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Executive Perks: Compensation and Corporate Performance in China

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Abstract

Many studies have examined CEO compensation in developed countries, where a long tradition of disclosure makes data readily available. In emerging markets, particularly in transitioning ones like China, where market-based compensation is a relatively new phenomenon, studies of CEO compensation are scarce. What's more, information on the use of non-cash compensation is almost absent. Building on the extant literature of CEO compensation, in general, and Chinese economic and management studies, this article singularly contributes to the extant literature by (1) examining the financial determinants of CEO perk compensation, on the one hand, and (2) exploring the relative contribution of perks to performance. We find that perks are positively associated with current and future return on assets, supporting the view that some types of perks may improve the firm's profitability and that perks are paid as a bonus to reward performance. In addition, we find that perk compensation is also influenced by firm size, growth opportunity, and leverage.

Keywords: Executive Compensation, Perks, Non-cash Compensation, Perquisites, Firm Performance

Introduction

CEO compensation in China is a new subject of study. Prior to the start of China's reforms in 1977, the economy has relied on the vestiges of Maoism whose tenets of communism dictated similar pay for members of society of all ranks. Even then, however, high ranking officials and powerful elites benefited from preferential treatment and sundry perquisites (McGregor, 2005). One of the key elements of economic liberalization has been the modernization of economic rules and the corporatization of State Owned Enterprises (SOE). Listed companies in Shanghai and Shenzhen were increasingly accountable to shareholder, not just the State, and incentives to induce managers to increase profits and the value of the business were promulgated. The marketization of the Chinese economy necessitated some legal reform by the China Securities Regulatory Commission (CSRC), which was modeled after the US and Hong Kong, corporate governance, and CEO compensation schemes (Firth, Fung & Rui, 2006).

Despite rapid economic reform, socio-economic and political elements of the past remained. State ownership of listed companies is still a reality, and the State/local government owners of these companies may exercise operational and strategic control. Peculiarities of compensation systems are often affected by local customs, traditions, and institutions (both formal and informal). State ownership and government involvement is another institutional factor. In some Chinese SOEs, executive performance evaluation and promotion decision are based mainly on whether the managers can satisfy and act in the interest of the Chinese Communist Party and the state (Firth et al., 2006). While political advancement is sometimes the main motivator, cash incentive pay for top management is also used (Kato & Long, 2005). Another type of publicly traded firms in China is family-controlled firm. Previous studies (e.g., Kato & Long, 2005) found that cash incentive pay is also used in a family controlled firm.

Non-cash compensation, including perquisites such as the use of entertainment, dining, cars, travel, drinks and karaoke bars and so forth, has not been well studied in the Chinese context. In the Western context, the compensation literature is inconclusive about the impact of such compensation. Some, like Jensen and Meckling (1976), regard it as an agency cost deleterious to the performance of the firm. Others pointed out several benefits to perks compensation, including tax saving, cost saving, productivity and reduction in disutility from work (Dale-Olsen, 2007; Long & Scott, 1982; Oyer, 2004; Rajan & Wulf, 2006; Rosen, 2000). This article adds additional evidence to the growing literature on the impact of non-cash compensation by testing the specific case of China. We investigate the question of whether perks represent agency costs, which worsen firm performance, or perks are part of the optimal compensation contract design so that perk compensation and firm performance are positively associated in China.

We anticipate a positive relationship between perks compensation and firm performance in China for two reasons. Firstly, because such perks compensation as meals, entertainment, and travel help companies build useful connections (*guanxi*) with governmental officers, business partners, as *guanxi* is often built and maintained through lavish meals, banquets, gift giving, joint entertainment, karaoke clubbing, and trips (Ai, 2006; Yeung & Tung, 1996). *Guanxi* has been acknowledged in the literature as an influential factor in doing business in China (Ai, 2006; Alon, 2003; McGregor, 2005). Luo and Chen (1997), for example, found that *guanxi* improved sales performance. Since perk expenditures are paid not only as part of executive non-cash compensation but also to build and maintain connections, we anticipate that perks help improve firm performance. Secondly, the agency literature suggests that compensation should be linked to performance to deter shirking (Eisenhardt, 1989). In addition to cash, perks may be also paid as a bonus to reward

performance. Therefore, we anticipate that perk compensation increases with firm performance.

Few studies empirically examined CEO cash compensation in China, and its relationship to firm performance (few exceptions, Firth et al., 2006; Kato & Long, 2005). Firth et al. (2006) suggested that understanding the optimal CEO compensation is critical to the success of economic reform in China. The authors found pay sensitivities to performance are small, and that type of ownership matters. To our knowledge, no study to date examined the relative influence of perk compensation on firm performance.

The rest of the paper is organized as follows. Section 1 reviews the background on Chinese CEO compensation, provides the theoretical overview of perk compensation, and develops our research hypotheses. Section 2 shows the research methods and sample data used in this study, including the models that we test along with measures, sample and descriptive statistics. Section 3 displays the empirical findings of the models developed in the previous section. Section 4 discusses the research findings, and section 5 discusses its limitation and provides some guidance for future research.

1. Background on Chinese CEO Compensation and Hypotheses

Brief History of Chinese Compensation System

Studies on compensation in China are relatively few and recent. The scarcity of literature can be attributed partly to the historical context of compensation in planned economies, where regulation overcame market principles in setting wages. Before 1980, Chinese state-owned enterprises (SOEs) were marked by centralized planning where managers were responsible for meeting the target outputs. All the outputs were sold to the government (Mengistae & Xu, 2004). Compensation was determined centrally and was not based on performance (Chow, 1992). The components of compensation included cash

compensation, social wages, and non-material incentives (recognition and honors) (Chow, 1992). Cash wages were paid based on region, industry, and employee's characteristics such as seniority, tenure, education, gender, and job title (Bai & Xu, 2005; Kato & Long, 2005). Cash bonuses were divided equally among group members, which made it more similar to supplement wages rather than real bonuses (Chow 1992). Social wages included pension/retirement benefits, insurance for illness, injuries, accidents, disabilities, and unemployment, maternity benefits, medical benefits, and collective benefits (such as subsidized accommodation, transportation, child-care, and recreational activities) (Chow, 1992).

During the 1980s, sweeping changes in the regulatory environment have ushered a new era of more liberalized compensation schemes. The Chinese government implemented several reforms to modernize the executive compensation practices (Mengistae and Xu, 2004). The first-phase reform introduced various profit retention schemes between 1980 and 1984. An output target was replaced by an output quota, which was below the full production capacity. The output in excess of the specified quota could be sold to the market, and firms could retain a portion of the profit.

The second-phase reform which started at the end of 1984 replaced profit remittance with a profit tax rate of 55%. The after-tax profit could be used for investment, R&D, and/or for bonuses and benefits for employees. Directors were empowered, especially in personnel decisions. In the next phase, Contractual Responsibility Systems (CRSs) was implemented. Centralized planning was replaced by contracts between SOEs and their supervising bodies. The contracts usually lasted for three to four years. The contracts characterized minimum profitability, productivity standards, and investment levels. By signing the contract, the directors were personally responsible. Often, directors' personal wealth was held as performance bonds. Because of this risk, directors' compensation can be up to 10 times of an average worker's compensation.

According to Firth et al. (2006), after the economic reform, boards of directors determine management compensation, based on the recommendation of the controlling shareholder. Due to the socialist environment, there seems to be a cap on management compensation as a multiple of average worker's pay. Previous studies found executive compensation to range from three times of that of an unskilled worker to seven times that of an average worker. Stock options are rarely used. There was concern about under-compensation since the managers' salaries were on average only a fraction of those working in international joint ventures.

As for the history of non-cash compensation in China, we find that the literature on non-cash compensation in the Chinese context is almost absent. In 2004, Kato and Long (2005) interviewed Chinese executives and found that the most common perks were company car and housing allowance. Other perks (the value of which was usually much smaller than the two aforementioned) include travel expenses, business gifts, and business apparel expenses. Work-related perks such as entertainment expenditures were not included in the study. The housing allowance was around 5 – 6% of annual cash salary. Kato and Long (2005) estimated the value of personal use of company car to be around 12% of cash compensation. Overall, perks ranged from 15% to 32% of the total compensation in China. As for non-cash compensation in Hong Kong-owned or foreign-owned firms in China, Chiu, Luk, and Tang (2002) found that the most common non-cash compensation provided for employees of all levels included subsidized meals, accommodation, holiday or entertainment facilities, annual leave, paid sick leave, paid maternity leave, paid wedding leave, paid compassionate leave, accident insurance, and health insurance. Different allowances (e.g. overtime allowance, sickness allowance, transportation allowance) were also paid.

Theoretical Overview: Perk Compensation in China

In the classic agency literature, originating in developed countries, Jensen and Meckling (1976) considered executive perquisite as an agency cost. A manager only owns a fraction of a firm. Therefore, expenditures on perk consumption are borne by all the shareholders but the benefits are enjoyed mostly only by the manager. The manager thus tends to consume too much. Implicitly assumed here is that managers' cash compensation is independent of perk consumption, and it is costly to monitor perk consumption.

In opposition to Jensen and Meckling (1976), Fama (1980) argued that manager's wage can be adjusted, *ex ante* or *ex post*, to account for manager's consumption of perks so that perks can be part of the optimal contract, rather than agency costs. Fama (1980)'s view is consistent with the prior literature in labor and macro-economics, which discusses the various benefits of non-cash compensation: (i) an economy of scale from providing the non-cash compensation to a large number of employees, (ii) tax benefits, (iii) productivity - the beneficial effects of consumption of the good on production, or the reduction in the employee's disutility from work (Dale-Olsen, 2007; Long & Scott, 1982; Oyer, 2004; Rajan & Wulf, 2006; Rosen, 2000). In this paper, we focus on productivity of non-cash compensation.

One example of a perquisite that can has either a productive or a non-productive impact is a corporate jet. On the one hand, a private jet is considered luxurious perquisite for a CEO. On the other hand, traveling by a private jet helps the CEO reach the destination fresh and ready for the negotiation or other important jobs. Marino and Zájbojník (2006) and Adithipyangkul (2007) characterize the optimal compensation contract as one that includes both perk and cash compensation. A firm which pays in terms of productive non-cash compensation will pay less in terms of cash and will also use less cash incentive to motivate the manager (Adithipyangkul, 2007). The higher the productivity of the non-cash

compensation, the greater the non-cash compensation paid (Adithipyankul, 2007; Marino & Zábajník, 2006). Productive perks improve expected firm performance.

In addition to being paid as part of the fixed payment, perks may be paid as a bonus to reward performance and hence to motivate employees. In this case, because perks and cash are substitutes, cash bonus may be reduced accordingly and one may observe a positive relationship between perks and firm performance.

Empirical research in western countries provides inconclusive evidence as to whether executive perks represent agency costs or the optimal contract design. Yermack (2006) analyzed the data on US CEO's personal use of a company airplane and found negative relationship between perks and stock performance, supporting Jensen and Meckling's (1976) argument that perks represent agency costs. Rajan and Wulf (2006), however, support Fama's (1980) view. They found that in the US context, perks may be paid because they facilitate and enhance CEO's work. The authors argued that a company airplane tends to be more productive when the company's headquarters are located in a county with a smaller population, or in a location remote from a large, convenient airport, and when the firms' operations are more geographically dispersed. For employees at lower levels, evidence is also mixed whether non-cash compensation or fringe benefits improve performance. For instance, evidence is mixed whether flexible working hours improve worker productivity (Pierce & Newstrom, 1980).

The Chinese work environment is encumbered by both market and non-market elements with unique institutional features, providing a laboratory for testing the agency theory prediction on perks in a new context. One such feature affecting perks consumption is the use of *guanxi* in building business relations (Alon, 2003). *Guanxi* or connections with governmental officers and business partners are crucial for long-term business success in China and *guanxi* is often built through lavish meals, trips, and gift giving (Ai, 2006; Luo &

Chen, 1997; Yeung & Tung, 1996). Expenditures on entertainment, meal, travel, and communication hence serve two purposes in Chinese firms. On the one hand, such perks are consumed by managers, and hence considered part of the total compensation of the managers. On the other hands, these expenditures help to build and maintain *guanxi*, which will lead to both short-term and long-term profitability.

Furthermore, agency literature prescribes the use of incentive pay to deter shirking (Eisenhardt, 1989). Bonuses can be paid in cash or in kind. In the optimal contract design, perks can be paid as a bonus to reward performance, which may result in a positive association between perks and firm performance. On this basis, we theorize two interrelated hypotheses between perks and performance:

Hypothesis 1a: Perk compensation is positively associated with current firm performance in China.

Hypothesis 2a: Perk compensation is positively associated with future firm performance in China.

Another important Chinese feature which affects compensation practice is firm ownership structure. Note that in a communist society, social equity is an issue. Large executive compensation may attract criticism. As a result, SOEs are predicted to pay less cash compensation. This hypothesis was supported in the previous studies of compensation, e.g., Firth, Fung, and Rui (2007). While SOEs were found to pay less cash compensation, the relationship between perks and state ownership can be more subtle. On the one hand, because of the social equity issue, SOEs may pay less in terms of cash but more in terms of perks, which is less observable to the public than cash. On the other hand, in Chinese context, perks such as entertainment and meals are also used to build and maintain *guanxi*. Non-SOEs are endowed with less political and governmental connections. It is, thus, reasonable to surmise that non-SOEs may need to spend more on *guanxi*-related expenditures than SOEs.

Therefore, whether perks are paid more in SOEs or not remains inconclusive. We test the following hypothesis in section 3.

Hypothesis 3a: Ceteris paribus, the level of perk compensation in state-owned enterprises is lower than in non-state-owned enterprises.

In addition to the test variables above, we include in the regression analysis other firm characteristics (control variables) which were found to determine cash compensation in China. These variables include firm size, growth opportunity, and leverage.

A Benchmark: Cash Compensation in China

In addition to the analysis based on perks, we investigate the relationship between cash compensation and firm performance as a benchmark for comparison. Agency theory suggests firms to link pay to performance to motivate managers (Eisenhardt, 1989). The performance measures used should be informative about all aspects of CEO's actions which contribute to the firm's short-term and long-term success (Chirstensen & Feltham, 2005). Since the data on the actual performance measures used in Chinese companies are not readily available, current or lagged accounting numbers and stock performance are often used as proxies for the actual performance measures. Consistent with the suggestion to use incentive pay to solve agency problems, cash compensation level in China was found to be increasing in return on sales (profit/sales) (Mengistae & Xu, 2004), (lagged) return on asset (Conyon & He, 2008; Firth at al. 2007; Li, Moshirian, Nguyen & Tan, 2007), and (lagged) stock return (Conyon & He, 2008). Note that accounting numbers are based on history and may be short-term oriented. They may not capture the CEO's actions which contribute to business success in the long run. Researchers thus use future firm performance as a proxy for the performance measure which is long-term oriented. Using the U.S. data, Hayes and Schaefer (2000) found that future performance can be explained by current CEO compensation.

It should be noted here that the relationship between pay and performance may be more complicated in China than in other developed economies. There are two types of firms in China: SOEs and family-controlled enterprises. For family-controlled firms, managers are often the members of the owning families so that ownership and control are not separated and much incentive may not be needed to deter managerial shirking. For SOEs, the state has an alternative tool to motivate managers, i.e., political advancement, so that the state may not need to strongly link pay to performance. In short, Chinese firms may not need to use much incentive pay to solve the agency problems between the principal and the agent. However, in addition to the moral hazard problems where the principal and the agent's interests are not aligned, another type of agency problems called the principal-principal agency problems exists in China. The principal-principal agency problems arise when the majority shareholders' (the state's or the controlling family's) interests are not aligned with the minority shareholders' interests (Young, Peng, Ahlstrom & Bruton, 2002). For instance, the state may not allow an employee layoff, even when the layoff is beneficial, because it wants to control the unemployment rate.

After the compensation reform, executive pay has been linked to performance. Researchers (e.g., Firth et al., 2007) generally argued that pay for performance is there to solve the moral hazard problems between the principal (owner) and the agent (manager). However, pay for performance can also help to solve the principal-principal agency problems. For SOEs, where the state may be more concerned about other goals than profit maximization and political advancement is used to motivate managers to fulfill those goals, linking pay to performance helps to motivate managers to be more concerned about firm performance and hence about the minority shareholders. For family controlled firms, linking the manager-owner's pay to performance makes asset misappropriate more costly to the manager because by 'stealing' from the company, the manager receives less compensation. Base on the agency

theory predictions above, we anticipate that cash compensation is positively associated with firm current and future performance:

Hypothesis 1b: Cash compensation is positively associated with current firm performance in China.

Hypothesis 2b: Cash compensation positively associated with future firm performance in China.

In addition to performance, we anticipate that ownership structure affects cash compensation in China. Due to social equity pressures, SOEs are expected to pay less cash compensation, possibly to avoid criticism from the public (Conyon & He, 2008; Firth et al., 2006; Firth et al., 2007; Li et al., 2007).

Hypothesis 3b: *Ceteris paribus*, the level of cash compensation in state-owned enterprises is lower than that in non-state-owned enterprises.

The control variables included in our analysis include firm size, growth opportunity, and leverage, as suggested by the previous literature. Mengistae and Xu (2004), Firth et al. (2006), Firth et al. (2007), Li et al. (2007), and Conyon and He (2008) found that compensation level increased with firm size, possibly because larger firms are more complex and, hence, require more skills to manage or because they have a larger resource base to attract top talent. Growth opportunity was also found to be positively associated with executive compensation (Conyon & He, 2008), possibly because a high-growth firm needs a more competent manager who deserves higher pay. In addition to shareholder's monitoring, Firth et al. (2007) found that CEO compensation was decreasing in the degree of leverage, implying that debt holders' monitoring reduces CEO compensation. Additionally, we control for year of operation and industry effects.

2. Research Methods and Sample Data

We run two regression models to test the research question of whether perks represent agency costs or the optimal compensation contract design. First, we test whether pay is positively associated with current performance, with particular emphasis on perk compensation. Secondly, we examine the relationship between compensation and future performance of the firm.

Current Compensation and Current Performance

To test Hypothesis 1a (whether perk compensation is positively associated with current performance) and Hypothesis 3a (whether perk compensation is lower in SOEs), we follow the literature of executive compensation to run the following model:

$$PERKS_{it} (COMPENSATION_{it}) = \alpha + \beta_1 ROA_{it} + \beta_2 STATE_{it} + \beta_3 LOG_SALES_{it} + \beta_4 LEVERAGE_{it} + \beta_5 MB_{it} + YEAR + INDUSTRY + \varepsilon_{it}, \quad 1)$$

where

$PERKS_{it}$ is the logarithm of perks for firm i in year t

$COMPENSATION_{it}$ is the logarithm of cash compensation paid for top three executives for firm i in year t

ROA_{it} is the return on assets for firm i in year t

$STATE_{it}$ is indicator for state-owned enterprises, which equals one if the firm is controlled by state and zero otherwise.

LOG_SALES_{it} , the proxy for size, is the logarithm of sales for firm i in year t

$LEVERAGE_{it}$ is the ratio of total liability to total assets for firm i in year t

MB_{it} is market-to-book equity ratio for firm i in year t

$YEAR$ stands for the yearly fixed effect

$INDUSTRY$ stands for the industrial effect

In addition to the test variables, the control variables included in our analysis are firm size, leverage, growth opportunity, the year of operation, and industry effects, as suggested by the previous literature.

Statistical Methods

The standard error is clustered by firms with regards to repetition of same firm in the analysis. This model is performed in the pooled sample to provide general evidence whether perks can be part of an optimal contract in practice. If compensation contracts are designed strategically, cash compensation should be reduced to account for perks consumption. Those firms, hence, tend to have relatively lower cash payment. We anticipate that perks will increase with firm performance in those companies. If compensation is not designed strategically, however, cash compensation is not decreased and should remain high, and perks, which represent agency costs, may worsen the firm's performance. To separate a firm which is more likely to design the compensation strategically from a firm with agency problems, we create four sub-samples stratified by two dimensions, cash compensation and performance, leading to 4 separate groups:

Group 1) firms with lower cash pay and higher performance,

Group 2) firms with higher cash pay and lower performance,

Group 3) firms with lower cash pay and lower performance, and

Group 4) firms with higher cash pay and higher performance.

Group (1), firms with lower cash pay but higher performance, is likely to represent a group of firms which design their compensation contracts strategically. We anticipate a positive relationship between perks and firm performance for this group, i.e., β_1 is expected to be positive.

Group (2), firms with higher cash pay and lower performance, tends to represent firms with agency problems. The consumption of perks is more likely to be appropriation of private benefit by firm management. We anticipate a negative relationship between firm performance and perks for this group, i.e., β_1 is expected to be negative.

The compensation is aligned with performance in groups 3) and 4). We, thus, do not make any predication over association between perks and performance for these firms. We run the model in each subsample to test these propositions.

Current Compensation and Future Performance

To test the second research question, we run the following model.

$$ROA_{it+j} = \alpha + \beta_1 COMPENSATION_{it} + \beta_2 PERKS_{it} + \beta_3 ROA_{it} + \beta_4 STATE_{it} + \beta_5 LOG_SALES_{it} + \beta_6 LEVERAGE_{it} + \beta_7 MB_{it} + YEAR + INDUSTRY + \varepsilon_{it}, \quad 2)$$

where

ROA_{it+j} is the return on assets for firm i in year $t+j$ and j equals 1, 2 and 3 alternatively.

All the remaining variables are defined in the same way as those in model 1)

As suggested by Hayes and Schaefer (2000), if some unobservable aspects of performance are reflected in future performance, and the managers are rewarded based on the unobservable performance measures, the current cash compensation is expected to be increasing in the future firm performance. In other words, β_1 is expected to be positive. In addition, if perks are paid as bonuses to reward unobservable aspects of current performance which are reflected in future performance, or perks (especially *guanxi*-related perks) help to improve future performance, β_2 is expected to be positive. Same as in model 1), the standard errors are clustered by firm in the estimation.

Sample and Data Sources

In the footnotes to cash flow statement, the Chinese listed companies are required to disclose the cash expenditure over a list of operating items, such as eating and traveling expenditure, transportation expenditure, communication expenditure, entertaining expenditure, R&D expenditure, advertising expenditure, etc. We manually collected all the items disclosed in this notes for all public companies traded in the Chinese stock markets from 1999 to 2004. Some of the expenditures listed are partly consumed by managers. Company cars and mobile phones, for example, are used both for work and for personal transportation and communication. We anticipate that the expenses on eating, traveling, company cars, communication, socializing, and entertaining are the expenditures which involve personal consumption by management. The sum of these expenditures is denoted by PERKS1, which is a proxy for management perquisites. Because we cannot determine the extent to which the expenditures is spent for management's personal consumption, the variable PERK1 may not be a good proxy for management perquisites. We, therefore, also focus our analysis on the types of perks which seem to involve more of the management's personal consumption, i.e., the expenditures on eating, traveling, and entertaining. The sum of these expenditures is denoted as PERKS2.

As a benchmark for the motivating effect of perks, we also compile the cash compensation for the top three executives in the company. The cash compensation data is compiled from a database for the China Stock Market and Accounting Research (CSMAR). The market and accounting data are also from CSMAR. The final sample includes 3,706 firm-year observations with both perks and cash compensation data available. The distribution of sample by fiscal year is reported in Panel A of Table 1. The number of firms by year increases from 161 in 2000 to 973 in 2004, which indicates the increasing number of firms listed in Chinese stock market as well as the improvement in disclosure quality. The distribution of sample by industry is reported in Panel B of Table 1. More than 50% of our

sample firms are from manufacturing sector. This is consistent with the industry structure of Chinese stock market.

Insert Table 1 (Panel A & B) About Here

Descriptive statistics

Table 2 panel A provides the descriptive statistics of perks and cash compensation. PERKS1, which includes expenditure on eating, traveling, company car, socializing, communication, and entertaining, has a mean and median of 4.73 and 1.39, respectively. PERKS2, which includes only eating, traveling and entertaining expenditure, has a mean and median amounting to 4.00 and 1.06, each of which is only marginally lower than that of PERKS1. This means that the eating, traveling and entertaining expenditures, which help managers build and maintain *guanxi*, are the main components of perks in Chinese firms. Compared with perks, cash compensation has a mean and median of 0.42 and 0.30, which are much lower than perks consumed in the company. This difference can be attributed to the fact that perks are consumed by the whole management team while compensation is confined to the top three executives in the company.

Panel B of Table 2 reports the descriptive statistics of firm's performance, measured as return on assets (ROA), and other controlling variables, leverage, size and market-to-book equity ratio. Especially, the variable STATE, which is an indicator for state-controlled firms, shows that around 79% percent of firms in our sample are controlled by state. We control for this ownership effect in all the models because we anticipate that the compensation structure, including perks and compensation, may vary in state- and non-state-controlled firms.

Insert Table 2 (Panel A & B) About Here

3. Results

Our results are divided into two sections: the first relates pay for performance, with emphasis on perk compensation, analyzed for different samples, and the second relates to future performance of the firm (proxied by ROA) to perk compensation as well as other financial variables.

Current Compensation and Current Performance

Based on agency theory, we predicted that perk and cash compensations are positively associated with current firm performance.

Hypothesis 1a: Perk compensation is positively associated with current firm performance in China.

Hypothesis 1b: Cash compensation is positively associated with current firm performance in China.

Table 3 reports the baseline model of association of perks and cash compensation with contemporaneous performance. The coefficient of ROA is 0.019 with a significance level at 1% for cash compensation, supporting Hypothesis 1b. This indicates that cash compensation is linked to performance in China. In addition, the coefficients of ROA in model (1) and (2) with PERKS1 and PERKS2 as dependent variables are both 0.07, significant at 5% level, supporting Hypothesis 1a. The positive association between perks and contemporaneous performance indicates that the perks may not simply represent agency costs where managers abuse the firm's resources through overconsumption of perks, as suggested by Jensen and Meckling (1976). In contrast, these findings support Rajan and Wulf (2006) and Fama (1980) who proposed a possible positive productive impact of such compensation.

Insert Table 3 About Here

Hypothesis 3a: Ceteris paribus, the level of perk compensation in state-owned enterprises is lower than in non-state-owned enterprises.

Hypothesis 3b: Ceteris paribus, the level of cash compensation in state-owned enterprises is lower than in non-state-owned enterprises.

The STATE variable, an indicator for state-controlled firms, is significantly negative in model (3), which means the formal cash compensation in state-controlled firms is lower than that in non-state-controlled firms. This is consistent with the literature (e.g., Li et al., 2007) and with Hypothesis 3b. Cash compensation is regulated in state-controlled firms. Social equity pressures possibly limits the amount of cash compensation SOEs can award to the managers. The STATE variable, however, is not significantly associated with perks, as predicted by Hypothesis 3a.

The coefficients of the remaining controlling variables are consistent with the findings in the previous studies. The large and growing firms are more likely to pay higher cash compensation and perks to management while highly leveraged firms will pay less. The association of perks with firm's fundamentals is the same as that of cash compensation. This provides evidence that perks and cash may be substitutes.

An alternative explanation for a positive association between perks and performance may be that self-interested managers can misappropriate shareholders' wealth through perks (and possibly also through cash compensation) only when the performance is good and there are excess resources to expropriate. To provide further evidence that perks can be part of the optimal contract, rather than agency costs, we perform the pay-for-performance analysis in sub-samples stratified by level of cash compensation and firm performance. The sample is stratified into two sub-samples of firms with higher or lower pay, with the median of average cash compensation as cutoff a point. And the sample is also stratified into two sub-samples of firms with higher or lower performance, with the median of average ROA as a cutoff point.

The crossover of the above two stratifications generates results for the four groups discussed earlier (see Table 4).

Insert Table 4 About Here

Group (1) includes firms with lower cash compensation, but higher performance. This group is likely to represent a group of firms which design their compensation optimally. Non-cash compensation is expected to be paid to enhance the firm profitability and as a substitute for cash bonus to motivate performance. We proposed a positive relationship between perks and firm performance for this group. Group (2) includes firms with higher cash but lower performance. This group seems to represent firms with agency problems. We anticipate a negative relationship between perks and firm performance. The test results of the above two predictions are reported in Panel A of Table 4. Consistent with the stratification criteria of sub-sample, the association of cash compensation with performance becomes much weaker than that in pooled sample analysis. The formal cash compensation does not have much motivating effect in these two sub-samples. However, the association of perks with performance becomes much stronger among firms with higher performance and lower pay in Group (1). The coefficient of ROA with PERKS (PERKS2) as dependent variable increases from 0.070 (0.071) in Table 3 to 0.354 (0.403) (see model (1) and model (2) in Panel A of Table 4). The relationships are statistically significant. The association of perks with performance becomes much weaker among firms with lower performance but higher pay in Group (2). The coefficient of ROA with PERKS1 (PERKS2) as dependent variable decreases from 0.070 (0.071) in Table 3 to -0.08 (-0.068) (see model (4) and model (5) in Panel A of Table 4). The relationships for Group (2) become negative as predicted, but insignificant. This is possible because some of the perk-related expenditure may have been spent productively to build *guanxi*, which helps improve firm performance. The rest of the

expenditures, which may be the misappropriation by management, worsened performance. The two opposing forces possibly result in insignificant relationships between perks and performance.

The evidence from Panel A of Table 4 suggests that the two kinds of firms seem to coexist in the market, those with well aligned compensation schemes (as represented by Group 1), and those which are inflicted by agency problems (as represented by Group 2). Perks compensation, when well implemented, can lead to the optimal and motivating compensation. Said another way, non-cash compensation, if used appropriately, can both enhance profitability and be paid to motivate managers.

The empirical evidence of the association between perks and compensation with performance for firms in group (3) and (4) is provided in Panel B of Table 4 as a benchmark reference. These are firms with higher performance and higher pay or firms with lower performance and lower pay (pay and performance is tied). The association of cash compensation with firm performance becomes stronger for Group (4). But, we did not find any significant association between perks and firm performance.

Current Compensation and Future Performance

Hypothesis 2a: Perk compensation is positively associated with future firm performance in China.

Hypothesis 2b: Cash compensation is positively associated with future firm performance in China.

Since expenditures on entertainment, meal, travel, and communication can help to build and maintain *guanxi*, which is vital for long-term success, perks are anticipated to lead to better future performance. Additionally, as suggested by the agency literature, we also anticipate that current cash compensation is positively associated with future firm

performance (a proxy for long-term oriented performance measure). Our study supports these propositions, as shown in Table 5.

Insert Table 5 About Here

The coefficients for COMPENSATION and PERKS are positive and significant, as predicted by Hypotheses 2a and 2b. For up to three year, the future performance increases with current cash compensation and perks. In addition to confirming the findings by Hayes and Schaefer (2000) as to cash compensation, we also find that perks seem to be used as bonuses to reward long-term performance and that these perks may improve future firm performance.

4. Discussion

As suggested by the agency theory, much of the previous compensation literature considers the relationships between cash compensation and performance. Some of the previous studies in Western countries examined the relationships between perks and performance and found inconclusive evidence whether perks represent agency costs or optimal compensation contract design. To the best of our knowledge, no previous study considers this research question in the Chinese context. This study investigates whether Chinese managers steal from their companies through excessive perk consumption or perks are provided for good reasons, such as to motivate managers and increase performance. Contrary to evidence from Western countries (e.g., Pfeffer and Sutton, 2006), our research suggests that perks are an important form of compensation in China, both because they may be an instrument for developing business through *guanxi* development (which often involves entertaining) and because they act as motivators for managers. The research also implies that investment in *guanxi* (through perks) brings long-term benefits, as the firm future

performance is found to be increasing in current perks. The top executives in Chinese companies, on average, spend about 4-5RMB million per year, in contrast to their pay which ranges about 0.42RMB million per year.

In addition to perks, the research investigates the relationships between cash compensation and current and future performance for comparison. Similar to perks, cash compensation is found to be positively associated with current and future performance, suggesting that cash and perks may be used as substitutes for rewarding managers' future performance.

Furthermore, we anticipate that Chinese SOE may use perks to compensate their managers competitively. Since they may be limited in what they can give in the form of cash compensation (because of either regulation or institutional pressure), perks provide the firm with the ability to "hide" the total compensation package in more opaque forms of compensation which are harder to track and criticize. The research finds that state ownership has a negative and significant impact on cash compensation, as found in the previous studies. However, state ownership does not have a significant impact on perk compensation, possibly because on the one hand, a SOE faces more serious social equity cash compensation pressures, and therefore it pays more in terms of perks since perks are more opaque to the public. On the other hand, non-SOE may spend more on perks due to greater needs to build and maintain *guanxi* with politicians and government officers, as well as with suppliers and buyers.

Large companies with high sales volume are more likely to give both higher cash compensation and higher perk compensation, and leverage has a negative and significant impact on both cash compensation and perks compensation, but the impact on cash compensation is more than 5 times larger. This suggests that companies in China whose ratio of total liability to total assets are larger are less likely to afford perks than they are able to

afford cash compensation. In contrast, the coefficient of market-to-book equity ratio (which measures the future potential) is positive and significant for both cash compensation and perks, but the relative impact on perks is much larger (more than 8 times larger for PERKS 1).

The stratified subsamples in our data indicate that some firms may align perks compensation incentive better than others and, those that do, exhibit a strong relationship between ROA and perks compensation. Perks in low performing, high paying firms are not related to any of our financial variables. Perks are significantly and positively related to sales and MTB in lower performing, lower paying firms. In contrast, perks are only related to MTB in higher performance and higher cash payout firms.

5. Limitation and Future Research

More research is needed on non-cash compensation in China. We provide a first empirical outlook into this important feature of compensation reform. But data are still lacking. For example, when data become available on stock options, comparisons with Western firms will be useful. Over time, the structure of compensation will change and replication work may be needed. In addition, we find that perks are positively associated with firm performance and we propose two reasons for this result – (i) perks help to build and maintain *guanxi* and *guanxi* leads to business success, and (ii) perks are paid as a bonus to deter managerial shirking. Because the data on the break-down of perks into the fixed compensation component and the bonus component are not publicly available, we cannot answer the question to what extent perks are paid as part of fixed compensation to build *guanxi* and to what extent perks are paid as a bonus to deter managerial shirking. Future case-study or survey research to gather the detailed data on the break-down of perks into two components will help us understand the use of perk compensation in China better.

Furthermore, while the compensation literature often examines the use of incentive pay to solve the moral hazard problems between the principal and the agent, not much previous work considers the use of compensation design to solve the principal-principal agency problems. A formal theory is needed for researchers to distinguish the use of incentive pay to solve principal-agent agency problems from the use of incentive pay to solve the principal-principal agency problems.

Finally, there is a need to test theories of compensation in relation to the unique environment in China and, indeed, other countries in order to develop general explanations across different systems. While perks seem to be viewed rather negatively by investors in the West and the evidence seems inconclusive as to the effects of perks on firm, the relationship between perks, especially *guanxi*-related perks, and firm performance may be different in East Asia where networking is one of the keys to business success. Future studies should extend this framework to other countries, in both developing and developed contexts.

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Table 1 Sample Description

Panel A: By year

The panel presents the sample distribution by year.

Year	Number	As Percentage of sample
1999	199	5%
2000	161	4%
2001	646	17%
2002	843	23%
2003	884	24%
2004	973	26%
Total	3,706	100%

Panel B: By Industry

This panel provides the sample distribution by industry.

Industry	Number	As Percentage of sample
Agriculture, Forestry, Animal Husbandry and fishing	72	2%
Mining	54	1%
Manufacturing	2127	57%
Production and distribution of Electricity, Gas and Water	195	5%
Construction	62	2%
Transport, Storage and Post	154	4%
Information transmission, Computer service and software	197	5%
Wholes and Retail trade	252	7%
Real Estate	172	5%
Management of Water Conservancy, environment and public facilities	103	3%
Culture, Sport and entertainment	14	0%
Conglomerate	304	8%
Total	3706	100%

Table 2 Descriptive statistics

Panel A: Perks and Compensation

This table provides the descriptive statistics for level of perks and cash compensation. PERKS1 is defined as the summary of expenses on eating, traveling, company cars, communication, socializing, and entertaining in the fiscal year. PERKS2 is the defined as the expenses on eating, traveling and entertaining in the fiscal year. COMPENSATION is the total cash compensation paid to the top three executive officers in the fiscal year. All the variables are measured in one million RMB.

VARIABLE	N	MEAN	MEDIAN	STD. DEV.
PERKS1	3706	4.73	1.39	7.95
PERKS2	3706	4.00	1.06	6.72
COMPENSATION	3706	0.42	0.30	0.37

Table 2 (continued)

Panel B: Financial and stock return

This provides the descriptive statistics for the financial data. ROA, return on assets, is defined as the net income divided by total assets at the fiscal year end. LEVERAGE is the ratio of total liability to total assets at the fiscal year end. MTB, market-to-book equity ratio, is defined as the ratio of market value to book value of equity at the fiscal year end. LOG_SALES is the log of total sales in the fiscal year. STATE, indicator for state-controlled firms, equals one if the company is controlled by local or central government and zero if it's controlled by entrepreneurs.

	N	MEAN	MEDIAN	STD. DEV.
ROA (%)	3706	2.274	2.854	5.695
LEVERAGE	3706	0.467	0.469	0.180
MTB	3706	3.729	2.938	2.533
LOG_SALES	3706	20.264	20.233	1.175
STATE	3706	0.793	1.000	0.405

Table 3 Association of Perks and Compensation with firm performance

This table provides the regression results for the association of perks and compensation with firm performance. The dependent variable is log of PERKS1 plus one, PERKS2 plus one and COMPENSATION plus one respectively in Model (1) to (3). Independent variables includes, ROA, return on assets, measured as the net income divided by total assets at the fiscal year end, STATE, an indicator variable, taking value of one for state controlled firms, and zero otherwise, LEVERAGE, the ratio of total liability to total assets at the fiscal year end, MTB, market-to-book equity ratio, measured as the ratio of market value to book value of equity at the fiscal year end, LOG_SALES, the logarithm value of total sales in the fiscal year. OLS model with standard error clustered by firm is applied. Yearly and industrial fixed effect are controlled but not reported. *, **, and *** stand for statistical significance of 10%, 5% and 1%, respectively.

	Model (1) PERKS1	Model (2) PERKS2	Model (3) COMPENSATION
ROA	0.070 (2.24)**	0.071 (2.23)**	0.019 (5.58)***
STATE	-0.097 (0.20)	-0.129 (0.26)	-0.175 (3.55)***
LOG_SALES	0.364 (1.79)*	0.337 (1.66)*	0.268 (11.88)***
LEVERAGE	-2.323 (1.79)*	-2.224 (1.73)*	-0.434 (3.23)***
MTB	0.191 (2.08)**	0.159 (1.72)*	0.023 (2.22)**
Constant	1.351 (0.33)	1.973 (0.48)	6.277 (14.33)***
Observations	3706	3706	3706
Adjusted R-squared	0.04	0.04	0.39

Table 4 Association of Perks and Compensation with firm performance in sub-samples

Panel A Firms with performance inconsistent with cash compensation

This panel presents the regression result of association of perks and compensation with firm performance among firms with higher performance and lower compensation and firms with lower performance and higher compensation. Firms with average ROA above the median of average ROA of each firm from 1999 to 2004 are regarded as firms with higher performance and firms with lower performance otherwise. Firms with average compensation for top three executives above the median of that for each firm from 1999 to 2004 are regarded as firms with higher pay and firms with lower pay otherwise. The dependent variable is log of PERKS1 plus one, PERKS2 plus one and COMPENSATION plus one respectively in Model (1) to (3) and Model (4) to (6). Independent variables includes, ROA, return on assets, measured as the net income divided by total assets at the fiscal year end, STATE, an indicator variable, taking value of one for state controlled firms, and zero otherwise, LEVERAGE, the ratio of total liability to total assets at the fiscal year end, MTB, market-to-book equity ratio, measured as the ratio of market value to book value of equity at the fiscal year end, LOG_SALES, the logarithm value of total sales in the fiscal year. OLS model with standard error clustered by firm is applied. Yearly and industrial fixed effect are controlled but not reported. *, **, and *** stand for statistical significance of 10%, 5% and 1%, respectively.

	Firms with higher performance but lower cash pay			Firms with lower performance but higher cash pay		
	Model (1) PERKS1	Model (2) PERKS2	Model (3) COMPENSATION	Model (4) PERKS1	Model (5) PERKS2	Model (6) COMPENSATION
ROA	0.354 (2.45)**	0.403 (2.86)***	0.019 (1.71)*	-0.080 (1.32)	-0.068 (1.11)	0.004 (1.33)
STATE	0.365 (0.28)	0.495 (0.38)	0.006 (0.07)	-1.616 (1.49)	-1.641 (1.51)	-0.164 (2.66)***
LOG_SALES	-0.159 (0.30)	-0.225 (0.43)	0.062 (1.54)	0.190 (0.42)	0.129 (0.28)	0.142 (6.21)***
LEVERAGE	1.342 (0.41)	2.505 (0.78)	-0.046 (0.17)	-1.350 (0.41)	-0.285 (0.09)	-0.121 (0.69)
MTB	-0.464 (1.66)*	-0.609 (2.35)**	0.009 (0.54)	0.047 (0.23)	-0.000 (0.00)	0.008 (0.69)
Constant	13.148 (1.30)	14.044 (1.42)	9.684 (13.30)***	3.714 (0.40)	4.893 (0.53)	9.276 (21.04)***
Observations	755	755	755	756	756	756
Adjusted R-squared	0.06	0.07	0.35	0.05	0.05	0.37

Table 4 Association of Perks and Compensation with firm performance in sub-samples

Panel B Firms with performance consistent with cash compensation

This panel presents the regression result of association of perks and compensation with firm performance in motivation aligned firms, which are firms with lower performance and lower pay and firms with higher performance and higher pay. Firms with average ROA above the median of average ROA of each firm from 1999 to 2004 are regarded as firms with higher performance and firms with lower performance otherwise. Firms with average compensation for top three executives above the median of that for each firm from 1999 to 2004 are regarded as firms with higher pay and firms with lower pay otherwise. The dependent variable is log of PERKS1 plus one, PERKS2 plus one and COMPENSATION plus one respectively in Model (1) to (3) and Model (4) to (6). Independent variables includes, ROA, return on assets, measured as the net income divided by total assets at the fiscal year end, STATE, an indicator variable, taking value of one for state controlled firms, and zero otherwise, LEVERAGE, the ratio of total liability to total assets at the fiscal year end, MTB, market-to-book equity ratio, measured as the ratio of market value to book value of equity at the fiscal year end, LOG_SALES, the logarithm value of total sales in the fiscal year. OLS model with standard error clustered by firm is applied. Yearly and industrial fixed effect are controlled but not reported. *, **, and *** stand for statistical significance of 10%, 5% and 1%, respectively.

	Firms with lower performance and lower cash pay			Firms with higher performance higher cash pay		
	Model (1) PERKS1	Model (2) PERKS2	Model (3) COMPENSATION	Model (4) PERKS1	Model (5) PERKS2	Model (6) COMPENSATION
ROA	0.043 (1.03)	0.039 (0.94)	0.009 (2.43)**	0.153 (1.21)	0.148 (1.15)	0.041 (4.44)***
STATE	0.452 (0.56)	0.310 (0.39)	-0.154 (2.32)**	0.505 (0.57)	0.499 (0.57)	-0.153 (2.69)***
LOG_SALES	0.942 (2.72)***	1.047 (3.05)***	0.093 (2.71)***	-0.173 (0.41)	-0.248 (0.60)	0.124 (4.94)***
LEVERAGE	-3.030 (1.49)	-3.320 (1.65)	-0.203 (1.16)	0.061 (0.02)	-1.192 (0.39)	0.125 (0.74)
MTB	0.287 (2.05)**	0.284 (2.05)**	0.006 (0.59)	0.541 (2.36)**	0.543 (2.38)**	-0.021 (1.55)
Constant	-8.964 (1.28)	-10.806 (1.57)	9.661 (15.00)***	8.344 (0.99)	9.930 (1.20)	9.281 (19.08)***
Observations	1097	1097	1097	1098	1098	1098
Adjusted R-squared	0.06	0.06	0.37	0.05	0.07	0.41

Table 5 Relationships between perks and cash compensation and future performance

This table shows the relationships between perks and cash compensation and future firm performance. The dependent variable is ROA in one, two and three years forward respectively in Model (1) and (2), Model (3) and (4) and Model (5) and (6). The independent variable includes, the logarithm value PERKS1_t plus one, the logarithm value PERKS2_t plus one, the logarithm value COMPENSATION_t plus one, ROA_t, return on assets, measured as the net income divided by total assets at the end of year t, STATE_t, an indicator variable, taking value of one for state controlled firms, and zero otherwise, LEVERAGE_t, the ratio of total liability to total assets at the end of year t, MTB_t, market-to-book equity ratio, measured as the ratio of market value to book value of equity at the end of year t, LOG_SALES_t, the logarithm value of total sales in the year t. OLS model with standard error clustered by firm is applied. Yearly and industrial fixed effect are controlled but not reported. *, **, and *** stand for statistical significance of 10%, 5% and 1%, respectively.

	ROA _{t+1}		ROA _{t+2}		ROA _{t+3}	
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)
COMPENSATION _t	0.388 (3.28)***	0.391 (3.30)***	0.522 (3.70)***	0.524 (3.71)***	0.375 (2.08)**	0.375 (2.08)**
PERKS1 _t	0.030 (2.78)***		0.034 (2.49)**		0.032 (1.84)*	
PERKS2 _t		0.035 (3.07)***		0.034 (2.52)**		0.029 (1.68)*
ROA _t	0.421 (15.88)***	0.421 (15.89)***	0.253 (9.33)***	0.253 (9.33)***	0.211 (5.45)***	0.211 (5.46)***
LOG_SALES _t	0.866 (7.91)***	0.864 (7.88)***	0.845 (6.85)***	0.845 (6.85)***	0.891 (5.89)***	0.893 (5.90)***
LEVERAGE _t	-4.380 (6.87)***	-4.371 (6.85)***	-4.862 (6.42)***	-4.864 (6.42)***	-3.970 (3.93)***	-3.980 (3.93)***
MTB _t	0.366 (6.20)***	0.366 (6.21)***	0.286 (4.28)***	0.287 (4.30)***	0.158 (2.07)**	0.160 (2.08)**
Constant	-21.517 (9.63)***	-21.564 (9.67)***	-24.218 (9.01)***	-24.257 (9.02)***	-23.805 (7.05)***	-23.826 (7.05)***
Observations	3925	3925	3855	3855	2806	2806
Adjusted R-squared	0.28	0.28	0.17	0.17	0.13	0.13

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