

Chief Executive Officer Turnovers and the Performance of China's Listed
Enterprises

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Abstract

This study examines the relation between chief executive officer (CEO) turnovers and performance in China's listed enterprises where controlling shareholders are state-owned entities. We obtain three results. First, we offer evidence that the likelihood of forced CEO turnover is related to the incidence of negative earnings but not to industry-adjusted return on asset. Second, we document some improvement in accounting performance following CEO turnover, but the extent of the improvement is smaller and less significant than what has been documented for U.S. and Japanese enterprises. Third, we show that there is no significant relation between CEO turnovers and stock price performance.

Keywords: CEO turnovers, enterprise performance, state and private ownership

1. Introduction

The relation between CEO turnovers and enterprise performance is a much-studied issue. The relation has been regarded as the key indicator of the effectiveness of corporate control over managers in enterprises characterized by the separation of ownership and control (Jensen and Warner (1988)). A substantial body of literature documents the fact that forced CEO turnover is preceded by a large and significant decline in enterprise performance and is followed by improved performance, reflecting the effectiveness of various corporate control mechanisms at work in these enterprises (e.g., Warner et al. (1988), Weisbach (1988), Kaplan (1994), Morck, Shleifer and Vishny (1989), Denis and Denis (1995), Kang and Shivdasani (1995), Huson et al. (2004)).¹

Existing empirical studies focus primarily on corporate control exercised by private shareholders in U.S. and Japanese publicly listed enterprises. Little evidence is available on state owners whose incentive to monitor CEOs is likely to be different from the incentives of private shareholders for four major reasons. First, cash flow rights associated with state ownership are widely distributed among all the people in an economy (Alchian (1965)). State owners are, therefore, not real owners but bureaucrats who enjoy control rights but not cash flow rights. Owing to the absence of cash flow rights, a major premise in corporate governance literature is that state owners have little incentive to maximize profit and to exercise corporate control over managers of state-owned enterprises (SOEs) to improve enterprise performance (Shleifer and Vishny (1997)). Second, the government often uses SOEs to serve political and social objectives such as maximizing employment, engaging in regional development, and implementing

industrial policies. As a result, the objective function of state owners is at best a weighted average of enterprise performance and attainment of political goals that often detracts from enterprise performance (Shleifer and Vishny (1995, 1997)). Bai et al. (2000) further demonstrate theoretically that, to induce SOEs to serve political and social objectives, state shareholders need to intentionally withdraw the carrots that may induce profit-maximizing behaviors from senior managers and provide them with weak profit incentives. The political functions of enterprises suggest that managers of SOEs are unlikely to be disciplined on the basis of enterprise profitability. Third, the soft-budget-constraints literature suggests that monitoring activities in SOEs may be suppressed because the government is likely to bail out poorly performing SOEs (Kornai (1979, 1980)).² Unlike private shareholders who face the threat of bankruptcy, it can be argued that state owners are unconcerned about incurring negative earnings and have no incentive to penalize senior managers for loss-making, because they assume the government will bail them out should they find themselves facing financial difficulties. Fourth, state-owned shares are usually non-tradable and can be transferred only by following administrative approval. The non-tradability of state-owned shares implies that state shareholders may be less concerned than private shareholders about the short-term movement of the stock prices. In addition, state ownership implies that bureaucrats, who exercise control on behalf of the government, are unable to personally capture any capital gains when enterprise shares are transferred. Consequently, state owners may also be less concerned about shareholders' long-term value as reflected in the stock prices.

Despite the existence of a large body of theoretical literature that focus on the possible suppression of the monitoring of senior management under state ownership,

systematic empirical evidence on corporate control exercised by state owners is scarce. Based on a study of 17 U.S. enterprises in which the federal government served as a controlling shareholder during and following the World War II, Kole and Mulherin (1997) find that turnover among corporate board members was unusually high, but the tenure of senior management was relatively stable. Also, the performance of SOEs was not significantly different from that of private-sector enterprises. Together, these two pieces of evidence suggest that state shareholders' suppression of monitoring cannot be verified for the sample enterprises. The generalizability of the findings, however, is limited by the uniqueness of their sample enterprises.

Groves et al. (1995), on the other hand, examined the relation between enterprise performance and manager turnover for a sample of 769 SOEs in China during the period 1980–89. They offer evidence that although ex ante labor productivity is not associated with a manager turnover, turnover is followed by a significant increase in productivity. Their study suggests that reasonably effective corporate monitoring can occur under the aegis of state ownership. However, their study focuses on productivity performance in traditional SOEs under the direct control of government administration. Thus, it remains unclear whether state shareholders in partially privatized listed enterprises will discipline CEOs on the basis of financial performance. This issue is important because partially privatized listed enterprises involve also private shareholders whose welfare ultimately depends on financial performance. If state controlling shareholders have no incentive to maximize shareholders' wealth and discipline CEOs on the basis of financial performance, this creates a divergence of interests between controlling shareholders and

private shareholders which results in private shareholders' inability to maximize the value of their shares.

Our study attempts to examine the relation between CEO turnover and financial performance in China's listed enterprises from 1995 to 2000. Unlike stock markets in market economies, China's stock market was created by government to serve as a vehicle for raising funds for SOEs. Consistent with this objective, non-state-owned enterprises were not allowed to raise funds from the stock market and nearly all listed enterprises are spin-offs of large SOE groups chosen by local governments to be listed by the Shanghai Stock Exchange and the Shenzhen Stock Exchange. To maintain dominant state ownership in the listed enterprises, only one third of the enterprises' equity capital were sold to private investors during initial public offerings (IPOs). The remaining two third of the equity were held either by state asset management agencies or SOEs in the forms of non-tradable state and legal persons shares³. As a result, the enterprises' controlling shareholders are state-owned entities including local governments and parent SOE groups (Sun and Tong (2004), Chang and Wong (2004)).⁴ Chang and Wong (2004) offer evidence that the listed enterprises in late 1990s have been used to serve political and social objectives which posed a negative impact on the enterprises' performance. Consistent with such political uses of enterprises, the CEO's compensation schemes are characterized by the provision of weak profit incentives in which the main component is the low and undifferentiated civil service ranked salary. Stock-based incentives are weak because the average shareholding of managers in the listed enterprises, as of the end of 1999, was only 0.006% and stock option was non-existent until early 2000s (Chang and Wong (2004)). On the other hand, Sun and Tong (2004) argue that the listed enterprises'

budget constraints are soft because the government absorbed some of the enterprises' loss. As a result, China's listed enterprises retain the salient characteristic of state ownership after their listing and therefore, the CEO turnovers among these enterprises are useful vehicles for investigating the state owners' monitoring of CEOs in partially privatized listed enterprises.

We aim to offer evidence pertaining to the relation between CEO turnovers and the financial performance of China's listed enterprises and to compare our findings with existing evidence for private shareholders. To facilitate the comparison of our results with results from earlier studies, we use three performance measures used in previous studies. The first is the industry-adjusted return on asset measure (Denis and Denis (1995), Kang and Shivdasani (1995)), which is the ratio of pre-tax operating income to total asset minus the same ratio for the median enterprise in the same industry. This variable reflects the short-term profitability of the enterprise's operations and is not sensitive to tax effects and changes in capital structure. The second measure is a dummy variable that equals one if pre-tax operating income is negative. While Kang and Shivdasani (1995) adopted this variable as a proxy for extremely poor performance in the case of private enterprises, it has a special economic meaning for China's listed enterprises. As we have discussed earlier, soft-budget constraint theories argue that managers in SOEs may be unconcerned about incurring negative earnings because they expect the government will bail them out if they encounter financial difficulties. However, the government must make up for the negative earnings incurred by the SOEs, either through explicit subsidies from the treasury or through implicit subsidies from state-owned banks in the form of policy-directed loans. Qian and Roland (1998)

demonstrate theoretically that a local government has incentives to harden SOEs' budget constraints when the total loss incurred by the state-owned sector exerts pressure on the local government budget as well as on the national banking sector.⁵ Under these conditions, state shareholders could have an incentive to discipline CEOs to avoid incurring negative earnings. Although Sun and Tong (2004) argue that listed enterprises' budget constraints are soft as revealed by the government's *ex post* absorption of the enterprises' loss, it remains unclear whether controlling state shareholders have the incentive to discipline CEOs to avoid *ex ante* the occurrence of operating loss. The performance variable of pre-tax operating loss, therefore, allows us to gain some insights on this issue. Third, we computed industry-adjusted excess stock return (Kang and Shivdasani (1995)) as the third performance measure to examine whether controlling shareholders have an incentive to discipline CEOs on the basis of stock price performance.

We employ logit regressions to examine the determinants of CEO turnover in the listed enterprises. Contrary to existing evidence based on U.S. and Japanese enterprises, we show that the likelihood of forced turnover is unrelated to the industry-adjusted return on asset. However, the likelihood of turnover is related positively to the incidence of negative earnings. Our findings differ from those obtained by Kang and Shivdasani (1995), who found that CEO turnover in Japanese enterprises is related to the industry-adjusted return on asset as well as to the incidence of negative earnings.⁶ The lack of relation between the likelihood of forced turnover and the return on asset indicates that the likelihood of forced turnovers is insensitive to the level of enterprise profitability. This result is in contrast to the negative relation documented for the U.S. and Japanese

enterprises, which underlines a desire on the part of shareholders to motivate CEO for profit-maximization. The absence of evidence for such a desire for China's controlling shareholders is, however, consistent with the existing studies which suggest that the state shareholders use the listed enterprises to serve political and social objectives (Chang and Wong (2004)) and therefore need to provide managers with weak profit incentives (Bai et al. (2000)). Nevertheless, the negative relation between forced turnover likelihood and negative earnings suggests that state shareholders do not entirely ignore negative earnings, as suggested by soft budget constrain theories. In fact, our results reveal that the state shareholders have the incentive to penalize CEOs for loss-making.

We attempt to estimate the probabilities of CEO turnover for enterprises incurring negative earnings. Interestingly, our estimated probabilities for forced turnover conditioned on the incurrance of negative earnings (ranging from 18.72 % to 35.99 %) are higher than the corresponding probabilities estimated by Kang and Shivdasani (1995) for Japanese enterprises (10.8%), suggesting that the listed enterprises' shareholders might have a greater incentive than the Japanese shareholders to remove CEOs in enterprises incurring negative earnings.

Unlike results from previous studies that document a significant relation between stock returns and CEO turnovers (Denis and Denis (1995), Kang and Shivdasani (1995), McNeil et al. (2004)), our regression results show that the likelihood of forced turnover in the listed enterprises is unrelated to industry-adjusted stock return, suggesting that the addressing of poor stock price performance is unlikely the motivation of these turnovers.

For CEO turnover to be an effective corporate control event, CEOs need to be removed in poorly performed enterprises, and performance has to improve following

their turnover. We follow prior studies to examine the changes in enterprise performance for the seven years surrounding the year of CEO turnover (e.g., Denis and Denis (1995), Kang and Shivdasani (1995), Huson et al. (2004), McNeil et al. (2004)). Consistent with earlier studies, we find that forced turnovers are preceded by a significant decrease in the industry-adjusted return on asset and a significant increase in the percentage of enterprises experiencing negative earnings. In the period following forced turnovers, the performance measure of industry-adjusted return on asset have been shown to improve to some degree, but the extent of the improvement is much smaller and less significant than that which has been documented for U.S and Japanese enterprises (Denis and Denis (1995), Kang and Shivdasani (1995), McNeil et al. (2004), Husan et al. (2004)). Furthermore, forced turnovers are not followed by a significant reduction in the percentage of enterprises experiencing negative earnings. Nevertheless, they can halt the increase in the proportion of loss-making enterprises in the post-turnover period when compared with the non-forced turnovers. Overall, our analysis suggests that incoming CEOs in China's listed enterprises are less effective than the Japanese and U.S. CEOs at improving enterprises performance.

Our study offers some evidence on state owners' monitoring of CEOs in partially privatized listed enterprises and supplements the existing literature, which focuses primarily on private shareholders' monitoring activities in private enterprises. Moreover the study has implications for policymakers and potential investors. China's stock market has experienced phenomenal growth during the past decade. By mid-2003, China's total stock market capitalization had swelled to over US\$507 billion, with 1,250 listed enterprises. This made China's stock market capitalization the second largest in Asia,

after that of Japan. Whether such an expansion contributes to a more efficient allocation of capital in the economy or represents a potential financial crisis depends heavily on the quality of corporate control in listed enterprises. Our findings about the relation between CEO turnover and enterprise performance provide systematic evidence about the quality of corporate control in China's listed enterprises. Furthermore, since China's accession to the World Trade Organization, the country's stock market has been gradually opening up to foreign investors. In light of this, the question of whether controlling shareholders in listed enterprises have an incentive and the ability to exercise effective corporate control so as to strive for maximization of shareholders' wealth should be of great interest to potential investors.

2. Sample Selection and Data Description

We base our study on all enterprises listed by the Shanghai and Shenzhen Stock Exchanges from 1995 to 2000. We exclude enterprises listed only by the B-share market (which is open only to foreign investors) and not by the A-share market. For each enterprise, we obtained data on CEO turnover from the China Corporate Governance Research Database (CCGRD) developed by GTA Information Technology Co. Table I documents the extent of CEO turnover for all listed enterprises. Of the 1,033 non-financial enterprises listed by the exchanges at the end of 2000, 731 experienced at least one instance of CEO turnover from 1995 to 2000; the total number of CEO turnover was 1,077. There was a significant increase in the annual turnover rate, from 15% in 1995 to 32% in 2000. The average annual turnover rate was 25%, which is significantly higher than the annual turnover rates in U.S. and Japanese enterprises.⁸ Table I also shows the

financial performance of all enterprises listed by the two exchanges. The median of operating income to asset increased from 3.76% in 1995 to 5.61% in 1997 and then declined to 4.04% in 2000. The change in the percentages of enterprises experiencing negative pre-tax operating income across various years was small; it stood at 14.47% in 1995, increased to 17.68% in 1998, and then declined slightly to 16.46%. Stock returns, however, exhibited big swings. The stock return median increased drastically, from -17.06% in 1995 to 43.99 % in 1996, and then decreased to 2.17% in 1998 and increased to 55.65% in 2000.

We follow previous studies to consolidate multiple CEO turnovers for a given enterprise in a given fiscal year. Thus, if an enterprise experiences two or more CEO turnovers in the same fiscal year, only one will be recorded. This reduces our sample of CEO turnovers from 1077 to 996 (full sample). Out of the full sample enterprises, all have three years of post-turnover financial data, but 267 lack three years of pre-turnover financial data. In our analysis of the changes in performance surrounding CEO turnovers, we include only enterprises that have both pre- and post-turnover financial data. The final sample for the performance change analysis includes 629 enterprises (seven-year performance analysis sample).

[Table I about here]

The CCGRD provided information on the stated reason for a CEO turnover (if any). There are a total of 11 stated reasons: (1) change of job, (2) expiry of control, (3) change of controlling shareholder, (4) retirement, (5) health, (6) resignation, (7) dismissal, (8) corporate governance reform, (9) completion of acting duties, (10) personal reasons, and (11) legal litigation. Our consolidated full and seven-year performance

analysis samples exclude all cases for which the stated reason for turnover is legal litigation, and therefore there are only 10 possible stated reasons for the turnovers in our sample. Table II summarizes the distribution of turnovers across the stated reasons. Change of job is the most common stated reason, accounting for 30.6% of the turnovers in the full sample and 27.98% in the seven-year performance analysis sample. The next most common stated reason is expiry of contracts, which account for 20.6% (24.64%) of the turnovers in the full (seven-year performance analysis) sample. The third most common reason is corporate governance reform (17% for the full sample, and 14.47% for the seven-year performance analysis sample). This reason refers to the division of the combined position of chairperson of the board of directors and CEO into two separate positions; in other words, the CEO resigned from the CEO position but retained the chairperson position.⁹ Only 4.2% (full sample) and 3.5% (seven-year performance analysis sample) of turnovers fall under the dismissal category. Our full (seven-year performance analysis) samples include 21 (12) turnovers for which no reason was given. Table II reveals that there is no difference between our full and seven-year performance analysis samples in terms of the distribution of turnovers across various stated reasons, indicating that our samples are unlikely to suffer from serious sample selection bias.

[Table II about here]

To assess the effectiveness of corporate control exercised by controlling shareholders, we need to distinguish between forced and non-forced turnovers because only forced turnovers reflect shareholders' disciplinary efforts. As recognized by many researchers (e.g., Warner et al. (1988), Weisbach (1988), Denis and Denis (1995), Kang and Shivdasani (1997)), it is difficult to distinguish between forced and non-forced

turnovers based on publicly available information because very few press reports indicate clearly whether a turnover was related to poor performance. We face similar identification problems in our study. While some turnovers can be reasonably classified as forced (those that came about as a result of dismissal, resignation, or expiry of contracts) and non-forced (for example, health), the nature of the turnovers for which the stated reason is change of jobs is hard to determine. A turnover for which the stated reason is job change could be either forced or non-forced depending on the new job that the outgoing CEO is going to take up. The turnover is likely to have been non-forced if the new job is a better one but forced if the new job is less desirable than the old one. Warner, Watts, and Wruck (1988) include in their subsample of forced turnovers changes for which the reported reason is to pursue other interests, to take a position outside the enterprise, and policy differences. Denis and Denis (1995), on the other hand, tried this classification scheme but found no significant relation between forced turnover and performance. We classify the job change turnovers as forced in this study because China's listed enterprises are among the fortunate few enterprises in the economy that can raise funds in the tightly controlled capital market. As a result, CEOs of listed enterprises enjoy not only a good reputation but also easy access to resources, and relatively few outside business opportunities offer better prospects. Our sample of forced turnovers therefore includes the cases for which the stated reasons are resignation, dismissal, expiry of contract, completion of acting duties and change of jobs. For non-forced turnovers, we follow the existing literature to include turnovers for which the stated reason is health, retirement with retirees' age over 65 and corporate governance

reform. We have 666 forced turnovers and 194 non-forced turnovers under our classification scheme.

3. Estimates of the Likelihood of CEO Turnover

We employ the following logit regressions to estimate the determinants of forced and non-forced CEO turnovers separately:

$$\text{Probability (forced/non-forced CEO turnover)} = f(\text{current and lagged firm performance, CEO attributes, the existence of duality structure in management, other enterprise characteristics}). \quad (1)$$

The dependent variable is forced (non-forced) CEO turnover occurring during the period in question. We use both current-year and lagged one-year performance in each regression because CEO turnover is likely to be a response to both current and lagged performances (Warner et al. (1988)). The lagged performance may be a more relevant determinant of CEO turnover in China's listed enterprises because key personnel decisions in these enterprises require formal approval from the local government and the enterprise-level grassroots organization of the Chinese Communist Party (Wong et al. (2004)). Such additional bureaucratic and politicized procedures may increase the length of time needed for the finalization of a CEO turnover decision. We adopt four models to examine the relations between the likelihood of turnover and enterprise performance. Model 1 uses the current and lag industry-adjusted return on asset (ROA_0 and ROA_{-1}). Model 2 uses the dummy variables indicating the occurrence of negative earnings in the current and lag period ($Negative_0$ and $Negative_{-1}$). While model 3 uses the current and lag annual industry-adjusted stock returns ($Stock\ Return_0$ and $Stock\ Return_{-1}$), Model 4

combines all the performance measures and uses ROA_0 , ROA_{-1} , $Negative_0$ and $Negative_{-1}$, $Stock\ Return_0$, and $Stock\ Return_{-1}$ as the explanatory variables. .

We introduce three sets of control variables to eliminate possible confounding effects. First, we control for the outgoing CEO attributes including their age and tenure because earlier studies have documented that CEO turnover is likely to be related positively to age and negatively to tenure (e.g., Kang and Shivdasani (1995)). As CEO duality tends to reduce the likelihood of CEO turnover (Dalton et al. (1998)), we introduce a dummy variable to indicate the existence of a duality structure in which the positions of both board chairperson and CEO are filled by the same person. We obtained data on age, tenure, and duality from Shanghai Wind Information Co., Ltd. (WIND). We also control for two enterprise characteristics: capital structure and size because Jensen (1986) suggests that debtor played a role in disciplining CEOs and CEOs tend to be more entrenched in large enterprises (Dalton and Kesner (1983)). The data on enterprise characteristics is obtained from CSMAR Financial Databases developed by GTA Information Technology Co.

Two estimation issues are worth noting. First, we use robust standard errors to deal with potential heteroskedasticity. Second, we conduct a Pearson correlation test and find that all correlations among our variables included in all our models are lower than the threshold value of 0.7, which suggests that our models are unlikely to suffer from problems due to multicollinearity. To further ensure that multicollinearity is not a problem, we calculate variance inflation factors (VIF) for each independent variable. The VIFs never exceed 2 appreciably so that they are significantly lower than the typical threshold of 10.

Table III presents the logit regression results for the determinants of CEO turnover. Panels A and B report the results of the forced turnovers and non-forced turnovers respectively. Similar to existing evidence based on U.S. and Japanese enterprises, CEO age is significantly positive and CEO tenure is significantly negative in the two regressions. While there is a significant negative relation between duality and the likelihood of forced CEO turnover, the relation between duality and the likelihood of non-forced turnover is positive. The positive relation in the case of non-forced turnovers is most probably caused by corporate governance reform turnovers which involve the division of the combined titles of CEO and chairperson.

As for the relation between CEO turnovers and enterprise performance, Panel A shows that the likelihood of forced turnover is related negatively to industry-adjusted return on asset (model 1) and positively to the dummy variable of negative earnings (model 2) when these two performance measures are used separately as an explanatory variable. When we combine all three performance measures in a single regression (model 4), the coefficients for industry-adjusted return on asset become statistically insignificant but the positive coefficients for negative earnings remains significant at 1 % level. The results suggest that the negative relation between industry-adjusted return on asset and forced turnover is driven entirely by negative earnings. Our findings are different from those obtained by Kang and Shivdasani (1995) and Kaplan (1994) for Japanese enterprises, in which negative earnings is not the only performance measure affecting the likelihood of forced turnover. Unlike accounting performance, stock returns are unrelated to the likelihood of forced turnover, regardless of whether they are used separately (model 3) or jointly (model 4) as explanatory variables. The results are in contract with

the findings obtained by McNeil et al. (2004), who found that the U.S. CEOs are evaluated by both accounting and stock return performances.

For non-forced turnovers, Panel B shows that they are unrelated to performance in all specifications. Our results are consistent with the existing evidence for the U.S. and Japanese firms and suggest that non-forced turnovers in the listed enterprises are unlikely to be corporate control events that are meant to discipline poorly performed CEOs.

[Table III about here]

We estimate the likelihood of turnover for enterprises experiencing the following four conditions of negative earnings: (1) no negative earnings in the year prior to a CEO turnover (year-1) and the year in which the turnover occurs (year 0); (2) negative earnings in year 0 but positive earnings in year -1; (3) positive earnings in year -1 but negative earnings in year 0; and (4) negative earnings in both year -1 and year 0. To make comparisons with existing evidence for Japanese enterprises, we follow Kang and Shivdasani (1995) employing the logit regressions that use negative pre-tax operating income as the only performance measure (model 2) and compute the probabilities by varying only the dummy variables of negative earnings while holding all other variables constant at their median values. The results are reported in Table IV. The likelihood of forced turnover based on the four negative earnings conditions is consistently higher than the corresponding likelihood of non-forced turnover. For instance, the likelihood of forced turnover for enterprises with positive earnings in year -1 but negative earnings in year 0 and negative earnings in both year -1 and year 0 is 24.09% and 35.99% respectively. The likelihood of non-forced turnover for enterprises with similar negative earnings conditions is only 2.99% and 3.29% respectively. Consistent with the evidence

provided by Kang and Shivdasani (1995), the effect of negative earnings on non-forced turnover is extremely small. For example, incurring negative earnings in both year -1 and year 0 increases the likelihood of non-forced turnover by only 0.35% (3.29%-2.94%). In contrast, the effect of negative earnings on forced turnover likelihood is large. Incurring negative earnings in both year -1 and year 0 increases the likelihood of forced turnover by 19.27 % (35.99%-18.72%). Kang and Shivdasani (1995) estimate the likelihood of turnover based on current performance only whereas our regression models include both current and lag performance measures, thus, we are unable to draw an exact comparison between Japanese enterprises and China's listed enterprises regarding the likelihood of turnover conditioned on the incurrence of negative earnings. Nevertheless, if we compare the likelihood of forced turnover for enterprises with positive income in year -1 and negative earnings in year 0 with the likelihood estimated by Kang and Shivdasani (1995), the likelihood for China's listed enterprises (24.09 %) is higher than that estimated for Japanese enterprises (10.8%). If we take into consideration negative income incurred in both year -1 and year 0, the likelihood of forced turnover among China's listed enterprises reaches 35.99 %, suggesting that shareholders in China's listed enterprises could be more concerned about incurring negative earnings than shareholders in Japanese enterprises. Table IV also reports the actual frequencies of turnovers under different negative earnings conditions. The actual frequencies of both forced and non-forced turnovers are very close to our estimates.

[Table IV about here]

4. Changes in Performance Surrounding CEO Turnover

The negative relation between pre-turnover performance and the likelihood of forced turnover is necessary but not a sufficient evidence of effective corporate control exercised by shareholders. To indicate that corporate control is effective, shareholders must identify and hire a superior new CEO who is able to improve enterprise performance. To examine this issue, we investigate whether our three performance measures exhibit a statistically significant decrease in the three years preceding a CEO turnover and a statistically significant increase following the turnover. Table V reports medians of our three unadjusted and adjusted performance measures surrounding the years of turnover events, and Table VI presents median changes of industry-adjusted return on asset, industry-adjusted stock return, and percentages of enterprises experiencing negative pre-tax operating income over various time periods. We focus on median values to reduce the influence of outliers. As our accounting measure might be biased by CEOs' attempts to manage reported earnings in which outgoing CEOs may have the incentive to increase reported earnings to save their jobs, and incoming CEOs might have the incentive to reduce reported earnings immediately upon taking office to blame poor performance on their predecessors and to take credit for the subsequent improvement, we compare performance following a CEO turnover with performance in year -1 as well as in year 0. Using year -1 as the base year creates a downward bias in the extent to which performance improves if there is an increase in earnings reported by the outgoing CEO in year 0. Using year 0 as the base year, on the other hand, creates an upward bias in the degree of performance improvement if there is a reduction in income reported by the incoming CEO in year 0.

[Table V about here]

Panel A of Table V shows that, overall, unadjusted return on asset decreases monotonically from year -3 (4.2%) to year +3 (1.7%). For forced turnovers (column 2), this performance measure exhibits a significant decline in pre-turnover years (from 4.5% in year -3 to 2.1% in year 0), and then the performance held steady at the same level until year +3. The results contrast with the existing evidence obtained for the forced turnovers in U.S. enterprises. For forced turnovers occurred during the 1985-1988 period, Denis and Denis (1995) document that there is an increase in the level of unadjusted return on asset and the level of performance in year +1 has already surpassed the performance in year -3. Although Huson et al. (2004) show that the large improvement in accounting performance as documented by Denis and Denis (1995) is unique to the period that these authors studied, nevertheless, they show that for the turnovers occurred during the 1971-1995 period, the level of unadjusted return on asset in year +3 has returned to the level in year -3. In China's listed enterprises, the level of performance in year +3 is only 37.7% and 44.7 % of the performance levels of year -3 and year -2 respectively. For non-forced turnover, the unadjusted industry return on asset continues to decline following the turnover, and the level of performance in year +3 is only 18% and 19% percent of the performance levels of year -3 and year -2 respectively.

Panel B of Table V presents the industry-adjusted return on asset for our sample enterprises. Although unadjusted return on asset for forced turnovers (column 2) shows a monotonic decline from year -3 to year +3, industry-adjusted performance in fact shows an improvement in post-turnover years. Panel A of Table VI (column 2) confirms that there is a significant decline in the industry-adjusted return on asset preceding forced turnover, regardless of whether year 0 or year -1 is used as the baseline. While median

changes in the post-turnover years using either year 0 as the reference are all positive, only the median change from year +3 using year 0 as the baseline are statistically significant. Our results are different from the evidence documented by Denis and Denis (1995) and Huson et al. (2004), who find positive statistically significant improvements for the U.S. enterprises even when year -1 is used as the reference. In contrast to the forced turnover sample, the non-forced turnover sample (column 3) shows no significant improvement in industry-adjusted return on asset in the post-turnover years, regardless of whether year -1 or year 0 is used as the reference year.

[Table VI about here]

Panel C of Table V reports the percentage of enterprises experiencing negative pre-tax operating earnings. It shows that, overall (column 7), there is an increase in the percentage of enterprises experiencing negative earnings preceding turnovers but a slight decrease following turnovers. For forced turnovers (column 8), the percentage of enterprises experiencing negative earnings increases from 13.7% in year -3 to 33.6% in year 0. The proportion of loss-making enterprises then decreases to 31.4% in year +1, 31.2% in year +2, and 28.8 % in year +3. The percentage of loss-making enterprises in year + 3 is still more than double the rate in year -3. Panel B of Table VI (column 5) confirms that there is a significant increase in the percentage of loss-making enterprises for forced turnovers in pre-turnover years. Although there are reductions in the percentage of loss-making enterprises when year 0 is used as the base year, none of the reductions are statistically significant.

For the non-forced turnover sample, Panel C of Table V (column 9) shows that there is a significant increase in the percentage of loss-making enterprises in year -3,

from 15.5% to 26.4%. The percentage of loss-making enterprises decreases slightly to 21.8% in year +1 and then increases to 36% in year +3, indicating that the problem of loss-making becomes more serious following non-forced turnovers. Panel B of Table VI (column 6) shows that the non-forced turnover sample displays a significant increase in the percentage of loss-making enterprises in year +2 and year +3 when year -1 is used as the baseline. As we cannot observe such an increase in the percentage of loss-making enterprises for non-forced turnovers, we can argue that forced turnovers are effective in preventing further increases in the number of loss-making enterprises in the post-turnover years.

For forced turnovers in the Japanese enterprises, Kang and Shivdasani (1995) show that the percentage of loss-making enterprises decreases significantly, from 17.07% in year -1 to 7.69% in year 0, and the proportion is maintained at around 7 % in the three post-turnover years, which is only 41% of the rate in year -3. Therefore, we can conclude that the Japanese shareholders are more effective than the Chinese shareholders in instituting a CEO who is able to address the problem of negative earnings, even though the controlling shareholders in China's listed enterprises are more likely to remove CEOs in loss-making enterprises.

Panel D and Panel E of Table V document the unadjusted and industry-adjusted stock returns for our sample enterprises, and Panel C of Table VI reports the median change in industry-adjusted stock returns. Consistent with our logit regression results, which indicate the absence of a significant relation between the likelihood of turnover and stock returns, industry-adjusted stock returns show no significant decline in pre-turnover years for both forced and non-forced turnover enterprises. While there is also no

significant change in stock returns in post-turnover years for forced-turnover enterprises (column 8), the stock returns of enterprises with non-forced turnovers show a significant decline in year +3 when year –1 and year 0 are used as the baseline (column 9).

5. Changes in Performance Surrounding Resignation and Dismissal Turnovers

Overall, our results suggest that forced turnovers in China’s listed enterprises are associated with only small improvement in accounting performance in post-turnover years. In this section, we seek to shed some lights on the issue by examining the changes in performance for turnovers in which the stated reasons are resignation and dismissal turnovers. We focus on these two types of turnovers because the stated reasons suggest that they are more likely to be associated with stronger disciplinary pressure from controlling shareholders.

Table VII reports our results. Consistent with the overall results on forced turnovers, resignation and dismissal turnovers are preceded by a significant decrease in the industry-adjusted return on asset and a significant increase in the proportion of enterprises experiencing negative earnings. Unlike the overall results for forced turnovers, resignation and dismissal turnovers are associated with significant performance improvement not only in year +3 but in all the three post-turnover years when year 0 is used as the baseline. For the changes in unadjusted return on asset, forced turnovers as whole display a 19 % decrease from year 0 to year +3 (Table V, column 2) but resignation and dismissal turnovers are associated with an improvement of 17 % (Table VII, column 4) for the same period. While both the overall forced turnover and resignation and dismissal samples show a significant improvement in industry-adjusted

return on asset in year +3 using year 0 as the reference, the extent of increase for the resignation and dismissal sample (2.1%) is much larger than the improvement for the overall forced turnover sample (0.7%). In addition, the resignation and dismissal sample also exhibits a greater reduction in the percentage of loss-making enterprises (8.5%) than that of the overall forced turnover sample (4.7%). Consistent with the significant improvement in profitability, the resignation and dismissal sample shows a stock price appreciation in year +1 and year +3 when year 0 is used as the reference.

[Table VII about here]

6. Stock Price Performance around Turnover Events

A large body of studies use event study method to examine the stock market reaction to news about top management turnovers (e.g., Warner et al. (1988); Weisbach (1988); Denis and Denis (1995) and Huson et al.(2004)). Consistent with the improvement in performance following forced turnovers, these studies often find a positive abnormal return on the announcement of these turnovers. Nevertheless, the size of the positive abnormal return is often small or statistically insignificant. Denis and Denis (1995) argue that top managerial turnovers would be associated with small abnormal return if investors partially anticipate these turnovers based on poor enterprise performance. Huson et al. (2004), on the other hand, argue that CEO turnovers signal problems in enterprises' management. To the extent that investors do not anticipate the management problems, firm value might fall upon the news of CEO turnovers. This effect would offset the positive effect caused by the improvement in management quality. In addition to the above-mentioned problems in interpreting the announcement effects associated with CEO turnovers, the examination of market reaction to CEO turnovers of

China's listed enterprises might be plagued further by the existence of substantial noise trading in China's emerging stock market. In 2000, the turnover velocity of stocks was about 509%. In other words, each stock was changed hands 5 times per year on average, which indicated substantial noise trading.⁷ On the other hand, Morck et al. (2000) find that 80% of the stocks listed by China's two exchanges move in the same direction in a given week. This degree of synchronicity is the second highest among stock markets in 40 countries and suggests that stock prices in China tend to capitalize on market-level information rather than enterprise-specific information. Despite all the difficulties involved, it is nevertheless interesting to offer some evidence on how such an emerging stock market would react to the announcements of CEO turnovers.

We employ standard event-study methodology to examine the stock price effects of our sample CEO turnovers. We calculate the levels and the statistical significance of cumulative abnormal returns (CARs) and abnormal returns (ARs) for both the pre-announcement-period (the 180 days ending two days prior to the CEO turnover announcement [-180, -2]) and the announcement-period (the two-day period including the day of and the day before the announcement [-1, 0]) respectively. Market model parameters are estimated over the 250-day-period beginning two days following the CEO turnover announcement (+2, +250). The results are reported in Table VIII.

[Table VIII about here]

The CAR for all CEO turnovers is 0.6 %. The associated t-statistics is 0.43, which is statistically insignificant. We observe a negative CAR for forced turnovers (-0.78) and a positive CAR for non-forced turnovers (3.2%). Although the negative sign of the CAR for forced turnovers is consistent with the results obtained by prior studies (e.g. Denis and

Denis 1995), however, it is statistically insignificant. For the resignation and dismissal sample, we find a significant negative CAR of -10.32 %, indicating that there is a significant decline in stock price preceding the announcement of these turnovers. The significant negative CAR for these two groups of turnovers is consistent with their exceptionally poor accounting performance in the pre-turnover years.

The announcement-period abnormal return for all CEO turnovers is negative (-0.04 %) but statistically insignificant from zero. We find a small positive AR for the forced turnovers sample (0.02%) and resignation and dismissal sample (0.1 %) respectively and a negative AR for the non-forced turnovers (-0.17%). Although all ARs are statistically insignificant, their signs are consistent with the post-turnover performance associated with these turnovers, in which forced turnover and resignation and dismissal samples are associated with the a performance improvement and non-forced turnover sample is associated with a continued performance decline.

7. Robustness Checks and Alternative Explanations

For our logit regressions on the likelihood of CEO turnovers, we check the robustness of our results by controlling for the year in which a turnover occurred to capture the time-specific factors. Dummy variables indicating the years of turnover are not significant in any specification and do not affect our results. Consistent results are also obtained when we use a fixed effect logit model to control for firm-specific factors. The sample sizes of the firm-specific fixed effect models were, however, significantly reduced because the enterprises that experience no turnover at all and the enterprises that experience a turnover every year were dropped out.

To check the sensitivity of our results to different classification schemes, we use age either 60 or 62 as the benchmark for the classification of forced or non-forced retirement. We also try a broader classification of forced turnover in which we add turnovers associated with change in controlling shareholder and those motivated by personal or unspecified reasons and a narrower classification in which we drop turnovers for which the stated reason is completion of acting duties. We obtain similar results from these two alternative classification schemes, which consistently show that forced turnover is unrelated to return on asset but related positively to the incurrence of negative income.

Some earlier studies suggest that net income is an important decision variable in motivating board of directors' actions (e.g., Jensen and Murphy (1990), Kaplan (1994)). Therefore, we replicated our logit regressions using net income rather than pre-tax operating income as the performance measures, and the results are reported in Table IX. The results based on net income performance are consistent with those based on pre-tax operating income performance. While the likelihood of forced turnover is unrelated to the ratio of net income to asset, it is related positively to the incurrence of negative net earnings in the current as well as lag periods. Non-forced turnovers are unrelated to any performance measure.

[Table IX about here]

A possible explanation for the performance improvements in profitability associated with forced turnovers is that they are due to mean reversion in performance of poorly performing but still surviving enterprises rather than to disciplinary effects associated with CEO turnovers. To deal with this issue, we select a sample of enterprises that have accounting performance data for at least seven years from 1995 to 2003 but have

experienced no CEO turnovers. We divide this sample of enterprises into quartiles according to the means of industry-adjusted return on asset in the first three years and then select the bottom quartiles as a subsample. We examine the changes in the industry-adjusted return on asset for this subsample and find no significant performance improvement in year +5, year +6, and year +7, regardless of whether year +3 or year +4 is used as the baseline. The results suggest that poorly performed enterprises show no significant performance improvement in the absence of CEO turnovers.

We document statistically significant improvements in the industry-adjusted return on asset for forced turnovers as well as resignation and dismissal turnovers only when year 0 is used as the baseline, which suggests that the improvement may be caused by under-reporting of earnings by incoming CEOs at year 0. On the other hand, the non-forced turnover sample exhibited a significant increase in the percentage of loss-making enterprises in year +2 and year +3 only when year -1 is used as the baseline. This raises the possibility that the increase in percentage is caused by outgoing CEOs' hiding of negative earnings in year -1. We cannot completely eliminate the possibility of earnings management because of the lack of data on the precise extent to which earnings are managed by both outgoing and incoming CEOs. However, we cast doubt on the conjecture that there is a complete lack of effectiveness of forced turnovers in improving enterprises performance for two reasons. First, the absence of significant improvement when year -1 is used as the reference cannot be used as a proof of the absence of performance improvement, because there may be an unfavorable bias created by over-reporting of income by the outgoing CEO in year -1. Despite this unfavorable bias, our results show that the changes in performance from year +3 to year -1 is positive, though

it is statistically insignificant. Second, there is nothing to suggest that outgoing CEOs are hiding negative income in year -1 for only the non-forced turnover sample but not for the forced turnover sample. If outgoing CEOs in both samples have a similar tendency to hide negative earnings in year -1 , the absence of a significant increase in the percentage of loss-making enterprises for the forced turnovers can still be treated as evidence for their relative effectiveness in preventing an increase in the proportion of loss-making enterprises.

8. Conclusion

Our study provides evidence on the monitoring of CEOs in China's partially privatized listed enterprises whereby controlling shareholders are state-owned entities. We show that the likelihood of forced turnovers depends on the incidence of negative earnings but not on the level of industry-adjusted return on asset. The lack of relation between the likelihood of forced turnover and the return on asset indicates that the likelihood of forced turnovers is insensitive to the level of enterprise profitability. This result is in contrast to the negative relation documented for the U.S. and Japanese enterprises, which underlines a desire on the part of shareholders to motivate CEO for profit-maximization. Our finding is, however, consistent with the state shareholders' need to provide CEOs with weak profit incentives when the listed enterprises are to serve political and social objectives. Despite the intentional withdrawal of carrots for CEO, the positive relation between the likelihood of forced turnovers and the incurrence of negative earnings reveals that the state shareholders do not entirely ignore negative

earnings. They do use sticks to penalize CEOs for loss-making. In fact, our results suggest that the state shareholders in China's listed enterprises have even higher incentive than the Japanese shareholders to remove loss-making CEOs.

We find that forced turnovers in China's listed enterprises are followed by some improvement in industry-adjusted return on asset but that the extent of the improvement is small and less significant when compared with the corresponding improvements in U.S. and Japanese enterprises. Moreover, they do not significantly reduce the number of enterprises incurring negative earnings, but they can halt the increase in the proportion of loss-making enterprises in the post-turnover period when compared with the non-forced turnovers. The small improvements in accounting performance could be caused by the stick-but-not-carrot approach of monitoring CEOs, which weakens the linkage between CEOs' personal interests and the enterprises' profitability. Furthermore, given China's weak legal protection to minority shareholders (Chang and Wong (2004) and Sun and Tong (2004)), CEOs of the listed enterprises have great latitude to use their valuable tenure to engage in self-serving behaviors that might actually damage enterprise performance.

In contrast to studies that document a significant relation between CEO turnover and stock price performance, we find that the likelihood of forced turnover in China's listed enterprises is unrelated to stock price performance. There are two possible interpretations of the findings. On one hand, controlling shareholders may lack the incentive to discipline CEOs on the basis of stock price performance because of the state-owned and non-tradable nature of their shares. On the other hand, state shareholders may consider share prices a noisy signal of an enterprise' performance owing to the

prevalence of noisy trading in the emerging market. Our evidence can only suggest that addressing poor price performance is unlikely to be the motivation of forced turnovers, however, we are unable to distinguish the motives behind such a lack of incentive.

We have three caveats relating to the generalizations of our findings. First, our sample consists of publicly listed enterprises in which controlling shareholders are subject to the disciplinary pressure of the stock market (Wong et al. (2004)). Shareholders' incentive to exercise corporate control over CEOs may be greater than that of state shareholders in non-listed SOEs. Therefore, our finding may not be applicable to non-listed SOEs in China or elsewhere. Second, China is a transitional economy characterized by an underdeveloped CEO market and a shortage of professional CEOs who have sufficient knowledge of the functioning of both the market and the international economy (Groves et al. (1995)). The small performance improvement following CEO turnover may be partially the result of these two institutional features. Third, we show that the likelihood of forced turnover conditioned on negative earnings in China's listed enterprises is higher than the corresponding likelihood in Japanese listed enterprises. Japanese enterprises are, however, governed by a set of unique contractual relations (such as close ties to industrial groups (*keiretsu*) and the main banks) as well as a strong culture of lifetime employment that might reduce the disciplinary pressures on loss-making CEOs. Therefore, caution therefore must be exercised when generalizing the comparison to shareholders in other countries.

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Footnote

¹ Conflicting evidence is provided by Dalton and Kesner (1983), Friedman and Singh (1989), and Davidson, Worrel, and Cheng (1990), none of whom found a statistically significant relation between CEO turnovers and firm performance.

² The concept of soft budget constraints was introduced by Kornai (1979, 1980), who argue that SOEs' major problem is that they do not take the threat of bankruptcy seriously as they expect the government to bail them out if they find themselves facing financial difficulties. Following the seminal work of Kornai, formal theoretical models of soft budget constraints were developed (e.g., Goldfeld and Quandt (1988), Qian (1994), Dewatripont and Maskin (1995), Qian and Roland (1998)).

³ State shares and legal person shares are held by state-owned entities when SOEs are corporatized according to China's Company Law. State shares are the consequence of a government agency contributing its assets to the formation of a shareholding companies. The ultimate owner is the State Council, but these shares are managed by the bureaus of the Ministry of Finance and the State Asset Management Administration. Legal person shares, on the other hand, represented the contributions by government-invested SOEs of their legally owned assets to the formation of a shareholding companies.

⁴ In 1990s, the transfers of state and legal person shares to private investors are rare. Since 2001, more and more state and legal person shares were transferred to private investors, resulting in 10 % of the listed firms' control rights being transferred to private investors by mid-2004.

⁵ During the 1990s, the negative earnings incurred by SOEs exerted a great deal of pressure on the government budget and led to the accumulation of a huge number of non-performing loans in China's state-owned banks.

⁶ Kaplan (1994) also concludes that negative earning is not the only performance measure affecting turnovers in Japanese firms.

⁷ Black (1985) shows that, without noise trading, very little trading will occur in individual assets; therefore, more noise trading indicates a more liquid stock market.

⁸ Weisbach (1988) and Denis and Denis (1995) document a 7.8% and a 9.3% rate for U.S. firms respectively. Kang and Shivdasani (1995), on the other hand, document an annual turnover rate of 12.88% for Japanese firms.

⁹ In the early 1990s, most CEOs in the listed firms held the titles of both CEO and chairperson of the board of directors. This duality structure was viewed by regulators and financial analysts as a corporate governance feature that promoted managerial entrenchment. In response, some listed firms separated the two positions in the name of improving corporate governance.

Table I
Annual CEO Turnover Rate and Performance in China's Listed Enterprises:
1995-2000

This table reports CEO turnovers and performance in China's listed enterprises during the period 1995–2000. The number of listed enterprises includes all the non-financial enterprises listed by the A-share markets of the Shanghai and Shenzhen Stock Exchanges. The total number of CEO turnovers refers to the number of CEO turnovers, including multiple turnovers during a single year. Return on asset is measured as the ratio of pre-tax operating income on total asset. Stock return is measured by the annual stock return adjusted for the effect of right issue, cash dividend, and stock dividend. An enterprise is said to incur negative earnings if its pre-tax operating income is non-positive.

	1995	1996	1997	1998	1999	2000	1995-2000
Number of listed firms	311	514	720	826	924	1033	4328
Total number of CEO turnovers	47	81	136	210	273	330	1077
Annual turnover rate	15%	16%	19%	25%	30%	32%	25%
Return on asset (median)	3.76%	4.59%	5.61%	5.26%	4.63%	4.04%	4.69%
Percentage of negative income	14.47%	15.18%	12.22%	17.68%	17.21%	16.46%	15.85%
Stock return (median)	-17.05%	43.99%	12.38%	2.17%	11.16%	55.65%	18.41%

Table II
Stated Reasons for CEO Turnover in China's Listed Enterprises

This table reports the sample frequencies of reasons for CEO turnovers in China's listed enterprises during the period 1995–2000. The full sample is obtained by consolidating multiple changes in a year into one single observation. The seven-year performance analysis sample includes turnovers that occurred in firms with three years of pre-turnover and three years of post-turnover financial data.

	Full Sample		Seven-year Performance Analysis Sample	
	Number	Percentage of Sample	Number	Percentage of Sample
Change of job	305	30.6%	176	27.98%
Retirement	31	3.1%	21	3.34%
Expiry of contracts	205	20.6%	155	24.64%
Change in controlling shareholders	74	7.4%	62	9.86%
Resignation	103	10.3%	60	9.54%
Dismissal	42	4.2%	22	3.50%
Health	32	3.2%	18	2.86%
Personal reasons	3	0.3%	2	0.32%
Corporate governance reform	169	17.0%	91	14.47%
Completion of acting duties	11	1.1%	9	1.59%
No reason given	21	2.1%	12	1.91%
Total number of observations	996	100.0%	629	100.00%

Table III
Logit Regression Estimates of the Probabilities of CEO Turnovers in China's Listed Enterprises, Using Pre-Tax Operating Income Measures

The table reports the logit regression estimates of the probability of CEO turnovers in China's listed enterprises, using pre-tax operating income measures. The sample period is from 1995 to 2000. Panel A reports the result for forced CEO turnover, and Panel B shows the result for non-forced CEO turnover. Turnovers are classified as forced if the stated reasons are resignation, dismissal, expiry of contract, completion of acting duties and change of jobs. Turnovers are classified as non-forced if the stated reasons are health, retirement with retirees' age above 65 and corporate governance reform. ROA_0 and lag ROA_{-1} the current and lag industry-adjusted return on asset, measured by ratio of pre-tax operating income to total asset minus the median of the corresponding ratio in an industry. $Negative_0$ and $Negative_{-1}$ are dummies indicating the current and lag negative earnings, which equal one if income is non-positive. $Stock\ Return_0$ and $Stock\ Return_{-1}$ are current and lag annual industry-adjusted stock return measured as the annual stock returns adjusted for effects of cash dividend, right offering, and stock dividend minus the corresponding median annual stock return of an industry. Age is the age of a CEO at the turnover year. Tenure is the number of years that the outgoing CEO has been in the CEO position. Duality is a dummy variable that equals one if the outgoing CEO is also a chairperson of the board of directors. Size is measured by the value of total asset. Debt-equity ratio is the ratio of total debt over the book value of equity. *p*-values are in parentheses.

Panel A: Result for Forced CEO Turnover				
Independent Variables	(1)	(2)	(3)	(4)
Age	0.0289 *** (4.394)	0.0289 *** (4.400)	0.0299 *** (4.103)	0.0296 *** (4.046)
Tenure	-0.3286 *** (7.215)	-0.3267 *** (7.192)	-0.3257 *** (6.966)	-0.3103 *** (6.809)
Duality	-0.4224 *** (3.574)	-0.4384 *** (3.687)	-0.3942 *** (2.961)	-0.3915 *** (2.914)
Size	0.0002 (0.004)	0.0113 (0.213)	-0.1057 * (1.794)	-0.0497 (0.847)
Debt-equity ratio	-0.001 (0.945)	-0.0017 (1.269)	-0.0007 (0.732)	-0.0017 (1.239)
ROA_0	-1.8646 ** (2.408)			-0.1243 (0.162)
ROA_{-1}	-1.7452 ** (2.227)			0.1024 (0.118)
$Negative_0$		0.5715 *** (4.405)		0.4631 *** (2.986)
$Negative_{-1}$		0.3208 ** (2.271)		0.2493 (1.529)
$Stock\ return_0$			-0.1157 (1.175)	-0.0705 (0.708)
$Stock\ return_{-1}$			-0.1654 (1.427)	-0.0939 (0.82)
Constant	-2.096 * (1.882)	-2.4593 ** (2.218)	0.2399 (0.194)	-1.1282 (0.916)
Observations	3107	3107	2498	2498
Pseudo R-squared	0.048	0.054	0.042	0.053

Table III—Continued

Panel B: Result for Non-forced CEO Turnover				
Independent Variables	(1)	(2)	(3)	(4)
Age	0.0636 *** (5.342)	0.0634 *** (5.309)	0.0655 *** (4.910)	0.0659 *** (4.905)
Tenure	-0.2483 *** (3.268)	-0.2482 *** (3.255)	-0.2024 *** (2.727)	-0.2006 *** (2.720)
Duality	1.5367 *** (8.667)	1.5165 *** (8.652)	1.5648 *** (8.015)	1.5828 *** (8.034)
Size	0.0683 (0.738)	0.0622 (0.670)	0.0085 (0.080)	0.0125 (0.119)
Debt-equity ratio	-0.0081 (0.476)	-0.0089 (0.464)	-0.0088 (0.453)	-0.0057 (0.357)
ROA ₀	-0.9555 (0.909)			0.0261 (0.016)
ROA ₋₁	-0.6916 (0.512)			-2.0023 (1.257)
Negative ₀		0.0987 (0.432)		-0.1061 (0.366)
Negative ₋₁		0.0194 (0.077)		-0.2055 (0.673)
Stock Return ₀			-0.0230 (0.137)	-0.0275 (0.158)
Stock Return ₋₁			0.0749 (0.482)	0.1080 (0.682)
Constant	-7.4794 *** (3.839)	-7.3394 *** (3.764)	-6.3513 *** (2.820)	-6.4378 *** (2.908)
Observations	3107	3107	2498	2498
Pseudo R-squared	0.109	0.108	0.109	0.111

*significant at 10% level; **significant at 5% level; ***significant at 1% level.

Table IV
Estimated Probabilities and Sample Frequencies of CEO Turnovers
Conditional on the Occurrence of Negative Pre-tax Operating Income for
China's Listed Enterprises

This table reports the estimates of turnover probabilities and the sample turnover frequencies conditional on the occurrence of negative pre-tax operating income for China's listed enterprises. The sample period is from 1995 to 2000. The parameters for the estimation of probabilities come from the logit regressions that use negative pre-tax operating income as the performance measures (model 2 in Table III), and they are computed by varying only the dummy variable of negative earnings, holding all other variables constant at their median values. Turnovers are classified as forced if the stated reasons are resignation, dismissal, expiry of contract, completion of acting duties and change of jobs. Non-forced turnovers include turnovers for which the stated reasons are health, retirement with retiree's age above 65 and corporate governance reforms.

	Conditions of Negative Earnings			
	No Negative Earnings in Year -1 and Year 0	Negative Earnings in Year -1 but Positive Earnings in Year 0	Positive Earnings in Year -1 But Negative Earnings in Year 0	Negative Earnings in Both Year -1 and Year 0
Forced turnover probabilities	18.72%	28.97%	24.09%	35.99%
Forced turnover frequencies	14.82%	26.43%	23.91%	29.07%
Non-forced turnover probabilities	2.94%	3.23%	2.99%	3.29%
Non-forced turnovers frequencies	5.38%	6.31%	4.89%	5.52%

Table V
Unadjusted and Adjusted Financial Performance Surrounding CEO Turnovers in China's Listed Enterprises

This table presents the unadjusted and adjusted financial performance surrounding CEO turnovers in China's listed enterprises. The sample period is from 1995 to 2000. Panel A reports the median of unadjusted return on asset, which is measured by the ratio of pre-tax operating income to total asset. Panel B shows the median industry-adjusted return on asset, which is measured by the ratio of pre-tax operating income to total asset minus the corresponding median in an industry. Panel C presents the percentage of firms experiencing negative earnings in which "negative earnings" refers to non-positive pre-tax operating income. Panel D shows the median of the unadjusted stock return, which is measured by the annual stock return adjusted for the effects of cash dividend, right offering, and stock dividend. Panel E reports the median of the industry-adjusted stock return, which is measured by the annual stock return minus the corresponding return of an industry. Forced turnovers include turnovers for which the stated reasons are resignation, dismissal, expiry of contract, completion of acting duties and change of jobs. Non-forced turnovers include turnovers for which the stated reasons are health, retirement with retirees' age above 65 and corporate governance reforms.

Year relative to turnover	Panel A: Unadjusted Return on Total Asset			Panel B: Industry-adjusted Return on Total Asset			Panel C: Percentage of Negative Income			Panel D: Unadjusted Stock Return			Panel E: Industry-adjusted Stock Return		
	Overall	Forced Turnovers	Non- Forced Turnovers	Overall	Forced Turnovers	Non-Forced Turnovers	Overall	Forced Turnovers	Non-Forced Turnovers	Overall	Forced Turnovers	Non-Forced Turnovers	Overall	Forced Turnovers	Non-Forced Turnovers
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
-3	0.042	0.045	0.045	-0.008	-0.003	-0.008	0.151	0.137	0.155	0.008	0.017	0.008	-0.001	-0.006	0.007
-2	0.035	0.038	0.043	-0.013	-0.011	-0.01	0.226	0.196	0.227	0.08	0.088	0.075	0.036	0.037	0.035
-1	0.026	0.028	0.032	-0.02	-0.016	-0.019	0.302	0.291	0.209	0.106	0.105	0.106	0.018	0.01	0.064
0	0.021	0.021	0.026	-0.022	-0.021	-0.017	0.326	0.336	0.264	0.361	0.328	0.325	0.04	0.028	0.04
+1	0.019	0.019	0.022	-0.016	-0.017	-0.018	0.300	0.314	0.218	0.123	0.102	0.099	0.023	0.023	0.007
+2	0.018	0.017	0.012	-0.014	-0.014	-0.019	0.313	0.312	0.319	-0.137	-0.143	-0.142	0.003	-0.001	0.04
+3	0.017	0.017	0.008	-0.011	-0.01	-0.017	0.308	0.288	0.360	-0.172	-0.177	-0.17	0.005	0.006	-0.017
Average	0.024	0.025	0.026	-0.015	-0.013	-0.015	0.275	0.268	0.251	0.045	0.04	0.033	0.014	0.011	0.018

Table VI
Changes in Financial Performance Surrounding CEO Turnovers in China's Listed Enterprises

This table presents the changes in financial performance surrounding CEO turnovers in China's listed enterprises. The sample period is from 1995 to 2000. Panel A reports the median change in industry-adjusted return on asset. Industry-adjusted return on asset is measured by the ratio of pre-tax operating income to total asset minus the median of the corresponding ratio in the industry. Panel B reports the change in the percentage of firms experiencing negative income. Negative income refers to non-positive pre-tax operating income. Panel C presents the median changes in industry-adjusted stock return. Industry-adjusted stock return is the annual stock return after adjusting for the effect of stock dividend, cash dividend, and right offerings minus the corresponding stock return of an industry. Forced turnovers include turnovers for which the stated reasons are resignation, dismissal, expiry of contract, completion of acting duties and change of jobs. Non-forced turnovers include turnovers for which the stated reasons are health, retirement with retirees' age above 65 and corporate governance reforms. Significance of median changes is tested using Wilcoxon signed rank test.

Year Relative to Turnover	Panel A: Median Changes in Industry- adjusted Return on Asset			Panel B: Changes in the Percentage of Negative Income			Panel C: Median Changes in Industry- adjusted Stock Return		
	Overall	Forced Turnovers	Non-Forced Turnovers	Overall	Forced Turnovers	Non-Forced Turnovers	Overall	Forced Turnovers	Non-Forced Turnovers
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
-1 to -3	-0.019***	-0.018***	-0.013***	0.151***	0.154***	0.055	0.04	0.037	0.059
-1 to -2	-0.011***	-0.011***	-0.011**	0.076***	0.095***	-0.018	0.019	-0.004	0.074
0 to -3	-0.021***	-0.024***	-0.016***	0.175***	0.199***	0.109**	0.050**	0.029	0.042
0 to -2	-0.014***	-0.016***	-0.016**	0.100***	0.139***	0.036	0.028	0.016	-0.037
0 to -1	-0.004	-0.006***	-0.004	0.024	0.045	0.055	0.062**	0.062	-0.008
+1 to -1	0.001	-0.001	-0.003	-0.002	0.024	0.009	0.023	0.028	-0.073
+2 to -1	0.001	-0.004	-0.001	0.011	0.021	0.109*	-0.016	-0.022	-0.028
+3 to -1	0.004*	0.003	0.000	0.006	-0.002	0.151**	0.02	0.035	-0.058*
+1 to 0	0.003	0.002	0.003	-0.025	-0.021	-0.045	0.017	0.017	0.023
+2 to 0	0.002	0.003	0.000	-0.013	-0.024	0.055	-0.010**	-0.001	0.013
+3 to 0	0.006**	0.007***	0.000	-0.017	-0.047	0.096	-0.043**	-0.019	-0.055*

*significant at 10% level; **significant at 5% level; ***significant at 1% level

Table VII
Financial Performance and Changes in Financial Performance Surrounding CEO Turnovers in which the Stated Reasons for Turnover are Resignation and Dismissal

This table presents the financial performance and changes in performance surrounding CEO turnovers in which the stated reasons for turnover are resignation and dismissal. The sample period is from 1995 to 2000. Panel A reports the median value of adjusted and unadjusted financial performance and the percentage of firms experiencing negative earnings in which “negative earnings” refers to non-positive pre-tax operating income. Panel B reports the changes in financial performance surrounding. Industry-adjusted stock return is the annual stock return after adjusting for the effect of stock dividend, cash dividend, and right offerings minus the corresponding stock return of an industry. Forced turnovers include turnovers for which the stated reasons are resignation, dismissal, expiry of contract, completion of acting duties and change of jobs. Non-forced turnovers include turnovers for which the stated reasons are health, retirement with retirees’ age above 65 and corporate governance reforms.

Panel A: Performance Surrounding CEO Turnovers						
Year Relative to Turnover	Industry-adjusted Return on Total Asset (Median)	Percentage of Negative Income	Industry-adjusted Stock Return (Median)	Unadjusted Return on Total Asset (Median)	Unadjusted Stock Return (Median)	
	(1)	(2)	(3)	(4)	(5)	
-3	-0.017	0.146	-0.091	0.040	0.002	
-2	-0.024	0.207	0.002	0.029	0.027	
-1	-0.027	0.317	-0.002	0.016	0.105	
0	-0.035	0.402	-0.028	0.012	0.255	
+1	-0.020	0.329	0.100	0.014	0.158	
+2	-0.021	0.378	0.009	0.013	-0.108	
+3	-0.015	0.317	0.040	0.014	-0.145	
Average	-0.021	0.300	0.010	0.020	0.036	

Panel B: Changes in Performance Surrounding CEO Turnovers			
From Year (Relative to Turnover)	Median Changes in Industry-adjusted Return on Total Asset	Median Changes in the Percentage of Negative Income	Median Changes in Industry-adjusted Stock Return
	(1)	(2)	(3)
-1 to -3	-0.022 ***	0.171 ***	0.049
-1 to -2	-0.013 ***	0.11	0.044
0 to -3	-0.034 ***	0.256 ***	0.015
0 to -2	-0.022 ***	0.195 ***	-0.031
0 to -1	-0.008 *	0.085	-0.071
+1 to -1	0.005	0.012	0.091
+2 to -1	0.007	0.061	0.037
+3 to -1	0.010	0.000	0.064
+1 to 0	0.011 *	-0.073	0.222 **
+2 to 0	0.012 *	-0.024	0.108
+3 to 0	0.021 **	-0.085	0.110 *

*significant at 10% level; **significant at 5% level; ***significant at 1% level.

VIII Stock Price Performance around Turnover Events

This table reports the levels and the statistical significance of cumulative abnormal returns (CARs) of the pre-announcement-period (the 180 days ending two days prior to the CEO turnover announcement [-180, -2]) and the abnormal returns (ARs) of announcement-period (the two-day period including the day of and the day before the announcement [-1, 0]). Market model parameters are estimated over the 250-day-period beginning two days following the CEO turnover announcement (2, 252). Forced turnovers include turnovers for which the stated reasons are resignation, dismissal, expiry of contract, completion of acting duties and change of jobs. Non-forced turnovers include turnovers for which the stated reasons are health, retirement with retirees' age above 65 and corporate governance reforms. Resignation and dismissal turnovers are turnovers in which the stated reasons are resignation and dismissal. T-test statistics are provided in parentheses.

	All Turnovers	Forced-Turnovers	Non-forced Turnovers	Resignation and Dismissal
Cumulative Abnormal Returns of the Pre-announcement-period (CARs)	0.006 (0.4319)	-0.0078 (-0.4624)	0.0326 (1.3182)	-0.1064*** (-3.1616)
Abnormal Returns of announcement-period (ARs)	-0.0004 (-0.2743)	0.0002 (0.1004)	-0.0017 (-0.7038)	0.001 (0.162)

*significant at 10% level; **significant at 5% level; ***significant at 1% level.

Table VIII
Logit Regression Estimates of the Probabilities of CEO Turnovers in China's Listed Enterprises, Using Net Income Performance Measures

This table reports the logit regression estimates of the probabilities of forced CEO turnovers in China's listed enterprises, using net income performance measures. The sample period is from 1995 to 2000. Panel A reports the result for the probability of forced CEO turnover, and Panel B shows the result for the probability of non-forced CEO turnover. Turnovers are classified as forced if the stated reasons are resignation, dismissal, expiry of contract, completion of acting duties and change of jobs. ROA_0 and lag ROA_{-1} the current and lag industry-adjusted return on asset, measured by ratio of net income to total asset minus the median of the corresponding ratio in an industry. $Negative_0$ and $Negative_{-1}$ are dummies indicating the current and lag negative earnings, which equal one if income is non-positive. $Stock\ Return_0$ and $Stock\ Return_{-1}$ are dummies indicating the current and lag annual industry-adjusted stock return measured that is adjusted for effects of cash dividend, right offering, and stock dividend minus the corresponding median stock return of an industry. Age is the age of a CEO at the turnover year. Tenure is the number of years that the outgoing CEO has been in the CEO position. Duality is a dummy variable that equals one if the outgoing CEO is also a chairperson of the board of directors. Size is measured by the value of total asset. Debt-equity ratio is the ratio of total debt over the book value of equity. *p*-values are in parentheses.

Panel A: Result for Forced CEO Turnover				
Independent Variables	(1)	(2)	(3)	(4)
Age	0.0291 *** (4.415)	0.0297 *** (4.550)	0.0299 *** (4.103)	0.0307 *** (4.218)
Tenure	-0.3275 *** (7.201)	-0.3207 *** (7.102)	-0.3257 *** (6.966)	-0.3092 *** (6.805)
Duality	-0.4303 *** (3.640)	-0.4572 *** (3.853)	-0.3942 *** (2.961)	-0.4090 *** (3.058)
Size	-0.0081 (0.153)	0.0105 (0.195)	-0.1057 * (1.794)	-0.0521 (0.878)
Debt-equity ratio	-0.0010 (0.909)	-0.0020 (1.213)	-0.0007 (0.732)	-0.0021 (1.212)
ROA_0	-1.3484 * (1.947)			0.1672 (0.245)
ROA_{-1}	-2.0969 *** (2.937)			0.4102 (0.477)
$Negative_0$		0.5149 *** (3.441)		0.4442 ** (2.340)
$Negative_{-1}$		0.6682 *** (3.983)		0.6256 *** (2.903)
$Stock\ Return_0$			-0.1157 (1.175)	-0.0725 (0.726)
$Stock\ Return_{-1}$			-0.1654 (1.427)	-0.1038 (0.901)
Constant	-1.9296 * (1.733)	-2.4284 ** (2.162)	0.2399 (0.194)	-1.0731 (0.860)
Observations	3107	3107	2498	2498
Pseudo R-squared	0.047	0.052	0.042	0.052

Table IX—Continued

Panel B: Result for Non-forced CEO Turnover				
Independent Variables	(1)	(2)	(3)	(4)
Age	0.0637 *** (5.328)	0.0633 *** (5.295)	0.0655 *** (4.910)	0.0659 *** (4.890)
Tenure	-0.2474 *** (3.253)	-0.2467 *** (3.244)	-0.2024 *** (2.727)	-0.1971 *** (2.682)
Duality	1.5233 *** (8.610)	1.5188 *** (8.650)	1.5648 *** (8.015)	1.5581 *** (7.933)
Size	0.0610 (0.655)	0.0669 (0.719)	0.0085 (0.080)	0.0112 (0.107)
Debt-equity ratio	-0.0071 (0.410)	-0.0100 (0.558)	-0.0088 (0.453)	-0.0081 (0.466)
ROA ₀	-0.0753 (0.080)			2.0555 (1.132)
ROA ₋₁	-0.8919 (0.702)			-1.3345 (0.788)
Negative ₀		0.2882 (1.060)		0.3369 (0.882)
Negative ₋₁		0.0594 (0.190)		-0.0943 (0.229)
Stock Return ₀			-0.0230 (0.137)	-0.0572 (0.329)
Stock Return ₋₁			0.0749 (0.482)	0.0803 (0.479)
Constant	-7.3211 *** (3.741)	-7.4457 *** (3.801)	-6.3513 *** (2.820)	-6.4459 *** (2.890)
Observations	3107	3107	2498	2498
Pseudo R-squared	0.108	0.109	0.109	0.111

*significant at 10% level; **significant at 5% level; ***significant at 1% level.