Firm performance, corporate governance, and CEO turnover:

An empirical study from China

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ABSTRACT

This study examines the impacts of firm performance and mechanisms of corporate governance on CEO turnover by using a sample of 325 companies listed on the Chinese stock markets over the ten-year period 1997-2006. A negative relationship between CEO turnover and firm performance has been found in this study. For mechanisms of corporate governance, the proportion of independent directors is negatively associated with CEO turnover. Similarly, serving as the representative of the largest shareholder in the company significantly reduces the likelihood of CEO turnover, while CEO turnover is unrelated to whether CEOs are representatives of any other top ten largest shareholders. Moreover, neither CEOs’ shareholdings nor state shareholdings influence CEO turnover.

Keywords: CEO, CEO turnover, corporate governance, Chinese firms

INTRODUCTION

The separation of ownership and control in modern corporations has generated concern over whether top executives operate firms in the interests of shareholders. From the perspective of agency theory, misalignment of interests among principals and agents may lead to performance inefficiency (Fama & Jensen 1983; Fan, Lau & Young 2007; Hoskisson, Hitt, Wan & Yiu 1999). Corporate governance mechanisms are devised to align the interests of agents with those of shareholders and to discipline under-performing agents (Fan et al. 2007). Hence, the relationship between executive turnover and firm performance can be an indication of the quality of the corporate governance system in a firm (Kato & Long 2006a). Therefore, an enormous amount of studies have investigated the relationships among firm performance, corporate governance and CEO turnover (e.g. Coughlan & Schmidt 1985; Denis, Denis & Sarin 1997; Warner Ross & Wruck 1988; Weisbach 1988). However, these studies have commonly focused on the large corporations in the mature market economies, where there is relatively effective corporate governance. Therefore, some findings related to the effectiveness of governance mechanisms of these studies may not apply to developing and transitional economies (Fan et al. 2007; Tian & Lau 2001; Wright, Filatotchev, Hoskisson & Peng 2005). For this reason, recently, CEO turnover and its relationships with firm performance and corporate governance in transitional
economies have attracted the attention of researchers, such as Russia (Muravyev 2003), Slovenia (Cvelbar 2007), Czech and Slovak Republics (Eriksson 2005).

Since 2006, some scholars have also started to pay attention to top executive turnover in China, the largest transitional and developing economy in the world. This is partly because the gradual approach to privatising state-owned enterprises (SOEs) adopted by China is unique (Firth, Fung & Rui 2006). So far, a few studies on executive turnover in China have been published in international journals (e.g. Fan et al. 2007; Firth et al. 2006; Kato & Long 2006a, 2006b). The results of the relationship between firm performance and turnover are mixed. Of these, most studies have found that executive turnover (Fan et al. 2007; Kato & Long 2006a; Firth et al. 2006) is significantly and negatively related to accounting performance. However, the results of Kato and Long (2006b) show that CEO turnover is insignificantly related to firm performance, although the negative relationship between firm performance and CEO turnover is stronger for firms with a majority shareholder. In addition, Chang and Wong (2009) found that the negative relationship between CEO turnover and firm performance only exists when firms are incurring financial losses, but no such relationship when they are making profits. By this token, it is necessary to further examine the relationships among firm performance, corporate governance, and CEO turnover in the Chinese context.

LITERATURE REVIEW AND HYPOTHESES

Firm Performance and CEO Turnover

Poor performance has been commonly considered as the cause of CEO turnover in current research. In terms of agency theory, executives are self-interested rational individuals and pursue their own value maximisation at the cost of shareholders’ wealth. The conflicts of interests between shareholders and the executives require the board of directors to represent shareholders to monitor and evaluate executive and to replace them when necessary (Morck, Shleifer & Vishny 1989). In relation to China, the initial purpose of setting up stock exchanges was to support SOE reform. As a result, most listed companies in China were transformed from SOEs. In terms of a survey conducted by Wang, Xu and
Zhu (2004), about 75% of listed companies are formerly state-owned; another 10% are formerly shareholding companies that mostly had significant shares held by SOEs; and only less than 10% of listed companies are formerly private-owned firms or foreign-invested firms, which in most cases had SOEs as their joint venture partners. Consequently, most listed companies inherited the traditional operating and management culture and systems of the former SOEs (Shi 2005). In spite of this historical background, Chinese listed companies have adopted corporate structures that resemble western business corporations (Fan et al. 2007). A variety of mechanisms to monitor, evaluate, discipline, and reward top managers has been set up for Chinese listed companies. More importantly, profit maximisation has become an important objective for them, and thus it is believed that firm performance is an important factor in the decision of CEO turnover (Fan et al. 2007). By this token, it is anticipated that:

**Hypothesis 1. The likelihood of CEO turnover is negatively related to firm performances.**

**Proportion of Independent Directors and CEO Turnover**

Independent directors have no affiliation with the firm other than their directorship (Byrd and Hickman 1992). Thus, they are likely to effectively prevent insider control and reduce losses to other shareholders caused by the misuse of power by executives in previous research (Guan 2007). Accordingly, both Baysinger and Butler (1985) and Byrd and Hickman (1992) found support for their hypothesis that board monitoring is more efficient when independent directors dominate the board of directors.

However, the board members, including independent directors, are often appointed by the controlling shareholders due to the high ratio of shares held by them in China. Due to the dominant influence of largest shareholders, 90% of independent directors are nominated by largest shareholders in Chinese stock markets (Research Centre of the Shanghai Stock Exchange 2004), and 79.1% of CEOs are promoted by largest shareholders and most other senior managers are also promoted by the largest shareholders (Research Centre of the Shanghai Stock Exchange 2003). Given these close relationships,
it is unlikely that independent directors nominated by the largest shareholder are truly “independent” of CEOs. In addition, the effectiveness of the independent directors in monitoring the management depends on not only their willingness to monitor, but also their power relative to CEOs and other executives. As Agarwalla (2008) stated, qualitative independence of directors should include their willingness and ability in terms of knowledge and experience to ask the hard questions required to provide effective oversight, and their character and integrity in general and especially in dealing with potential conflicts of interest. However, in China, around 40% of independent directors are university teachers and researchers and only 10% are industrialists (Research Centre of the Shanghai Stock Exchange 2004). The occupational background of independent directors may render them unable to monitor CEOs effectively. Similarly, Peng (2004) found that non-affiliated outside directors (i.e. independent directors) of Chinese listed companies are resource-poor outsiders and thus are unlikely to contribute to firm performance. Given these arguments, it is anticipated that independent directors cannot monitor CEOs effectively in the Chinese context. Therefore, a hypothesis is proposed:

*Hypothesis 2. The likelihood of CEO turnover is negatively related to the proportion of independent directors.*

**The Proportion of State-Owned Shares and CEO Turnover**

In China, the government remains to be the largest shareholder in most listed companies, either by direct state ownership or by indirect ownership through legal person shares (Kato & Long 2006a). The shareholder rights of the state are represented by the central government, local government, or solely state-owned enterprises (Xu & Wang 1999). State shareholders are ineffective in monitoring CEOs and other senior managers in China for three reasons. Firstly, state shareholders suffer from the problem of multi-goals, namely social and political goals (Lin 2004). Secondly, state ownership suffers from the separation between ownership by the general public and control by the bureaucrats in charge of the daily operation of the firm (Kato & Long 2006a). Therefore, state shareholders, especially government shareholders, are not adequately motivated to closely monitor managers because their well-being is not directly tied to the performance of state-controlled listed firms. Thirdly,
most government shareholders do not have sufficient abilities to monitor managers as they are understaffed and the existing staff have limited expertises in modern finance and investment theories and practices (Lin 2001). As a result, it is expected that CEOs in firms with a greater ratio of state shares have more discretion than those in firms with a lower ratio of state shares. Hence, it is anticipated that,

*Hypothesis 3. The likelihood of CEO turnover is negatively related to the proportion of state-owned shares.*

**Representative of Large Shareholders and CEO Turnover**

As representatives of large shareholders, CEOs are entitled to substantial voting power to act on behalf of these shareholders. In this situation, CEOs represent both the management and large shareholders, and thus have greater abilities to influence important firm decisions than other CEOs. From the agency theory standpoint, large shareholders may pursue their own interests at the cost of other shareholders, which cause another type of agency problem between large shareholders and small shareholders (i.e. the type II agency problem) (Shleifer & Vishny 1986). Large shareholders are found to have incentives to use their voting power to consume corporate resources and to enjoy corporate benefits that are not shared with minority shareholders, such as excess salary for an individual large shareholder and synergies in production for a corporation’s large shareholders (Holderness 2003). In doing so, large shareholders are likely to appoint their representatives as CEOs in an effort to preserve their ability to extract those benefits at the cost of other shareholders’ interests and firm performance.

In China, the largest shareholders have an enormous amount of influence on the listed companies due to the highly concentrated ownership. In terms of the July 2001 issue of *China Securities*, the largest shareholders held on average 44.9% of the shares in listed companies. However, the proportion of shares held by the second-largest shareholders was on average 8.2% (Shi & Weisert 2002). Under this circumstance, largest shareholders, namely controlling shareholders, dominate the shareholders’ meeting, the board of directors, and the management in an effort to pursue their own interests at the
cost of minority shareholders’ interests. According to Kato and Long (2006a), between 1998 and 2002, 41% of CEOs of Chinese listed companies simultaneously held executive positions in the controlling shareholder companies. By doing so, CEOs are expected to serve the interests of the largest shareholders through wealth transfer activities, namely tunnelling activities, which are detrimental to other shareholders’ interests. These have given rise to the type II agency problem (Young, Peng, Ahlstrom, Bruton & Jiang 2008) and the severe issue of insider control, namely the entrenchment between the largest shareholder and management. Using the scenario of the entrenchment effect, the largest shareholders are unlikely to replace CEOs who are their representatives in an effort to pursue their interests in the Chinese context. Compared to the largest shareholder, any other top ten largest shareholders have relatively smaller impacts on the firm partly due to the smaller amount of shares held by them. Hence, they may provide little power for their representatives. By this token, two hypotheses are proposed:

**Hypothesis 4a.** The likelihood of CEO turnover decreases when a CEO is the representative of the largest shareholder.

**Hypothesis 4b.** The likelihood of CEO turnover is unrelated to whether a CEO is the representative of any other large shareholder.

**CEOs’ Shareholding and CEO Turnover**

The agency relationship suggests that shareholdings are relevant indicators of power (Finkelstein 1992). CEOs with significant shareholdings are likely to be more powerful in the firm as they represent both management and shareholders and thus has the ability to influence directors’ decisions and their performance criteria through both the ownership and management capacities (Daily & Johnson 1997). Therefore, it is expected that CEOs with significant shareholdings are less likely to be replaced. This has been supported by prior research (e.g. Denis et al. 1997). However, in contrast to the high stock ownership of executives in capitalist countries, executives of Chinese listed firms generally own very low share ownership (Firth et al. 2006). The average and highest ratios of shares
held by CEOs of the sample companies in this study are 0.0066% and 0.47% respectively. Under this circumstance, it is unlikely to expect such a low level of shares held by CEOs provide them enough power to resist the pressure of being replaced. Fan et al. (2007) found that the percentage of shares held by CEOs is unrelated to CEO turnover on the Chinese stock markets. In terms of these arguments, a hypothesis is proposed:

*Hypothesis 5. The likelihood of CEO turnover is unrelated to the proportion of shares held by the CEO.*

**METHOD**

**Sample**

The sample comprises 325 public firms of non-financial sectors on the Chinese stock markets during the period 1997-2006. Financial sector firms, including commercial banks, financial companies, and finance and securities companies, are excluded from the sample because the corporate governance, accounting standards for income and profit, and financial statements of these financial sector firms may be completely different from those of industrial firms (Campbell & Keys 2002; Lukviarman 2004). The initial sample of this study consisted of 505 non-financial companies listed before December 31, 1996 on the Chinese stock markets in the period from 1997 to 2006. Then after excluding all companies with incomplete data, 325 companies remained, comprising the final sample used in this study.

The primary data for CEO turnover, firm performance, and CEO power are collected from all annual reports of the sample companies. Most annual reports were downloaded from www.stockstar.com in webpage format. In the case of annual reports were not available on the website of Stockstar, the stocksection of the Sina website (http://finance.sina.com.cn/stock/index.shtml) was used to collect annual reports.
**Dependent and Independent Variables**

CEO turnover (ACT) is a dichotomous dependent variable in this study. In China, “general manager” is the statutory title used in China’s *Company Law* which came into effect on July 1, 1994 and is equivalent to “Chief Executive Officer” (CEO) in the West. According to China’s Company Law, any limited liability company must have a general manager, who is appointed by the board and is in charge of “the management of the company’s production and operation, and organizing the implementation of board resolutions”. Consequently, CEOs refer to general managers in this study. To discern CEO turnover, the names of general managers in successive years over the sample period were compared. If the names of CEOs have changed between the successive years, it is identified as CEO turnover and valued as 1 and 0 otherwise.

Three measures of *performance* are used in this study. One is return on assets (ROA), which is calculated as the net profit divided by the total assets. The second variable is *earnings per share* (EPS), which is calculated as the net profit divided by the total outstanding shares of a company. The third variable is a dummy variable of loss (LOSS), which is code as 1 if the net profit is less than 0 and 0 otherwise. This is a proxy for extremely poor performance. The current year of these three performance variables are used in this study.

Five *corporate governance variables* are used in this study. The first one is *the proportion of independent directors* (RBIN), which is calculated as the number of independent directors divided by the total number of directors on the board. The second one is *the proportion of state owned shares* (RSTA) and it is calculated as the amount of shares owned by the state divided by the total amount of shares in this study. In an effort to distinguish the impact of the largest shareholder and other large shareholders on CEO turnover, two variables of representative of large shareholders, *the representative of the largest shareholder* (RELA) and *the representative of any other top ten largest shareholders* (REOT), are used in this study. The variable RELA is coded as 1 for the CEO who is a current employee or was an employee before taking office in the largest shareholder’s company and 0 otherwise. Similarly, the variable REOT is valued as 1 for the CEO who is or was an employee in any
company of the top two to top ten largest shareholders and 0 otherwise. *CEO ownership* (RSCE) is the last proxy for corporate governance and it is measured as the amount shares held by the incumbent CEO divided by the total amount shares of a company.

**Control Variables**

*Firm size* (SIZE) is measured as logarithm of total assets. Firm size is typically associated with the degree of formalization, bureaucracy and requirements for managerial expertise of a firm (Hamori 2006), which affects not only the efforts needed for replacing a CEO, but also the availability of the candidates for a CEO. To capture the impact of retirement age on CEO turnover, a dummy variable of CEO age (DAGE) is used and it is coded as 1 for CEOs who are 60 years old and above and 0 otherwise. In order to control for any common effect across all companies in the sample on dependent variables, nine year dummy variables for each year from 1998 to 2006 are used in the study.

**RESULTS**

Table 1 reports descriptive statistics, such as means, standard deviations, and Pearson correlation coefficients for all variables used in the models. Most correlation coefficients among independent and control variables are below 0.60, indicating that it is unlikely to have multicollinearity problems in this study. Two statistics, Tolerance and the Variance inflation factors (VIF) are calculated in an effort to examine whether there are problems of multicollinearity among independent and control variables. Table 2 presents the result of these two statistics. The maximum value of VIF and the minimum value of Tolerance are 2.06 and 0.48 respectively. Some researchers argue that a VIF value greater than 10 or a Tolerance value less than 0.1 indicates significant multicollinearity (Myers 1990). Others insist that a VIF value greater than 5 or a Tolerance value less than 0.2 indicates significant multicollinearity (Menard 1995). No matter which criterion is concerned, it is feasible to conclude that there is no multicollinearity problem in this study because all the values of VIFs are smaller than 5 and all the values of tolerances are greater than 0.20.

[Insert Table 1]
Table 3 presents the estimated results of all CEO turnover events using the GEE model with Logit link function and AR (1) working correlation matrix. Models 1.1-1.3 present the results of the firm performance and control variables. The coefficient of ROA is negative but insignificant in Model 1.1, while EPS has a negative and significant coefficient in Model 1.2. In Model 1.3, the estimated coefficient of LOSS is positive and significant at the level of 0.001. These results suggest that CEO turnover is sensitive to net assets per share and loss, but not return on assets. As a result, Hypothesis 1 is supported by EPS and LOSS. In these three models, the dummy variable of CEO age has significant and positive effects on CEO turnover, while firm size has significant and negative effects on CEO turnover.

The effects of corporate governance mechanisms on the probability of CEO turnover are examined in Models 2.1-2.3. Their QIC_u values are smaller than Models 1.1-1.3 respectively, indicating that the modelling fit has been improved. Thus, the impact of corporate governance mechanisms is evidenced. The effects of two control variables and three performance variables remain the same. The estimated coefficients of the proportion of independent directors are negatively and significant at the level of 0.001, indicating that CEOs are less likely to be replaced in firms with relatively higher proportion of independent directors. This result is inconsistent with Hypothesis 2. Both the proportions of state-owned shares and shares held by CEOs have statistically insignificant coefficients. As a result, Hypothesis 3 is not supported, while Hypothesis 5 is supported. With respect to the two variables of representative of large shareholders, the representative of the largest shareholder has negative and statistically significant coefficients, while the representative of any other top ten largest shareholders has statistically insignificant coefficients. Consequently, both Hypotheses 4.a and 4.b are supported.

DISCUSSION AND CONCLUSION

1 For a detailed discussion on the link functions and working correlation matrix, see Zorn (2001), Twisk (2002), and Horton and Lipsitz (1999).

2 According to Pan (2001), QIC_u, an extension of Akaike’s information criterion (AIC), is the goodness-of-fit statistic for models based on the GEE method. The smaller the QIC_u value indicates the better goodness-of-fit of the model.
This study provides an empirical examination of firm performance and corporate governance for companies listed on the Chinese stock markets. An important finding of this study is that CEO turnover is sensitive to poor firm performance measured by earnings per share and negative net profits. This finding is consistent with results of most empirical studies focusing on companies in Western economies (e.g. Denis & Denis 1995; Weisbach 1988).

A traditional view is that state ownership has a negative effect on the quality of corporate governance because state shareholders may impose less discipline on CEOs and other senior managers (e.g. Qi, Wu & Zhang 2000; Xu & Wang 1999). In contrast to this view, no significant and negative effect of state ownership on CEO turnover has been found in this study. In a similar way, Fan et al. (2007) revealed that the proportion of state shares is unrelated to CEO turnover. It is clear that the role of state ownership during the transitions is unclear (Peng, Zhang & Li 2007) and need to further investigate in future studies. In relation to the proportion of independent directors, it is negatively related to CEO turnover in this study. This result implies that independent directors serve as pawns of CEOs and thus may invite a questioning of the independent director system in China, as it only prescribes the minimum number of independent directors and the criteria to be considered “independent” without specifying any criteria for the task specific knowledge and expertise required of independent directors. As for the two variables of representative of large shareholders, the representative of the largest shareholder is negatively related to CEO turnover. In a similar way, Kato and Long (2006a) also found that the turnover-performance link is weaker where CEOs also work for the largest shareholder. By comparison, CEOs’ status of the representative of any other top ten largest shareholders is unrelated to CEO turnover in this study. To some degree, these findings imply the conflicts of interests between the largest shareholder and other large shareholders, namely the

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3 According to Kato and Long (2006a), the Guidelines for Establishing Independent Director System in Listed Firms issued by the CSRC on August 16th 2001 requires each listed firm in China to have at least two “independent directors” on its board of directors by June 30th 2002, and by June 30th 2003, at least one third of the board members would be required to be “independent directors”. Also, it regulates that an individual must meet the following conditions to be considered “independent”: (i) neither the individual nor his or her relatives (including spouses, parents, children, siblings, parents-in-law, sons-and daughters-in-law, spouses of siblings, and siblings of spouses) work for the listed firm or its subsidiaries; (ii) the individual does not directly or indirectly own more than 1% of the stock of the listed firm; (iii) neither the individual nor his or her close relatives (including spouses, parents, and children) are among the largest 10 shareholders of the listed firm; (iv) neither the individuals nor his or her close relatives work for a company that owns more than 5% of the stock of the listed firm; (v) neither the individual nor his or her close relatives work for one of the largest five shareholder companies.
principal-principal conflicts. With respect to the proportion of shares held by CEOs, it is unrelated to CEO turnover in this study. This indicates that CEOs cannot obtain significant ownership power from their shareholder status in China, which is consistent with the result of Fan et al. (2007).

In relation to the two control variables, the negative impact of firm size on CEO turnover suggests that CEOs in large firms are less likely to be replaced in China. The scarcity of candidates for CEOs in large firms may be one reason for this. In addition, the greater structural inertia (Hannan & Freeman 1984) and bureaucracy (Grusky 1961) of the large firms may reduce the likelihood of CEO turnover. The positive impact of the dummy variable of CEO age on CEO turnover shows the influence of retirement policies on CEO turnover.

In conclusion, this study has empirically investigated the relationships among firm performance, corporate governance mechanisms, and CEO turnover for listed companies in China. However, the findings of this study must be considered in the light of its two limitations. One limitation is that the sample of this study includes only companies listed on the Chinese stock markets. In China, the stock markets are established with the primary aim of transforming the traditional large and medium size SOEs into the modern form of corporations with a Western-style corporate governance structure. As a result, the company size and corporate governance of listed companies are different with non-listed companies. Given these situation, it is not safe to claim that these results would necessarily hold for non-listed companies in China. Further study should be done on the Chinese non-listed companies and a comparative analysis of the differences between these two groups of companies would be necessary. The other limitation is that this study only used accounting performance measures to evaluate the relationship between CEO turnover and firm performance. Stock prices measures were not applied to this study because of the unique characteristics of Chinese stock markets, such as the market segmentation and strong speculative atmosphere. It is anticipated that as the development and reform of Chinese stock markets, especially the completion of the non-tradable share reform launched in 2005, the stock prices can accurately reflect companies’ true values. Thus, the future study should examine the impact of firm performance measured by stock prices on CEO turnover in the Chinese context.
REFERENCES


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Table 1 Descriptive Statistics and Correlation Coefficients

<table>
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<th>Variables</th>
<th>Mean</th>
<th>Std. Deviation</th>
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<th>EPS</th>
<th>ROA</th>
<th>LOSS</th>
<th>RSTA</th>
<th>RBIN</th>
<th>RELA</th>
<th>REOT</th>
<th>RSCE</th>
<th>SIZE</th>
<th>DAGE</th>
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<td>LOSS</td>
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Significance: **<.01, *<.05, +<.1.

Table 2 Multicollinearity Test

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Table 3: Results of CEO Turnover Using the GEE Method

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Significance: ***<.001, **<.01, *<.05, +<.1; P is the number of parameters in a model.