MANAGERIAL POWER THEORY, TOURNAMENT THEORY, AND EXECUTIVE PAY IN CHINA

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Abstract

In this paper, we test two models of executive pay that have not received much attention in Chinese listed companies: managerial power theory and tournament theory. We find that structural power (executive share ownership) and prestige power (executive education) significantly positively related to executive remuneration, and political power (Executive/Party Secretary duality) positively and weakly related to executive remuneration. We also find that executive directors' organisation levels (as reflected in executive pay levels for the three highest paid executives) are positively related to executive remuneration and the relationship is convex, and negatively related to the interaction between executive directors' organisation levels and government ownership. Tournament prize (executive pay) is not related to the number of contestants in the tournament and is negatively related to the interaction term between number of contestants and government ownership. Finally, earnings per share (EPS) as a measure of firm performance is positively related to the pay gap between contestants and negatively related to the interaction term between pay gap and government ownership. We explore the implications of these findings for reforming corporate governance in China.

Key words:

Managerial power theory

Tournament theory

Executive pay

Organisation levels

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1. INTRODUCTION

Interest in researching executive pay in the broader context of corporate governance continues unabated. Despite appeals to experiment with new theories (Gomez-Mejia, 1994; Barkema and Gomez-Mejia, 1998), research in this area continues to be dominated by tests of agency theory in advanced capitalist economies.

This paper departs from previous literature in three ways. First, it tests two theories of executive's pay that have received much less attention than agency theory: managerial power theory and tournament theory. Second, it draws upon empirical data from China, a major economy in a transitional stage from socialism to capitalism with high levels of government ownership. Third, the paper explores the implications of some characteristics of the Chinese society: its collectivist culture, the harmony and equality associated with its socialist politics, pay capping by government, political connections, and the importance of political promotions. Concerning managerial power theory, Chinese-specific characteristics lead us to argue that executive share ownership proxies structural power and that impact of political power exerted by the Chinese government and the Chinese Communist Party (CCP) on executive remuneration is likely to be significant. In the case of tournament theory, high government ownership and Chinese-specific characteristics lead us to revise the strength of tournament cash prizes compared to non-cash incentives. An added feature of our study is that previous tournament theory studies of China (e.g. Lin and Lu, 2009; Kato and Long, 2010) use the average pay of the three highest paid executives, because until recently many companies did not disclose individual executive pay. In contrast, we use actual pay for each of the three highest paid executives for all disclosing Chinese listed companies, 1999-2009. In the section containing the research hypotheses we spell out more clearly the distinctive contribution of this paper.

We find structural power (executive share ownership) and prestige power (executive education) to be strongly positively related to executive pay, and political power (CEO/Party Secretary duality) to be positively but weakly related to executive pay. We also find that executive directors' organisation levels as reflected in executive pay levels are

positively related to executive pay and the relationship is convex, and negatively related to the interaction between an executive directors' organizational level and government ownership. Specifically, we focus on the three highest paid executive directors pay levels which we term as "executive directors` organizational level" throughout the paper.

Tournament prize (executive pay) is not significantly related to the number of contestants in the tournament and is strongly negatively related to the interaction term between the number of contestants and government ownership. Finally, EPS is positively related to the pay gap between contestants and negatively related to the interaction term between pay gap and government ownership.

The remainder of the paper is organized as follows. Section II provides an overview of the literature on managerial power and tournament theories and develops the research hypotheses. Section III explains the models we use for empirical testing, our data selection, and the proxies for the dependent and independent variables. Section IV presents the descriptive statistics and initial results. Section V contains the results of multivariate analysis. Finally, section VI provides a discussion of our main results and a conclusion.

2. MOTIVATION AND DEVELOPMENT OF HYPOTHESES

2.1. Managerial Power Theory

According to managerialists, the missing link between executive pay and firm performance is power imbalance between executives and shareholders (Tosi et al., 1999). Grabke-Rundell and Gomez-Mejia (2002) argue that although agency theory implicitly acknowledges the existence of power in the relationship between executives and shareholders because executives can pursue their self-interest to obtain high pay, agency theory research tests financial rather than behavioural hypotheses. They propose a managerial power model which draws on resource dependency theory and Finkelstein's (1992) work. Lambert et al. (1993) define power as the ability of executives to influence pay decisions made by the board of directors or the remuneration committee.

Finkelstein (1992) identifies four types of executive power: structural power, ownership power, expert power and prestige power. Structural power is related to formal positions within an organization and increases as executives move up the hierarchy. The greater an

executive's structural power, the greater is his/her control over colleagues' actions. Grabke-Rundell and Gomez-Mejia (2002) propose that CEOs' structural power over internal directors can allow them to pursue self-interest, including obtaining large pay. By buying firm shares, executives can increase their ownership power, influence board decisions, their performance criteria, and their remuneration levels (Lambert et al., 1993). Finkelstein (1992) argues that prestige power is related to a manager's ability to absorb uncertainty from the institutional environment, and emphasizes the role of outside directorships and education as key components of prestige. Because of unavailability of data on expert power for Chinese companies, we consider only structural power (executive share ownership), prestige power (level of executive education), and political power (executive connection to government/ party).

The Chinese government allocates shares to CEOs based on hierarchical positions (Tenev et al., 2002). Although Chinese executive ownership is very low (Wei, 2000; Lin et al., 2002; Zhang, 2003), it is an important indicator of structural power (Li, et al. 2007) which could result in executives receiving more pay. This leads to the following hypothesis:

H1a: The level of executive remuneration is positively related to the level of executive structural power.

The Chinese government often retains sufficient shares to maintain voting control in listed companies. Although since the 1980s the Chinese Communist Party (CCP) and government have reduced their control over operational issues in listed companies, the government retains ultimate control over mergers and acquisitions, the disposal of shares and assets, the appointment, removal, performance evaluation, and remuneration of CEOs/Chairmen (Fan et al., 2007). In companies with large government ownership, control and decision rights are shared between the Secretary of the CCP's committee at the company, the Chairman and the CEO. As the government is led by the CCP, eventually the Party has ultimate control over listed companies with large state ownership. For example, the Party Secretary and the Chairman are consulted about the appointment of the CEO ('Regulations of Appointing and Dismissing Top Management', State-owned Assets Supervision and Administration Committee of the State Council (SASAC), Shenzhen Branch). If the Chairman and CEO are members of the CCP, they have to follow the orders of the Party Secretary and sometimes the Party Secretary holds the post of Chairman or CEO. When an

executive also serves as a Party Secretary, his/her power becomes stronger, creating scope to pursue self-interest such as large pay. Thus:

H1b: the level of executive remuneration is positively related to the level of executive political power.

Because of unavailability of data on the number of outside directorships and elite education, we use level of education as a proxy for executive prestige power. This leads to the following hypothesis:

H1c: the level of executive remuneration is positively related to the level of executive prestige power.

One novel feature of this study is that two of the key variables of managerial power theory, namely political power and prestige power have not been tested previously.

2.2. Tournament Theory

The gap between CEO pay and that of the next level below is typically very large (Gomez-Mejia, 1994), and is not explained convincingly by managerial marginal product arguments (O'Reilly et al., 1988). Lazear and Rosen (1981) propose that this disparity can be explained via tournament theory according to which contestants in the labour market are paid prizes that depend on the rank order of the contestants. They suggest that those vying for the position of CEO could be viewed as competing in a tournament, where prizes are fixed in advance and tournament participants expend effort to increase the likelihood of winning a prize where what matters is not the absolute level of performance, but how well one does in relation to other competitors (Conyon et al., 2001). Rosen (1986) argues that top prizes of a disproportionate size are theoretically necessary to motivate tournament survivors so that they do not rest on past achievements as they enter the final contest. The use of contests in the design of remuneration packages is particularly attractive when monitoring costs are substantial. Tournament theory predicts first, a convex relationship between executive remuneration and organizational level; second, the prize (gap) and the number of contestants are positively correlated; and third, corporate performance is positively correlated with executive wage dispersion (O'Reilly et al., 1988; Lambert et al., 1993; Eriksson, 1999).

Since the 1980s China has gradually moved away from the central planning system towards increased marketization although the economy is still largely controlled by government. For executives working in government-controlled companies, promotion within the CCP/Government hierarchy with life-long benefits, including job security, housing subsidies, pension and medical treatment, are important. Hence, compared to western companies, we expect that the tournament cash incentive is weaker in Chinese companies. First, the existence of a strong non-cash incentive (political promotion) may make the tournament cash incentive weaker. Second, CEO remuneration in listed companies controlled by government is usually capped at multiples (between 3-15 times) of worker's wage in a company (Rui et al., 2003) which makes tournament prize relatively less attractive. Culturally, China is a society with a high level of collectivism (Hofstede, 2001), one feature of which is greater emphasis on equality. Politically, China is a socialist country that emphasizes social 'harmony'. Therefore, there is public expectation of 'reasonable' but not large, pay dispersion between managerial levels.

Given government and CCP control over board decisions, including hiring, promoting and dismissing top management, contestant's output depends not only on the contestant's effort level μ and the luck component in Eriksson (1999)'s tournament model, but also on the contestant's political connection χ with the government. This suggests that contestants could build stronger political connections with the government and win the contest without exerting more effort than other contestants, further rendering tournament incentives weaker in Chinese companies with high state ownership.

Rosen (1986) models internal wage schemes as sequential elimination tournaments in which managers compete against one another in a related series of tournaments. In a sequential elimination tournament, agents compete against each other at a given organizational level. On the basis of their relative performance, the winning (high-performance) agents are then promoted to the next organizational level, where they again compete against each other for further promotion, and so forth. Motivation in the tournament is provided by the possibility of further jobs. The value of winning is not only the prize at that level but also the possibility to compete for larger prizes at higher levels. However, the scope for competition in future rounds diminishes as competitors move up the organizational hierarchy. One substitute for the loss of the option to compete further is

higher current remuneration. Therefore, tournament theory predicts that remuneration is an increasing function of organizational level (Lambert et al., 1993). This is supported by the findings of Lin et al (2009) for Chinese companies who nonetheless do not test whether or not the relationship between executive pay gap and corporate hierarchy is convex as predicted by tournament theory. Eriksson (1999) and Conyon et al. (2001) report a stable convex relationship between pay and job levels which is relatively robust with respect to differences in job levels. It is not clear, however, that for Chinese companies this convex relationship will obtain, thus leading to the following hypotheses:

H2a: The pay difference between HPE1 and HPE2 is bigger than the pay difference between HPE2 and HPE3, but the difference between the two is not a convex relationship.

H2b: Higher state ownership will further reduce the pay difference between organization levels.

With HPE = highest paid executive, and 1, 2, and 3 indicating highest, second highest, and third highest respectively.

O'Reilly et al. (1988) propose that in a tournament the size of the prize reflects the number of competitors; the greater the number of competitors, the lower the chance of winning, the larger the prize, other things being equal. They define tournament participants as Vice Presidents, each of them giving up some of the expected salary associated with his or her marginal product with such excess becoming part of the lottery prize or the CEO's salary (Main et al., 1993; Eriksson, 1999; Conyon et al., 2001). In China, Lin et al (2009) find that the pay gap (between CEO or Chairman and the average pay of Vice-Chief Managers) increases with the number of tournament participants, and Kato and Long (2010) report that executive pay gap increases with the number of contestants, especially in companies with lower government control; thus:

H3a: The executive pay gap is positively related to the number of contestants in Chinese companies, but the relationship is weak.

H3b: Higher state ownership further weakens the relationship between executive pay gap and number of contestants.

There are also implications for the effect of wage dispersion on corporate performance. Although Bloom (1999) argues that a wide spread between pay levels creates a positive pay-performance leading to higher future performance, empirical results are mixed. Eriksson (1999) finds that the pay dispersion has a positive effect on performance, Main et al. (1993) report a positive effect on return on assets but no effect on shareholders return, and Conyon et al. (2001) find that wage dispersion does not have a robust positive effect on corporate performance. In China, Lin and Lu (2009) find that firm performance (measured by return on equity and net cash flows from operating assets) is positively related to executive pay gap; thus:

H4a: Corporate performance is positively related to the executive pay gap.

H4b: Corporate performance is positively related to executive pay gap especially in less government-controlled companies.

Although Lin et al. (2009), Lin and Lu (2009) and Kato and Long (2010) have conducted some empirical testing of tournament theory on Chinese listed companies, the present study differs significantly from these studies. First, all the three studies classify managers into groups; Lin and Lu (2009) and Kato and Long (2010) did not compare the pay gaps among different executive levels because they only had data on two groups of managers: the top three highest paid directors and the remaining senior management members, Lin et al. (2009) compare the *average pay gap* among the tiers, whereas we compare individual HPE pay. Second, neither study tests whether or not the relationship between corporate hierarchy and pay gap is convex, whereas this study does. Third, all three studies lump together executive and non-executive directors, in contrast, we focus on *executive* pay, because in our view the key arguments of managerial power theory and tournament theory pertains to executives who *make* decisions, rather than to non-executive directors who are supposed to only offer advice and board supervision. Legally, according to Article 52 of the Company Law of China, members of the board of supervisors cannot be treated as executives. Fourth, our third hypothesis concerning the relationship between executive pay dispersion and firm performance was not tested by Lin et al (2009), and although Kato and Long (2010) tested this hypothesis their data focused on between-group dispersion rather than between individual HPE's dispersion and they do not report any tests for endogeneity as we do.

3. RESEARCH METHOD

3.1. Models:

Managerial power model

The predicted relationship between managerial power and executive remuneration in Chinese listed companies is stated in H1a, H1b & H1c: the level of executive remuneration is positively related to the level of executive structural (executive ownership), political and prestige power respectively. The regression equation takes the following form:

$$Log(W) = \beta_0 + \beta_1 OWN + \beta_2 OWN^2 + \beta_3 OWN^3 + \beta_4 PARTY + \beta_5 EDUCATION + control + \varepsilon \quad (1)$$

Where W = executive remuneration;

OWN = the percentage of outstanding shares owned by the each of three highest paid executives;

$PARTY$ = 1 if the executive is the Party Secretary, 0 otherwise.

EDUCATION = level of executive education

$control$ = control variables;

ε = error term.

Equation (1) considers the non-linear forms of the relation between executive compensation and executive ownership (Morck et al., 1988; McConnell and Servaes, 1990, 1995, Kole, 1995 and Short and Keasey 1999). The non-linear analysis follows from two possible effects which influence the relation between firm performance and managerial ownership: alignment and entrenchment. Previous studies (see above) find that at low and high levels, managerial ownership is positively related to firm performance (alignment effect); at medium level, managerial ownership is negatively related to firm performance (entrenchment effect). We test whether similar non-linear relationships exist for our sample.

Tournament model

H2a tests for a bigger pay difference between HPE1 and HPE2 compared to between HPE2 and HPE3 without the pay difference being convex; and H2b predicts a weaker pay difference in companies with significant government ownership. To test these hypotheses we estimate the following model (see Lambert et al., 1993; Conyon et al., 2001):

$$Log(W) = \beta_0 + \beta_1 level1 + \beta_2 level2 + \beta_3 level1 * gov + \beta_4 level2 * gov + control + \varepsilon \quad (2)$$

Where *level*1 = 1 if the executive is the HPE1 and zero otherwise, *level*2 = 1 if the director is HPE2 and zero otherwise. The interaction terms (*level*1**gov* and *level*2**gov*) test the effect of political influence on remuneration structure where *gov* proxies government ownership (Sun et al., 2002). Government ownership in our data includes both state share and state-owned legal person share.

The β_2 coefficient is the average change in log remuneration between HPE2 and HPE3 with the latter as the excluded category. ($\beta_1 - \beta_2$) is the average change in log remuneration between HPE1 and HPE2. For the function to be convex, $\beta_2 \geq 0$ and $(\beta_1 - \beta_2) \geq \beta_2$ or that $(\beta_1 - 2\beta_2) \geq 0$. With a convex function, remuneration differences across adjacent organizational levels are non-decreasing (Lambert et al., 1993). The 'distance' between organizational levels has a critical impact on whether the remuneration function is convex or concave. In our sample, the three HPEs occupy the top three company hierarchical promotion positions, hence the function describing their remuneration levels provides insights into the company's incentive structure.

We test H3a, which predicts that pay differences between job levels of executives increase with the number of competitors but the relationship is weak, and H3b, which predicts an even weaker relationship in companies with strong government ownership (Main et al., 1993; Eriksson, 1999; Conyon et al., 2001) using:

$$Log(W_1) - Log(W_A) = \beta_0 + \beta_1(Con) + control + \varepsilon \qquad (3)$$

Where W_1 is the remuneration of HPE1 and W_A is the average remuneration of HPE2 and HPE3. We include the interaction term *Con*gov*, where *Con* is the number of contestants (measured by the number of board of directors minus the number of independent directors) and *gov* is government/state ownership, and set $WD = Log(W_1) - Log(W_A)$ to get:

$$WD = \beta_0 + \beta_1(Con) + \beta_2 Con^* gov + control + \varepsilon \qquad (3a)$$

H4a predicts that corporate performance is positively related with executive pay gap and H4b predicts this relationship to be stronger in companies with smaller government ownership. We estimate the model (Main et al., 1993; Eriksson, 1999; Conyon et al., 2001):

$$P = \beta_0 + \beta_1(Pay_D) + control + \varepsilon \quad (4)$$

where P = firm performance;

Pay_D = the pay gap between HPE1 and other contestants.

We rewrite equation (4) to include an interaction term between the pay gap and government ownership:

$$P = \beta_0 + \beta_1(Pay_D) + \beta_2(Pay_D * gov) + control + \varepsilon \quad (4a)$$

H1, H2, H3, and H4 are tested using both OLS and Robust regressions. When using panel data, the residuals may be correlated across firms or across time so that OLS standard errors can be non-independent and biased (Petersen, 2009). As our data is unbalanced panel data (see later), the same companies may appear over time, therefore the OLS standard errors could be affected by lack of independence. According to Petersen (2009), the following methods were used to deal with possible biased OLS standard errors. First, year dummies were included in the regression analysis to control for time effect. Second, robust regression was employed with standard errors clustered by firm to control for firm effect.

3.2. Sample Selection

The sample had to satisfy a number of conditions. Financial service companies were excluded because of their different characteristics. Companies had to disclose the remuneration for each of the three highest paid executives. Only companies which disclosed the remuneration for each of the three HPEs are included. Following the China Securities Regulation Committee (CSRC) requirement that listed companies should disclose remunerations for individual executives, most companies complied for 1998 but many elected not to disclose this data after 1998. The remuneration disclosure improved after 2002, possibly in response to the 2001 *Code of Corporate Governance for Listed Companies in China* issued by the CSRC. The sample selection procedure started with 432 companies listed on the Shanghai or the Shenzhen Stock Exchanges at the end of 1998 on the A-share stock market (similar to ordinary equity shares except that they are available only to Chinese citizens and domestic institutions). The data was downloaded from the China Securities Market & Accounting Research (CSMAR) database. By the end of 2009,

the number of companies with disclosure of individual executives' remuneration, managerial ownership and manager characteristics was 1458.

This sample is unique in two ways. First, it contains the individual executive's remuneration for the three HPEs, whereas in other Chinese studies (Chen, 2006; Lin and Liu, 2009; Kato and Long, 2010) only the aggregate remuneration is used. Second, it includes all Chinese listed companies with individual executives' remuneration data from 1999 to 2009, a complete dataset compared to previous studies (Firth et al., 2006; Li et al., 2007; Kato and Long, 2010).

3.3. Variable Description and Proxies

Remuneration variables: Chinese listed companies disclose only cash remuneration without breaking it into salary, bonus and allowances. In this study, the level of executive's pay is the cash pay for each of HPE1, HPE2), and HPE3.

Director's ownership: this is the percentage of shares held by each of HPE1, HPE2, and HPE3 (see Himmelberg et al., 1999; McConnell and Servaes; 1990). Executives' family ownership data is unavailable unlike in the studies by Morck et al. (1988) and Short and Keasey (1999).

Board composition: This is typically proxied using inside/outside (executive/non-executive) directors, independent/interdependent directors and affiliated directors. Inside directors are members of a firm's management, while outside or non-executive directors are non-management members of the board (Boyd, 1994). The ability of the inside/outside distinction to capture the independence of outside directors has been questioned, hence some studies classify directors into insiders, affiliated, and independent directors (Daily and Dalton, 1994; Denis and Sarin, 1999). Affiliated directors are those who have substantial business relations with the firm, who are related to insiders, and who are former employees. Independent outsiders are neither insiders nor affiliated outsiders. In China, affiliated directors represent the sponsor enterprise of the company, whereas independent directors are not currently employed by the focal company or its affiliated companies. Tian and Lau (2001) argue that the distinction between independent and affiliated directors is meaningful because it highlights the differences among directors in terms of motivation, firm-specific knowledge, information advantage and interpersonal relationship with executives.

Affiliated directors represent the state or legal/institutional shareholders and provide financial, legal or consulting services to the listed company or its subsidiaries (Fung et al., 2003). The SEC provides guidelines for determining directors' independence which excludes directors employed by the firm in the previous five years, those with blood or marriage relations to firm top executives, and those who have affiliations with the firm as creditors, suppliers or bankers. In this study we use executives/affiliated directors and independent directors.

Board leadership structure: We proxy board leadership structure using two dummies: the CEO or Deputy CEO being the Chairman or Deputy Chairman is coded 1, and 0 otherwise[1] (Finkelstein and D'Aveni, 1994; Boyd, 1995), and the executive being the Party Secretary/deputy Party Secretary 1 and 0 otherwise.

Board size: proxied as the number of members of the board of directors on the annual meeting date during each fiscal year (Yermack, 1996).

Education: this is the level of executive education (1=technical secondary school and below, 2=associate degree, 3=bachelor, 4=Master, 5=PhD, 6=other).

Firm performance: We use ROA (return on assets) as the ratio of net income to the book value of the firm's total assets; earnings per share (EPS); and Tobin's Q = (market value of firm)/(replacement cost of assets).

Remuneration contracts use earnings-based incentives to shield managers from uncontrollable market-wide risk (Sloan, 1993) and to filter out unrealized gains and losses (Leone et al., 2006), but ROA conveys little information about economic rates of return (e.g. Fisher and McGowan, 1983). Mehran (1995) argues that stock returns as a proxy for firm performance is appropriate for all-equity firms. Tobin's Q is a better proxy for growth opportunities (Lang and Stulz, 1994; Chung and Pruitt, 1996; Yermack, 1996). Himmelberg et al. (1999) measure the market value of the firm as the total of the market value of common equity (*MVE*), plus the estimated market value of preferred stock (*PS)*, roughly estimated as ten times preferred dividends, plus the book value of total liabilities

[1] Duality in this paper includes CEO/Chair duality, CEO/deputy Chair duality, deputy CEO/Chair duality and deputy CEO/deputy Chair duality since the data does not differentiate CEO/deputy CEO or Chair/deputy Chair in the coding.

(*DEBT*), and the replacement value of total assets (TA) is measured by their book value; thus Tobin's Q is approximated by:

$$Q = \frac{MVE + PS + DEBT}{TA}$$

Control variables: We control for firm size, ownership, manager specific characteristics, location, industrial classification, and year of initial public offering (IPO). Firm size is proxied by logarithm of sales (see Core et al., 1999; Ezzamel and Watson, 2002) and logarithm of book value of total assets (Mehran, 1995; Firth et al., 2006). As living expenses vary significantly across areas, the average pay level in big cities is higher than in inland areas; hence we dummy for company location: 1 if the company is located in Beijing, Shanghai or big coastal cities in the South-East and 0 otherwise. We use industry dummies to capture variations in CEO remuneration across industries (Firth et al., 2006).

Firm's growth potential, size, CEO age, CEO experience, and probability of a founder-CEO may vary with firm age (Chung and Pruitt, 1996). We proxy firm age using year of IPO (the number of years since initial public offering), and manager-specific characteristics using age, gender and tenure for each of HPE1, HPE2, and HPE3. Age proxies an executive's 'horizon problem': agency conflict occurs when the executive's horizon is shorter than the firm's investment horizon (Ryan Jr. and Wiggins III, 2001). A younger manager might want to build personal reputation to enhance his/her value in the labour market whereas an older manager may be less interested in doing this, both being examples of short term behaviour. Ryan Jr. and Wiggins III find a concave relation between cash bonus and age; thus firms pay comparatively smaller cash bonuses to both younger and older managers.

Executive's tenure proxies the executive's influence over the board of directors. Hill and Phan (1991) argue that over time, CEOs can circumvent monitoring and incentive alignment mechanisms and strengthen their positions vis-à-vis those of shareholders, which weakens the relationship between pay and stock returns. Ryan Jr. and Wiggins III (2001) find that CEOs with long tenure are more likely to be entrenched and pursue personal agendas, but a CEO may owe his/her tenure to creating shareholder value or having large share ownership.

Government/state ownership is the percentages of outstanding shares held by government in the company. Government ownership in our data includes both state share and state-owned legal person share. Foreign ownership is the percentage of outstanding shares held by foreign shareholders.

3.4. Tests

We test H1-H4 cross-sectionally via OLS. We use robust regression with standard errors clustered by firm to control for firm effect. To address endogeneity, we use a two-stage least-square (2SLS) method. However, Larcker et al. (2008) argue that the standard textbook solution to endogeneity is appropriate if instrumental variables are correlated with the endogenous regressor but uncorrelated with the error in the structural equation, but this is unlikely to obtain. Moreover, they show that when the instrumental variables are only weakly correlated with the regressor, IV methods produce highly biased estimates even when the IV is slightly endogenous. Generalized method of moments (GMM) estimator can be used to control for the endogeneity of explanatory variables and the presence of unobserved firm-specific effects (Ozkan, 2007). Therefore, we also use GMM-system estimation technique for model 4 to control for possible endogeneity between firm performance and executive compensation.

4. INITIAL RESULTS

INSERT TABLE 1 HERE

4.1. Descriptive Statistics

The sample includes a total of 33,968 individual directors' remuneration over 11 years (1999-2009). Within the sample, there are 7,518 firm/year observations with complete records of the three HPEs' remuneration. Table 1 shows that pay for the three HPEs is positively skewed indicating some cases with small remuneration (see also Fung et al., 2003; Zhang, 2003). The histogram and boxplot for the three HPEs pay show high kurtosis and some extreme outliers (those that have more than three box lengths from the edge of the box). Log transformations significantly improved the distribution and showed no extreme outliers.

The pay of the three HPEs increased significantly between 1999 and 2009, especially in 2004. For example, in the case of the three HPEs' total pay (hpe1tot), the mean pay in 2004 was 174% that of 2003, and in 2009 the mean pay was 412% that of 2003. This massive

increase in pay could be attributable to the fast development of the real estate and technology sectors. However, despite this increase in HPEs pay, executive pay in China is still much lower than in developed countries. For example, the average pay for the highest paid director in 2009 is RMB 564,000 (approximately £51,273) compared to USD 614,000 for a USA sample during 1982-1984 (Core et al., 1999) and £387,600 for a UK sample during 1992-1995 (Ezzamel and Watson, 2002). The pay differences between HPE1 and HPE2 were consistently greater than the pay differences between HPE2 and HPE3, thus lending preliminary support to H2a. For example, in 2009, moving from HPE2 to HPE1 increased the mean pay by 31.5% (from RMB 429,000 to RMB 564,000), compared to only 17.9% (from RMB 364,000 to RMB 429,000) for a move from HPE3 to HPE2. Tenure for all three HPEs remained steady at around 2 years with minor fluctuations, and the average proportion of female to male directors over 1999-2009 is 8.71% for the three HPEs.

The average percentages of shareholdings for each of the three HPEs are small: for example in 1999 the average of the HPEs' shareholdings (hpe1own) was only 0.007%, and 67.9% of the three HPEs in the sample had no share ownership. Although state ownership decreased sharply from 32% in 2005 to 12% in 2009, government remained the largest shareholder in most companies. The average percentage of foreign ownership was around 4% after 2005.

Between 2004 and 2009 average board size decreased slightly from 10 to 8.9 with a range of 1-19 which is smaller than in the USA (Yermack, 1996, reports a mean of 12.25 between 1984-1991). Duality (CEO or Deputy CEO and Chairman or Deputy Chairman are the same person) was 13% in 1999, and declined to 7% in 2002, presumably in response to the guidelines issued by the CSRC in 2001 which called for the posts of CEO and Chairman to be separate. However duality increased again to 10% in 2005 and remained steady until 2009. The average percentage of independent directors increased from 1% to 37%, in response to the 'Guidelines for Introducing Independent Directors to the Board of Directors of Listed Companies' by CSRC, which states that by June 30th 2003, at least one third of the board shall be independent directors in listed companies. The percentages of HPE1, HPE2 and HPE3 who were Party Secretary or Deputy Party Secretary were 2.22%, 2.43% and 1.45% respectively over the 1999-2009 period. The average education level for the three HPEs is bachelor's degree.

Table 1C shows the descriptive statistics for politically connected executive directors (executive directors who also act as Party Secretary/Deputy Party Secretary). In general, politically connected executives are several years older than the average age of the top three HPEs and are more educated – the average education level of politically connected executives is close to a Masters degree compared with a Bachelors' degree for all top 3 HPEs. Politically connected executives' remuneration is generally lower than the average of the HPE1 and higher than the average of the HPE2 and HPE3 respectively. The shareholdings of politically connected executives are much lower than the shareholdings of the top three HPEs.

INSERT TABLE 2 HERE

Table 2 shows that average EPS and ROA fluctuated between 1999 and 2009, and was poorest in 2002. Tobin's Q increased over the first six years and remained steady afterwards. Average total assets, sales and net income increased steadily after 2001 and more than doubled from 2003 to 2004, which is coincident with the sharp increase in HPEs' remuneration between 2003 and 2004.

INSERT TABLE 3 HERE

Table 3 contains the inter-correlation matrix for the pooled data set. The three HPEs pay variables are highly correlated with each other (0.89, 0.84, 0.95), suggesting internal comparison effects of pay. Firm size proxies - total assets and sales - are highly correlated (0.90). HPEs pay is higher with longer tenure; higher level of education; higher HPE ownership; lower state ownership, higher foreign ownership; more independent directors; larger firm size; more years after IPO; higher earnings per share, higher return on assets; higher net profits; and if company location is Beijing, Shanghai or major South-East coastal cities. All correlation signs are consistent with the research hypotheses.

5. MULTIVARIATE RESULTS

We find that within the 33,968 three highest paid directors, 29.5% are non-executives (23% independent directors and 6.5% directors on the supervisory board). We run all the models twice: first for the three highest paid (executive and non-executive) directors and second for

the three HPEs. The two sets of results were very similar, and we only report the detailed results for the HPEs because in our view the key arguments of managerial power theory and tournament theory pertain to executives who *make* decisions, rather than to non-executive directors who are supposed to only offer advice and board monitoring. However, we note any divergence between the two sets of results.

5.1. Managerial Power Theory

INSERT TABLES (4A & 4B) HERE

H1a, H1b & H1c state that the level of executive pay is positively related to the level of executive structural power, political power and prestige power respectively. These are tested initially using a reduced form of equation (1). First, because the number of firms that disclosed data on HPE education (our proxy for executive prestige power) is approximately one third of the whole sample, we dropped that variable from the first estimation (reported in Table 4A) and later inserted it and reported the results of the reduced sample in Table 4B. Second, our initial estimation of equation (1) used the first ownership variable (Table 4A) and then the equation was re-estimated after adding squared and cubed ownership. Year dummies were included in the regression to control for time effects (Petersen, 2009). As the OLS standard errors were mostly underestimated and possibly biased, robust regression with standard errors clustered by firm (Model 1B) was used.

Models 1A and 1B were estimated; the F tests are significant for both models with (adjusted) R squares ranging from 55.8% to 57.3% (see Table 4A). Model 1A (with return on asset as the performance variable) shows that after controlling for individual and firm characteristics, executive ownership (perown) is significant at the 1% level, indicating that a 1% increase in executive shareholdings results in a 0.802% increase in remuneration. Executive political power (Party) is significant at the 10% level in Models 1A with return on asset and Tobin's Q as performance variables; and significant at the 5% level in Model 1A with EPS as the performance variable (this variable was significant at the 1% level when the tests were conducted for the three highest paid directors in model 1A, indicating that if the executive director is also a Party Secretary, remuneration increases by 6.4%). Executive remuneration is not significantly related to political power in model 1B (this variable is significant at the 1 % level when the same model was estimated for the three

highest paid directors); maybe because many Party Secretaries sit on the supervisory board and therefore are excluded as non-executives.

These results are consistent with the findings of Chung and Pruitt (1996), Cheung et al. (2005) and Chen (2006), and support H1a and H1b as executive remuneration is positively related to structural power and political power. In addition, executive remuneration is negatively related to tenure and positively related to tenure^2 which indicates a convex relation between executive remuneration and tenure. Further, male executives are paid around 12% more than female executives. Executive directors are paid more the larger the firm size, the bigger the boards, the higher the percentage of independent directors, if the CEO/Deputy CEO is board Chair/deputy chair, the lower the state ownership, the higher the foreign ownership, the shorter the years since IPO and if the company is located in Beijing, Shanghai or South Eastern cities.

Table 4B shows the regression results for the third power dimension – prestige proxied by executive education which was estimated separately as the number of valid observations fell from 18022 (Table 4A) to 6131 (Table 4B). The F tests are significant for both models with (adjusted) R squares range from 41.6% and 43.8%. Both models 1A and 1B show that executive remuneration is positively related to education (1% level) and thus support H1c. Table 4B also shows the results when the managerial power model (Model 1) was rerun using equation 1. The percentage of executive ownership (perown) and perown3 (perown cube) are both positively related to executive remuneration, indicating a positive effect on executive remuneration at lower and higher levels of executive ownership; whereas perown2 (perown square) is negatively related to executive remuneration, suggesting negative effects on executive remuneration at medium levels of ownership. Political power (Party) does not have a significant relationship with executive remuneration. Other variables remained consistent with Table 4A except for tenure and percentage of independent directors.

To summarize, the results for managerial power theory indicate that both H1a and H1c are supported, whereas H1b is partly supported.

5.2. Tournament Theory

Executive pay and hierarchical levels (H2a, H2b)

H2a predicts that the pay difference between HPE1 and HPE2 is bigger than the pay difference between HPE2 and HPE3, but the function between the two differences is not convex. H2b predicts that higher state ownership reduces the pay difference between different levels.

INSERT TABLE (5) HERE

Models 2A to 2E (Table 5) explain 42.2%, 53.4%, 57.8%, 59.2% and 57.7% of the total variance of executive remuneration respectively. The coefficients for level 1 is greater than the coefficients for level 2 in all five models, and both levels are significant in Models 2A-2E thereby providing support for H2a. The average pay differences for HPEs are higher compared to the average pay differences when the models were estimated for executive and non-executive directors. In Table 5, the results indicate that the average cash remuneration increases by 22.3% and 26.1% $(\beta_1 - \beta_2)$ in models 2A and 2B; 24.5% in models 2C-2E when an executive is promoted from level 2 to level 1, whereas pay increases by 15.1%, 25% and 17.3% respectively with promotion from level 3 to level 2. The magnitude of pay difference in Chinese companies is much smaller than that in Western companies; for example, for promotion from level 2 to level 1, Conyon et al. (2001) report average cash pay increase of 60% in the UK and Main et al. (1993) report 140% in the USA.

For the relationship between executive remuneration and organization levels to be convex, the coefficient estimated on pay level 2 must be positive, and the difference between the coefficients on pay level 1 and pay level 2 must be greater than the coefficient on level 2; that is $(\beta_1 - 2\beta_2) \geq 0$. Models 2A-2E satisfy this condition; hence the relationship between executive pay gap and organizational levels is convex as predicted by tournament theory but inconsistent with our prediction. Thus, the second part of H2a is not supported, possibly because the impact of Chinese culture and political values does not blunt significantly the pay difference between the three HPEs. The coefficients of the two interaction terms in both Models 2B and 2C (LG1 = *level1*gov* and LG2 = *level2*gov*) are negative and significant (1% level), indicating that the higher the government ownership, the smaller the

pay differences for HPEs between organization levels, hence H2b (higher state ownership further reduces the pay difference between different levels) is supported.

Executive pay is not significantly related to ROA and Tobin's Q (see also Firth et al. 2006), but is positively related to EPS (1% sig. level). Executive pay is not significantly related to age but is negatively related to age square (significant for executive and non-executive directors at the 1 % level), which suggests a concave relationship between age and pay. Executive pay is negatively related to executive tenure for models 2C and 2E (at the 10% level) and age square is significant for 2C-2E. Also, pay is significantly positively related to gender, with female executives receiving approximately 6.7% less pay compared to male executives. Executive pay is significantly (1% level) positively related to total assets (consistent with Laing and Weir, 1999; Tosi et al., 2000; Zhou, 2000). Also, remuneration is significantly (at the 1% level) and positively related to duality but not to political power (party), whereas both variables are significant when the models were estimated for executive and non-executive directors combined. Executive remuneration is significantly (at the 1% level) negatively related to State ownership and positively (1% level) related to foreign ownership. Company location has a significant (1% level) positive effect on pay, thus executives working in Beijing, Shanghai or major South-East coastal cities are paid more. Finally, executives pay is negatively (significant at the 1% level) related to years since IPO.

5.2.1. Executive pay differences and number of contestants

H3a predicts that the relationship between the executive pay gap and the number of contestants is weak; and H3b predicts that higher state ownership weakens this relationship.

INSERT TABLE 6 HERE

Table 6 reports the results of the relationship between differences in executive pay and the number of contestants using both OLS and robust regressions (with standard errors clustered by firm). The dependent variables for both models are the logarithm differences between the remuneration of the highest paid executive and the average pay of the second and third HPEs. Models 3A and 3B are both significant at the 1% level, and explain 5.5% and 6% of the total variances of pay differences between the HPE pay and the average executive pay respectively. The coefficients of the number of contestants are insignificant

in Models 3A and 3B therefore suggesting that executive pay gap is not related to the number of contestants (the results for executive and non-executives combined show a significant result at the 5% level in Model 3A). The coefficient for the interaction term (con*gov) is negative and significant (at the 1% level) in both models. Therefore, the results provide mixed support for H3: H3a is not supported but H3b is strongly supported: higher state ownership weakens the relationship between executive pay gap and number of contestants.

Executive pay gap is negatively related to board size, but only significant at the 10% level for Model 3A: each additional executive reduces the pay gap by nearly 1.4%. The pay gap is positively related to duality in both models (1% sig. level): the pay gap is 3.4% bigger if the HPE1 is CEO/Deputy CEO and Chair/Deputy Chair. Further, the pay gap is significantly positively related to foreign ownership and negatively related to years of IPO.

5.2.2. Executive pay dispersion and firm performance

H4a predicts that corporate performance is positively related to the executive pay gap, and H4b states that this is especially the case in less government-controlled companies. Model 4 tests these relationships.

INSERT TABLE 7 HERE

Table 7 reports the estimates of the relationship between executive pay differences (measured by WD) and firm performance. The dependent variables are three measures of firm performance: ROA, EPS, and Tobin's Q. All the models are significant at the 1% level. Using OLS regression, models 4A, 4B and 4C explain 2.0%, 14.6% and 3.8% of the total variances of firm performance respectively. Models 4D, 4E and 4F were tested using robust regression with standard errors clustered by firm, and explain 2.4%, 15% and 4.2% of the total variance of firm performance respectively.

For Models 4A, 4C, 4D and 4F, both executive pay differences (WD) and the interaction term WG are not significant. In contrast, Models 4B and 4E show that after controlling for the average level of executive pay, firm characteristics and industry effects, there is a significant (at the 5% level) and positive relationship between executive pay differences (WD) and EPS; a 1% increase in executive pay difference results in a 0.089% increase in

firm performance. Further, the relationship between pay dispersion and firm performance is weaker in government controlled firms; the interaction term WG (WD*gov) has a significant (at the 5% level for both models) and negative relationship with firm value. As suggested earlier, this could be due to the stronger political incentive in these companies. These results are stronger throughout compared to the results of the executive and non-executive directors combined. Therefore both research hypotheses H4a and 4b are supported as far as Models 4B and 4E are concerned.

5.2.3. Regression diagnostics and robustness checks

Regression diagnostics and robustness checks were conducted for all the models we tested. In each case outliers were identified using leverage versus residual squared plots and deleted before re-estimating the models, resulting in improved adjusted R square. The Ramsey RESET test statistics and the variance inflation factors (VIF) of the independent variables were calculated for each model. Except for the cases indicated below, model results remained consistent for the main variables, adjusted R square was virtually the same, and the null hypothesis that the models had no omitted variables could not be rejected, hence they were chosen. Year and industry dummies were included to control for the effects of time and industry. Where appropriate, the interaction terms, and Agesq (age square) and Tensq (tenure square) were dropped from the estimation because of the functional relationship between them and their un-squared terms, but the results remained consistent indicating that multicollinearity was not a problem. Also, debt/equity ratio was replaced by debt/total assets ratio; and log of total assets was replaced by log of sales, but the results remained robust. The models were rerun using lagged variables, the adjusted R squares and t-statistics were reduced slightly but the main results were largely unaffected.

The VIFs in all models are less than 4 except for interaction terms such as CG (con*gov), Agesq (age square) and board, perindp (percentage of independent directors) and con (number of contestants) because of their functional relationship and after their removal the results remained consistent with all VIFs less than 4, hence multicollinearity is not a serious problem. The Ramsey RESET tests for model specifications were conducted. For example, the test result for models 3A and 3B is F (3, 5993) = 10.39, Prob. > F = 0. The null hypothesis that the models have no omitted variables could not be rejected for all models, indicating no omitted variables or mis-specification. Further, as the causality of executive pay dispersion and number of contestants (model 3) is unclear (Errikson, 1999), hence to

address endogeneity, a two-stage least-square (2SLS) method was used with location and years after IPO (yripo) as the instrumental variable (IV) first, because they are correlated with the number of contestants (con), and second, location and yripo are not correlated with executive pay dispersion. After regressing the number of contestants (con) on location and yripo, the F ratio is significant at the 1% level, thus the coefficients IVs are not equal to zero at the same time at the 1% level (see Table 6). The Hausman test was used to examine whether the OLS regression estimates are consistent with the instrumental variables regression (2SLS); the results (Chi2(24) = 2.28, Prob>chi2 = 1.000) show that the OLS regression (model 3A) estimates are consistent with the instrumental variables regression (2SLS).

In model 4, the direction of causality between the executive pay gap and firm performance is also unclear. It could be that the higher pay gap acts as an incentive mechanism, therefore improving firm performance or implying that better performing companies compensate their CEOs more than his/her subordinates. To check for endogeneity, the 2SLS method was used (see Table 7B). In the 2SLS model, foreign ownership, industry and year dummies were used as the instrumental variable (IV) because they are correlated with executive pay dispersion (WD) (higher in companies with higher foreign ownership) and because they are not correlated with firm performance. After regressing WD on these IVs, the F ratio is significant at the 1% level, indicating that the coefficients IVs are not equal to zero at the same time at the 1% level. The Hausman test results also show that the OLS estimates are consistent with the instrumental variables regression (2SLS).

Because of the difficulty of finding good instrumental variables (Larker et al., 2008), we also used GMM (generalized method of moments)–system estimation to address possible endogeneity between firm performance and executive compensation in model 4. The GMM-system estimator combines a set of first-differenced equations with equations in levels, in which lagged first-differences are used as instruments for level equations and lagged levels are used as instruments for differenced equations (Ozkan, 2007); see Table 7C. For the first difference equations, levels lagged at (t-2) to (t-4) are used as instruments for Models 4A and 4C, and levels lagged at (t-2) to (t-9) are used as instruments for Model 4B. The GMM results are two-step estimates with heteroskedasticity-consistent errors, based on Windmeijer (2005)'s correction. The M1 and M2 statistics show the absence of first- and second-order correlations in residuals for all models. The Sargan and Hansen

statistics test for over-identifying restrictions. The null hypotheses of valid instruments are supported for all three models.

Model 4B in Table 7C shows that there is a significant (at the 5% level) and positive relationship between executive pay differences (WD) and EPS; a 1% increase in executive pay difference results in a 0.775% increase in EPS. This is consistent with OLS and robust estimations in Table 7A. The interaction term WG (WD*gov) becomes insignificant in model 4B.

Of all the Chinese listed companies, 81.8% disclose individual executive remuneration; thus 18.2% of the companies did not disclose individual executive remuneration for the period 1999-2009. Heckman selection models were used to test whether not disclosing individual executive remuneration is a non-random process affected by firm characteristics, and if so, whether this non-randomness affects regression results. First, we ran a probit analysis to test if any factors affect the likelihood of disclosure of individual executive remuneration. A few factors were found to affect the likelihood of disclosure, including company location, percentage of independent directors, foreign ownership and industry. Next, we ran a Heckman selection model, and the test results (Chi2(1)=15.12, Prob>chi2=0) show that the OLS estimation is biased. When OLS results were compared with the Heckman selection model, only one estimation (perindp) was biased with the remaining coefficient estimates being very similar. Further, when the robust regression results were compared with the Heckman model, all coefficient estimates were very similar.

6. DISCUSSION AND CONCLUSION

This paper examined the determinants of executive remuneration using managerial power theory and tournament theory after adapting them to fit the Chinese context.

INSERT TABLE 8 HERE

6.1. Managerial Power Theory

Managerial power is the ability of managers to influence the remuneration decisions made by the board of directors (Lambert et al., 1993). This theory was tested using three executive power dimensions: structural power (executive ownership), because the Chinese

government allocates shares to CEOs based on their rank in the managerial hierarchy (Tenev et al., 2002), political power (Party Secretary), and prestige (executive education). Our results strongly support the hypothesis that executive remuneration is positively associated with executive structural and prestige power (see also Chen, 2006; Li et al., 2007). Executive political power is an important, but under-explored area in the study of Chinese corporate governance. In a Chinese listed company with dominant state ownership, the decision making power is shared between the Chairman, Party Secretary and CEO, and frequently the Party Secretary is appointed as Chairman. Chinese CEOs are appointed by the State-owned Assets Supervision and Administration Committee of State Council (SASAC) following recommendations from the Chairman and the Party Secretary; thus the latter is in a strong position to secure large remunerations. Our results support the hypothesis that executive remuneration is positively related to an executive's political power. As Model 2 finds no relationship between firm performance and executive remuneration the latter may be based more on political power than on firm performance.

Despite recent decline, Chinese government ownership in listed companies remains high. Since the Chinese managerial labour market is not well established, and given the strong influence of government, Chinese executive remuneration may be more a reward for political loyalty than for good management. It is no surprise that executives are responsive to how their political and administrative superiors assess their performance (Tenev et al., 2002) by demonstrating their political loyalty rather than maximizing firm value. Also, short-term based investment, over-investment and corruption (Guo and Jiang, 2003) may contribute further to poor long-term firm performance.

Our results on managerial power have implications for corporate governance in China. First, direct and strong government intervention in board decision-making could lead to politically-based decisions and deterioration in firm performance. The Chinese government may need to reduce its intervention in decision-making in listed companies.

Second, executive autonomy should be balanced against accountability (Firth et al., 2006). Without appropriate monitoring mechanisms, autonomy and ownership reform could lead to corruption and exploitation, harming the interests of shareholders, and without legal protection, the interests of minority shareholders could be damaged. Therefore, although

the government should further decentralize decision-making power, this does not mean abandoning its responsibility as regulator and supervisor.

Third, Chinese executive remuneration is based more on the political power of government than on firm performance, and the decision-making process and specific performance appraisal criteria are not disclosed to outsiders. Thus, political loyalty could replace objective financial measures, possibly resulting in managerial opportunistic behaviour and poor corporate governance. The appraisal of executive performance should be based on financial measures rather than on political convenience. More transparent financial disclosure of bonuses and benefits awarded to top managers is urgently needed.

6.2. Tournament Theory

Our results show that the pay difference between HPE1 and HPE2 is bigger than the pay difference between HPE2 and HPE3, and the difference between the two is just big enough to be a convex relationship. Moreover, higher state ownership reduces the pay difference between different levels. The pay gap in Chinese companies is much smaller than that reported in Western companies. In this study, executive remuneration increases by around 20% when the executive is promoted from level 2 to level 1, compared to 60% in the UK and 140% in the USA (Conyon et al., 2001; Main et al., 1993), but the results still support H2a as the pay difference between HPE1 and HPE2 is significantly greater than that between HPE2 and HPE3 and the relationship is convex. Also, high state ownership reduces significantly the pay difference between levels, thus supporting H2b. The relationship between the executive pay gap and the number of contestants is weak; higher state ownership further weakens the relationship, thereby weakly supporting H3a but strongly supporting H3b.

The relatively smaller pay gap, especially in companies with higher government ownership, could be because the importance of political promotions may have weakened cash incentives, and/or because high government ownership leads to more government intervention, as manifest in the pay structure in SOEs following the same structure for civil servants, which is characterized by a relatively small pay gap between levels. For example, CEOs pay in SOEs in Beijing was capped at no more than 9 times workers' average pay (Beijing Morning Post, 28th December, 2007), and generally speaking the cap is in the range of 3 to 15 times workers' average pay.

The hypotheses that corporate performance is positively related to the executive pay gap (H4a), especially in less government-controlled Chinese listed companies (H4b), are also supported. EPS is positively related to executive pay dispersion, which suggests that the pay gap between the HPE1 and the average executive team serves as an incentive for executives in China. Moreover, the relationship between firm value and pay dispersion is stronger in less government-controlled companies, which suggests that higher state ownership could weaken this tournament incentive for executives. The results for other ROA and Tobin's Q are however insignificant.

These results have implications for Chinese corporate governance. First, tournament theory provides an alternative design for incentives in China. The problem of incentives in Chinese listed has become a controversial topic in the media and in academic circles since the 1990s. Previous researchers (Chen 2006; Firth et al., 2006; Li et al., 2007) have argued that hat the Chinese government should reduce its intervention in determining executive pay, and that executive pay should reflect the 'going' market rate rather than be capped by government. However, cultural and political values are not insignificant and some argue that CEOs in Chinese listed companies are over-paid compared to average workers. We suggest that cultural and political values should be carefully balanced against concerns for firm performance.

Further, as the pay gap between organization levels is much smaller in China compared to Western countries, given the positive relationship between pay dispersion and firm performance we report the pay gap between the CEO and other executives could be increased over time. For example, in the UK, the average boss-to-worker pay ratio across the FTSE is 66 to 1 based on salary or 98 to 1 with share options and other incentives (World Business, 30 August 2007) compared to between 3-15 times in China. We also find that executive remuneration increases by only around 20% when the executive is promoted from level 2 to level 1 compared to 60% in the UK (Conyon et al., 2001) and 140% in the USA (Main et al., 1993). Hence, there is scope for greater pay dispersion in China than is currently the case, political and cultural values permitting. It could be argued that tournament theory has cultural support in China as its culture is characterized by high 'high power distance' (Hofstede, 2001) with significant power imbalance expected between superiors and subordinates. This suggests that a greater pay dispersion, which is associated with greater power distance, may be acceptable, given its high level cultural collectivism

(Hofstede, 2001) and emphasis on internal equality and harmony, there is a strong expectation that pay dispersion must be 'reasonable'. Also, as the relationship between executive pay dispersion and firm performance is weakened by higher government ownership because, we argue, non-cash incentives - political promotion – are stronger and executives might pursue political rewards instead of improving firm performance. Finally, tournament theory may not necessarily suit every company. Eriksson (1999) argues that in order to attract the right people to participate in a tournament, the spread cannot be 'too big'. If executive cooperation is essential for firm success, rewarding executives according to their individual achievements may be problematic. Lazear (1995) argues that for 'hawkish' firms where cooperation is less important, wider pay gaps may enhance performance, whereas in 'dovish' firms where cooperation is important for firm success, there may be a need to adopt a more compressed pay structure to reduce anti-cooperative behaviour.

One potential limitation of our study is that the variable state-owned shares we use does not discriminate between ownership by central government and that by local government. Firth et al. (2006) manually re-classified state and legal shareholders they obtained from annual reports into three categories, state shareholding; shares owned by SOEs who report to central government; and shares owned by SOEs who report to local government. It was not possible to do this in the current study because of the much larger sample we use and the longer period of our study, compared to Firth et al. This is a limitation that further research could hopefully rectify.

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Table 1A: Executive Remuneration in Chinese listed companies

	year	N	mean	sd		year	N	mean	sd
hpe1tot	1999	368	54	46	**hpe1own**	1999	368	0.007	0.00027
	2000	304	67	59		2000	304	0.004	0.00009
	2001	159	83	85		2001	159	0.003	0.00009
	2002	62	110	89		2002	62	0.004	0.00010
	2003	45	137	157		2003	45	0.002	0.00007
	2004	19	238	179		2004	19	0.001	0.00003
	2005	1162	293	289		2005	1162	0.576	0.03775
	2006	1202	336	371		2006	1202	0.925	0.04792
	2007	1338	461	554		2007	1338	1.442	0.06113
	2008	1401	518	658		2008	1401	1.924	0.07311
	2009	1458	564	616		2009	1458	2.023	0.07637
hpe2tot	1999	368	45	32	**hpe2own**	1999	368	0.005	0.00018
	2000	304	56	45		2000	304	0.003	0.00006
	2001	159	65	56		2001	159	0.003	0.00008
	2002	62	88	69		2002	62	0.001	0.00003
	2003	45	105	103		2003	45	0.001	0.00003
	2004	19	184	144		2004	19	0.000	0.00001
	2005	1162	231	205		2005	1162	0.266	0.02203
	2006	1202	258	239		2006	1202	0.299	0.02169
	2007	1338	357	406		2007	1338	0.568	0.03202
	2008	1401	395	415		2008	1401	0.818	0.04475
	2009	1458	429	409		2009	1458	0.766	0.03996
hpe3tot	1999	368	41	30	**hpe3own**	1999	368	0.005	0.00017
	2000	304	51	41		2000	304	0.003	0.00007
	2001	159	56	48		2001	159	0.001	0.00003
	2002	62	76	60		2002	62	0.004	0.00024
	2003	45	91	90		2003	45	0.005	0.00028
	2004	19	167	139		2004	19	0.001	0.00002
	2005	1162	198	182		2005	1162	0.099	0.00899
	2006	1202	219	193		2006	1202	0.127	0.00936
	2007	1338	303	322		2007	1338	0.172	0.01252
	2008	1401	334	335		2008	1401	0.366	0.02373
	2009	1458	364	330		2009	1458	0.399	0.02944
stateown	1999	368	0.34	0.26	**foreignown**	1999	368	3.752	0.10450
	2000	304	0.36	0.26		2000	304	3.631	0.10765
	2001	159	0.35	0.26		2001	159	2.863	0.10168
	2002	62	0.37	0.28		2002	62	1.174	0.06528
	2003	45	0.35	0.28		2003	45	0.904	0.06067
	2004	19	0.36	0.29		2004	19	7.123	0.14364
	2005	1162	0.32	0.25		2005	1162	4.055	0.10973
	2006	1202	0.28	0.23		2006	1202	4.187	0.11317
	2007	1338	0.25	0.23		2007	1338	4.401	0.11639
	2008	1401	0.21	0.22		2008	1401	4.163	0.11402
	2009	1458	0.12	0.20		2009	1458	3.600	0.10750

hpe1tot, hpe2tot, and hpe3tot = highest paid, second highest paid, and third highest paid executive's pay respectively; hpe1own=the highest paid executive's ownership; hpe2own=the second highest paid executive's ownership; hpe3own=the third highest paid executive's ownership. hpe1tot, hpe2tot and hpe3tot are expressed in thousands of Chinese Yuan (Renminbi). hpe1own, hpe2own and hpe3own are expressed in percentages.

Table 1B: Board of directors in Chinese listed companies

	year	N	mean	sd		year	N	mean	sd
hpe1age	1999	358	49	8	**hpe1tenure**	1999	320	2.02	0.95
	2000	299	48	8		2000	269	1.94	0.90
	2001	159	47	8		2001	157	1.98	1.02
	2002	62	48	9		2002	61	1.87	1.06
	2003	45	48	8		2003	45	1.98	0.81
	2004	19	51	7		2004	19	2.05	0.97
	2005	1160	48	7		2005	1161	1.96	0.98
	2006	1198	48	7		2006	1200	2.08	1.15
	2007	1335	48	7		2007	1335	2.09	1.08
	2008	1400	49	7		2008	1401	2.13	1.17
	2009	1454	49	7		2009	1457	2.17	1.15
hpe2age	1999	357	47	8	**hpe2tenure**	1999	316	1.96	0.97
	2000	300	46	8		2000	268	1.88	0.91
	2001	159	45	8		2001	153	2.04	1.08
	2002	62	45	8		2002	60	1.77	0.89
	2003	45	46	7		2003	45	1.93	0.81
	2004	19	45	7		2004	19	2.00	1.00
	2005	1161	46	7		2005	1159	1.97	1.01
	2006	1199	46	7		2006	1199	2.07	1.11
	2007	1333	46	7		2007	1334	2.07	1.11
	2008	1400	47	7		2008	1400	2.12	1.18
	2009	1454	47	7		2009	1455	2.16	1.21
hpe3age	1999	359	47	8	**hpe3tenure**	1999	312	1.97	1.08
	2000	299	47	8		2000	264	1.90	0.91
	2001	157	45	8		2001	154	2.05	0.99
	2002	62	45	9		2002	60	1.87	1.05
	2003	45	46	9		2003	43	1.91	0.81
	2004	19	46	9		2004	19	2.05	0.97
	2005	1160	46	8		2005	1159	1.99	1.08
	2006	1197	46	7		2006	1198	2.08	1.15
	2007	1333	46	7		2007	1334	2.11	1.19
	2008	1399	46	7		2008	1399	2.13	1.18
	2009	1454	47	7		2009	1457	2.17	1.19
board	1999	368	9.7	3	**perindp**	1999	359	0.01	0.04
	2000	304	9.5	3		2000	303	0.02	0.07
	2001	157	9.3	2		2001	157	0.06	0.11
	2002	62	9.8	3		2002	61	0.23	0.08
	2003	45	9.7	2		2003	45	0.32	0.08
	2004	19	10.0	2		2004	19	0.35	0.04
	2005	1157	9.5	2		2005	1157	0.35	0.05
	2006	1189	9.4	2		2006	1189	0.35	0.05
	2007	1290	9.3	2		2007	1287	0.36	0.05
	2008	1335	9.2	2		2008	1335	0.36	0.05
	2009	232	8.9	2		2009	232	0.37	0.05

hpe1age; hpe2age; hpe3age = highest, second highest, and third highest paid executive's age respectively; hpe1tenure; hpe2tenure; and hpe3tenure = tenure of the highest, second highest, and third highest paid executive respectively; board=number of board of directors; perindp=percentage of independent directors.

Table 1B: Board of directors in Chinese listed companies (continued)

Year	Duality	Freq.	Perc.	Year	Party	Freq.	Perc.
1999	0	957	0.87	1999	0	1,073	0.97
	1	147	0.13		1	31	0.03
2000	0	814	0.89	2000	0	885	0.97
	1	98	0.11		1	27	0.03
2001	0	437	0.92	2001	0	469	0.98
	1	40	0.08		1	8	0.02
2002	0	173	0.93	2002	0	181	0.97
	1	13	0.07		1	5	0.03
2003	0	124	0.92	2003	0	134	0.99
	1	11	0.08		1	1	0.01
2004	0	53	0.93	2004	0	55	0.96
	1	4	0.07		1	2	0.04
2005	0	3,149	0.90	2005	0	3,410	0.98
	1	337	0.10		1	76	0.02
2006	0	3,253	0.90	2006	0	3,532	0.98
	1	353	0.10		1	74	0.02
2007	0	3,606	0.90	2007	0	3,943	0.98
	1	408	0.10		1	71	0.02
2008	0	3,766	0.90	2008	0	4,122	0.98
	1	437	0.10		1	81	0.02
2009	0	3,926	0.90	2009	0	4,291	0.98
	1	448	0.10		1	83	0.02

Duality =1 if CEO/deputy CEO and Board Chair/deputy Chair are the same person, 0 otherwise;
Party1=1 if the director is Party Secretary/deputy Party Secretary, 0 otherwise.

Table 1B: Board of directors in Chinese listed companies (continued)

	year	N	mean	sd
hpe1edu	1999	19	2.95	0.85
	2000	19	3.11	0.94
	2001	2	2.50	0.71
	2002	2	3.00	1.41
	2003	36	2.92	0.69
	2004	8	3.00	0.76
	2005	391	3.32	0.92
	2006	415	3.34	0.88
	2007	524	3.46	0.87
	2008	593	3.41	0.88
	2009	634	3.41	0.88
hpe2edu	1999	22	2.55	0.80
	2000	16	2.94	0.85
	2001	2	3.00	1.41
	2002	2	2.50	0.71
	2003	36	2.69	0.86
	2004	7	3.43	0.53
	2005	397	3.32	0.82
	2006	436	3.31	0.83
	2007	528	3.34	0.82
	2008	582	3.32	0.85
	2009	637	3.39	0.87
hpe3edu	1999	22	2.77	1.07
	2000	11	2.82	1.25
	2001	1	2.00	.
	2002	4	2.75	0.96
	2003	33	2.70	0.98
	2004	7	3.43	0.98
	2005	393	3.22	0.91
	2006	428	3.14	0.88
	2007	544	3.20	0.91
	2008	592	3.30	0.87
	2009	637	3.24	0.90

hpe1edu; hpe2edu; and hpe3edu =education level for the highest, second highest, and third highest paid director respectively.

Table 1C: Characteristics of politically connected directors in Chinese listed companies (continued)

	year	N	mean	sd		year	N	mean	sd
Age	1999	30	49	7	**W**	1999	31	38	22
	2000	27	51	8		2000	27	70	77
	2001	8	49	7		2001	8	60	52
	2002	5	47	6		2002	5	45	30
	2003	1	45	.		2003	1	18	.
	2004	2	42	5		2004	2	320	57
	2005	76	50	6		2005	76	226	137
	2006	73	50	6		2006	74	299	183
	2007	71	50	6		2007	71	398	289
	2008	81	50	6		2008	81	413	284
	2009	83	50	6		2009	83	477	341
Tenure	1999	20	1.5	0.9	**Perown**	1999	31	0.0042	0.0059
	2000	20	2.2	1.1		2000	27	0.0041	0.0064
	2001	8	2.0	0.9		2001	8	0.0013	0.0018
	2002	5	1.8	1.3		2002	5	0.0001	0.0002
	2003	1	2.0	.		2003	1	0	.
	2004	2	3.0	0		2004	2	0	0
	2005	75	1.9	1.1		2005	76	0.0026	0.0069
	2006	74	2.2	1.1		2006	74	0.0063	0.0305
	2007	71	2.4	1.0		2007	71	0.0029	0.0070
	2008	81	2.2	1.3		2008	81	0.0214	0.1710
	2009	82	2.2	1.0		2009	83	0.0248	0.1230
Education	1999	6	2.7	0.52					
	2000	5	3.0	0.71					
	2001	0	.	.					
	2002	0	.	.					
	2003	1	2.0	.					
	2004	2	4.0	0					
	2005	25	3.5	0.65					
	2006	25	3.6	0.65					
	2007	27	3.7	0.71					
	2008	33	3.8	0.74					
	2009	26	3.7	0.75					

Table 2: Firm size and performance variables

	year	N	mean	sd		year	N	mean	sd
eps	1999	368	0.21	0.32	**totasset**	1999	368	1.6E+09	2.5E+09
	2000	304	0.17	0.35		2000	304	1.8E+09	2.8E+09
	2001	159	0.11	0.49		2001	159	1.7E+09	2.3E+09
	2002	62	0.01	1.43		2002	62	1.9E+09	1.8E+09
	2003	45	0.19	0.26		2003	45	2.4E+09	2.3E+09
	2004	19	0.20	0.36		2004	19	5.2E+09	7.2E+09
	2005	1162	0.09	0.64		2005	1162	3.5E+09	1.7E+10
	2006	1202	0.20	0.49		2006	1202	4.2E+09	1.9E+10
	2007	1338	0.37	0.58		2007	1338	6.4E+09	3.6E+10
	2008	1401	0.23	0.84		2008	1401	7.4E+09	4.1E+10
	2009	1458	0.31	0.56		2009	1458	8.8E+09	5.0E+10
roa	1999	368	0.04	0.10	**sales**	1999	368	8.3E+08	1.6E+09
	2000	304	0.02	0.13		2000	302	1.0E+09	2.2E+09
	2001	159	-0.01	0.33		2001	159	8.9E+08	2.1E+09
	2002	62	-0.07	0.81		2002	62	9.9E+08	1.5E+09
	2003	45	0.03	0.04		2003	45	1.4E+09	2.5E+09
	2004	19	0.00	0.17		2004	19	3.3E+09	6.4E+09
	2005	1162	-0.01	0.33		2005	1161	3.0E+09	2.4E+10
	2006	1202	0.02	0.16		2006	1199	3.5E+09	3.1E+10
	2007	1338	0.05	0.16		2007	1338	5.2E+09	4.1E+10
	2008	1401	0.01	0.59		2008	1401	6.2E+09	5.0E+10
	2009	1458	0.03	0.38		2009	1458	6.2E+09	4.8E+10
q	1999	368	0.43	0.23	**ni**	1999	368	6.9E+07	1.4E+08
	2000	304	0.46	0.24		2000	304	6.6E+07	1.7E+08
	2001	159	0.47	0.39		2001	159	3.3E+07	2.3E+08
	2002	62	0.51	0.74		2002	62	7.3E+07	1.6E+08
	2003	45	0.55	0.64		2003	45	1.0E+08	1.7E+08
	2004	19	0.61	0.56		2004	19	3.3E+08	8.3E+08
	2005	1162	0.58	0.66		2005	1162	1.2E+08	1.3E+09
	2006	1202	0.63	1.68		2006	1202	1.9E+08	1.6E+09
	2007	1338	0.62	1.80		2007	1338	4.4E+08	4.4E+09
	2008	1401	0.63	2.70		2008	1401	3.0E+08	3.6E+09
	2009	1458	0.61	1.98		2009	1458	4.0E+08	3.5E+09

eps=earnings per share; roa=return on assets; q=Tobin's Q; totasset=total value of assets; sales=total sales; ni=net income. Totasset, sales and ni are in Chinese Yuan (Renminbi).

Table 3: Pairwise correlation coefficients

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1hpe1tot	1																											
2hpe1age	0.11*	1																										
3hpe1ten	0.03*	0.08*	1																									
4hpe1edu	0.08*	-0.31*		1																								
5hpe2tot	0.89*	0.11*	0.04*	0.10*	1																							
6hpe2age	0.06*	0.17*	0.04*		0.08*	1																						
7hpe2ten	0.05*	0.06*	0.73*		0.06*	0.10*	1																					
8hpe2edu	0.11*			0.23*	0.16*	-0.20*		1																				
9hpe3tot	0.84*	0.10*	0.04*	0.11*	0.95*	0.08*	0.06*	0.17*	1																			
10hpe3age	0.02	0.20*	0.05*	-0.07*	0.04*	0.22*	0.06*		0.06*	1																		
11hpe3ten	0.03*	0.07*	0.72*		0.05*	0.05*	0.72*		0.05*	0.09*	1																	
12hpe3edu	0.14*	-0.05*		0.25*	0.15*			0.22*	0.17*	-0.23*		1																
13hpe1own	0.03*	0.02*		-0.04*		-0.06*		-0.04*		-0.06*			1															
14hpe2own	0.04*			-0.04*	0.04*	0.03*	0.02*	-0.06*	0.02	-0.04*			0.33*	1														
15hpe3own	0.03*				0.03*	-0.02			0.03*		0.03*		0.18*	0.19*	1													
16state	-0.11*	0.08*		0.08*	-0.09*	0.10*	0.02	0.06*	-0.07*	0.12*	0.04*	0.05*	-0.20*	-0.14*	-0.10*	1												
17foreign	0.18*	0.08*			0.15*	0.07*	0.03*	0.06*	0.15*	0.07*		0.10*	-0.07*	-0.04*	-0.03*	-0.04*	1											
18board	0.07*	0.07*	0.03*	0.08*	0.09*	0.07*	0.04*	0.05*	0.12*	0.07*	0.03*	0.06*	-0.07*	-0.06*	-0.06*	0.16*	0.06*	1										
19perindp	0.24*				0.26*			0.08*	0.27*	-0.03*		0.06*	0.10*	0.08*	0.06*	-0.17*	0.05*	-0.11*	1									
20location	0.19*			0.13*	0.22*	0.05*		0.12*	0.24*	0.05*		0.13*		0.03*	0.04*		0.20*		0.06*	1								
21yripo	0.07*	-0.04*	-0.03*	0.10*	0.09*	0.02*	-0.03*	0.14*	0.09*	0.04*	-0.03*	0.09*	-0.27*	-0.20*	-0.15*	-0.12*	0.07*	-0.05*	0.27*	0.12*	1							
22totasset	0.12*	0.04*	0.03*	0.09*	0.16*	0.04*	0.03*	0.10*	0.17*	0.05*	0.04*	0.11*	-0.02*			0.11*	0.10*	0.11*	0.04*	0.09*	-0.03*	1						
23ni	0.10*	0.02*		0.07*	0.12*	0.03*	0.02*	0.08*	0.14*	0.03*	0.04*	0.08*				0.09*	0.06*	0.07*		0.06*	-0.04*	0.90*	1					
24sales	0.09*	0.02		0.08*	0.11*	0.02	0.02	0.09*	0.12*	0.04*	0.03*	0.10*				0.09*	0.08*	0.06*	0.02*	0.07*	-0.02*	0.91*	0.80*	1				
25eps	0.24*	0.06*	0.03*	0.04*	0.27*		0.03*	0.05*	0.27*		0.04*	0.08*	0.08*	0.05*	0.04*	0.03*	0.03*	0.07*	0.01	0.03*	-0.12*	0.06*	0.12*	0.05*	1			
26roa	0.05*	0.02			0.06*				0.06*				0.03*			0.02*		0.05*	-0.02*		-0.06*	0.01*	0.04*		0.62*	1		
27 q	-0.02*				-0.02*	-0.04*			-0.02*			-0.04*	-0.03*			-0.02*	0.01	-0.04*	0.05*	0.04*	0.09*				-0.14*	-0.23*	1	
28D/E																0.01												1

The correlation coefficients are displayed at the .10 significance level.
The coefficients are displayed with a star at the .05 significance level.

1hpe1tot= the highest paid executive's total pay; 2hpe1age=age of the highest paid executive; 3hpe1ten=tenure of the highest paid executive; 4hpe1edu=education level of the highest paid executive; 5hpe2tot= the second highest paid executive's total pay; 6hpe2age=age of the second highest paid executive; 7hpe2ten=tenure of the second highest paid executive; 8hpe2edu=education level of the second highest paid executive; 9hpe3tot= the third highest paid executive's total pay; 10hpe3age=age of the third highest paid executive; 11hpe3ten=tenure of the third highest paid executive; 12hpe3edu=education level of the third highest paid executive; 13hpe1own =the highest paid executive's ownership; 14hpe2own=the second highest paid executive's ownership; 15hpe3own=the third highest paid executive's ownership; 16state=state ownership; 17foreign=foreign ownership; 18board=number of board of directors; 19perindp=percentage of independent directors; 20location=location of the company; 21yripo=years since initial public offering; 22totasset=total value of assets; 23ni=net income; 24sales=total sales; 25eps=earnings per share; 26roa=return on assets; 27q=Tobin's Q; 28D/E=debt to equity ratio.

Table 4A: Model 1 Executive remuneration and managerial power

Dependent variable: the logarithm of executive remuneration. Model 1A utilizes OLS regression. Model 1B utilizes robust regression with standard errors clustered by firm. Values of t-statistics are in parentheses: ***, **, and * denote significance at the 1%, 5%, and 10% level respectively.

Dependent Variable: lgW	*Model 1A*			*Model 1B*		
Perown	0.802***	0.682***	0.819***	0.802***	0.682***	0.819***
	(5.81)	(5.01)	(5.93)	(3.76)	(3.24)	(3.84)
Party	0.065*	0.083**	0.063*	0.065	0.083	0.063
	(1.82)	(2.36)	(1.76)	(1.13)	(1.52)	(1.08)
Age	0.010	0.013*	0.010	0.010	0.013	0.010
	(1.48)	(1.92)	(1.48)	(0.86)	(1.13)	(0.86)
Agesq	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
	(-0.87)	(-1.26)	(-0.87)	(-0.5)	(-0.73)	(-0.5)
Tenure	-0.022**	-0.019**	-0.021**	-0.022	-0.019	-0.021
	(-2.3)	(-2.09)	(-2.27)	(-1.63)	(-1.46)	(-1.61)
Tensq	0.004***	0.004***	0.004***	0.004*	0.004	0.004*
	(3.19)	(2.71)	(3.17)	(1.81)	(1.61)	(1.8)
Gender	0.113***	0.115***	0.113***	0.113***	0.115***	0.113***
	(6.4)	(6.62)	(6.35)	(4.16)	(4.31)	(4.12)
Lgasset	0.273***	0.244***	0.277***	0.273***	0.244***	0.277***
	(54.14)	(48.01)	(54.43)	(18.95)	(16.23)	(19.13)
Board	0.018***	0.019***	0.018***	0.018***	0.019***	0.018***
	(6.7)	(7.18)	(6.77)	(2.74)	(2.97)	(2.76)
Perindp	0.275***	0.385***	0.254***	0.275	0.385*	0.254
	(2.81)	(3.99)	(2.59)	(1.27)	(1.86)	(1.17)
Duality	0.172***	0.170***	0.171***	0.172***	0.170***	0.171***
	(10.44)	(10.47)	(10.41)	(7.48)	(7.56)	(7.45)
State	-0.404***	-0.403***	-0.405***	-0.404***	-0.403***	-0.405***
	(-17.9)	(-18.14)	(-17.92)	(-6.55)	(-6.7)	(-6.55)
Foreign	0.611***	0.620***	0.606***	0.611***	0.620***	0.606***
	(12.84)	(13.23)	(12.71)	(4.85)	(5.04)	(4.81)
location	0.428***	0.420***	0.427***	0.428***	0.420***	0.427***
	(38.58)	(38.51)	(38.49)	(13.68)	(13.7)	(13.64)
Yripo	-0.012***	-0.008***	-0.012***	-0.012***	-0.008**	-0.012***
	(-10.01)	(-6.69)	(-10.49)	(-3.95)	(-2.55)	(-4.14)
D/E	-0.0002	-0.0002	-0.0002	-0.0002	-0.0002	-0.0002
	(-1.37)	(-1.31)	(-1.36)	(-0.54)	(-0.54)	(-0.53)
roa	0.083***			0.083		
	(5.84)			(1.48)		
eps		0.201***			0.201***	
		(24.76)			(3.94)	
q			0.006**			0.006
			(2.1)			(1.46)
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Constant	4.996***	5.413***	4.909***	4.996***	5.413***	4.909***
	(24.72)	(27.11)	(24.16)	(12.13)	(13.13)	(11.89)
Observations	18022[2]	18022	18022	18022	18022	18022
R^2 **(adjusted)**	0.558	0.572	0.558	0.558	0.573	0.558

lgW=logarithm of executive remuneration of top three highest paid executives; Perown=percentage of ownership of top three highest paid executives; Party=executive/Party secretary or deputy Party secretary duality; Age=age of executives; Agesq=age square; Tenure=tenure of executives; Tensq=tenure square; Gender=gender of executives; Lgasset=logarithm of total assets; Board=number of board of directors; Perindp=percentage of independent directors; Duality=CEO or deputy CEO/Chairman or deputy Chairman duality; State=state ownership; foreign=foreign ownership; location=location of company; Yripo= years since initial public offering; D/E=debt to equity ratio; roa=return on assets; eps=earnings per share; q=Tobin's Q.

[2] Because of exclusion of non-executive directors the number of observations fell from 28818 to 18022.

Table 4B: Model 1 (with Education) Executive remuneration and managerial power

Dependent variable: the logarithm of executive remuneration. Model 1A utilizes OLS regression. Model 1B utilizes robust regression with standard errors clustered by firm. Values of t-statistics are in parentheses: ***, **, and * denote significance at the 1%, 5%, and 10% level respectively.

Dependent Variable: lgW	*Model 1A*			*Model 1B*		
Perown	3.404***	2.925***	3.440***	3.404**	2.925**	3.440**
	(4.12)	(3.59)	(4.16)	(2.46)	(2.12)	(2.49)
Perown^2	-13.065***	-10.896**	-13.215***	-13.065*	-10.896	-13.215*
	(-2.89)	(-2.45)	(-2.92)	(-1.74)	(-1.46)	(-1.76)
Perown^3	14.016**	11.447**	14.191**	14.016	11.447	14.191
	(2.37)	(1.97)	(2.4)	(1.48)	(1.22)	(1.5)
Party	0.053	0.068	0.052	0.053	0.068	0.052
	(0.83)	(1.09)	(0.82)	(0.63)	(0.86)	(0.61)
Education	0.072***	0.071***	0.072***	0.072***	0.071***	0.072***
	(6.94)	(6.95)	(6.99)	(4.18)	(4.19)	(4.21)
Age	0.021*	0.019	0.021*	0.021	0.019	0.021
	(1.71)	(1.57)	(1.75)	(1.1)	(1.03)	(1.13)
Agesq	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
	(-1.1)	(-0.9)	(-1.15)	(-0.69)	(-0.58)	(-0.72)
Tenure	-0.011	-0.014	-0.010	-0.011	-0.014	-0.010
	(-0.78)	(-0.98)	(-0.72)	(-0.66)	(-0.83)	(-0.6)
Tensq	0.003*	0.003*	0.003*	0.003	0.003	0.003
	(1.78)	(1.88)	(1.74)	(1.43)	(1.53)	(1.39)
Gender	0.126***	0.124***	0.126***	0.126***	0.124***	0.126***
	(4.22)	(4.2)	(4.22)	(2.95)	(2.98)	(2.94)
Lgasset	0.244***	0.219***	0.248***	0.244***	0.219***	0.248***
	(28.85)	(25.71)	(29)	(10.24)	(8.92)	(10.21)
Board	0.029***	0.031***	0.029***	0.029***	0.031***	0.029***
	(6.07)	(6.52)	(6.07)	(2.66)	(2.91)	(2.66)
Perindp	0.233	0.270	0.218	0.233	0.270	0.218
	(1.3)	(1.53)	(1.21)	(0.63)	(0.75)	(0.59)
Duality	0.130***	0.121***	0.130***	0.130***	0.121***	0.130***
	(4.76)	(4.53)	(4.76)	(3.39)	(3.26)	(3.39)
State	-0.344***	-0.352***	-0.347***	-0.344***	-0.352***	-0.347***
	(-8.56)	(-8.89)	(-8.61)	(-3.39)	(-3.55)	(-3.4)
Foreign	0.782***	0.759***	0.777***	0.782***	0.759***	0.777***
	(10.35)	(10.21)	(10.27)	(4.14)	(4.25)	(4.1)
location	0.408***	0.413***	0.405***	0.408***	0.413***	0.405***
	(21.7)	(22.33)	(21.51)	(8.48)	(8.87)	(8.38)
Yripo	-0.005**	-0.001	-0.005***	-0.005	-0.001	-0.005
	(-2.42)	(-0.52)	(-2.7)	(-1.01)	(-0.21)	(-1.12)
D/E	-0.010***	-0.006*	-0.010***	-0.010	-0.006	-0.010
	(-2.81)	(-1.67)	(-2.84)	(-1.43)	(-0.89)	(-1.45)
roa	0.054***			0.054		
	(2.62)			(1.16)		
eps		0.190***			0.190**	
		(14.17)			(2.31)	
q			0.003			0.003
			(1.13)			(1.37)
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Constant	5.738***	6.213***	5.657***	5.738***	6.213***	5.657***
	(13.86)	(15.19)	(13.62)	(8.71)	(9.37)	(8.51)
Observations	6131[3]	6131	6131	6131	6131	6131
R^2 **(adjusted)**	0.417	0.435	0.416	0.420	0.438	0.419

lgW=logarithm of executive remuneration of top three highest paid executives; Perown=percentage of ownership of top three highest paid executives; Perown^=Perown square; Perown^3=Perown cube; Party=executive/Party secretary or deputy Party secretary duality; Education=education level; Age=age; Agesq=age square; Tenure=tenure; Tensq=tenure square; Gender=gender; Lgasset=logarithm of total assets; Board=number of board of directors; Perindp=percentage of independent directors; Duality=CEO or deputy CEO/Chairman or deputy Chairman duality; State=state ownership; foreign=foreign ownership; location=location of company; Yripo= years since initial public offering; D/E=debt to equity ratio; roa=return on assets; eps=earnings per share; q=Tobin's Q.

[3] Because of the large number of missing data for Education the number of observations fell from 18022 to 6131.

Table 5: Model 2: Executive pay, organizational levels and political influences

Regression results of the relationship between executive pay and organizational levels in Chinese listed companies. Dependent variable: logarithm of executive remuneration of the 3 highest paid directors. Values of robust t-statistics are in parentheses; ***, **, and * denote significance at the 1%, 5%, and 10% levels respectively.

Dependent Variable: lgW	*Model 2A*	*Model 2B*	*Model 2C*	*Model 2D*	*Model 2E*
level1	0.374***	0.511***	0.418***	0.417***	0.418***
	(57.63)	(30.65)	(35.53)	(35.64)	(35.5)
level2	0.151***	0.250***	0.173***	0.173***	0.173***
	(41.15)	(17.12)	(26.27)	(26.26)	(26.25)
LG1		-0.556***	-0.259***	-0.259***	-0.259***
		(-9.44)	(-9.98)	(-10.02)	(-9.98)
LG2		-0.402***	-0.112***	-0.112***	-0.112***
		(-7.15)	(-6.98)	(-7)	(-6.97)
lgasset		0.298***	0.274***	0.246***	0.278***
		(23.77)	(19.01)	(16.32)	(19.18)
board			0.017***	0.018***	0.018***
			(2.72)	(2.99)	(2.75)
perindp			0.283	0.391*	0.262
			(1.31)	(1.9)	(1.21)
duality			0.078***	0.075***	0.078***
			(3.29)	(3.21)	(3.27)
Party			0.056	0.074	0.054
			(0.99)	(1.4)	(0.94)
Age			0.008	0.011	0.008
			(0.68)	(0.98)	(0.68)
Agesq			-0.0001	-0.0001	-0.0001
			(-0.5)	(-0.76)	(-0.5)
Tenure			-0.021*	-0.019	-0.021*
			(-1.69)	(-1.55)	(-1.66)
Tensq			0.004**	0.004*	0.004**
			(1.98)	(1.82)	(1.97)
gender			0.067**	0.069***	0.066**
			(2.49)	(2.61)	(2.45)
roa			0.084		
			(1.46)		
eps				0.202***	
				(3.93)	
q					0.005
					(1.4)
state			-0.294***	-0.290***	-0.296***
			(-4.81)	(-4.88)	(-4.82)
foreign			0.605***	0.615***	0.599***
			(4.81)	(5.02)	(4.77)
location			0.430***	0.422***	0.430***
			(13.8)	(13.79)	(13.76)
yripo			-0.014***	-0.010***	-0.014***
			(-4.73)	(-3.14)	(-4.94)
debt1			-0.0002	-0.0002	-0.0002
			(-0.56)	(-0.57)	(-0.55)
Industry dummies	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes
constant	11.890***	5.474***	4.941***	5.354***	4.855***
	(73.14)	(17.96)	(12.15)	(13.15)	(11.9)
Observations	22511[4]	22511	18022[5]	18022	18022
R^2	0.422	0.534	0.578	0.592	0.577

[4] Because of exclusion of non-executive directors the number of observations fell from 33968 to 22511.
[5] Same as above.

lgW=logarithm of executive remuneration of top three highest paid executives; level1=1 if the executive is the HPE1 and 0 otherwise; level2=1 if the executive is HPE2 and 0 otherwise; LG1=level1*government ownership; LG2=level2*government ownership; lgasset=logarithm of total assets; board=number of board of directors; perindp=percentage of independent directors; duality=CEO or deputy CEO/Chairman or deputy Chairman duality; Party=executive/Party secretary or deputy Party secretary duality; Age=age of executives; Agesq=age square; Tenure=tenure of executives; Tensq=tenure square; gender=gender of executives; roa=return on assets; eps=earnings per share; q=Tobin's Q; state=state ownership; foreign=foreign ownership; location=location of company; yripo= years since initial public offering; D/E=debt to equity ratio.

Table 6: Model 3: Executive pay gap and the number of contestants

Dependent variable: the pay gap between the highest paid executive director and the average contestant. Model 3A utilizes OLS regression. Model 3B utilizes robust regression with standard errors clustered by firm, and values of robust t-statistics are in parentheses, with ***, **, and * denoting significance at the 1%, 5%, and 10% level, respectively.

Dependent Variable: WD	***Model 3A***	***Model 3B***	***First-stage***	***2SLS***
Con(/Predicted Con in 2SLS)	0.013	0.013		-2.371
	(1.13)	(1.02)		(-1.5)
CG	-0.022***	-0.022***	0.017***	0.019
	(-9.89)	(-6.44)	(6.96)	(0.68)
lgasset	-0.007**	-0.007	-0.032***	-0.083
	(-2.05)	(-1.43)	(-8.39)	(-1.64)
board	-0.014*	-0.014	0.711***	1.682
	(-1.67)	(-1.45)	(338.85)	(1.5)
perindp	0.243**	0.243*	-8.057***	-18.971
	(2.11)	(1.79)	(-107.23)	(-1.49)
duality	0.034***	0.034***	0.023**	0.089**
	(3.96)	(2.87)	(2.36)	(2.06)
Party	-0.043*	-0.043	-0.040	-0.140
	(-1.79)	(-1.61)	(-1.5)	(-1.53)
Age	-0.011**	-0.011	0.006	0.004
	(-2.25)	(-1.4)	(1.13)	(0.22)
Agesq	0.0001***	0.0001	-0.0001	-0.00003
	(2.64)	(1.6)	(-1.18)	(-0.14)
Tenure	0.002	0.002	0.004	0.011
	(0.42)	(0.56)	(0.53)	(0.62)
Tensq	-0.0003	-0.0003	-0.0001	-0.0004
	(-0.39)	(-0.54)	(-0.06)	(-0.2)
gender	-0.002	-0.002	-0.001	-0.003
	(-0.1)	(-0.08)	(-0.03)	(-0.07)
foreign	0.111***	0.111*	-0.047	-0.002
	(3.39)	(1.83)	(-1.3)	(-0.02)
location	0.009	0.009	-0.003	
	(1.13)	(0.73)	(-0.41)	
yripo	-0.003***	-0.003***	0.001	
	(-4.21)	(-2.98)	(1.59)	
D/E	0.00001	0.00001	0.00002	0.0001
	(0.11)	(0.23)	(0.15)	(0.18)
Industry dummies	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes
Constant	0.685***	0.685***	2.766***	7.254*
	(4.58)	(3.11)	(17.01)	(0.65)
Observations	6022[6]	6022	6022	6022
R^2 **(adjusted)**	0.055	0.060	0.977	.
Hausman (p-value)				1.000

WD= $Log(W_1) - Log(W_A)$ Where W_1 is the remuneration of the HPE1 and W_A is the average remuneration of HPE2 and HPE3; Con=number of contestants; CG=con*government ownership; lgasset=logarithm of total assets; board=number of board of directors; perindp=percentage of independent directors; duality=CEO or deputy CEO/Chairman or deputy Chairman duality; Party=executive/Party secretary or deputy Party secretary duality; Age=age of executives; Agesq=age square; Tenure=tenure of executives; Tensq=tenure square; gender=gender of executives; foreign=foreign ownership; location=location of company; yripo= years since initial public offering; D/E=debt to equity ratio.

[6] Because of exclusion of non-executive directors the number of observations fell from 9053 to 6026.

Table 7A: Model 4: Executive pay dispersion (WD) and firm performance

Dependent variables: firm performance (return on assets, earnings per share and Tobin's Q). Models 4A, 4B, and 4C utilize OLS regression. Models 4D, 4E and 4F utilize robust regression with standard errors clustered by firm. Values of (robust) t-statistics are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	Model 4A	***Model 4B***	***Model 4C***	***Model 4D***	***Model 4E***	***Model 4F***
Dependent variables	**roa**	**eps**	**Tobin's Q**	**roa**	**eps**	**Tobin's Q**
WD	0.021	0.089**	-0.032	0.021	0.089**	-0.032
	(0.96)	(2.37)	(-0.27)	(1.27)	(2.33)	(-0.52)
WG	-0.046	-0.253**	-0.075	-0.046	-0.253**	-0.075
	(-0.66)	(-2.12)	(-0.2)	(-1.16)	(-2.02)	(-0.44)
lgWA	0.026***	0.185***	0.046	0.026***	0.185***	0.046
	(3.71)	(15.48)	(1.24)	(5.13)	(12.35)	(0.84)
lgasset	0.024***	0.100***	-0.335***	0.024**	0.100***	-0.335*
	(4.99)	(12.02)	(-12.88)	(2.2)	(7.69)	(-1.73)
board	0.002	-0.006	0.012	0.002	-0.006	0.012
	(0.88)	(-1.6)	(0.97)	(1.02)	(-1.32)	(1.04)
perindp	-0.166*	-0.658***	1.409***	-0.166*	-0.658***	1.409
	(-1.92)	(-4.45)	(3.04)	(-1.67)	(-2.91)	(1.23)
duality	-0.009	0.003	0.014	-0.009	0.003	0.014
	(-0.83)	(0.15)	(0.24)	(-0.53)	(0.11)	(0.22)
Party	-0.011	-0.112**	-0.072	-0.011	-0.112***	-0.072
	(-0.35)	(-2.12)	(-0.44)	(-1.24)	(-2.9)	(-0.85)
state	0.028	0.116**	0.368**	0.028	0.116**	0.368
	(1.02)	(2.43)	(2.47)	(1.41)	(2.25)	(1.11)
foreign	-0.051	-0.168**	0.444**	-0.051*	-0.168*	0.444
	(-1.19)	(-2.32)	(1.96)	(-1.67)	(-1.82)	(1.18)
location	-0.007	-0.044**	0.117**	-0.007	-0.044*	0.117
	(-0.67)	(-2.51)	(2.12)	(-0.63)	(-1.88)	(1.13)
yripo	-0.005***	-0.020***	0.039***	-0.005***	-0.020***	0.039***
	(-4.51)	(-11.65)	(7.12)	(-3.42)	(-8.87)	(2.75)
D/E	0.00001	-0.00002	-0.0001	0.00001	-0.00002	-0.0001
	(0.1)	(-0.1)	(-0.11)	(0.4)	(-0.2)	(-0.58)
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-0.696***	-3.539***	6.047***	-0.696***	-3.539***	6.047**
	(-6.13)	(-18.19)	(9.93)	(-3.43)	(-12.19)	(2.11)
Observations	6132[7]	6132	6132	6132	6132	6132
R^2 **(adjusted)**	0.020	0.146	0.038	0.024	0.150	0.042

roa=return on assets; eps=earnings per share; q=Tobin's Q; WD= $Log(W_1) - Log(W_A)$ Where W_1 is the remuneration of the HPE1 and W_A is the average remuneration of HPE2 and HPE3; WG=WD*government ownership; lgWA=logarithm of the average remuneration of HPE2 and HPE3; lgasset=logarithm of total assets; board=number of board of directors; perindp=percentage of independent directors; duality=CEO or deputy CEO/Chairman or deputy Chairman duality; Party=executive/Party secretary or deputy Party secretary duality; state=state ownership; foreign=foreign ownership; location=location of company; yripo= years since initial public offering; D/E=debt to equity ratio.

[7] Because of exclusion of non-executive directors the number of observations fell from 9210 to 6132.

Table 7B: Model 4: Executive pay dispersion (WD) and firm performance (2SLS estimation)

Dependent variables: firm performance (return on assets, earnings per share and Tobin's Q) in 2SLS. Values of t-statistics are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Dependent variables (2SLS)	***Model 4A roa***		***Model 4B eps***		***Model 4C Tobin's Q***	
	First-stage	***2SLS***	***First-stage***	***2SLS***	***First-stage***	***2SLS***
WD(/Predicted WD in 2SLS)		-0.191		-0.419		0.677
		(-0.77)		(-0.97)		(0.51)
WG	2.052***	0.384	2.052***	0.780	2.052***	-1.528
	(66.39)	(0.75)	(66.39)	(0.87)	(66.39)	(-0.56)
lgWA	-0.013***	0.027***	-0.013***	0.188***	-0.013***	0.045
	(-3.23)	(3.79)	(-3.23)	(15.44)	(-3.23)	(1.2)
lgasset	0.005*	0.025***	0.005*	0.102***	0.005*	-0.316***
	(1.93)	(5.03)	(1.93)	(11.71)	(1.93)	(-11.77)
board	-0.005***	0.001	-0.005***	-0.011**	-0.005***	0.010
	(-3.74)	(0.25)	(-3.74)	(-2.37)	(-3.74)	(0.71)
perindp	0.076	-0.124**	0.076	-0.650***	0.076	0.548*
	(1.5)	(-2.13)	(1.5)	(-6.42)	(1.5)	(1.76)
duality	0.023***	-0.003	0.023***	0.019	0.023***	0.001
	(3.52)	(-0.25)	(3.52)	(0.85)	(3.52)	(0.02)
Party	-0.011	-0.010	-0.011	-0.115**	-0.011	-0.069
	(-0.59)	(-0.31)	(-0.59)	(-2.13)	(-0.59)	(-0.41)
state	-0.665***	-0.112	-0.665***	-0.237	-0.665***	0.769
	(-48.5)	(-0.67)	(-48.5)	(-0.81)	(-48.5)	(0.86)
foreign	0.103***		0.103***		0.103***	
	(4.19)		(4.19)		(4.19)	
location	0.009	-0.009	0.009	-0.058***	0.009	0.137***
	(1.49)	(-0.86)	(1.49)	(-3.32)	(1.49)	(2.57)
yripo	-0.002***	-0.005***	-0.002***	-0.021***	-0.002***	0.040***
	(-3.89)	(-4.61)	(-3.89)	(-10.9)	(-3.89)	(6.79)
D/E	0.00002	-0.0000004	0.00002	-0.0001	0.00002	-0.0001
	(0.25)	(0)	(0.25)	(-0.26)	(0.25)	(-0.14)
Industry dummies	Yes		Yes		Yes	
Year dummies	Yes		Yes		Yes	
Constant	0.361***	-0.700***	0.361***	-3.578***	0.361***	5.817***
	(5.38)	(-5.67)	(5.38)	(-16.67)	(5.38)	(8.83)
Observations	6132[8]	6132	6132	6132	6132	6132
R^2 **(adjusted)**	0.453	0.002	0.453	0.105	0.453	0.030
Hausman (p-value)		1.000		1.000		1.000

roa=return on assets; eps=earnings per share; q=Tobin's Q; WD= $Log(W_1) - Log(W_A)$ Where W_1 is the remuneration of the HPE1 and W_A is the average remuneration of HPE2 and HPE3; WG=WD*government ownership; lgWA=logarithm of the average remuneration of HPE2 and HPE3; lgasset=logarithm of total assets; board=number of board of directors; perindp=percentage of independent directors; duality=CEO or deputy CEO/Chairman or deputy Chairman duality; Party=executive/Party secretary or deputy Party secretary duality; state=state ownership; foreign=foreign ownership; location=location of company; yripo= years since initial public offering; D/E=debt to equity ratio.

[8] Because of exclusion of non-executive directors the number of observations fell from 9210 to 6132.

Table 7C: Model 4: Executive pay dispersion (WD) and firm performance (Two-step GMM-system estimation)

Dependent variables: firm performance (return on assets, earnings per share and Tobin's Q). Models 4A, 4B, and 4C utilize two-step system-GMM estimation. Values of robust z-statistics are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	Model 4A	***Model 4B***	***Model 4C***
Dependent variable	***roa***	***eps***	***Tobin's Q***
	-0.323**		
	(-2.15)		
		0.144	
		(1.04)	
			1.942*
			(1.75)
WD	0.449	0.775**	-3.195
	(1.41)	(2.19)	(-1.18)
WG	0.106	-0.372	5.561
	(0.21)	(-0.21)	(1.01)
lgWA	0.077	0.146	0.569
	(0.56)	(1.14)	(0.86)
lgasset	-0.170	0.038	-0.604
	(-1.62)	(0.35)	(-0.54)
board	-0.035	-0.022	0.028
	(-0.94)	(-0.4)	(0.23)
perindp	0.165	-2.502	-0.456
	(0.15)	(-1.27)	(-0.1)
duality	0.076	0.030	-0.231
	(0.75)	(0.17)	(-0.48)
Party	-0.077	0.111	-1.096
	(-0.13)	(0.11)	(-0.58)
state	0.072	0.648	-0.467
	(0.33)	(1.03)	(-0.3)
foreign	1.063	-0.168	1.327
	(0.72)	(-0.17)	(0.23)
location	0.133	-0.066	0.472
	(0.42)	(-0.58)	(0.3)
yripo	-0.005	-0.007	-0.109
	(-0.69)	(-0.78)	(-0.59)
D/E	0.003	-0.0003	-0.008
	(0.88)	(-0.15)	(-0.09)
Industry dummies			
	Yes	Yes	Yes
Year dummies			
	Yes	Yes	Yes
Observations	3976[9]	3976	3976
M1 (p-value)	0.407	0.249	0.640
M2 (p-value)	0.349	0.592	0.299
Sargan (p-value)	0.990	1.000	1.000
Hansen (p-value)	1.000	0.978	1.000

=return on assets lagged by (t-1); =earnings per share lagged by (t-1); =Tobin's Q lagged by (t-1); WD= $Log(W_1) - Log(W_A)$ Where W_1 is the remuneration of the HPE1 and W_A is the average remuneration of HPE2 and HPE3; WG=WD*government ownership; lgWA=logarithm of the average remuneration of HPE2 and HPE3; lgasset=logarithm of total assets; board=number of board of directors; perindp=percentage of independent directors; duality=CEO or deputy CEO/Chairman or deputy Chairman duality; Party=executive/Party secretary or deputy Party secretary duality; state=state ownership; foreign=foreign ownership; location=location of company; yripo= years since initial public offering; D/E=debt to equity ratio.

[9] Because of the use of lagged variables and first differences the number of observations fell from 6132 to 3976.

Table 8: Summary of Hypotheses and Empirical Findings

Hypo	*Dependent Vs*	*Independent Vs*	*Predicted*	*Results*
H1	Executive remuneration	Structural Power (Executive ownership)	+	+***
	Executive remuneration	Political power (CEO/P.Secr. Duality)	+	+*/NS
	Executive remuneration	Prestige Power (Exec. Education)	+	+***
H2	Executive remuneration	Organization levels	+ Not convex	+*** convex
	Executive remuneration	Level*gov (LG)	-	-***
H3	Tournament prize (Executive pay gap)	No. of contestants	Weak+	+NS
	Tournament prize (Executive pay gap)	con*gov (CG)	-	-***
H4	Firm performance (EPS)	Executive pay gap (WD)	+	+**
	Firm performance (EPS)	WD*gov(WG)	-	-**/NS

* 0.10 significance level; ** 0.05 significance level; and *** 0.01 significance level.