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A survey of executive compensation contracts in China's listed companies

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ABSTRACT

We analyze 228 executive compensation contracts voluntarily disclosed by Chinese listed firms and find that central-government-controlled companies disclose more information in executive compensation contracts than local-government-controlled and non-government-controlled companies. Cash-based payments are the main form of executive compensation, whereas equity-based payments are seldom used by Chinese listed companies. On average, there are no significant differences in the value of basic salaries and performance-based compensation in executive compensation contracts. But, compared with their counterparts in non-government-controlled companies, executives in government-controlled companies are given more incentive compensation. Accounting earnings are typically used in executive compensation contracts, with few firms using stock returns to evaluate their executives. However, the use of non-financial measures has increased significantly since 2007.

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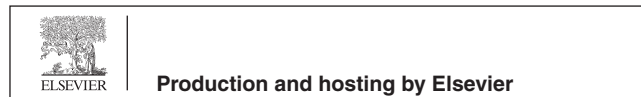
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1. Introduction

Numerous studies analyze the relationship between executive compensation and firm performance in China's listed companies, and their findings enrich our understanding of the mechanisms and effectiveness of executive compensation contracts. However, due to the difficulties in acquiring details about executive compensation contracts, previous studies assume that the level of executive compensation is related to certain measures of accounting (such as return on assets (ROA) or return on equity (ROE)) or market (stock return) performance. To better understand the structure of executive compensation contracts, we hand collected the details of 228 such contracts voluntarily disclosed by Chinese listed firms between 2004 and 2010. We provide descriptive empirical evidence on various characteristics of executive compensation contracts, such as the degree of disclosure, the structure of compensation, the assessment measures used and the method of calculating performance compensation. We aim to shed light on executive compensation by presenting a more comprehensive understanding of executive compensation contracts in Chinese listed firms.

To the best of our knowledge, the survey conducted by [Pan et al. \(2006\)](#) is the only other study of executive compensation contracts in China. Based on 54 executive compensation contracts from 2002 to 2004, they show that executive performance evaluation is mainly based on financial rather than non-financial measures. They also find that executive performance evaluations are chiefly based on performance budgets set by the board of directors. We re-examine this issue for several reasons.

First, the 54 executive compensation contracts collected by [Pan et al. \(2006\)](#) were disclosed between 2002 and 2004. Since 2004, there has been a series of changes in the compensation regulations, especially in central-government-controlled firms. These regulation changes may have affected the design of compensation contracts and it is necessary to examine whether actual executive compensation contracts have changed along with the regulations.

Second, it is well documented that the structure and effectiveness of executive compensation depend on the governance system ([Liu et al., 2007](#); [Fang, 2009](#); [Xin and Tan, 2009](#)). [Pan et al. \(2006\)](#) do not find evidence of compensation contracts varying with governance systems due to the limited number of contracts studied. This study provides both a general descriptive analysis of compensation contracts and evidence of how governance systems affect the structure of such contracts.

Third, [Banker and Datar \(1989\)](#) find that performance measure quality affects the structure of executive compensation contracts. Accounting profit is one of the chief performance measures in executive compensation contracts. In 2007, Chinese listed companies implemented a new accounting standards system that differs significantly from the old accounting standards. For example, the new standards introduce fair value measurement and management is afforded much more discretionary choice. These changes have certainly had a significant influence on accounting information quality. [Ke et al. \(2011\)](#) find that the implementation of the new accounting standards has reduced the sensitivity of executive compensation and accounting profitability. In this study, we examine whether the use of accounting information in compensation contracts differs before and after the implementation of the new accounting standards.

Finally, significant changes in the content disclosed and level of disclosure in compensation contracts have taken place since 2004, which means we can now collect more information from compensation contracts. For example, we are now able to study the weighting of different performance measures and analyze specific performance assessment formulas.

The remainder of this study is structured as follows. Section 2 presents the related compensation regulation background and provides a review of the executive compensation literature. In Section 3, we provide descriptions of the sample compensation contracts. A detailed analysis of compensation contracts is provided in Section 4, including the assessment criteria used, performance evaluation, the use of financial performance measures and structure. Section 5 concludes the study and discusses directions for future executive compensation studies.

2. Institutional background and literature review

2.1. Background of compensation regulation in China

2.1.1. Regulation of compensation disclosure

Article 61 of the Securities Act 1999 states that companies with publicly listed stocks or bonds should disclose in their annual reports the resumes of all directors, supervisors and top managers together with their shareholdings in the company. The Companies Law, which was promulgated in 1999 and revised in 2005, requires that “a company shall regularly disclose to its shareholders information about remunerations obtained by the directors, supervisors and top managers from the company.” Both the Securities Act and Companies Law have laid the foundation for compensation disclosure in limited liability corporations.

Before 1997, executive compensation disclosure was not well regulated. In 1997, a new accounting standard (Related Party Transactions) was issued by the Ministry of Finance (MOF) that defines key management personnel as related parties and thus mandates that their compensation must be disclosed as the main transaction of a related party. However, as there were no detailed disclosure rules, compensation disclosures differed greatly in both format and content.

The second disclosure requirement – Content and Format of Annual Reports – of the Format and Content of Information Disclosure by Companies with Public Offering Securities regulations issued by the China Securities Regulatory Commission (CSRC) in 1997 had a great effect on compensation disclosure. It requires listed companies to disclose more details of executive compensation and was revised seven times between 1998 and 2012.⁴ The 2001 version requires that companies disclose the compensation decision-making process and the determinants of compensation for directors, supervisors and senior managers, and the total amount of compensation received by the top three directors and senior managers. It also requires the separate disclosure of independent directors’ allowances and other benefits. The 2005 version requires companies to disclose the total compensation of each individual director, supervisor and senior manager. Thus, studies conducted before 2005 use only the top three directors’ or managers’ total compensation, and studies conducted after 2005 typically use individual compensation data for the CEO or board chairperson. In 2007, the requirements changed again to mandate the disclosure of the compensation committee’s duties and the implementation of stock-based incentive plans. These disclosure regulations have contributed significantly to increasing the transparency of executive compensation.

With the establishment of the Growth Enterprise Market (GEM), the CSRC issued the Content and Format of the Annual Report of GEM Listed Companies in 2009. This document stipulates the standards for executive compensation disclosure in GEM companies. It requires a summary report of the compensation committee’s duties under the board of directors, including the audit opinion of the disclosed compensation of directors, supervisors and senior managers; clarification of whether the company has established a sound and effective system to assess its directors, supervisors and senior managers; and the incentive system and its implementation. The report must also include a verification opinion on whether the authorization process in the implementation of the company’s stock-based incentive plan is compliant and whether the exercise condition is fulfilled. This report requirement was revised in 2013 and now GEM companies are required to disclose their decision-making processes and the determinants of compensation for directors, supervisors and senior managers, in addition to the actual payments made to each of them.

2.1.2. Regulation of compensation contract structure

There is little evidence regarding the compensation regulations used by local governments in local-government-controlled companies. Some studies, such as those of [Chen et al. \(2005, 2009, 2010\)](#), find systematic differences in the compensation structure of companies in different regions and thus imply that local governments have different executive compensation regulations. However, due to the complexity of local government structure, we could not obtain any information on local government regulations covering executive compensation.

⁴ It was revised in 1998, 1999, 2001, 2003, 2005, 2007 and 2012.

We thus only survey the central government regulations that are generally applied to large-scale government-controlled companies.

Since the implementation of the annual compensation system in 2002, the State-owned Assets Supervision and Administration Commission (SASAC) has required that executive compensation in government-controlled companies must not be higher than 12 times the average employee salary in the firm. Yueda Investment, for example, uses this multiple as its executive compensation determinant. The contract reads as follows: “annual compensation is formed by basic salary and performance compensation. The basic salary is determined by the annual budget set by the compensation committee and the base should be two or three times the previous year’s average employee salary. Performance compensation is determined by the evaluation of executives’ performance relative to their agreed targets and responsibilities. In principle, the total annual compensation should not be higher than 10 times the average employee salary.” However, the enforcement of this ceiling is very loose and many executives’ salaries are much higher than the ceiling.

In 2003, the SASAC published the Interim Measures on Performance Evaluation of Executives in Central-government-controlled Companies (the Interim Measures), which require companies to design incentive contracts based on performance evaluation. The evaluation system includes annual and three-year evaluations. The annual evaluation measures include annual profit (30%), ROE (40%) and industry-specific measures (30%). The three-year evaluation measures include the state-owned asset increment rate (40%), three-year core operating income average growth rate (20%), three-year annual performance evaluation result (20%) and industry-specific measures (20%).

The SASAC revised the Interim Measures three times: in 2006, 2010 and 2013. The evaluation system between 2004 and 2009 placed more emphasis on accounting profit measures. From 2010 to 2012, the ROE measure was replaced by economic value added (EVA), which carried a weight of 40% in the annual evaluation. The revised version in 2013 further enhanced the use of EVA by increasing the weight to 50% in most enterprises in the annual evaluation and replaced the sales growth rate with total asset turnover to assess performance efficiency in the three-year evaluation.

To reinforce the implementation of the Interim Measures, the SASAC has introduced various other complementary measures on executive compensation. For example, after the Interim Measures on the Compensation Management of Executives in Central-government-controlled Companies were published in June 2004, the SASAC published the Supplementary Regulations on Executives’ Annual Performance Evaluation in Central-government-controlled Companies and other regulations. The compensation incentive system in central-government-controlled companies has been progressively refined. In 2006, the SASAC and the Ministry of Finance (MOF) jointly published the Trial Procedures for the Implementation of Stock-based Incentives in Government-controlled Listed Companies. Later, the equity-based incentive compensation system was introduced and implemented in government-controlled listed companies. In 2007, the SASAC published a supplementary regulation on executives’ term performance evaluations. These supplementary regulations serve important functions in implementing the Interim Measures and standardizing compensation systems in central-government-controlled companies.

The Ministry of Human Resources and Social Security (MHRSS) and other ministries jointly issued the Further Guidance to Standardize Executives’ Compensation Contracts in Central-government-controlled Companies (the Guidance), which formally classifies executive compensation into basic annual salary, performance salary and middle- to long-term incentive benefits. Whereas the basic annual salary is to be paid in monthly installments, the performance salary is to be paid in a lump sum (or by installments) following a performance evaluation. The Guidance clearly states that in central-government-controlled companies, executives’ basic annual salaries must be linked to the previous year’s average employee salary. Performance salaries must also be determined by annual performance evaluation results and there should be a cap on executive compensation. However, the enforcement and implementation of the Guidance is not yet clear.

The MOF and the China Banking Regulatory Commission (CBRC) have set explicit regulations on executive compensation in financial institutions. To standardize compensation contracts in financial institutions following the global financial crisis in 2008, the MOF published the Announcement of Executive Compensation in Government-controlled Financial Institutions (the Announcement) in 2009. The

Announcement clearly required that executive compensation in government-controlled financial institutions in 2008 could not be higher than 90% of the annual compensation in 2007. Further, executive compensation had to be adjusted downward by 10% if an institution's performance was weaker in 2008 than in 2007. In 2010, the CBRC published the Commercial Bank Compensation Regulation Guidance, which requires that basic salaries in commercial banks not exceed 35% of total salaries and that performance salaries be determined by performance evaluation and not be more than three times greater than the basic salary.

2.2. Literature review

Much research has been conducted on executive compensation in China's listed companies. We summarize this research under three main headings.

2.2.1. Is executive compensation based on firm performance?

Early studies fail to find a link between executive compensation and firm performance (Wei, 2000; Li, 2000). With the introduction of pay-for-performance compensation regulations and improvements in corporate governance, more recent studies have discovered a significant positive relationship between compensation and performance (Du and Qu, 2005; Fang, 2009). Fang (2009) finds that although the positive relationship between executive compensation and performance exists, it is asymmetric. The magnitude of the growth in compensation when performance improves is significantly higher than the magnitude of the decline in compensation when performance weakens.

2.2.2. What are the determinants of pay-performance sensitivity?

If executive compensation is based on a company's performance, then the question naturally arises as to the factors that affect the pay-performance relationship. Zhang and Shi (2005) find that executive compensation is more sensitive to firm performance in firms with higher proportions of independent directors, within the compensation committees of boards of directors and where the roles of chief executive officer (CEO) and board chairperson are separated. Xiao and Peng (2004) also find that pay-performance sensitivity is lower when the CEO is also the chairperson of the board. The relationship is again asymmetric: it increases with an improvement in firm performance, but decreases as firm performance deteriorates. Liu et al. (2007) shows that the usefulness of accounting performance in compensation contracts is influenced by the institutional environment, in that accounting information in executive compensation contracts is less useful when there is a greater degree of government intervention and more useful for companies in more competitive industries. Wu and Wu (2010) find that the level of compensation increases with the level of managerial control and that the control effect is more pronounced in non-government-controlled companies than in their government-controlled counterparts.

Another stream of research investigates the effect of accounting information quality on pay-performance sensitivity. Bi and Zhou (2007) show that accounting information quality has a negative effect on the relationship between executive compensation and accounting performance, and that the negative effect varies with the institutional environment. Ke et al. (2011) similarly show that after the adoption of more principle-based accounting standards, the sensitivity of executive compensation and accounting performance declines significantly.

Another factor that affects the relationship between executive compensation and firm performance is the market environment in which a firm operates. Xin and Tan (2009) examine the effect of market reform on compensation contracts in government-controlled companies and find that more developed markets boost the sensitivity of executive compensation to firm performance.

2.2.3. Compensation regulation and managerial perks

Because of the various restrictions on executive compensation, managers are expected to enjoy more managerial perks to compensate for lower salaries. Chen et al. (2005) find consistent results. Chen et al. (2009) further find that the probability of management fraud is positively related to compensation regulations. Chen et al. (2010) extend previous studies by providing evidence of a trade-off

between executive compensation and managerial perks. They find that both compensation and managerial perks are higher in years and regions with higher marketization indices, and that a higher proportion of managerial perks are replaced by executive compensation.

In summary, the majority of previous studies use accounting performance such as ROA or ROE to examine the sensitivity of executive compensation to firm performance. However, these studies fail to discuss the details of executive compensation contracts, which may result in an omitted variable problem in the research design. We attempt to open up the “black box” of companies’ compensation contracts and provide some guidance for future research on executive compensation in China.

3. Research sample

As discussed in the institutional background section, China’s listed companies are only required to disclose certain compensation information in their annual reports based on the disclosure guidance published by the CSRC. Although the regulations require information such as the form and amount of executive compensation, they do not require the disclosure of the details of executive compensation contracts. We hand-collected 228 compensation contracts that were voluntarily disclosed by listed companies between 2004 and 2010. The details of these contracts are available from the CNINFO website (<http://www.cninfo.com.cn/>). As of December 31, 2010, there were 2141 listed companies with A shares in China and about 11% of these companies voluntarily disclosed their executive compensation contracts.

Whether the disclosed contracts were actually executed is debatable. Among the companies that disclosed their compensation contracts, only some explicitly reported the execution of the contracts.⁵ For the companies that did not do so, we verify the execution by examining whether the companies’ actual compensation was the same as the amount calculated based on the agreement in the contract.⁶ Although we could not verify the contracts individually, we conclude that they were executed fairly well according to the validity of the publicly disclosed contracts.

Table 1 presents statistics of the sample compensation contracts. Panel A presents the annual distribution of the sample between 2004 and 2010. The 228 executive compensation contracts were disclosed by 201 companies, of which 25 companies disclosed two contracts and two companies disclosed three contracts. Before 2007, few companies disclosed their executive compensation contracts. The number increases gradually after 2008, with 59 executive compensation contracts being disclosed in 2010. Among the 228 contracts, 89 (39%) are from non-government-controlled companies. Of the 139 (61%) contracts disclosed by government-controlled companies, 41 were disclosed by central government-controlled companies. Local-government-controlled compa-

⁵ For example, in its 2008 annual report, Shenzhen Energy (stock code 000027) states that “the compensation and evaluation committee has evaluated the implementation of the compensation contracts of directors, supervisors and senior management personnel and confirmed that the compensation of directors, supervisors and senior management personnel has been implemented and is the same as the amount in the compensation contracts.” The actual payments to executives are also disclosed: “The annual-salary structure was implemented for the chairman and general managing director, which consists of basic salary, performance compensation and incentive annual salary. The basic salary is RMB240,000 annually and is paid monthly at RMB20,000. The performance and incentive annual compensation are granted after the annual evaluation, 80% of which is paid immediately after completion of the evaluation and the remaining will be paid in the subsequent year. The 2007 chairman performance and incentive compensation was RMB670,000 in total, 80% of which was granted in 2008 and the residual 20% has been withheld. The CEO’s (Mr. Li Bin) performance and incentive compensation was RMB636,000 in 2007, 80% of which was granted in 2008 and the residual 20% has been delayed.”

⁶ For example, Hangzhou Jiebai’s (stock code 600814) 2006 executive compensation contract states that executive annual salaries include a basic salary and performance compensation: the basic salary is RMB120,000 and the performance compensation is paid as 100% of the basic salary if the profit target (RMB28,000,000) set by the board of directors is achieved. If the profit is below RMB40,000,000, then a 1% change in profit corresponds to a 3% change in the performance compensation based on the basic salary. If the profit reaches between RMB40,000,000 and RMB60,000,000, then the performance compensation is based on 0.5% of the incremental profit. If the profit exceeds RMB60,000,000, then the performance compensation is based on 0.3% of the incremental profit. The chairman and CEO’s compensation packages are based on this standard. Other executives’ compensation is about 50–70% of the standard. We compare the actual compensation with the disclosed compensation structure to see whether the contract was executed. The 2006 realized profit was RMB62,302,571 and the total compensation based on the contract should have been RMB501,200. We find that the actual payment of compensation to the CEO was the same amount. We thus conclude that the contract was fully executed.

Table 1
Distribution of executive compensation contracts by year and ownership.

	Total	2004	2005	2006	2007	2008	2009	2010
<i>Panel A. Distribution by year</i>								
All sample contracts	228	23	17	8	19	51	51	59
Non-government controlled	89	1	4	3	8	21	24	28
Government controlled	139	22	13	5	11	30	27	31
<i>Including</i>								
Central government controlled	41	3	3	1	1	9	11	13
Local government controlled	98	19	10	4	10	21	16	18
		Non-government controlled		Local government controlled		Central government controlled		
<i>Panel B. Sample percentage of the total population by ownership</i>								
Number of contracts disclosed	89		98			41		
Total number of listed companies	1081		677			355		
Percentage	8%		14%			12%		

Note: The total number of listed companies is as at December 31, 2010. Ultimate control data was extracted from CSMAR.

Table 2
Distribution of executive compensation contracts by industry.

Industry	Number of compensation contracts	Total number of companies	Percentage
Manufacturing: pulp, paper and publishing	6	38	16
Media and culture	4	26	15
Agriculture, forestry, animal and fishing	6	41	15
Construction	6	41	15
Mining	7	48	15
Transportation and warehousing	9	71	13
Manufacturing: oil, chemistry and plastic	27	214	13
Manufacturing: medicine, biological products	16	131	12
Manufacturing: electronics	14	117	12
Wholesale and retail trade	13	114	11
Utilities: electricity, gas and water	8	71	11
Manufacturing: mechanical, equipment and instruments	39	354	11
Manufacturing: agri-food and beverage	9	82	11
Manufacturing: metal and non-metal	18	164	11
Information technology	15	146	10
Realty business	13	127	10
Social services	6	59	10
Manufacturing: textile, clothing and fur	7	69	10
Manufacturing: others	2	21	10
Conglomerate	3	55	5
Manufacturing: wood and furniture	0	9	0
Financial and insurance	0	38	0
Total	228	2036	11

Note: The number of companies is as at December 31, 2010. Industry classifications are from the WIND financial database.

nies disclosed 98 contracts. Thus, compared with private companies, more government-controlled companies voluntarily disclosed their executive compensation contracts.⁷

⁷ We analyze the characteristics of the companies that voluntarily disclose their compensation contracts. The dependent variable is a measure of whether the company voluntarily discloses its compensation contracts. The independent variables include internal governance measures (the largest shareholder's ownership percentage, whether the company is government controlled and the ratio of independent directors), external governance measures (a cross-listing indicator, a local marketization index and a GEM indicator), company characteristics (age of the company since IPO, debt ratio and company size), and time and industry dummies. The regression results show that companies with a more recent IPO and with government ownership are more likely to voluntarily disclose their compensation contracts. The other variables have no significant effect on the likelihood of voluntary disclosure.

Table 3
Disclosure of executive compensation contracts.

Degree of disclosure	Total		Non-government controlled		Local government controlled		Central government controlled	
Total	228		89		98		41	
No disclosure of evaluation measures or performance compensation calculation formula	43	19%	27	30%	11	11%	5	12%
Disclosure of evaluation measures only	31	14%	15	17%	14	14%	2	5%
Disclosure of calculation formula only	25	11%	13	15%	6	6%	6	15%
Disclosure of both evaluation measures and performance calculation formula	129	57%	34	38%	67	68%	28	68%

Note: The percentages are calculated as the number of disclosures over the total number of contracts in each category.

Table 2 shows the industry distribution of the sample compensation contracts. The petroleum industry has the highest number (27) of disclosed contracts. In terms of the percentage among companies in the same industry, the pulp, paper and publishing industry has the highest percentage of disclosed contracts (16% with six contracts). No companies in the financial and insurance industry voluntarily disclosed any compensation contracts.

4. Analysis of executive compensation contracts

4.1. Degree of executive compensation disclosure

Some of the contracts are disclosed in detail, yet others provide only basic information. We assess the degree of disclosure by examining whether the evaluation measure and the method of computing the performance compensation are provided. The results are shown in Table 3.

Among the 228 compensation contracts, 129 (or 57% of the total) disclose the evaluation measure and the formula for computing performance compensation, 25 (or 11% of the total) disclose only the formula for performance compensation, 31 (or 14% of the total) disclose only the evaluation measures and 43 (or 19% of the total) provide only the method of determining the executive compensation in principle, without any details.

We then classify the contracts by central-, local- and non-government-controlled firms. Among the 43 contracts that do not give evaluation measures and computing formula details, the majority (27 cases) are from non-government-controlled firms and only five cases are from central government-controlled firms. In comparison, among the 129 contracts that disclose the evaluation measures and computing formula details, the majority (67 and 28 cases, respectively) are from local- and central-government-controlled firms. The percentage of firms tells the same story. Whereas about 68% of the contracts from government-controlled firms include evaluation measures and computing formula details, only 38% of the non-government-controlled firms include the same details. In summary, government-controlled firms tend to disclose more information in compensation contracts than non-government-controlled firms.

4.2. Contract parties in executive compensation contracts

In the conventional type of principal-agent relationship, shareholders are the principals and managers are the agents. Hence, boards of directors represent shareholders in setting managers' compensation contracts. The contract parties in compensation contracts are normally the CEO or the senior management team led by the CEO. However, in many Chinese listed companies, directors such as chairpersons and supervisors are also considered to be contract parties. Thus, the contract parties may include the chairperson (and other directors), the CEO (and his or her management team) and supervisors.

Table 4 presents statistics of the contract parties. Among the 228 executive compensation contracts, 97 contracts were designed for the CEO and the management team, about 43% of the total sample. For example,

Table 4
Contract parties in compensation contracts.

	Total	Non-government controlled	Local government controlled	Central government controlled
CEO and other senior executives (excluding directors and supervisors)	228 (43%)	89 (31%)	98 (46%)	41 (59%)
Directors, supervisors and senior executives (including CEO)	97 (26%)	28 (36%)	45 (20%)	24 (20%)
Directors and senior executives (including CEO but excluding supervisors)	60 (21%)	32 (27%)	20 (17%)	8 (15%)
Managers (including middle-level and subsidiary managers)	47 (3%)	24 (1%)	17 (4%)	6 (2%)
Directors and supervisors (excluding managers)	6 (2%)	1 (2%)	4 (3%)	1 (0%)
All employees (including directors)	5 (2%)	2 (0%)	3 (3%)	2 (5%)
No clear specification of parties	8 (4%)	2 (2%)	6 (6%)	0 (0%)

Avic Real Estate's (stock code 000043) contract in 2010 was designed only for its CEO and other senior executives. Sixty of the contracts were designed for the chairperson, CEO and supervisors, representing approximately 26% of the total sample. One example is the contract disclosed by Redsun (stock code 000525) in 2008. Forty-seven contracts (or 21% of the total) include the chairperson and CEO, but exclude supervisors as the contract parties.

The difference in contract parties included in compensation contracts casts doubt on the effectiveness of performance-based executive compensation. According to the basic principle of corporate governance, the board of directors (and mainly the compensation committees of the board) sets executive compensation and evaluates the subjects' performance, and supervisors supervise the directors and executives' actions. If the board of directors sets the compensation for both directors and supervisors, then the monitoring role of the board and supervisors may be thrown into doubt, which may jeopardize the effectiveness of executive compensation contracts. Whether this issue has receded since the introduction of more stringent corporate governance regulations is an interesting issue. The percentage of contracts with a chairperson as the contract party in this sample is 49%, which is less than the 70% reported by Pan et al. (2006). The percentage of contracts with supervisors as the contract parties is 29%, compared to the 36% in Pan et al. (2006). We thus observe an improvement in the past decade. Compared to government-controlled firms, non-government-controlled firms tend to have more compensation contracts for the chairperson of the board of directors, indicating that more chairpersons of non-government-controlled firms are involved in business operations.

4.3. Evaluation measures of performance in executive compensation contracts

Baker et al. (1988) argue that a company's compensation policy consists of three components: the level, functional form and components of compensation. The functional form includes pay–performance sensitivity and the definition of performance evaluation measures. They argue that the level of compensation determines a company's ability to attract employees and that the functional form provides incentives that could determine the future behavior of employees who are hired. The performance evaluation measures that should be included in managerial compensation contracts remain in question. Holmstrom (1979) suggests that measures that better reflect information on managers' effort be included. Accounting information plays a stewardship role that reflects manager effort. Thus, accounting profits are typically used to evaluate managerial performance. The more strongly accounting profit and manager effort are related, the more effective the profit-based compensation contract. Stock price and non-financial measures can also be used to measure managers' output. According to Banker and Datar (1989), the effectiveness of compensation contracts depends on the extent to which the performance evaluation measures therein measure manager effort. The higher the accuracy and the less

Table 5
Evaluation measures used in executive compensation contracts.

	Total	2004	2005	2006	2007	2008	2009	2010
Disclosure of evaluation measures	160	21	15	8	14	34	32	36
Total number of evaluation measures	715	82	64	31	79	145	152	162
Average number of evaluation measures in each contract	4.5	3.9	4.3	3.9	5.6	4.3	4.8	4.5
<i>Including</i>								
Average number of financial measures	3.0	3.0	2.7	2.6	3.6	2.9	3.1	2.8
Average number of non-financial measures	1.5	1.0	1.5	1.3	2.0	1.4	1.6	1.7
Average number of evaluation measures based on profit	2.1	2.2	2.1	2.3	2.4	1.8	2.5	1.9
Average number of evaluation measures based on non-profit measures	0.8	0.7	0.6	0.4	1.2	1.0	0.7	0.9

noise involved in measuring managers' behavior, the more accurately their effort level is reflected and the heavier the weight of this measure in the compensation contract.

Murphy (2001) examines 177 executive compensation contracts in US companies, which include 428 performance measures, both financial and non-financial. Almost every company uses accounting measures in their annual monetary incentive plans. These accounting measures include sales, net profit, profit before tax, operating profit and EVA, among others. After analyzing the performance measures of the compensation contracts of 317 companies, Ittner et al. (1997) conclude that 312 companies use accounting measures. Of these companies, 28.5% use earnings per share, 27.2% use net profit, 25.3% use operating profit or profit before tax, 13.7% use sales and 12.8% use cash flow, with each company using 1.7 financial measures on average. The authors also reveal that 114 (or 36%) of the companies use non-financial measures in their incentive plans. Of these, 36.8% use customer satisfaction measures, 28% use non-financial strategic objective measures and 21% use product and service quality measures, with each company using 2.3 non-financial measures on average.

Table 5 shows the overall evaluation measure statistics used in our sample of executive compensation contracts. Among the 228 sample contracts, 160 disclosed evaluation measures between 2004 and 2010. The total number of evaluation measures used is 715, comprising 475 financial measures, 237 non-financial measures, and 3 fair value measures. All 160 contracts use financial measures, with each company using three on average.

Table 6 shows detailed statistics on the use of evaluation measures. Panel A presents the use of financial measures. Compared with the results of Pan et al. (2006), contracts using a single financial measure decreased from 42% to 33% (52 contracts) whereas contracts using multiple financial measures increased from 58% to 68% (108 contracts). These changes indicate that more companies are now using multiple financial measures to evaluate the performance of top executives. Among the 52 contracts using a single financial measure, the majority (43 contracts, or 27%) use the profit measure, but others use ROE, sales and EVA.

The profit measure is the most important financial measure. Among the 160 contracts that disclose executive evaluation measures, 146 (or 91%) use profit measures. The definition of profit varies: 72 contracts define it as net profit, 33 define it as profit before tax, 19 do not clearly define it, 12 use the net profit after non-recurring item adjustment and the remainder use the net profit growth rate.

Other measures such as sales and ROE are also frequently used, accounting for 39% and 32% of the total, respectively. About 11% of the contracts use accounts receivable turnover, 7% use inventory turnover and 8% use cash flow as financial measures. For example, in addition to the profit measure, Hailu-Boiler's (stock code 002255) 2009 executive compensation contract includes inventory, accounts receivable and total asset turnovers, reflecting the company's operating efficiency. Consistent with the results of Pan et al. (2006), we find that Chinese listed companies continue to use profit, sales, ROE and other measures that reflect their profitability to evaluate executives. However, we also observe an increasing trend of including measures that reflect the operational efficiency of assets and cash flow adequacy, further diversifying the use of financial measures.

Panel B reports the use of non-financial measures. Among the 160 contracts, 79 (or 49%) use non-financial measures, compared with only 34% in the study of Pan et al. (2006). This result shows that more companies are using non-financial measures to evaluate their executives. The safety measure (43 contracts, or 27% of the total sample) is the most popular non-financial measure, and includes production safety, economic safety, political safety and corporate reputation. For example, in 2008, Huaxi Village (stock code 000936) used the

Table 6
Specific evaluation measures.

	Contract number	Percentage
Contracts that disclose evaluation measures	160	
<i>Panel A: Use of financial measures</i>		
Contracts using financial measures	160	100
Contracts using a single financial measure	52	33
Profit	43	27
Return on equity	4	3
Sales	1	1
EVA	1	1
Others	3	2
Contracts using multiple financial measures	108	68
Profit	103	64
Sales	62	39
Return on equity	51	32
Accounts receivable turnover	17	11
Operating cash flows	13	8
Inventory turnover ratio	11	7
Asset value increment rate	11	7
Asset-liability ratio	11	7
Sales volume	8	5
Output of productions	6	4
Others	61	38
<i>Panel B: Use of non-financial measures</i>		
Contracts using non-financial measures	79	49
Security	43	27
Project completion	19	12
Measures related to the Communist Party	15	9
Operations management	18	11
Development and growth	18	11
Product or service quality and innovation	10	6
Scientific research and technological innovation	9	6
Employee satisfaction	7	4
Job attitude, professionalism and learning ability	7	4
Staff salaries	7	4
Others	41	26

safety measure in its executive compensation contract with a weight of 20%. The second most popular non-financial measure is the implementation of projects, which is used in 19 contracts (12%). Other notable non-financial measures are company management and standard operations (11%), strategic development measures (11%) and measures related to the development of the Communist Party of China (9%). Most of the non-financial measures are much more subjective than the more objective financial measures. Thus, the execution of these measures is worthy of further research.

Ittner et al. (1997) surveyed 114 executive compensation contracts with non-financial measures in the United States. Their results show that 42 contracts (36.8%) use customer satisfaction as a non-financial measure. Other non-financial measures include non-financial strategy completion status (28%), product and service quality (21%), employee safety (16.6%) and market share (11.4%). The comparison shows that whereas US companies are more likely to use measures of customer satisfaction, product quality and employees, Chinese listed companies use fewer measures that reflect customer and employee satisfaction.

Table 7 presents statistics on disclosure by year. From 2004 to 2010, companies disclosing evaluation measures always used financial measures in their executive compensation contracts. In comparison, the use of non-financial measures experienced a significant jump in 2007, which is consistent with our observation that more companies have introduced non-financial measures into their compensation contracts in recent years.

Table 7
Evaluation measures by year.

	Total	2004	2005	2006	2007	2008	2009	2010
Contracts that disclose evaluation measures	160	21	15	8	14	34	32	36
Contracts using financial measures	160	21	15	8	14	34	32	36
	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)
Contracts using non-financial measures	79	5	6	3	9	20	16	20
	(49%)	(24%)	(40%)	(38%)	(64%)	(59%)	(50%)	(56%)
Contracts using financial measures with clear definitions	158	21	15	8	14	33	32	35
Contracts using financial measures based on profit measures	158	21	15	8	14	33	32	35
	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)
Contracts using financial measures based on non-profit measures	68	10	7	3	7	14	14	13
	(43%)	(48%)	(47%)	(38%)	(50%)	(42%)	(44%)	(37%)

Table 8
Evaluation measures by ownership.

	Total	Non-government controlled	Local government controlled	Central government controlled
Contracts that disclose evaluation measures	160	49	81	30
Contracts using financial measures	160	49	81	30
	(100%)	(100%)	(100%)	(100%)
Contracts using non-financial measures	78	20	37	21
	(49%)	(41%)	(46%)	(70%)
Contracts using financial measures with clear definitions	158	49	80	29
Contracts using financial measures based on profit measures	158	49	80	29
	(100%)	(100%)	(100%)	(100%)
Contracts using financial measures based on non-profit measures	68	19	35	14
	(43%)	(39%)	(44%)	(48%)

We present the evaluation measure disclosure statistics by company type in Table 8. It is evident that both government- and non-government-controlled companies typically use at least one financial measure in their executive compensation contracts, and that there is at least one financial measure of profitability in all of the contracts. However, there is a marked difference among the companies in the use of financial measures not related to profitability, such as asset turnover and cash adequacy ratios. A total of 48% of the contracts in central-government-controlled companies and 44% of the contracts in local-government-controlled companies use financial measures related to both non-profitability and profitability, compared with only 39% in non-government-controlled companies. Further, 70% of the contracts in central-government-controlled companies, 46% of those in local-government-controlled companies and 41% of those in non-government-controlled companies introduce non-financial measures. The use of non-financial measures is clearly much higher in central government-controlled companies than in the other two types of companies. Ittner et al. (1997) examine the factors that affect the use of non-financial measures in executive compensation contracts in the United States, and find that regulated companies, companies with more innovative strategies and companies with noisier financial measures tend to use non-financial measures to evaluate executives. In Chinese listed companies, the use of non-financial measures differs across years and firm types. More studies are required to better understand the factors that drive these differences.

Table 9 presents statistics for the weighting of the financial measures used in the sample compensation contracts. Among the 228 contracts, only 57 clearly state the weight given to financial measures in the evaluation system. The minimum weight is 30% and the maximum is 100%, with an average of 76%. For example, Zhong Bai Holding's (stock code 000759) 2006 executive compensation contract includes financial measures such as net profit less non-recurring items, operating income, net asset growth rate less non-recurring items and operating cash flow per share. The weights of these measures are clearly stated to be 30%, 30%, 20% and 20%, respectively.

Table 9
Weight of financial measures used in executive compensation contracts.

Year	Number of contracts	Average weight (%)	Minimum weight (%)	Median weight (%)	Maximum weight (%)
<i>Panel A. Financial measures by year</i>					
Total	57	76	30	80	100
2004	6	79	45	90	100
2005	4	89	55	100	100
2006	3	83	60	90	100
2007	8	61	30	60	100
2008	14	69	40	65	100
2009	11	79	40	80	100
2010	11	85	50	95	100
<i>Panel B. Financial measures by company type</i>					
Non-government controlled	16	77	40	80	100
Local government controlled	29	75	30	70	100
Central government controlled	12	78	40	88	100
Total	57	76	30	80	100

The statistics by year show that the weight of the financial measures drops slightly after 2007. Before 2007, the average and median weight for the financial measures is 83% and 100%, respectively, whereas after 2007 the corresponding figures are 74% and 70%, respectively. Panel B of Table 9 presents the statistics by company type. It shows that the use of financial measures in executive compensation contracts is slightly higher in central-government-controlled companies than in the other two types.

4.4. Performance standards in executive compensation contracts

Executive compensation contracts normally set certain performance standards. Companies then compare the actual results with the performance standards to evaluate executives' performance and determine their compensation. In a monetary bonus plan, the performance standard of a performance evaluation measure is a pre-determined target value. In addition to the performance evaluation measure and pay-performance sensitivity, the performance standard is an important component of executive compensation contracts. As expected, the level of compensation is different if an executive influences the performance standards of the evaluation measures. Murphy (2001) uses statistical data from 177 US companies' compensation contracts between 1996 and 1997 to study performance standards. The study shows that 125 companies used a total of 219 accounting performance standards. Of these performance standards, 144 are based on a single standard and 88 (61%) use budgeting values as the evaluation measure standard. Another 22 firms (15%) use past performance as the standard, 13 (9%) use standards that were at the discretion of the board of directors and 6 (4%) use a fixed value as the standard. Performance standards such as budget and past performance are affected by internal management and hence are categorized as internal standards. Industry standards, the cost of capital and fixed standards are normally not affected by internal management, and hence are categorized as external standards. Murphy (2001) shows that when past performance has more estimation noise than peer performance, companies are more likely to use external standards such as industry performance and the cost of capital. Companies that use internal standards such as past performance or budgeted performance fluctuate less in the level of executive compensation and carry out more earnings smoothing than companies that use external performance standards. However, Murphy (2001) does not find significant firm performance differences between companies using internal and external standards. Murphy explains that the choice of internal or external standards may reflect a company's selection of managers and board of directors: the board of directors may prefer predictable and smooth performance and executives may prefer a predictable and more stable compensation package.

Table 10 shows statistics on the performance standards disclosed in the executive compensation contracts by the Chinese listed companies in our sample. In the 160 contracts disclosing 715 evaluation measures (refer

Table 10
Performance standards used in executive compensation contracts.

	Total		Non-government controlled		Local government controlled		Central government controlled	
Number of performance standards with clear definitions	453		123		243		87	
Using a single performance standard	440	97%	119	97%	239	98%	82	94%
<i>Including</i>								
Internal standards	366	81%	106	86%	189	78%	71	82%
Budget	292	64%	84	68%	148	61%	60	69%
Past performance	74	16%	22	18%	41	17%	11	13%
External standards	74	16%	13	11%	50	21%	11	13%
Fixed value	59	13%	11	9%	40	16%	8	9%
Industry value	9	2%	0	0%	9	4%	0	0%
Cost of capital	6	1%	2	2%	1	0%	3	3%
Using multiple performance standards	13	3%	4	3%	4	2%	5	6%
<i>Including</i>								
Budget and past performance	10	2%	4	3%	1	0%	5	6%
Budget and industry	1	0%	0	0%	1	0%	0	0%
Budget and cost of capital	1	0%	0	0%	1	0%	0	0%
Budget and fixed value	1	0%	0	0%	1	0%	0	0%

Note: The percentage is calculated as the number of measures in each cell over the total number (453).

to Table 5), we identify 453 financial measures with performance standards. Among these financial measures, 440 (97%) use a single performance standard and the rest use multiple performance standards. For example, Chi Tian Hua's (stock code 600227) 2008 executive compensation contract uses past performance as a standard for the ROE measure. Shenzheng Energy (stock code 000027) uses budget value and industry performance as standards to evaluate ROE performance. It also uses budget value and past performance as standards to evaluate the profit before tax measure in its 2008 compensation contract.

In our sample of contracts, 81% of the measures use a single internal standard as reference, with 64% based on budget value and 17% based on past performance. Another 16% use a single external standard as reference, with 13% based on a fixed standard. Qianjiang Motor (stock code 000913) uses a fixed ROE of 6.5% to evaluate its ROE performance measure. Shenzhen Tonge (stock code 000090) uses an ROE value from a government regulation as its performance standard. Six measures use cost of capital as a performance standard. For example, Jinxi Axle's (stock code 600495) executive compensation contract uses the bank interest rate in the same year as the performance standard to evaluate the ROE performance of its executives.

Among the 453 performance measures used between 2004 and 2010, 83% (81% of single standards and 2% of multiple standards) use internal standards and 16% use external standards. The remainder use both internal and external standards. These results are close to those reported by Murphy (2001), who finds that among 144 measures that use single standards, 85% use internal standards and 14% use external standards. Pan et al. (2006) present statistics on the performance standards of 50 executive compensation contracts between 2002 and 2004. Their results show that 72% of the contracts use internal standards and 36% use external standards. However, their statistics are based on the number of companies rather than the number of performance measures presented. Collectively, these results show consistently that most companies use internal standards as their evaluation reference.

Table 10 presents the statistics by company type. In non-government-controlled companies, 123 financial measures clearly indicate performance standards, with 89% of the companies using internal standards and 11% using external standards. In central-government-controlled companies, 87 financial measures clearly indicate performance standards, with 88% of the companies using internal standards and 12% using external standards. In local-government-controlled companies, 243 measures clearly indicate performance standards, with 78% of the companies using internal standards and 21% using external standards. It seems that local-government-controlled companies use more external standards, especially fixed and industry standards.

4.5. Executive compensation structure

Executive compensation normally includes a basic salary, annual bonuses, stock-based incentive compensation, long-term incentive compensation and allowances and welfare payments. Jensen and Murphy (1990) argue that compared with monetary compensation, stock-based compensation encourages managers to work harder to improve firm value. According to the 1997 statistics on CEO compensation structures in 1095 US companies, basic salary accounts for 34.4% of total compensation, monetary bonuses account for 20.51% and stock-based incentive compensation value accounts for 37.56% on average. In some companies, the proportion of stock-based incentive compensation is even larger. For example, Timothy Cook, the CEO of Apple Inc., received a basic salary of US\$900,017 (2.3%), stock-based incentive compensation of US\$37,618,000 (95.4%)⁸ and non-stock-based incentive compensation of US\$900,000 (2.3%) in 2011.

According to the WIND database, as at March 16, 2012, 347 Chinese domestic companies had implemented stock-based incentive compensation plans, representing 15% of all A-share listed companies. Among the 201 companies that voluntarily disclosed their compensation contracts, only 32 implemented (or passed board of directors proposals on) stock-based incentive plans, which is only 16% of the total. Thus, monetary salaries, including basic salaries and performance compensation, are still the main component of executive compensation in listed companies. As there is no requirement for listed companies to disclose the components of executive compensation in their annual reports, we could not obtain detailed statistics on the components for every company. However, among the 228 voluntarily disclosed compensation contracts, only 68 provide the exact basic salary amounts. We thus collected the total executive compensation from their annual reports to calculate the amount of performance compensation and then analyzed the relative weighting of the basic salary and performance compensation.⁹

Of the 68 compensation contracts that disclosed the exact basic salary amounts, seven contracts from 2004 are excluded because their companies' annual reports do not report the total executive compensation amount. We exclude another two companies that do not disclose the total compensation in their annual reports, nine companies that underwent general manager changes and nine companies that disclose total compensation amounts that are lower than the basic salary amounts.¹⁰ Thus, only 41 contracts are available to examine the relative weighting of basic salary and performance compensation. The data on total executive compensation was extracted from the RESSET financial research database and missing data was manually collected from the companies' annual reports.

Panel A of Table 11 reports the descriptive statistics on performance compensation and basic salaries. The average basic salary and performance compensation are RMB261,716 and RMB265,101, respectively. The ratio of performance compensation to basic salary is 1.38 on average and the median ratio is 1.03, indicating that performance compensation is generally higher than basic salaries. However, Panel B shows that the average ratio varies with company type. In non-government-controlled companies, the ratio of performance compensation to basic salary has an average of 1 and a median of 0.67. In local-government-controlled companies, the average and median of the ratio are 1.63 and 1.36, respectively. In central-government-controlled companies, the average and median of the ratio are 1.62 and 1.56,

⁸ Apple Inc.'s 2011 executive compensation table shows the value to be US\$37,618,000. The company granted 1 million restricted stocks to the CEO, the fair value of which is computed based on the daily market price of the stock. Fifty percent of the restricted stocks have a restricted trade period of five years and the other half has a restricted trade period of ten years. Thus, the annual incentive of the restricted stocks is worth US\$37,618,000 based on the 10-year average.

⁹ Note that the weighting of basic salary and performance compensation is based on ex post total compensation data rather than the design of the compensation contract. Thus, a lower performance compensation amount may only indicate weak executive performance rather than a lower incentive.

¹⁰ Seven companies' executive total compensation is lower than the reported basic salary. For example, Star Hi-Tech (000676) discloses its chairman's basic compensation as RMB600,000 in its 2010 compensation contract, with a basic salary of RMB480,000 and an allowance of RMB120,000. The 2010 annual report discloses the chairman's total compensation before tax as RMB313,000. The actual profit is lower than the standard profit and the compensation contract states that if this is the case, then the corresponding proportion will be deducted from the executive's basic salary.

Table 11
Descriptive statistics on compensation structure.

	Number of disclosures	Average (RMB)	Minimum (RMB)	Median (RMB)	Maximum (RMB)
<i>Panel A: Descriptive statistics on basic salaries and performance compensation</i>					
Basic salary	41	261,716	24,000	180,000	1,080,800
Performance	41	265,101	1,600	200,000	1,079,600
Performance/basic salary	41	1.38	0.01	1.03	5.02
<i>Panel B: Performance to basic salary ratio by ownership</i>					
Non-government controlled	16	1.00	0.04	0.67	4.00
Local government controlled	20	1.63	0.01	1.36	5.02
Central government controlled	5	1.62	0.03	1.56	3.06
<i>Panel C: Relative weight of basic salary and performance compensation</i>					
	Total	Privately owned	Local state-owned enterprise	Central state-owned enterprise	
Performance compensation is lower than basic salary	18 44%	11 69%	5 25%	2 40%	
Performance compensation is the same as or higher than basic salary	23 56%	5 31%	15 75%	3 60%	
Total	41	16	20	5	

Table 12
Methods for determining basic salaries.

	Total	Non-government controlled	Local government controlled	Central government controlled
Total	228	89	98	41
Contracts that disclose the method of determining basic salaries	108	28	60	20
<i>Including</i>				
Basic salary is a fixed value	58 (54%)	18 (64%)	31 (52%)	9 (45%)
Basic salary is a multiple of staff salaries	28 (26%)	3 (11)	18 (30%)	7 (35%)
Basic salary is a percentage of total remuneration	12 (11%)	6 (21%)	5 (8%)	1 (5%)
Basic salary is a function of factors such as assets and profit	8 (7%)	0 (0%)	5 (8%)	3 (15%)
Basic salary is a multiple of profits	2 (2%)	1 (4%)	1 (2%)	0 (0%)

respectively. The ratio of performance compensation to basic salary is apparently lower in non-government-controlled companies than in the other two types.

To further examine the proportion of basic salary and performance compensation in the sample contracts, we classify the sample into two groups: one with a ratio higher than 1 and one with a ratio lower than 1. Panel C in Table 11 shows the statistical results after the grouping. Among the 41 observations, 18 contracts (or 44%) have a ratio lower than 1. Of these 18 contracts, 11 (or 61%) are from non-government-controlled companies, a significantly higher proportion than the other two types of companies. This result is consistent with that presented in Panel B. King Field (stock code 002239), a non-government-controlled company, disclosed a compensation contract in 2008 that includes basic salaries (60%) and performance compensation (40%). The results show that whereas non-government-controlled companies choose compensation structures with lower incentive compensation, government-controlled companies and especially local-government-controlled companies, prefer to use compensation structures with higher incentives.

Table 13
Formula for performance compensation calculation.

	Total		Non-government controlled		Local government controlled		Central government controlled	
Contracts that disclose a formula	154		47		73		34	
<i>Including</i>								
$Bonus = Fpay * b$	59	38%	18	38%	30	41%	11	32%
$Bonus = NI * b$	63	41%	20	43%	31	42%	12	35%
$Bonus_t = (NI - Equity * r) * b$	9	6%	1	2%	3	4%	5	15%
$Bonus_t = Bonus_{t-1} * (1 + r) * b$	10	6%	7	15%	2	3%	1	3%
$Bonus = Apay_{employee} * m * b$	11	7%	1	2%	5	7%	5	15%
$Bonus = f(ROE)$	2	1%	0	0%	2	3%	0	0%

Note: The percentage is calculated as the number of contracts in each cell over the total number of contracts for each category.

$Bonus = Fpay * b$ is based on a fixed salary, multiplied by coefficient b . $Fpay$ is a fixed amount, usually the basic salary. The calculation of coefficient b is presented in Table 14.

$Bonus = NI * b$ is based on profit. NI may be the current year's net income or another measure based on profit.

$Bonus_t = (NI - Equity * r) * b$ is based on the economic value added.

$Bonus_t = Bonus_{t-1} * (1 + r) * b$ is based on past performance compensation, where r is the growth rate.

$Bonus = Apay_{employee} * m * b$ is based on multiples of the average compensation of all employees.

$Bonus = f(ROE)$ is based on ROE.

4.6. Computation of basic salaries

Basic salaries are typically determined by job responsibilities, which are not linked to a company's operating performance. This approach helps to protect executives' interests by controlling the risk of performance volatility. Table 12 presents a summary of the basic salary computation methods used in the sample contracts. Among the 228 sample contracts, 108 disclose the methods of determining basic salaries, representing 47% of the total contracts. Fifty-eight of these contracts (54%) use fixed basic salaries. The percentage is higher in non-government-controlled companies (18 contracts, or 64%) and lower in central-government-controlled firms (nine contracts, or 45%). For example, Ningbo Marine (stock code 600279) states its general manager's basic salary in 2004 to be RMB100,000. Twenty-eight contracts (26%) determine basic salaries based on the average employee salary. For example, Kingray Technology's (stock code 600390) 2009 executive compensation contract states that basic salaries should be based on $W0 * L * R * C$, where $W0$ is five times the previous year's national average employee salary for government-controlled companies, L is an adjustment factor that is determined by firm size and annual salaries adjustment coefficient, R is the basic salary adjustment coefficient and ranges from 0.8 to 1.2, and C is the weight that reflects an executive's ranking (1 for the CEO and 0.6–0.8 for other executives). The table also shows that whereas 30% and 35% of local- and central-government-controlled companies respectively determine their executives' basic salaries based on their employees' basic salaries, only 11% of non-government-controlled companies do so. Another 12 contracts (11%) regulate the proportion of basic salaries in the total compensation package. For example, YingLiTe's (stock code 000635) 2008 executive compensation contract states that the proportions of basic salary and performance compensation are each 50%.

Eight contracts (7%) link basic salaries with performance measures and another two contracts (2%) use a multiple of earnings to determine basic salaries. Lier Chemical (stock code 2258) states that its 2009 executive annual basic salaries are based on total assets, operating income, net profit and return on equity. iFlyTek (stock code 2230) states that the basic salary of the chairperson of the board of directors should be 0.25% of the net profit attributable to the shareholders of the parent companies and that the basic salary of the general manager should be 80% of the chairperson's basic annual salary. It also states that the total basic salary of the chairperson and general manager should not be higher than 1.5% of the budgeted net profit attributable to the parent company as agreed by the board of directors.

Table 14
Methods for calculating coefficient *b*.

	Total	Non-government controlled	Government controlled	Local government controlled	Central government controlled
Total contracts	228	89	139	98	41
Contracts that do not disclose the method of calculating <i>b</i>	112	59	53	41	12
Contracts that disclose the method of calculating <i>b</i>	116	30	86	57	29
<i>Including</i>					
<i>b</i> is a fixed value	15	4	11	6	5
	13%	13%	13%	11%	17%
<i>b</i> = <i>f</i> (evaluation scores)	101	26	75	51	24
	87%	87%	87%	89%	83%

4.7. Computation of performance compensation

Table 13 presents statistics on the methods used to compute performance compensation. Among the 228 sample contracts, 154 disclose the determinants of performance compensation, some 68% of the total sample. Fifty-eight (38%) of the 154 contracts use the fixed compensation multiplied by a certain coefficient (denoted as *b*) to determine the performance compensation. Coefficient *b* is typically determined by the performance evaluation results, as illustrated in Table 14. For example, Shenzhen Zhenye (stock code 000006) states that its executive annual incentive compensation should equal a personal incentive compensation base multiplied by a company annual incentive compensation coefficient multiplied by a personal evaluation coefficient (*b*).

Sixty-three contracts (41%) determine executive compensation based on net profit with a multiple of coefficient *b*. For example, Donger Erjiao's (stock code 000423) executive compensation contract in 2004 states that the annual performance compensation for all executives is 2% of the realized net profit, and that the allocation coefficient *b* is determined by the individual executive's performance evaluation. As such, the CEO's performance compensation should be (Net Income * 2% * *b*), where *b* is the allocation coefficient.

Nine contracts (6%) choose economic value-added (profit less the cost of capital) as a basis to determine performance compensation. For example, Banner Technology's (stock code 002106) 2000 executive compensation contract states that its general manager's annual performance compensation should equal (performance compensation base * 2.5%), and that the annual performance compensation base should equal (net profit of the current year -10% of net assets at the beginning of the year).

Ten contracts (6%) determine the current year's performance compensation based on the previous year's performance compensation. For example, Cangzhou Mingzhu's (stock code 2108) 2009 compensation contract states that the Year *N* performance compensation should equal the Year *N* - 1 performance compensation multiplied by the company performance evaluation coefficient multiplied by a position evaluation coefficient multiplied by a time coefficient.

Eleven contracts (7%) determine performance compensation based on a multiple of employee salaries. For example, SZTT Electronics' (stock code 002197) compensation contract in 2009 states that a general manager's performance compensation should equal $p * b * c$, where *p* is total employees' salaries, *b* is a basic coefficient formed by personal performance and *c* is the performance salary payout ratio, which is determined by the company's performance.

Finally, two contracts determine executive performance compensation based on ROE. Feicai Holding's (000887) executive compensation contract in 2004 states that when the annual ROE is less than or equal to 0%, the annual performance compensation is 0; when it is above 0%, every additional 0.1% corresponds to an increase of RMB600 in performance compensation; and when it is above 3%, 6%, 10% and 15%, every additional 0.1% corresponds to increases of RMB900, RMB1,200, RMB2,400 and RMB3,600, respectively.

We also present the statistics by company type. While 43% of non-government-controlled companies and 42% of local-government-controlled companies determine performance compensation based on a multiple of profit, only 35% of central-government-controlled companies do so. By comparison, 15% of central-govern-

Table 15
Ceilings and floors for performance compensation.

	Total	Non-government controlled	Local government controlled	Central government controlled
<i>Performance compensation with a ceiling</i>				
Total	40	13	18	9
Multiple of the basic salary	19	4	10	5
Fixed value	10	7	3	0
Ceiling without definition	4	0	1	3
Multiple of last year's salary	2	0	2	0
Multiple of net profit	2	1	0	1
Ceiling for coefficient <i>b</i>	1	1	0	0
Multiple of salary standards	1	0	1	0
Multiple of the average staff salary	1	0	1	0
<i>Performance compensation with a floor</i>				
Total	16	6	8	2
Fixed value (not zero)	7	6	1	0
Value of zero	6	0	5	1
Basic salary	1	0	1	0
Minimum wage of employees	1	0	1	0
Floor without definition	1	0	0	1

ment-controlled companies use EVA, whereas only 2% of non-government-controlled companies and 4% of local-government-controlled companies do so. These results are related to the Interim Measures to Evaluate Central-government-controlled Enterprise Managers' Performance published by the SASAC in 2010, which recognizes EVA as an effective evaluation measure. A total of 15% of private companies determine current performance compensation on the basis of the previous year's performance compensation, whereas only 3% of local- and central-government-controlled companies follow this approach. The last notable result is that whereas 15% of central-government-controlled companies and 7% of local-government-controlled companies determine performance compensation on the basis of a multiple of the average employee salary, only 2% of non-government-controlled companies do so. This result indicates that government-controlled companies, especially central-government-controlled companies, give more consideration to employee salaries when determining executive compensation, reflecting that executive compensation regulations do have an effect on government-controlled companies.

Table 14 presents statistics on the methods of determining coefficient *b* in the performance compensation computation formula discussed in Table 13. From the 116 contracts in which coefficient *b* could be determined, 87% state that coefficient *b* is determined based on the evaluation results of the performance measures and 13% give a fixed value for the coefficient. Central government-controlled companies have a greater tendency to set *b* at a fixed value than non-government and local-government-controlled companies.

To minimize the risk of exposure to executives, compensation contracts normally set a ceiling and floor for performance compensation. Table 15 presents the statistics on performance compensation ceilings and floors. Forty contracts provide a performance compensation ceiling. Among these, 19 calculate the ceiling as a multiple of the annual basic salary and 10 set a specific amount for the ceiling. Only 16 contracts provide a performance compensation floor. Seven of these 16 contracts give a specific amount and another six set the floor at 0.

5. Conclusion and directions for future research

This study analyzes 228 executive compensation contracts voluntarily disclosed by Chinese listed firms between 2004 and 2010, and finds the following main results.

First, central-government-controlled companies disclose the most information on compensation packages, followed by local- and non-government-controlled companies. We mainly focus on the disclosure of performance evaluation measures and compensation calculation methods.

Second, the evaluation measures in compensation contracts are still chiefly based on accounting profit measures, with only three companies using market return measures. We observe that an increasing number of companies have used non-financial measures since 2007. In addition, non-financial measures are more widely used by central-government-controlled companies than by their local- and non-government-controlled counterparts.

Third, the performance standards used in evaluation measures are still mainly based on internal standards, such as past performance and company budgets. Very few companies choose industry performance, cost of capital and other external standards as standards to evaluate executive performance. Murphy (2001) argues that it is easier for executives to manipulate internal standards than external standards. Thus, our results indicate that Chinese listed companies fail to consider executives' influence on performance standards when setting executive compensation.

Fourth, 57 of the sample contracts disclose the weight given to financial measures in the evaluation system. Compared with the years before 2007, both the average and median weight accorded to financial measures drops significantly after 2007. We cannot offer any explanation for this change: it may be due to changing executive compensation regulations introduced by the government or to the application of the new accounting standards in 2007. We also find that the weight given to financial measures in central-government-controlled companies is slightly higher than that in local- and non-government-controlled companies.

Fifth, the structure of executive compensation consists of basic salary and performance compensation, but relatively little stock-based compensation. Most contracts set basic salaries at a certain fixed value. Some contracts set them based on a multiple of the average employee salary. The basic salary amount is typically not significantly different from the performance compensation amount, which is about half of the total compensation. However, government-controlled companies offer greater performance compensation than non-government-controlled companies.

Finally, most companies determine performance compensation based on profit or a fixed value in combination with the results of the executives' performance evaluation. However, some companies determine performance compensation based on past performance or average employee compensation.

Our survey results shed light on future executive compensation research in China. We have identified five future research directions. First, performance evaluation measures vary significantly across companies. It would be interesting to examine why companies choose different performance evaluation measures. Such research would help to determine how companies should choose and balance the use of financial and non-financial measures, and whether performance standards should be based on internal standards such as budgeting and past performance, or on external standards such as industry performance and cost of capital. Answering these questions would help us to better understand how companies construct their compensation packages.

The second direction is to determine which measures are more effective in motivating executives and mitigating agency problems. The answer to this question could help companies to design more effective compensation contracts. The reactions of management to different measures are also unknown. The literature focuses mainly on managers' incentives to manipulate earnings to achieve their personal goals. However, there are large variations in performance evaluation measures and performance standards. How can managers manipulate so many measures and standards? Do they exhibit different kinds of opportunistic behavior? An understanding of managers' reactions to performance measures would be useful in designing better compensation contracts.

The third direction is to examine what motivates companies to voluntarily disclose compensation contracts. There is a need for further analysis on the disclosure of company compensation policies. It would also be interesting to examine how investors react to the voluntary disclosure of executive compensation contracts. These research avenues would increase our comprehension of the function of compensation contracts in company operations and offer policy implications for regulators of disclosure policies.

Fourth, due to a lack of detailed information on the compensation regulations introduced by local governments, additional surveys and field studies are required to understand how local governments regulate compensation and how central government regulations are enforced by local governments. How would different

regulations by local governments affect company choices? Such research would help us to understand the structure of compensation contracts in local-government-controlled companies.

Finally, previous studies often suffer from an omitted variable problem in their pay–performance sensitivity analyses. In addition to the various forms of accounting profit evaluation measures, contracts contain many non-accounting-profit measures, such as operating efficiency measures and cash flow measures, that are normally not controlled for in previous studies. Many companies also use non-financial measures. These omitted variables may also have affected the current research findings.

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