(2.68)	1.65(1.88)	1.09(0.97)
t	2.83(2.95)	2.70(1.50)	0.80(1.34)
t+1	3.01(2.96)	2.61(2.59)	1.91*(1.88*)
T-1	3.88(3.42)	3.07(2.79)	2.67**(2.33**)
T	4.27(3.12)	2.41(2.39)	3.12***(1.95*)
Panel B: Firm performance is measured by ROS (%)			
t-1	1.29(1.72)	1.91(3.02)	-0.35(-1.68*)
t	1.89(2.61)	0.67(2.38)	1.25(0.46)
t+1	3.56(2.89)	3.56(3.71)	0.78(-0.92)
T-1	5.89(4.01)	5.05(3.98)	2.17**(1.05)
T	6.04(4.23)	5.13(4.21)	2.03**(1.72*)

Note: Because my sample is from 2005 when the information on CEO single pay is available, but some of the political promoted CEOs were assigned the CEO positions before 2005. In order to get the complete observations from the first year of the politically promoted CEOs, the above test results are based on the sample that is larger than the sample I use in this paper. Mean (median) values of each variable are reported in the above table.

[a] The firm performance I used to do the univariate tests is selected based on the argument by Huson et al. (2001) and Chang and Wong (2009). If the promotion occurred in the first half year, I use the last year firm performance, while the promotion occurred in the second half year and I use the current year firm performance.

[b] t indicates the year when CEOs initially got their CEO positions. T indicates the year when CEOs left from their CEO positions either through the political promotion or other channel.

Table 3.8 Difference tests of firm performance within both groups

	t-1[a]	t	T	Difference T and t-1	Difference T and t	Difference[b] average and t-1
Panel A: Difference tests within political promotion group						
ROA %	2.03(2.68)	2.83(2.95)	4.27(3.12)	2.29**(1.98**)	1.96**(1.82*)	1.72*(1.65*)
ROS %	1.29(1.72)	1.89(2.61)	6.04(4.23)	2.26**(3.12***)	2.01**(2.32**)	2.17**(2.05**)
Panel B: Difference tests within non-political promotion group						
ROA %	1.65(1.88)	2.70(1.50)	2.41(2.39)	0.48(0.52)	-1.91*(1.81*)	0.46(0.08)
ROS %	1.91(3.02)	0.67(2.38)	5.13(4.21)	0.12(0.08)	1.32(1.25)	0.17(0.92)

[a] t indicates the year when CEOs were assigned the managerial position, and T indicates the year when CEOs get turnover.

[b] Average indicates the average firm performance within a CEO tenure.

Table 3.9 Regression results of internally promoted CEO effect on promotion

Dependent variable: probability of CEO promotion		
Constant	1.13(0.32)	0.10(0.30)
ROA_{t-1}	2.46**(2.25)	
ROS_{t-1}		0.09**(2.15)
Internal	0.20(0.78)	0.08(0.36)
Internal* ROA_{t-1}	3.36(1.26)	
Internal* ROS_{t-1}		0.45(0.48)
Size	0.10(1.13)	0.13(1.49)
Type	0.63***(2.89)	0.64***(2.96)
Age	-2.18**(-2.59)	-2.07**(-2.47)
Tenure	0.91***(4.13)	0.92***(4.18)
Industry	Included	Included
Year	Included	Included
Pseudo R	0.043	0.038
Obs	3370	3364

Dependent variable is the probability of CEO political promotion. *Internal* is a dummy variable equal to 1 if the CEO is promoted from insiders and 0 otherwise. All other variables are defined the same as those in previous tables.

T-statistics, computed using the White (1980) heteroscedasticity robust standard error, are in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 4.1 Variable definitions

Variables	Definition
Compensation	
Managerial compensation (Pay)	Log of the average top three executives' compensation
Firm performance	
Return on assets (ROA)	Net income / total assets
Return on sales (ROS)	Net income/sales
Stock return (RET)	Annual stock return
Tobin's Q (Q)	Market value/replacement value [a]
Ownership structure	
Cash flow rights (Cash)	Cash flow rights held by the ultimate controlling shareholder
Excess control rights (Excess)	Difference between the control rights and cash flow rights
PSTATE	Cash flow rights of state controlled firms
PSAMB	Cash flow rights of SAMB controlled firms
PSOE	Cash flow rights of SOE controlled firms
PPRI	Cash flow rights of privately controlled firms
Firm and CEO characteristics	
Firm size (Size)	Log of total assets
Board size (Board)	Log of total directors on board
Board composition (Pond)	Independent directors/total directors
Leverage (Lev)	Total debts/total assets in book value
CEO-chair duality (Duality)	Equal to 1 if the CEO is also the chairman of the board
CEO tenure (Tenure)	Log of years the CEO has been this position
Foreign investor (For)	Equal to 1 if the firm has foreign investors

Other variables	
Industry (Industry) [b]	Equal to 1 for the specific industry
Year (Year)	Equal to 1 for the specific year

[a] Market value is measured as the sum of the market value of equity and the book value of debt; replacement value is measured using the book value of total assets.

[b] I create four dummy variables to represent the five groups of listed firms borrowed from Firth et al. (2006): industrial, commercial, public utility, property, and conglomerate (all other industries).

Table 4.2 Descriptive statistics

Variables	Mean	Median	Min	Max	Std. Dev.
Compensation					
CEO average pay (Pay)	219,939	160,000	6,666	470,6667	75,649
Firm performance					
Return on assets (ROA) %	2.26	2.64	-168.26	46.31	8.49
Return on sales (ROS) %	-0.043	0.039	-83.69	46.63	1.87
Stock return (RET) %	39.69	-3.96	-90.93	1611.78	104.68
Tobin's Q (Q)	1.16	0.96	0.13	23.44	0.76
Ownership structure					
Cash flow rights (Cash)	34.41	32.17	0.51	100	18.11
Excess control rights(Excess)[a]	6.38	0	0	70.56	9.06
Firm characteristic					
Assets (Size) millions	3940	1770	27.3	719000	17600
Board size (Board)	9.76	9	4	23	2.20
Board composition (Pond)	3.13	3	0	10	0.94
Capital structure (Lev) %	49.71	50.25	0.02	1037.51	25.87
CEO characteristic					
CEO duality (Duality)	0.11	0	0	1	0.31
CEO tenure (Tenure)	2.55	2	0.08	12.42	1.85
Panel A: Compensation based on year					
2002	131,023	95,666	6,666	1,575,308	122,442
2003	170,329	126,666	7,666	1,628,234	153,738
2004	212,776	160,379	10,266	3,210,000	213,192
2005	218,176	167,633	8,966	2,726,667	205,604
2006	253,069	196,666	12,000	3,740,000	243,939
2007	329,811	253,333	166,66	470,6667	315,655
Panel B: Compensation based on industry					

Industrial	202,353	140,333	7,200	3,486,567	209,495
Commercial	236,011	178,683	13,666	1,309,300	203,546
Public utility	245,134	202,383	11,424	1,848,030	204,141
Property	339,343	230,000	12,566	4,706,667	485,295
Conglomerate	231,535	185,870	6,666	1,707,057	194,260
Panel C: Compensation based on ownership					
SAMB	177,740	129,333	9,246	1,225,333	160,800
SOE	241,229	190,400	7,200	4,706,667	212,011
PRIVATE	211,333	146,966	6,666	1,792,933	210,226

The figures in Panel A are the average of six years from 2002 to 2007.

The figures for all the value variables are in China's currency, RMB.

[a] Excess control is defined as the difference between the control rights and cash flow rights of the ultimate controlling shareholder, which is consistent with Claessens et al. (2002). This information is only available in the listed firms' annual reports since 2002.

Table 4.3 Test of differences in means and medians based on ownership

SAMB vs. SOE	SAMB vs. PRIVATE	SOE vs. PRIVATE
-6.52*** [a]	-3.82*** [a]	4.86*** [a]
-9.34*** [b]	-3.81*** [b]	-7.17*** [b]

*, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

[a] *t*-value from the *t*-test of differences in means.

[b] *z*-value from the Mann-Whitney *U*-test of differences in medians.

Table 4.4 Pearson correlation matrix: key variables

	ROA	ROS	RET	Q	Size	Lev	Board	Pond
ROA	1							
ROS	0.3005	1						
RET	0.1939	0.0401	1					
Q	-0.0713	-0.0494	0.5153	1				
Size	0.2443	0.0842	0.1836	-0.1651	1			
Lev	-0.5270	-0.1539	0.0291	0.3044	0.0790	1		
Board	0.0596	0.0296	-0.0298	-0.0768	0.2126	0.0003	1	
Pond	0.0272	0.0077	0.1798	0.0894	0.0055	0.0536	-0.2555	1

ROA is firm return on assets (net income divided by total assets); ROS is firm return on sales (net income divided by total sales). RET is firm stock return; Q is defined as the ratio of market value to firm replacement value; Size is log of total firm assets; Lev is the ratio of total debts to total assets; Board is the log of total number of directors on the boards; Pond is the proportion of independent directors on the board/ratio of the number of independent directors to total number of directors.

Table 4.5 Regression results of cash flow rights effects on CEO pay

Dependent variable: managerial compensation				
Constant	6.098***(17.10)	5.450***(16.83)	7.388***(16.94)	5.022***(16.10)
Cash	-0.006**(-2.32)	-0.007***(-2.71)	-0.013***(-2.74)	-0.008***(-2.05)
ROA_{t-1}	1.369***(3.79)			
ROS_{t-1}		0.053**(2.04)		
RET_{t-1}			0.175***(6.36)	
Q_{t-1}				0.259**(2.07)
Cash*ROA_{t-1}	0.169*(1.94)			
Cash*ROS_{t-1}		0.052**(2.03)		
Cash*RET_{t-1}			0.051***(4.38)	
Cash*Q_{t-1}				0.012*(1.69)
Size	0.246***(13.97)	0.274***(18.18)	0.190***(10.41)	0.297***(19.07)
Board	0.198***(3.68)	0.187***(3.50)	0.241***(4.44)	0.185***(3.57)
Pond	0.763***(4.61)	0.760***(4.55)	0.441**(2.43)	0.758***(4.45)
Lev	0.091(1.36)	0.077(1.24)	-0.081*(-1.70)	-0.144***(-3.06)
Duality	0.098***(2.81)	0.091**(2.57)	0.089**(2.22)	0.081**(2.44)
Tenure	0.077***(6.25)	0.086***(7.24)	0.068***(4.47)	0.095***(7.40)
For	0.377***(9.66)	0.364***(9.07)	0.428***(9.99)	0.349***(8.72)
Industry	Included	Included	Included	Included
Year	Included	Included	Included	Included
Adjusted R^2	0.2012	0.1829	0.1215	0.1775
Obs	3286	3286	3286	3286

Dependent variable is managerial compensation. Firm performance is measured by four variables: ROA, ROS, RET and Q. I apply the industry-adjusted firm performance in the regressions. Cash is the cash flow rights of the ultimate controlling shareholder. Size, Board, Pond, Lev, Tenure, Duality and For are measured as in Table 1.

The *t*-statistics, computed using the White (1980) heteroskedasticity robust standard error, are given in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 4.6 Regression results of cash flow rights of state and non-state controlled firms

Dependent variable: managerial compensation				
Constant	6.375***(15.51)	7.292***(11.90)	5.957***(14.89)	5.015***(16.23)
PSTATE	-0.007***(-8.73)	-0.007***(-7.90)	-0.005***(-6.02)	-0.005***(-5.77)
ROA_{t-1}	4.689***(4.25)			
ROS_{t-1}		3.049***(4.26)		
RET_{t-1}			0.424***(3.32)	
Q_{t-1}				0.384**(2.26)
PSTATE*ROA_{t-1}	0.073*(1.83)			
PSTATE*ROS_{t-1}		0.112***(3.82)		
PSTATE*RET_{t-1}			-0.004(-1.17)	
PSTATE*Q_{t-1}				-0.002(-0.03)
Size	0.236***(11.63)	0.185***(5.82)	0.262***(13.53)	0.315***(21.86)
Board	0.226***(3.75)	0.190***(2.74)	0.233***(3.60)	0.215***(3.55)
Pond	0.582***(2.96)	0.759***(3.27)	0.484**(2.31)	0.419**(2.10)
Lev	0.145*(1.69)	0.577***(3.14)	-0.144***(-2.78)	-0.226***(-4.53)
Duality	0.082**(2.05)	0.089*(1.93)	0.064(1.48)	0.060(1.51)
Tenure	0.061***(4.38)	0.058***(3.64)	0.073***(5.23)	0.075***(5.68)
For	0.385***(8.45)	0.445***(7.86)	0.381***(7.89)	0.345***(7.68)
Industry	Included	Included	Included	Included
Year	Included	Included	Included	Included
Adjust R^2	0.2326	0.2203	0.2165	0.2321
Obs	3286	3286	3286	3286

Dependent variable is managerial compensation. Cash is the cash flow rights of the ultimate controlling shareholder. PSTATE represents the cash flow rights of state controlled firms. All other variables are defined the same as those in previous tables.

The *t*-statistics in parentheses are computed using the White (1980) heteroscedasticity robust standard error. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 4.7 Regression results of cash flow rights across three types of firms

Dependent variable: managerial compensation				
Constant	6.382***(17.69)	5.678***(16.70)	5.752***(15.85)	5.027***(16.12)
PSTATE	-0.006***(-7.19)	-0.006***(-8.10)	-0.005***(-4.93)	-0.006**(-2.13)
ROA_{t-1}	8.306***(2.75)			
ROS_{t-1}		0.756(1.23)		
RET_{t-1}			0.549(1.45)	
Q_{t-1}				0.718*(1.76)
PSAMB*ROA_{t-1}	0.130(1.57)			
PSOE*ROA_{t-1}	0.088**(2.49)			
PPRI*ROA_{t-1}	0.207(1.28)			
PSAMB*ROS_{t-1}		0.012(0.56)		
PSOE*ROS_{t-1}		0.003**(2.32)		
PPRI*ROS_{t-1}		0.019(0.73)		
PSAMB*RET_{t-1}			0.006(0.78)	
PSOE*RET_{t-1}			0.006(0.78)	
PPRI*RET_{t-1}			0.007*(1.76)	
PSAMB*Q_{t-1}				0.001(0.04)
PSOE*Q_{t-1}				0.005**(2.25)
PPRI*Q_{t-1}				0.010**(2.33)
Size	0.234***(13.20)	0.274***(16.86)	0.270***(15.35)	0.316***(21.53)
Board	0.215***(3.49)	0.206***(3.36)	0.228***(3.52)	0.226***(3.61)
Pond	0.589***(2.94)	0.552***(2.79)	0.476**(2.25)	0.362*(1.80)
Lev	0.232**(2.08)	0.023(0.21)	-0.141**(-2.50)	-0.238**(-2.27)
Duality	0.076*(1.89)	0.070*(1.74)	0.053(1.24)	0.061(1.50)
Tenure	0.057***(4.03)	0.075***(5.47)	0.073***(5.09)	0.075***(5.64)
For	0.377***(8.26)	0.365***(8.06)	0.377***(7.78)	0.345***(7.62)

Industry	Included	Included	Included	Included
Year	Included	Included	Included	Included
Adjusted R^2	0.2041	0.2173	0.2160	0.2293
Obs	3286	3286	3286	3286

PSAMB (PSOE, PPRI) represents the cash flow rights of each type of controlling shareholder. All the other variables are defined the same as those in previous tables.

The *t*-statistics in parentheses are computed using the White (1980) heteroscedasticity robust standard error. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 4.8 Regression results of excess control rights effects on CEO pay

Dependent variable: managerial compensation				
Constant	6.222***(15.82)	6.867***(13.16)	6.090***(15.18)	5.203***(17.16)
Excess	0.003**(2.14)	0.004**(2.42)	0.004**(2.44)	0.002(0.60)
ROA_{t-1}	3.397***(2.72)			
ROS_{t-1}		2.746***(3.70)		
RET_{t-1}			0.480***(2.95)	
Q_{t-1}				0.462**(2.32)
Excess*ROA_{t-1}	-0.049(-0.75)			
Excess*ROS_{t-1}		-0.135***(-3.27)		
Excess*RET_{t-1}			-0.016*(-1.82)	
Excess*Q_{t-1}				-0.007(-0.78)
Size	0.228***(11.52)	0.186***(6.55)	0.242***(13.03)	0.294***(21.15)
Board	0.263***(4.27)	0.300***(4.32)	0.249***(3.86)	0.242***(4.00)
Pond	0.653***(3.31)	0.680***(3.11)	0.576***(2.74)	0.477**(2.35)
Lev	0.086(1.09)	0.423***(2.70)	-0.124**(-2.44)	-0.202***(-4.00)
Duality	0.108***(2.62)	0.135***(2.92)	0.084*(1.95)	0.080**(2.00)
Tenure	0.071***(5.15)	0.701***(4.58)	0.079***(5.68)	0.080***(5.95)
For	0.392***(8.57)	0.415***(8.04)	0.400***(8.21)	0.363***(8.05)
Industry	Included	Included	Included	Included
Year	Included	Included	Included	Included
Adjusted R^2	0.2225	0.2137	0.2081	0.2252
Obs	3286	3286	3286	3286

Dependent variable is managerial compensation. Firm performance is measured by four variables: ROA, ROS, RET and Q. I apply the industry-adjusted firm performance in the regressions. Excess is the excess control rights of the ultimate controlling shareholder. Size, Board, Pond, Lev, Tenure, Duality and For are measured as in Table 1.

The *t*-statistics, computed using the White (1980) heteroskedasticity robust standard error, are given in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 4.9 Regression results of excess control rights of state and non-state controlled firms

Dependent variable: managerial compensation				
Constant	6.249***(15.59)	6.379***(14.23)	6.097***(15.16)	5.156***(16.83)
Excess	0.003**(2.01)	0.003**(2.21)	0.003**(2.29)	0.003*(1.65)
ROA_{t-1}	3.311***(3.35)			
ROS_{t-1}		1.645***(3.39)		
RET_{t-1}			0.433***(3.16)	
Q_{t-1}				0.459***(2.79)
PSTATE*ROA_{t-1}	0.060(1.08)			
PSTATE*ROS_{t-1}		0.102***(3.10)		
PSTATE*RET_{t-1}			0.013*(1.77)	
PSTATE*Q_{t-1}				0.005(0.82)
Size	0.228***(11.55)	0.218***(9.47)	0.242***(12.90)	0.295***(20.72)
Board	0.259***(4.26)	0.260***(4.10)	0.252***(3.90)	0.244***(4.03)
Pond	0.659***(3.34)	0.759***(3.61)	0.588***(2.80)	0.474**(2.35)
Lev	0.081(1.06)	0.160(1.50)	-0.126**(-2.51)	-0.206***(-4.04)
Duality	0.106***(2.62)	0.115***(2.70)	0.082*(1.91)	0.078**(1.96)
Tenure	0.071***(5.12)	0.076***(5.37)	0.078***(5.51)	0.079***(5.91)
For	0.395***(8.57)	0.419***(8.36)	0.399***(8.21)	0.363***(8.05)
Industry	Included	Included	Included	Included
Year	Included	Included	Included	Included
Adjust R^2	0.2225	0.1543	0.2095	0.2246
Obs	3286	3286	3286	3286

Dependent variable is managerial compensation. Excess is the excess control rights of the ultimate controlling shareholder. PSAMB (PSOE, PPRI) represents the excess control rights of each type of controlling shareholder. All other variables are defined the same as those in previous tables.

The *t*-statistics in parentheses are computed using the White (1980) heteroscedasticity robust standard error. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 4.10 Regression results of excess control rights across three types of firms

Dependent variable: managerial compensation				
Constant	6.216***(15.81)	6.399***(14.15)	6.092***(15.20)	5.245***(17.23)
Excess	0.003**(2.07)	0.003**(2.28)	0.004**(2.45)	0.002**(2.47)
ROA_{t-1}	3.362***(2.69)			
ROS_{t-1}		1.949***(3.13)		
RET_{t-1}			0.482***(2.95)	
Q_{t-1}				0.478**(2.33)
PSAMB*ROA_{t-1}	-0.060(-0.62)			
PSOE*ROA_{t-1}	-0.028(-0.40)			
PPRI*ROA_{t-1}	-0.064(-0.93)			
PSAMB*ROS_{t-1}		-0.076(-1.52)		
PSOE*ROS_{t-1}		-0.052(-1.49)		
PPRI*ROS_{t-1}		-0.123***(-2.91)		
PSAMB*RET_{t-1}			-0.012(-0.65)	
PSOE*RET_{t-1}			-0.017(-1.56)	
PPRI*RET_{t-1}			-0.016*(-1.80)	
PSAMB*Q_{t-1}				-0.043(-1.07)
PSOE*Q_{t-1}				-0.012**(-2.10)
PPRI*Q_{t-1}				-0.007*(-1.79)
Size	0.229***(11.55)	0.215***(8.92)	0.242***(13.03)	0.293***(21.12)
Board	0.262***(4.25)	0.281***(4.29)	0.249***(3.86)	0.243***(4.02)
Pond	0.653***(3.31)	0.705***(3.39)	0.576***(2.74)	0.436**(2.14)
Lev	0.078(0.98)	0.200*(1.66)	-0.123**(-2.42)	-0.198***(-3.96)
Duality	0.107***(2.61)	0.123***(2.84)	0.084*(1.95)	0.085**(2.13)
Tenure	0.071***(5.15)	0.075***(5.24)	0.079***(5.68)	0.080***(5.96)
For	0.392***(8.55)	0.404***(8.26)	0.401***(8.21)	0.367***(8.14)
Industry	Included	Included	Included	Included

Year	Included	Included	Included	Included
Adjusted R^2	0.2227	0.1434	0.2080	0.2277
Obs	3286	3286	3286	3286

Dependent variable is managerial compensation. PSAMB (PSOE, PPRI) represents the excess control rights of each type of controlling shareholder. All the other variables are defined the same as those in previous tables.

The *t*-statistics in parentheses are computed using the White (1980) heteroscedasticity robust standard error. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.