CEO Decision Horizon and Firm Performance – Evidence from Chinese Listed Firms

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ABSTRACT

This study focuses on vertical agency problems (the conflicts between managers and shareholders), and analyzes the effect of top managers' myopia action on firms' performance in the background of China. We explore firms' performance in three dimensions – agency costs, information risk and Tobin's Q. We aim to expose the risk and benefit of firms to investors, when top managers occupy a stable position in a long period. Previous research on agency costs and information risk (Antia et al., 2010) reports a negative correlation between information risk and decision horizon. We examine whether these results remain consistent in the world's second-largest economy.

We use expected CEO tenure as a proxy for the length of CEO decision horizon, and use annual sales scaled by total assets and SG&A (Selling, General and Administrative Expenses) scaled by total sales to measure agency costs. Five measures of accruals quality are used in this paper to measure information risk, which is the likelihood of the poor quality of disclosed firm-specific information. By using 2-Stage Least Squares Regression to control endogenous problem of CEO decision horizon, our empirical tests show that longer CEO decision horizon is associated with

more agency costs, more information risk and higher Tobin's Q. The results are not consistent with the previous research regarding CEO tenure and firm performance.

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1. Introduction

Corporate governance is important in modernized enterprises system. Since Berle and Means（1932）proposed the characteristic of dispersed ownership, separation of ownership and management agency problem remains the core research topic.

Two types of agency problems may exit in firms: Vertical agency problems arise between owners and managers from the separation of ownership and control (Jensen and Meckling, 1976); and horizontal agency problems between controlling shareholders and minority shareholders arise from their conflicting interests.

One of the main sources of conflicts between managers and shareholders is that the investment horizons of managers are shorter than the investment horizons of shareholders. This is one aspect of managerial myopia. Managerial myopia, defined as an action that boosts current earnings at the expense of the long-term value, has been a lively topic in finance. Many studies focus on the causes of myopia, which include takeover threats (Stein, 1988), CEO's equity-based compensation (Murphy, 2003), and capital market pressure (Bhojraj and Libby, 2005). However, most of the previous papers focus on the developed countries, whereas, there are few studies investigating the myopia problems in developing markets.

China, the second largest economy in the world, is adopting a modernized enterprises

system since the reform of non-tradable shares. The institutional environment for Chinese firms has two salient features: 1) China has transformed itself from a command economy to a market economy, and 2) Most Chinese-listed firms were state-owned enterprises (SOEs) before the transformation. It is not difficult to understand that some financial phenomenon is different from developed countries as well as other developing countries. We investigate CEO's managerial myopia in the context of China. In this paper, we use CEO decision horizon as a measure the of the myopia problem. On one hand, managerial decision horizons are limited to their expected tenures. On the other hand, pressure from shareholders shortens CEOs' decision horizons.

In this study, we provide an empirical test on the relationship between CEO decision horizon and firm performance. We follow Antia et al. (2010)'s method and calculate our main test variable – decision horizon. As for our dependent variable, we have three dimensions of firm performance: agency cost, information risk and market valuation.

In order to avoid endogeneity and potential omitted variable problems, we use two-stage least square estimation (2SLS) for most of our model. The industry-averaged salary per capita is a valid instrumental variable because it is an industry characteristic. It links to CEO's decision horizon and is not directly associated with firm performance.

For the robustness check, we conduct alternative tests using 1) an alternative measure

of main test variable – CEO's decision horizon and 2) alternative measures of a series of control variables, and conclude that the results are robust.

This paper is organized into 7 sections. Section 2 introduces previous literature. Section 3 provides the hypotheses development. Section 4 provides the variable construction, the data source and the summary statistics. Section 5 presents the methodology and empirical results. Section 6 summarizes the robustness tests and Section 7 concludes with an overview of the findings and limitations of this paper.

2. Literature review

2.1 Managerial myopia in the context of China

Many practitioners believe that myopia problem is a first-order problem at the face of many modern firms. Technological revolutions change people's life style rapidly and forward-looking companies deposit a large amount of assets in their intangible assets such as human capital and R&D capabilities. Building such competencies require significant and sustained investment. However, managers may fail to invest with the concern of firm's short-term share price, because such intangible investment may not bring back short-term profit. This is managerial myopia. CEO's decision horizon, constructed by CEO's age and his expected tenure, could serve as a measure of managerial myopia (Antia et al., 2010). Indeed, Jensen and Meckling (1979) demonstrated that a shorter tenure increases the hurdle rate for projects causing managers to underinvest. Some managers may invest myopically and pursue relatively faster paybacks to be competitive in managerial labor market (Campbell

and Marino, 1994). Graham et al. (2005) found that 78% of executives would sacrifice long-term value to meet earnings targets. Kaplan and Minton (2006) found that shorter expected tenure coincides with the increase in annual CEO pay over the same period.

However, in the context of China, managers' myopia problem is not widely discussed. There are few studies concerning managerial myopia in the Chinese market, as Chinese market went through an economic reform from planned economy to market-oriented economy during past four decades. Corporate reforms, initiated in the 1980s, have handed plant managers autonomy in decision-making, reduced state interference in the production process, and significantly improved the managerial resource allocation system. After the reform, corporate governance problems, such as agency problems, came to Chinese domestic researcher's sight. Using Chinese data from 2007 to 2009, Wu and Li (2012) found that managers' age and operational capacity have a significant negative impact on myopia problem, while salaries and managerial ownership do not clearly relate to myopia problem. Liu and Chen (2006) found that sensitivity of the company's investment to market valuation increases with the degree of managerial myopia and the market valuation of company increase with the company's investment. They concluded that the strong sensitivity of book-to-market ratio to managerial myopia problem is due to the weak market efficiency.

2.2 *Agency cost, information risk and firm performance in the context of China*

Agency problems attract researchers around the worlds, since Jensen and Meckling (1976) first defined the concept of agency cost. Many studies focused on providing evidence of the existence of agency problem or finding a solution to the agency problem. The research of Bebchuk and Fried (2003) provided evidence that dispersed ownerships lack bargaining power against managers, and that managerial power approach can explain many features of the executive compensation landscape. Shleifer and Vishny (2003) illustrated that large institutional shareholders have incentive to monitor of management. But this effect differs across the markets.

Agency costs have been widely discussed in China since the majority of the Chinese firms transformed into state owned enterprises (SOEs) or private-owned firms around 1990s. Lu and Zhou (2005) confirmed agency cost hypothesis in the listed companies. Huang et al. (2011) examined the effect of agency cost on the relation between top managers' overconfidence and investment-cash flow sensitivity in the Chinese market, and their results showed that a positive relationship between overconfidence and investment-cash flow sensitivity does exist in firms with high agency costs.

Information asymmetric between managers and dispersed ownerships or between informed investor and less-informed investors leads to information risk. Previous studies have provided evidence that information risk is a non-diversifiable factor that is priced by the capital market. Most of the papers focused on the link of information

risk to the cost of capital (Easley and O'Hara, 2004; Francis et al., 2005; Core et al., 2008). Furthermore, in the unique institutional background of China, Chen et al. (2011) found that the effects of information risk on cost of capital are more pronounced for non-state-owned enterprises than for state-owned enterprises. They regarded information risk as a market risk factor. Our paper tries to explore the reason of information risk from managers' point of view.

There are many studies focusing on the relationship between CEO turnover, CEO tenure and firm performance. Coughlan and Schmidt (1985) stated that both compensation changes and management changes are methods used to control top managers. Jenter and Kanaan (2015) present that CEOs are fired after bad firm performance, and bad firm performance could result from industry or the whole economy. Using Chinese data from 1998 to 2002, Kato and Long (2006) provided evidence that CEO turnover is significantly and inversely related to firm performance with a modest magnitude relationship. Henderson et al. (2006) argued that the relationship between CEO tenure and firm performance depends on the industry. In stable industries, such as food industry, performance improved steadily with tenure. For dynamic industries, such as IT industry, CEOs were at their best when they started their jobs. This opinion coincides with the paper of McClelland et al. (2012) that CEOs' paradigms will become increasingly obsolete as their tenure increases, with this process hurting future performance in dynamic industries.

3. Hypothesis Development

Hypothesis 1: Shorter CEO decision horizons are associated with greater agency costs.

In the traditional corporate finance literature, agency costs such as the misalignment of managerial and shareholder's interests, could be one explanation for investment distortions (Jensen and Meckling, 1976). This misalignment contains investment cycles, risk and returns of investment. Managers may over-invest excess cash flow for their private benefit, or they may expand expanses such as SG&A for the comfortableness when they are at high position. On one hand, CEO's expected tenure is much shorter than the life span of the firm, so some long-run investments are avoided for this reason. On the other hand, over-confident CEOs may invest in some risky projects to chase their personal reputation.

Ajinkya et al. (2005) analyzed that with the increase of capital market pressure, changes in disclosure frequency cause managers' myopical decision. Cheng, Subramanyam and Zhang (2005) found that managers in firms which frequently issue quarterly earnings guidance behave more myopically than those of occasional guiders. Mizik and Jacobson (2007) found that myopic cuts of marketing spending impair marketing function, harm intangible marketing assets, and ultimately destroy shareholder value.

According to Antia et al. (2010), agency costs negatively correlate with the increase of decision horizon in American market. A shorter CEO decision horizon

(management myopia) are associated with high agency costs. However, the uniqueness of Chinese market exists from top to bottom. On one hand, the privatization and reform of most Chinese listed firms make it difficult to figure out who is the beneficial owner, and a great portion of investors in the capital market are searching for buy-sell price differences in the short-run, not for the long-run investments. On the other hand, professional managers do not commonly exist in firms, and top managers, more or less, connect with the large shareholders. Therefore, whether this horizon problem remains the same in Chinese market is a question.

Hypothesis 2: Shorter CEO decision horizons are associated with greater information risk.

Using stock volatility as a measure of information risk, Clayton, Hartzell and Rosenberg (2000) found that information risks increase after CEO turnovers. Given that CEO turnover is indicative of short decision horizon, our second hypothesis states that shorter decision horizons are associated with greater information risk.

Hypothesis 3: Shorter CEO decision horizons are associated with smaller market valuation.

Kato and Long (2006) found that CEO turnover is significant and negatively correlated to firm performance in the Chinese market. Lausten (2002) found that CEO turnover inversely relate to firm performance in Danish market. Since shorter CEO decision horizons indicate higher probability of CEO turnover, this hypothesis states that shorter CEO decision horizons are associated with smaller market valuation.

4. Variables and Data

4.1 Variables

4.1.1 Decision Horizon

Our main independent variable is *decision horizon (DH)*. We assume that CEOs estimate their tenure by comparing themselves with other CEOs in the same industry (Antia et al., 2010). Therefore, this comparability leads to two components of DH, their expected tenure, and their age compared with the median age in the same industry. If CEO makes a profitable long-run decision, but his tenure is shorter, he couldn't get the maximum benefit from this decision. Therefore, his decision horizon relates to the expected tenure. Also, the decision horizon is related to age. The mean age of all observations is 49. Consider if the CEO is near his retirement, he would prefer projects with short-term profits to boom the stock price or accounting numbers in order to make him retire with honors and a good reputation. The average age and tenure in different industries varies a lot. For example, firms in the high technology industry usually hire younger CEOs for their updated knowledge of the high technology, and this difference makes the industry adjusted decision horizon necessary. Thus, we do not use the median tenure or median age of the whole sample as a comparison, but use industry adjusted median tenure and industry adjusted median age. We follow Antia et al. (2010), and construct *DH* as follows.

$$DH = \left(TENURE_{ind,t} - TENURE_{i,t}\right) + \left(AGE_{ind,t} - AGE_{i,t}\right) \quad (1)$$

Where $TENURE_{i,t}$ is the number of years the CEO has held that position and $TENURE_{ind,t}$is the industry median of tenure at year t. Correspondingly, $AGE_{i,t}$ is the

age of the CEO at year t, and $AGE_{ind,t}$ is the industry median of age at year t.

4.1.2 Agency costs

The first set of firm performance variables relates to the prevalence of agency costs. The classic case of agency cost is the professional manager having interests differing from those of shareholders. When shareholders make a decision to change their top manager, two things they must consider about: 1) the profit that manager can bring and 2) the cost of replacing and hiring manager. Agency costs relate to both, because agency costs serve as the deduction of profit resulting from managers' action. The impact of decision horizon on agency costs should be taken into consideration, because decision horizon is one aspect of managerial myopia, which is always related to shareholders' long-term profit.

Hence, we conduct 2 measures of agency costs. First, following Ang et al. (1999)'s method, we use the ratio of annual sales to total assets (Agency cost1) (Equation 2) as a measure of managers' ability to employ assets efficiently. A higher asset turnover ratio indicates a higher value-creating ability which would lead to positive cash-flow and increase shareholder value. A lower asset turnover ratio could be regard as a non-cash flow generating value destroying ventures, which harms shareholder profit. Firms with considerable agency conflicts would have a lower asset turnover ratio compare to those having less agency conflicts. Second, according to Singh and Davidson (2003), we use firm's selling, general, and administrative expenses (SG&A) scaled by total sales (Agency cost2) (Equation 3) to measure agency costs. SG&A is a

proxy of managerial discretionary expenses because these costs are an approximation of the managerial pay and perquisite consumption in terms of higher salaries, large office complexes, and other organizational support facilities. As a proxy of agency costs, SG&A shows the managers' ability to manipulate expense to satisfy themselves. Therefore, the higher ratio of SG&A scaled by sales is, the higher agency costs are.

$$Agency\ cost1 = \frac{Annual\ sale}{Total\ assets} \quad (2)$$

$$Agency\ cost2 = \frac{SG\&A}{Total\ sales} \quad (3)$$

4.1.3 Information risk

Information risk - the likelihood of the poor quality of disclosed firm-specific information related to the decision of the investor - is associated with a key accounting number – earnings, in other words, accruals quality. Accruals quality can be a reflection of earnings manipulation, which prevents investors from knowing the real condition of a firm. Therefore, poor accruals quality increases information risk.

Our second set of firm performance variables relates to information risk. Previous studies have provided evidence of the relationship between CEO turnovers and accruals quality. Accruals quality may be associated with the age and tenure of a CEO (Alderfer, 1986). CEOs gain knowledge of the firm and the industry with the increase of their tenure and age. According to Allen (1981), there is a positive relationship between CEO tenure and CEO's managerial power even though the CEO controls

only a relatively small block of stock. However, this managerial power could be a double-edged sword. On one hand, experienced CEOs enhance firm performance using their knowledge of the firm and industry. On the other hand, they could benefit themselves at their own sweet will without regard for the profit of shareholders. One of the figures they can manipulate, are accrual qualities. Indeed, Dechow and Sloan (1991) investigated that CEOs in their final year of service are more likely to manage short-term earnings and act myopically.

In this paper, we conduct five measures of information risk. Following Antia et al. (2010), the first measure of information risk captures the abnormal performance by estimating the quality of accruals. We compute the standard deviation of firm-specific residuals from a regression of total accruals on lagged, contemporaneous and leading CFO (cash flow from operations), following Dechow and Dichev (2002) that stated that cash flows related to accruals are cash flow from operations.

Following Dechow et al. (1995), firm i's total current accruals ($TCA_{i,t}$) are defined as

$$TCA_{i,t} = \Delta CA_{i,t} - \Delta CL_{i,t} - \Delta CASH_{i,t} + \Delta STDEBT_{i,t} - DEPN_{i,t} \quad (4)$$

Where $CA_{i,t}$ = current assets, $CL_{i,t}$ = current liabilities, $CASH_{i,t}$= cash and short-term investment, $STDEBT_{i,t}$ = debt in current liabilities, and $DEPN_{i,t}$is depreciation and amortization.

By regressing $TCA_{i,t}$ on lagged, contemporaneous and leading CFO, our first measure of accruals quality (AQ1) is the firm-specific residuals ($\varepsilon_{i,t}$) in the following regression:

$$\frac{TCA_{i,t}}{TA_{i,t}} = k_0 + k_1 \frac{CFO_{i,t-1}}{TA_{i.t}} + k_2 \frac{CFO_{i,t}}{TA_{i.t}} + k_3 \frac{CFO_{i,t+1}}{TA_{i.t}} + \mathcal{E}_{i,t} \quad (5)$$

The second measure of accruals quality (AQ2) uses the change of working capital ($\Delta WC_{i,t}$) instead of using $TCA_{i,t}$, to calculate firm-specific residuals (AQ2). Burgstahler and Dichev (1997), suggested that managers use working capital in earnings' manipulation due to its use of inventory, accounts payables and receivables. Furthermore, accruals contain the changes in various working capital items. So, our second measure of accruals quality (AQ2) uses the change of working capital and is constructed as follow:

$$\frac{\Delta WC_{i,t}}{TA_{i,t}} = k_0 + k_1 \frac{CFO_{i,t-1}}{TA_{i.t}} + k_2 \frac{CFO_{i,t}}{TA_{i.t}} + k_3 \frac{CFO_{i,t+1}}{TA_{i.t}} + \mathcal{E}_{i,t} \quad (6)$$

The third measure of information risk, we add 2 extra variables, 1) the change of sales scaled by total assets and 2) property, plant, and equipment scaled by total assets, into equation 6. (Francis et al., 2005; Antia et al., 2010)

$$\frac{\Delta WC_{i,t}}{TA_{i,t}} = k_0 + k_1 \frac{CFO_{i,t-1}}{TA_{i.t}} + k_2 \frac{CFO_{i,t}}{TA_{i.t}} + k_3 \frac{CFO_{i,t+1}}{TA_{i.t}} + k_4 \frac{\Delta sales_{i,t}}{TA_{i.t}} + k_5 \frac{PPE_{i,t}}{TA_{i.t}} + \mathcal{E}_{i,t} \quad (7)$$

We use two other methods to calculate the discretionary total current accruals, to measure accruals quality (DTCA). Discretionary total current accruals identify management choices while nondiscretionary current accruals reflect firm's conditions such as firm growth and operating cycle (Dechow et al. 1995). Evidence from Subramanyam (1996) suggests that pervasive managerial discretion improves the persistence and predictability of reported earnings, and decreases the transparency of

accounting numbers. We follow Jones (1991)'s method, and use the predicted value of $u_{i,t}$ as discretionary total current accruals (DTCA) from the following equation:

$$u_{i,t} = \frac{TCA_{i,t}}{TA_{i,t-1}} - (k_1 \frac{1}{TA_{i,t-1}} + k_2 \frac{\Delta sales_{i,t}}{TA_{i,t-1}} + k_3 \frac{PPE_{i,t}}{TA_{i,t-1}}) \quad (8)$$

We use in the last method of calculating DTCA the modified Jones model (Dechow et al., 1995) and use the predicted value of $u_{i,t}$ as DTCA:

$$\frac{TCA_{i,t}}{TA_{i,t-1}} = k_1 \frac{1}{TA_{i,t-1}} + k_2 \frac{\Delta sales_{i,t} - \Delta REC_{i,t}}{TA_{i,t-1}} + k_3 \frac{PPE_{i,t}}{TA_{i,t-1}} + u_{i,t} \quad (9)$$

Where $\Delta REC_{i,t}$ is the net receivables in year t less the net receivables in year t-1. The only adjustment relative to the original Jones model (1991) is that the change in revenues is adjusted for the change in receivables. The modified Jones model emphasizes on the fact that it is easier to manage earnings by exercising discretion over the recognition of revenue on credit sales than it is to manage earnings by exercising discretion over the recognition of revenue on cash sales.

4.1.4 Firm performance

There are several ways to measure firm performance. In this paper, we use Tobin's Q as a measure of firm performance. Tobin's Q is the ratio of the market value of a company's assets divided by the replacement cost of the company's assets (book value). A low Tobin's Q ratio (between 0 and 1) means that the cost to replace a firm's assets is greater than the market value. This indicates that either the stock is undervalued or the top executives did not manage the firm very well. Previous

research finds that firms with high Tobin's Q are always associated with better investment opportunities and higher growth.

In this paper, we employ 2 definitions of Tobin's Q in the model:

$$Tobin's\ Q_1 = \frac{Market\ value}{Total\ assets} \tag{10}$$

$$Tobin's\ Q_2 = \frac{Market\ value}{Total\ assets - intangible\ asset - goodwill} \tag{11}$$

[Insert Table 1]

4.2 Data and sample selection

First, we obtain the CEO compensation data from the China Center for Economic Research Sinofin Information Service (CCER/SinoFin). Second, we gather the financial performance and accounting data from CSMAR database.

As most state-owned enterprises transformed to private owned firms in 1990s, we restrict our initial sample to the years between 2004 and 2016. To be included in the sample for a given year, a firm must have accounting data of one year after and one year before to compute accruals quality. These data requirements restrict our final sample period to the years between 2005 and 2015.

We took several steps to make our dependent variables easier to understand. We winsorized all measures of agency costs and accruals quality at 1% level, because

there are outliers in these 7 dependent variables[1]. We also adjust the winsorized value of AQ1, AQ3, AQ4 and AQ5 by multiplying them by 100,000.

[Insert Table 2]

We can see from Table 1 that the average age of top managers is around 49, and only 11.5% of them are near retirement. 75% of general managers also serve as chairman of the board, which means managers have more power to control the firm. Compared with the average managerial ownership[2] of 23.8% in the U.S. market, managerial shareholding in Chinese market only occupies 12.27%.

[Insert Table 3]

5. Methodology and results

5.1 Multi-factor regression analysis

To test the hypothesis in the background of China, we follow Antia's method (2010), and conduct a two-step analysis: 1) regress the decision horizon (DH) on firm fundamentals and CEO compensation variables, and obtain the predicted value of DH (DHhat) from this regression, 2) regress DHhat on the firm performance variables and control variables.

The relationship between decision horizon and firm performance may be endogenous: First, it is still a question whether a CEO who possesses a long-term decision horizon would lead to a boom in firm's performance or a well-performed firm, firm with low

[1] The lowest value of the AQ2 is -622.4077 while the mean of AQ2 is 22.37011 and the maximum is 30.32925

[2] Total percentage shares hold by directors, supervisors and managers.

agency cost or information cost, would search for a younger top manager or non-myopia manager. If we use an OLS model, the results could be biased, because of the endogeneity. Second, there might be some important firm characteristics missed in the model, which relate to CEO decision horizon. For example, if we missed R&D expenses in the model, which is naturally associated with long time horizons, an OLS model would exaggerate the impact of decision horizon and fail to capture the real reason. Therefore, I use two-stage least squares (2SLS) estimation to estimate the coefficient because of the endogeneity of decision horizon and firm performance,

The first stage:

$$DH = \alpha_1 + \alpha_2 Tobin's\ Q + \alpha_3 \frac{mebit}{sales} + \alpha_4 \frac{capital\ expanditure}{sales} + \alpha_5 \frac{R\&D\ expenditure}{sales} + \alpha_6 icomp + \alpha_5 \log(total\ compensation) + \alpha_7 \log(total\ assets) + \alpha_8 \frac{long\ term\ debt}{total\ assets} + instrumental \quad (12)$$

Where the variable $Icomp$ is the percentage of other CEOs who are paid more than the CEO in the same industry; and the instrumental is a variable that is not correlated with the error term in the second-stage model. Moreover, I use industry-averaged salary per capita as instrumental variable.

[Insert Table 4]

Table 4 reports the estimates of parameter of the first-stage regression of the dependent variable CEO's decision horizon (*DH*). From the results, we can see that the endogeneity is a problem in this model. *DH* is significant and positively correlated

with Tobin's Q, which supports the idea that good-performing firms usually hire CEOs who have long-term decision horizon. The reason why the first measure of Tobin's Q gives us an insignificant estimator is that the first measure contains intangible assets and good will in the book-value of the firm which varies significantly among firms and which are not easy to manage by top managers. After detecting the reciprocal causality between CEO decision horizon and firm performance, we could find other variables that are highly correlated with the decision horizon. The coefficients of *Icomp* are significant and negatively associated with *DH* in both models. These results are not surprising. Aiming to have a higher salary, CEOs may jump to other firms in the same industry, so the decision horizon in the original firm would be shorter because of the departure. Firm size is significant and negatively correlated to DH in 1% level, which means CEO's decision horizon in large firms are shorter than in small firms. This may be due to the fact that CEOs have more shareholders to satisfy in large firms, and they are more likely to act myopically.

5.2 Empirical results

5.2.1 CEO decision horizon and agency cost

Our first hypothesis states that shorter CEO decision horizons are associated with greater agency cost. To conduct a test of this hypothesis, we have two measures of agency cost, the first is asset turnover ratio, and the second is SG&A scaled by total sales.

We conduct our second stage as follow:

$$Agency\ costs = \alpha_0 + \alpha_1 DHhat + \alpha_2 \frac{mebit}{sales} + \alpha_3 \frac{capital\ expanditure}{sales}$$
$$+\alpha_4 \ln(total\ assets) + \alpha_6 Type$$
$$+\alpha_8 \text{age\_dummy} \quad (13)$$

[Insert Table 5]

Table 5 reports the results of the second stage, which use the estimated value of *DH* (*DHhat*) from equation (12) as independent variable. We find that the coefficient of CEO decision horizon is 0.009 and 0.011 respectively in the last two models in table 5 and they are both significant at the 5% percent level. These results contradict with the results of Antia et al. (2010). Based on the data from American firms, Antia et al. (2010) found a negative relationship between CEO decision horizon and agency costs. However, in the Chinese market, this relationship is reversed. There are two reasons for this reversion. First, the measure we use in this study is SG&A scaled by total sales, which directly captures the expense used by top managers. At a same level of sales, the CEO's expense increases with the decision horizon. Second, if the expected decision horizons are long, usually CEOs are more confident to stay in his firm than those CEOs with shorter decision horizon. The incentive to regulate themselves declines as CEOs confidence to stay at the company increases. Hence, agency costs increase with the increase of decision horizon.

5.2.2 CEO decision horizon and information risk

The second hypothesis states that shorter CEO decision horizons are associated with

greater information risk. Given that CEO turnover is indicative of short decision horizon, and accruals quality is a proxy of information risk. We conduct our second stage regression as follow:

$$AQ = \alpha_0 + \alpha_1 DHhat + \alpha_2 \frac{mebit}{sales} + \alpha_3 \frac{capital\ expanditure}{sales} + \alpha_4 \ln(total\ assets) + \alpha_6 \frac{long\ term\ debt}{total\ assets} + \alpha_7 \text{Type} + \alpha_8 \text{age\_dummy} \quad (14)$$

[Insert Table 6]

Table 6 reports the results of the second stage regression which uses estimated value of DH (DHhat) from the first stage regression as an independent variable. The results of column (1) and column (3) reveal that the estimated coefficient of CEO decision horizon is positive and significant at 1% for the two measures of accruals quality. As the lower numbers of accruals quality represent lower degree of information risk, information risks are positively correlated with CEO's expected tenure.

These results contradict with the results of Antia et al. (2010), which state that decision horizon substantially mitigates the level of information risk that investors face. Decision horizon is a measure of management myopia, and there are several reasons for this reversal in the context of China: First, most CEO compensation items are restricted stocks not options. Restricted stocks are subject to strict conditions (such as net profit, return on net assets, earnings per share and other financial indicators), and the lock-up period is more than 3 years after CEOs received restricted

stocks, which may make CEOs manipulate accounting announcements in early years rather than just before their departure. Second, the market for professional managers is not well developed. The professional managers market is more like a sellers' market in China, so top CEOs have more bargaining power and have less pressure to be replaced. Based on these two reasons, CEOs may manipulate financial statements in the early years and pose difficulty to investors to forecast the future prospects.

Furthermore, we re-estimate the model after adding additional corporate governance variables. These variables are listed in column 2 and column 4. Some of these variables also manifest significant association with accruals quality. Particularly, according to Gul et al. (2010), we put Concentration as an indicator of ownership concentration, and this variable is positively correlated with accruals quality in both column 2 and column 4. This result suggests that not only concentrated ownership will push firms to take projects that serve large shareholders and managers' interests (Dahya et al, 2008), but also concentrated ownership will increase the information risk that other investors face. We also found a negative correlation between capital expenditure (CAPX) and accruals quality in all 4 models, because the increase of capital expenditure is always associated with valuable investment opportunities which could positively affect share prices and increase the transparency of financial announcement.

We also report the results using other three methods of calculating accruals quality. We conduct Wu-Hausman tests for these three models. We find that AQ3's Wu-

Hausman score is 1.72982 (p = 0.1888), AQ4's score is 4.67189 (p = 0.0310), AQ5's score is 0.261374 (p=0.6093). The only model that passes the Wu-Hausman test is the model with AQ4, and we do not need to consider the endogeneity problem between AQ4 and DH. Therefore, we still need to use 2SLS model for AQ3 and AQ5.

Table 6 panel B shows the results of these additional three models. As we can see from the table, only AQ4 gave us a significant coefficient (-0.000686) of CEO decision horizon, but only at the 10% level and it is close to 0. The other two models gave us insignificant coefficients for our main test variable.

Compared to their previous research, Dechow and Dichev (2002) extended their accruals map into the related cash flow, and provided more precise estimates of accruals quality. We also use their method in AQ1 and AQ2, which could partially explain why AQ1 and AQ2 gave us more significant results.

5.2.3 CEO decision horizon and firm performance

Since the regression results show that CEO decision horizon is positively associated with information risk and agency costs, it is reasonable to test the relationship between CEO decision horizon and firm performance as we stated in hypothesis 3.

To test H3, the second stage regression would be:

$$Tobin's\ Q = \alpha_0 + \alpha_1 DHhat + \alpha_2 \frac{mebit}{sales} + \alpha_3 \frac{capital\ expanditure}{sales} + \alpha_4 \ln(total\ assets) + \alpha_6 \frac{long\ term\ debt}{total\ assets} + \alpha_8 \text{AgeDummy} \quad (15)$$

Here I use two measures of Tobin's Q the same as the first stage regression.

[Insert Table 7]

Table 7 reports the estimates of the coefficients of the second-stage model. We can see that CEO decision horizons is positively associated with Tobin's Q in all four models at the 1% level. As intangible assets and goodwill are not included in the book value, the models in columns (3) and (4) gave us higher coefficients of decision horizon. These findings are interesting, because even though the results of H1 and H2 contradict with Antia et al.'s (2010) results, the results of H3 are the same. Furthermore, most of the other controls are consistent with Antia et al. (2010): market valuation is positively related to size (Size) and profitability (MEBIT) and negatively related to leverage (Lev).

6. Robustness tests

In this section, we present several robustness tests to ensure that our significant results are not due to the specific measure of decision horizon and other control variables. We employ an alternative measure of decision horizon, which uses the difference between industry median CEO's age and the age of CEO:

$$DH2 = AGE_{ind,t} - AGE_{i,t} \quad (16)$$

[Insert Table 8]

Table 8 reports the results of alternative measure of CEO decision horizon using age difference (DH2) as a measure of decision horizon. All sign of our main test variable are still the same, except for the coefficient of DH in the first column of Table 8. In the previous section, the coefficient of DHhat on Agency cost1 is insignificant.

However, the coefficient of DH2 in column 1 becomes significant and negative as the first measure of agency cost uses asset turnover ratio. This negative coefficient also suggests that agency cost increases with the increase of decision horizon, as asset turnover ratio captures the ability of CEO to employ firm's assets and the sign of this ratio should be opposite to the agency cost.

Furthermore, we use several other measures of ownership concentration and managerial ownership. The alternative measures of ownership concentration are as follow: the percentage shares owned by the largest shareholder (Largest_SH), the percentage shares of largest five shareholders (Top5_SH), the percentage shares of largest ten shareholders (Top10_SH), the Herfindahl index of the largest three stakes (sh_herf3), the Herfindahl index of the largest 5 stakes (sh_herf5) and the square of the largest stake (sh_herf). Alternative measures of ownership concentration do not change the sign and significance level of the coefficient of our main test variable. For all our regression models, we use alternative managerial ownership measure, which is the square of the percentage shares owned by directors, supervisors and managers. The results remain the same. Hence, we conclude that our results are robust.

7. Conclusions

In this paper, I examine the relationship between CEO decision horizon and firm performance. As a proxy of managerial myopia, CEO decision horizons are the sum of CEO's expected tenure, and their age compared with the median age in the same industry (Antia et al., 2010).

Our findings support H3, which state that *shorter CEO decision horizons are associated with smaller market valuation*. Contrary to the paper of Antia et al. (2010), we find positive correlations both between CEO decision horizons and agency costs and between CEO decision horizons and information risk. For those with a low F value in Wu-Hausman tests, we use the 2SLS model to control for the endogeneity problems. We also use an alternative measure of decision horizon and several other measures of controls as robustness test and conclude that our findings are robust. The opposite results may be attributed to the unique characteristics of the Chinese market namely: a) most CEO compensation items are restricted stocks instead of options, which would encourage them to manipulate or smooth earnings in early years rather than just before their departure; b) the professional managers market is a seller's market in China, which gives top managers more bargaining power with less fear of replacement.

There are still some limitation to this study due to the massive missing value of CEO compensation and R&D expenses. In fact, we only have 824 observations after matching and cleaning, which resulted in an unbalanced panel dataset.

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Tables

Table 1: Correlation matrix

Table 1 provides correlation matrix of our main variables. DH is our main test variable – decision horizon.

	DH	Agency _cost1	Agency _cost2	AQ1	AQ2	AQ3	AQ4	AQ5	Tobin Q1	Tobin Q2	Indepen -dence	Dsm- percent	Concen -tration	IV
DH	1													
Agency_cost1	0.097	1												
Agency_cost2	-0.002	-0.187	1											
AQ1	0.013	0.124	-0.004	1										
AQ2	0.075	0.001	0.029	0.023	1									
AQ3	0.017	0.094	-0.030	0.091	0.442	1								
AQ4	0.027	0.029	0.012	0.035	0.032	-0.017	1							
AQ5	-0.046	-0.018	-0.055	-0.001	0.008	-0.003	0.078	1						
Tobin Q1	0.111	0.039	-0.042	0.012	0.071	0.037	0.028	0.019	1					
Tobin Q2	0.130	0.050	-0.064	0.009	0.067	0.039	0.051	0.022	0.937	1				
Independence	0.028	0.024	-0.033	0.101	0.063	0.091	0.003	0.071	-0.011	-0.024	1			
Dsm-percent	-0.040	0.061	-0.033	0.082	0.031	-0.004	0.035	0.061	-0.114	-0.019	0.105	1		
Concentration	0.015	0.061	0.027	0.071	0.092	-0.049	0.118	-0.007	-0.030	-0.036	0.002	0.095	1	
IV	0.010	0.108	-0.212	-0.195	-0.091	0.050	-0.104	0.013	0.111	0.064	-0.315	-0.027	-0.100	1

Table 2: Summary Statistics

Table 2 provides the summary statistics of our main test variables and control variables from 2005 to 2015, which includes the number of observations, mean, median, min, max and standard deviation.

VARIABLES	Obs	Mean	Median	Min	Max	Std.
DH	824	-0.127	1.137	-30.855	27.365	8.066
Agency_cost1	824	0.017	0.030	-0.804	0.226	0.118
Agency_cost2	820	0.051	0.039	0.000	0.892	0.064
AQ1	824	0.044	0.043	-0.272	0.344	0.093
AQ2	824	-2.303	-1.353	-74.067	2.538	7.760
AQ3	824	0.044	0.070	-2.005	0.581	0.251
AQ4	804	0.054	0.054	-0.200	0.279	0.077
AQ5	804	0.066	0.063	-0.259	0.511	0.100
Tobin1	824	3.027	2.259	0.024	29.169	2.63
Tobin2	824	3.355	2.407	0.025	29.390	3.17
Independence	824	0.372	0.333	0.182	0.667	0.056
Dsm-percent	786	0.123	0.002	0.000	0.985	0.253
Concentration	824	46.980	46.809	12.367	91.824	15.508
MEBIT	824	0.146	0.127	-0.650	0.690	0.115
CAPX	824	0.002	0.002	-0.153	0.413	0.032
R&D	824	0.047	0.034	0.000	0.983	0.063
Icomp	824	0.038	0.486	0.000	0.533	0.073
Ecomp	824	2.124	0.001	-4.887	3.808	2.739
Size	824	21.391	21.207	18.610	25.749	1.011
Lev	824	0.038	0.000	0.000	0.533	0.073

Table 3: Numbers of Decision Horizons by Year and by Industry

Table 3 Panel A reports the numbers of Decision Horizons by year. Panel B reports the numbers of Decision horizons by industry. The Mean, Median, Min, Max and Standard Deviation are also included in the table.

Panel A: Numbers of Decision Horizons by Year						
Years	Obs	Mean	Median	Min	Max	Std.
2005	10	-4.462	-4.686	-9.68	0.307	7.062
2006	16	-0.011	2.312	-13.965	11.312	7.878
2007	4	-0.103	0.719	-8.132	6.278	7.002
2008	40	-0.137	-0.745	-12.408	16.187	7.823
2009	19	0.049	2.020	-18.161	16.446	9.195
2010	69	0.903	1.250	-19.389	20.953	7.483
2011	108	0.648	1.634	-19.638	18.195	6.662
2012	113	-0.171	2.417	-30.855	14.710	8.355
2013	142	-0.291	0.628	-26.530	21.500	8.569
2014	136	-0.877	-0.117	-23.780	16.857	7.54
2015	165	-0.246	1.396	-26.150	27.365	8.913
Total	824	-0.127	1.137	-30.855	27.365	8.066
Panel B: Numbers of Decision Horizons by Industry						
Industry	Obs	Mean	Median	Min	Max	Std.
001	15	-5.870	-1.687	-26.150	9.500	10.602
002	133	0.625	1.950	-23.780	18.195	7.007
003	148	0.312	1.299	-18.281	14.232	6.853
004	22	-0.914	-2.597	-15.604	27.365	9.573
005	386	-0.087	0.090	-26.530	21.500	8.369
006	120	-0.774	0.322	-30.855	19.545	8.711
Total	824	-0.127	1.137	-30.855	27.365	8.066

Table 4: First stage of 2SLS model

Table 2 reports the results of the first stage of 2SLS model. All the variable definitions are in the appendix. *, **, and *** denote significance at the 10%, 5% and 1% level.

VARIABLES	(1) DH	(2) DH
Tobin1	0.180	
	(0.141)	
Tobin2		0.246**
		(0.114)
MEBIT	-3.054	-3.423
	(2.561)	(2.546)
CAPX	5.268	5.041
	(10.61)	(10.57)
R&D	1.163	0.368
	(4.897)	(4.896)
Icomp	-1.966*	-1.939*
	(1.114)	(1.111)
Ecomp	-0.000576	-0.000586
	(0.000595)	(0.000594)
Size	-1.408***	-1.317***
	(0.339)	(0.337)
Lev	2.642	2.828
	(4.841)	(4.822)
Constant	25.531***	23.354**
	(9.689)	(9.654)
Observations	824	824
R-square	0.053	0.057

Table 5: Decision Horizon and Agency Costs

In Table 3, the dependent variables are 2 measures of agency costs. All the variable definitions are in the appendix. *, **, and *** denote significance at the 10%, 5% and 1% level.

	(1) Agency cost1	(2) Agency cost1	(3) Agency cost2	(4) Agency cost2
DHhat	0.000542	-0.002	0.009**	0.011**
	(0.007)	(0.008)	(0.004)	(0.004)
MEBIT	0.023	0.030	-0.022	-0.025
	(0.039)	(0.040)	(0.022)	(0.022)
CAPX	-0.210	-0.187	-0.071	-0.090
	(0.174)	(0.180)	(0.095)	(0.099)
Size	0.004	0.004	-0.001	-0.001
	(0.005)	(0.005)	(0.003)	(0.002)
Lev	0.090	0.083	-0.015	-0.003
	(0.074)	(0.077)	(0.041)	(0.042)
Concentration		0.000501*		0.001
		(0.000)		(0.002)
Sameperson		-0.007		0.0013
		(0.011)		(0.006)
Independence		0.034		-0.035
		(0.077)		(0.042)
Dsm-percent		0.024		-0.008
		(0.018)		(0.010)
Type	-0.005	0.003	-0.001	-0.003
	(0.013)	(0.014)	(0.007)	(0.008)
AgeDummy	0.017	0.0155	-0.006	-0.005
	(0.015)	(0.015)	(0.008)	(0.008)
Constant	-0.064	-0.109	0.103	0.112
	(0.144)	(0.152)	(0.080)	(0.085)
Durbin (score)	9.173	12.543	37.351	35.407
Wu-Hausman	9.152	12.503	38.609	36.377
Observations	824	784	820	780
R-squared	0.019	0.028	0.014	0.017
FE	YES	YES	YES	YES

Table 6: Decision horizon and Information risk

In Table 4, the dependent variables are 2 measures of accruals quality. Column (1) and column (3) document the estimated coefficients of equation (14). We add 4 other firm characters in column (2) and column (4). All the variable definitions are in the appendix. Bm1 and bm2 are dummies when B/M ratio belongs to first tertile and middle tertile respectively. Sqdsm= square of the percentage of shares held by directors, supervisors and managers. *, **, and *** denote significance at the 10%, 5% and 1% level.

Panel A: First two measures of Accruals quality

	(1) AQ1	(2) AQ1	(3) AQ2	(4) AQ2
DHhat	0.020***	0.0186***	1.428***	1.383***
	(0.006)	(0.006)	(0.470)	(0.471)
MEBIT	0.016	0.0194	-6.277**	-5.876**
	(0.030)	(0.0303)	(2.468)	(2.463)
CAPX	-0.239*	-0.231*	-19.180*	-19.760*
	(0.135)	(0.135)	(10.970)	(10.982)
Size	-0.003	-0.003	-0.330	-0.386
	(0.003)	(0.004)	(0.321)	(0.322)
Lev	-0.0006	0.0002	-7.679	-7.901*
	(0.058)	(0.058)	(4.676)	(4.692)
Sameperson		-0.014*		-0.972
		(0.008)		(0.648)
Independence		0.134**		6.852
		(0.058)		(4.735)
Sqdsm		0.010		-0.399
		(0.015)		(1.229)
Concentration		0.000409*		0.050***
		(0.000212)		(0.017)
Type	0.018*	0.020*	0.474	0.536
	(0.010)	(0.010)	(0.837)	(0.838)
AgeDummy	0.006	0.007	1.095	1.171
	(0.011)	(0.011)	(0.929)	(0.926)
Bm1	-0.017	-0.017	1.743*	1.703*
	(0.011)	(0.011)	(0.927)	(0.929)
Bm2	-0.008	-0.007	1.771**	1.773**
	(0.009)	(0.009)	(0.750)	(0.748)
Constant	0.021	-0.025	8.195	5.075
	(0.112)	(0.116)	(9.099)	(9.414)
Observations	824	822	824	822
R-squared	0.035	0.053	0.085	0.101
FE	YES	YES	YES	YES

Panel B: 3 additional measures of Accruals quality.			
	(5)	(6)	(7)
	AQ3	AQ4	AQ5
DHhat	-0.039		-0.006
	(0.029)		(0.011)
DH		-0.000686*	
		(0.000415)	
MEBIT	0.034	0.012	0.034
	(0.086)	(0.026)	(0.034)
CAPX	0.542	0.052	0.158
	(0.508)	(0.102)	(0.199)
Size	0.008	-0.005	0.010*
	(0.013)	(0.003)	(0.005)
Lev	-0.345**	-0.025	0.041
	(0.161)	(0.050)	(0.065)
Sameperson	-0.010	0.001	-0.012
	(0.023)	(0.007)	(0.009)
Independence	0.458***	0.005	0.120*
	(0.166)	(0.049)	(0.065)
Dsm-percent	0.003	0.010	0.014
	(0.040)	(0.012)	(0.016)
Concentration	-0.001	0.000614***	-0.00043
	(0.001)	(0.000183)	(0.000237)
Type	0.0174	0.005	0.002
	(0.027)	(0.009)	(0.011)
AgeDummy	0.007	0.002	0.006
	(0.032)	(0.011)	(0.013)
Constant	-0.324	0.082	-0.195
	(0.338)	(0.079)	(0.136)
Wu-Hausman tests	1.730	4.671	0.261
	(p = 0.189)	(p = 0.031)	(p=0.6093)
Model	2SLS	OLS	2SLS
Observations	784	766	766
R-squared	0.007	0.064	0.027
FE	YES	YES	YES

Table 7: Decision horizon and market valuation

In Table 5, the dependent variables are 2 measures of Tobin's Q. Column (1) and column (3) document the estimated coefficients of equation (15). All the variable definitions are in the appendix. We add 4 other firm characters in column (2) and column (4). *, **, and *** denote significance at the 10%, 5% and 1% level.

	(1) Tobin's Q 1	(2) Tobin's Q 1	(3) Tobin's Q 2	(4) Tobin's Q 2
DHhat	0.765***	0.779***	1.010***	1.028***
	(0.049)	(0.051)	(0.059)	(0.061)
MEBIT	5.693***	5.692***	6.680***	6.641***
	(0.558)	(0.572)	(0.673)	(0.689)
CAPX	-6.268***	-6.043**	-3.559	-3.239
	(2.260)	(2.356)	(2.728)	(2.836)
Size	0.305***	0.310***	0.484***	0.498***
	(0.096)	(0.102)	(0.116)	(0.122)
Lev	-6.450***	-6.709***	-7.216***	-7.462***
	(1.081)	(1.128)	(1.305)	(1.358)
AgeDummy	0.360*	0.310	0.456*	0.340
	(0.216)	(0.222)	(0.261)	(0.268)
Sameperson		-0.164		-0.229
		(0.157)		(0.189)
Independence		-2.058*		-3.176**
		(1.136)		(1.367)
Dsm-percent		0.311		0.347
		(0.271)		(0.326)
Concentration		0.001		-0.001
		(0.004)		(0.005)
Constant	-5.409**	-4.688*	-9.369***	-8.309***
	(2.451)	(2.613)	(2.958)	(3.146)
Observations	824	784	824	784
R-squared	0.565	0.567	0.563	0.566
FE	YES	YES	YES	YES

Table 8: Robustness Tests

In table 6, the dependent variables are 2 measures of agency costs and 2 measures of accruals quality. Our main test variable DH2 is measured by the difference between industry median CEO's age and the age of CEO. Bm1 and bm2 are dummies when B/M ratio belongs to first tertile and middle tertile respectively. *, **, and *** denote significance at the 10%, 5% and 1% level.

	(1) Agency cost 1	(2) Agency cost 2	(3) AQ1	(4) AQ2
DH2	-0.147***	0.148***	0.162***	4.953*
	(0.056)	(0.048)	(0.051)	(2.881)
MEBIT	-0.052	0.047	0.100*	-3.404
	(0.061)	(0.047)	(0.056)	(3.156)
CAPX	1.078**	-1.253***	-1.381***	-47.630*
	(0.521)	(0.436)	(0.471)	(26.660)
Size	0.044***	-0.041***	-0.043***	-1.705**
	(0.016)	(0.014)	(0.015)	(0.847)
Lev	0.114	-0.054	-0.072	-11.421**
	(0.103)	(0.080)	(0.093)	(5.258)
Independence	0.170	-0.161*	-0.007	2.641
	(0.115)	(0.090)	(0.104)	(5.877)
Dsm-percent	0.046*	-0.029	-0.006	-0.075
	(0.026)	(0.020)	(0.024)	(1.335)
Concentration	0.000257	0.000429	0.000519	0.056***
	(0.000384)	(0.000309)	(0.000348)	(0.020)
Type	0.020	-0.017	-0.000	0.387
	(0.017)	(0.013)	(0.015)	(0.848)
AgeDummy	-0.001	0.013	0.027	1.745
	(0.021)	(0.017)	(0.019)	(1.098)
Bm1	0.089***	-0.076***	-0.093***	-1.447
	(0.033)	(0.027)	(0.030)	(1.702)
Bm2	0.057***	-0.039**	-0.047**	0.183
	(0.022)	(0.018)	(0.020)	(1.121)
Constant	-1.182***	1.135***	1.123***	36.220
	(0.431)	(0.366)	(0.390)	(22.060)
Observations	784	780	784	784
FE	YES	YES	YES	YES

Appendix

A1: Variable Definitions

Variable	Description
Age	CEOs' age
DH	CEO's decision horizon as described above
Agency cost1	Annual sales scaled by total assets (winsorized at 1% level)
Agency cost2	SG&A scaled by sales (winsorized at 1% level)
AQ1	Firm-specific residuals from a regression of total current accruals ($TCA_{i,t}$) on lagged, contemporaneous and leading CFO
AQ2	Firm-specific residuals from a regression of change of working capital ($\Delta WC_{i,t}$) on lagged, contemporaneous and leading CFO
AQ3	Firm-specific residuals from a regression of change of working capital ($\Delta WC_{i,t}$) on lagged, contemporaneous, leading CFO, change of sales and PP&E(property plant and equipment)
AQ4	Discretionary total current accruals (DTCA) using the Jones model (Jones, 1991)
AQ5	Discretionary total current accruals (DTCA) using modified Jones model (Dechow et al., 1995)
Tobin1	Market value / total asset
Tobin2	Market value / (total asset – intangible asset - goodwill)
Independence	Number of independent board member / number of total board member.
Dsm-percent	The percentage of shares held by directors, supervisors and managers.
Concentration	Ownership concentration measured by the sum of percentage of the largest 3 shareholders of the firm.
MEBIT	MEBIT scaled by total sales
CAPX	Capital expenditure scaled by total sales
R&D	Research and development expenditure scaled by total sales
Icomp	The percentage of other CEOs who are paid more than the CEO in the same industry
Ecomp	The log form of total compensation scaled by wage
Size	The log form of total assets
Type	Mark as 1 if the firm is state-owned enterprises, 0 otherwise
AgeDummy	Mark as 1 if the CEO's age is between 62 and 65, 0 otherwise
Sameperson	Mark as 1 if chairman of board is the general manager, 0 otherwise
Lev	Long-term-debt scaled by total assets