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Does Tenure matter: Role of the corporate secretary in Chinese listed firms

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Abstract

We study the impact of corporate secretary tenure on the governance quality of Chinese A-share listed firms. Results show that corporate secretary tenure is negatively associated with board meeting frequency, outside director in-meeting dissent and incidence of fraud and lawsuit. Key findings are robust to an array of additional tests including the propensity score matching, instrument variable analysis as well as alternate governance measures such as analyst coverage, modified auditor opinion, number of institutional shareholders, and outside director board meeting absence. Overall, our study confirms the importance of corporate secretary in favour of modern corporate governance outcomes and board processes.

JEL clasificación: G15; G30; K22; M41

Keywords: corporate secretary, tenure, fraud, lawsuit, outside directors, corporate governance

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1. Introduction

Issues related to corporate governance have gained significant prominence with respect to accounting, finance and management research in last two decades, especially due to an increase in corporate frauds (Agrawal and Chadha, 2005) and financial liberalization of emerging markets (Bekaert et al., 2005; Klapper and Love, 2004). Extant literature on limiting incidence of corporate frauds primarily talks about various monitoring mechanisms that promote overall governance quality and board effectiveness (Dyck et al., 2010). However, the empirical studies show that the impact of the governance quality is mixed for both external and internal monitors (Beasley, 1996; Eng and Mak, 2003; Cheng and Courtenay, 2006). Notwithstanding the findings of a negative relation between the level of board independence and incidence of corporate fraud (Beasley, 1996; Fich and Shivdasani, 2007), we have seen cases like Enron; where even 80 percent outside director expertise on the board was unable to prevent an accounting fraud (Ghoshal, 2005). The case of Enron was primarily due to the ineffectiveness of the internal governance mechanism; rather than the lack of disciplinary capabilities of the related stakeholders (Cohan, 2002). Limited time and lack of proper information communication are the key factors that constrain the outside directors from properly conducting their job of an effective monitor (Bebchuk and Fried, 2004; Kumar and Sivaramakrishnan, 2008).

We believe that the coherence of good corporate governance may not solely rely on the monitors, but also on the party who plays an important role in supporting their function (Cohan, 2002; Finkelstein and Mooney, 2003; McNulty and Stewart, 2015; Xing et al., 2017). Therefore, instead of focusing on different external monitors and other members of the top-management team (*e.g.*, Bamber et al., 2010; Geiger and North, 2006; Bird et al., 2015; *etc.*), in this study we concentrate on corporate secretaries, whose role overtime has evolved from a ‘*humble clerk*’ to the key governance officer of a firm.¹ Despite providing little monitoring function directly, corporate secretary plays a key role in establishing a methodical board process by forming effective information channel between insiders and outsiders of the firm, while simultaneously providing guidance that facilitate the board on the issue of compliance to enhance the governance outcome (Xing et al., 2017; McNulty and Stewart, 2015).

Our study focuses on the Chinese market, which despite being one of the fastest growing economies internationally, has significantly underdeveloped legal and financial system (Allen et al., 2005). With little support from the legal and institutional environment, the role of the corporate secretary in ensuring the governance quality becomes even more critical. Furthermore, Chinese stock market regulatory authorities require firms to release the in-meeting opinion of outside directors, which makes China as a perfect and unique sample to quantitatively study the effectiveness of corporate secretary on the outside directors’ board room behaviour. Most importantly, we focus on the

¹ McNulty and Stewart (2015) summarizes the role and responsibilities of the corporate secretary in the U.K., while Xing et al. (2017) gives a detailed summary about the tasks of corporate secretary in China.

Chinese sample due to unique and clearly outlined role and responsibilities of the corporate secretary in China. Unlike the developed markets, which have been liberal in defining the tasks of a corporate secretary in publically listed firms, China has a detailed and standardized regulatory setup to ensure that the corporate secretaries in different firms and under different corporate settings follow the same set of regulatory obligations. In addition, corporate secretaries in China are vulnerable to a greater risk of disciplinary penalties, administrative sanctions, and even legal liabilities in cases of a financial misconduct.² The clearly defined and unified roles of corporate secretaries across firms with the addition of litigation risk indicate that corporate secretaries in China are likely to play more effective role in improving the governance quality.

All the publicly listed firms in China are required by law to appoint a corporate secretary (popularly known as board secretary in China) as a member of the senior management team. Chinese regulators expect the corporate secretaries to promote and sustain good governance practice by implementing effective and lawful board processes, maintaining quality information flow among directors, management team and other stakeholders, as well as educating and prompting the directors and executives to fulfil their fiduciary duties and to abide regulatory requirements. In a broader framework, these expectations are shared by regulators among a number of developed and developing countries. To start with, similar to China, the role of the U.K. corporate secretary defined in the *Corporate Governance Code* of 2012 is not limited to that of an administrative officer, but also as a professional who assists the flow of credible and quality information both within the board, and between the outside directors and management team. Also in the U.K., all the directors are entitled to the advice of corporate secretary for professional decision-making at the board level and for overall governance purposes. Regulators in other countries like Singapore, Russia, and South Africa have similar requirements for their corporate secretaries. In addition, like China, in Australia the corporate secretary should be readily accessible to all the board directors, and accountable for all the governance issues through the board chairman. In India, corporate secretaries are also expected to act

² There have been a number of cases where corporate secretaries in China were penalized for failing to properly execute their duties, or for being involved in fraudulent activities. For example, in 2012, corporate secretaries in 18 different firms received the disciplinary penalties from the Shanghai and Shenzhen Stock Exchanges, and corporate secretaries in another 12 firms received administrative sanctions from the CSRC (*i.e.*, China Securities Regulatory Commission). Besides, some of the other notable cases are: On Sept. 16, 2003, due to fraudulent financial reporting, Ningxia Yinchuan Intermediate People's Court sentenced Ding Gongmin, the board secretary and chief accountant of YinGuangXia (stock code 000557) for 2.5 years with a fine of up to RMB 80,000. The former board secretary, Dong Bo, was also sentenced for 3 years with a fine of RMB 100,000. In 2006, the CEO of YiLiGuFen (stock code 600887) was sentenced to 6 years due to embezzlement while at the same time, the corporate secretary Zhang Xian Zhu and another three top managers also received 1 to 3 years of jail sentences as the accessories to the embezzlement of funds. In December 2008, the corporate secretary of STLianYou (stock code 000691) received a public censure for failing to ensure the vote avoidance of the affiliated directors in deciding the transactions that may involve related-party. In July 2011, the corporate secretary of WuLiangYe (stock code 000858), Peng Zhifu, was fined RMB 100,000 along with a disciplinary warning given by the Shenzhen Stock Exchange for failing to disclose the firm's major investments and losses in security markets. Peng Zhifu had to resign from the corporate secretary position after 12 years of service in the firm and was also banned from acting as a corporate secretary for any firm for next three years.

as a legal officer, while simultaneously acting as the *conscience seeker* of the company to monitor the behaviour of the management team.

Despite the aforementioned similarities, according to Xing et al. (2017), the corporate secretaries in China also differ from those in western countries since their duties in China are far more demanding. They are also in charge of investor relationships and jointly responsible with CFO for information disclosure while in many other countries, such as the U.S., this job is undertaken by the CEOs and CFOs. Furthermore, corporate secretaries, instead of the general counsels, act as the liaison between firms and different regulatory bodies in China. More importantly, the corporate secretaries in China report directly to board of directors instead of CEO or general counsels. As we have discussed, they also undertake legal and regulatory duties and they are subject to greater litigation risk relative to their peers in other countries.

In order to maintain the generality of our analysis, we focus in this study the functions of the corporate secretary that are shared by other countries and summarize them within three distinct roles, namely company clerk, boundary spanner, and guiding and facilitating role.³

First, the corporate secretary in many countries is expected to act as the company clerk, who although is not directly involved in decision making process, but is crucial in deciding the quality of the board processes. Dalton and Dalton (2005) points out that the impediments to effective boardroom process can be easily resolved by a carefully determined board meeting agenda and also by providing directors with board materials well in advance of the meeting, thereby leaving sufficient time for boardroom discussion and debate. Corporate secretaries are responsible for scheduling the board meeting and managing the meeting agenda. Acting in this administrative capacity affords them the potential to exert a considerable degree of influence and control over the physical and temporal setting of the board meeting, which can be critical for its effectiveness (McNulty and Stewart, 2015). In addition, ensuring that the board is meeting with the updated reports and financials available is also one of the key job descriptions of the corporate secretary. The quality of their work in this role is also closely associated with the capacity of the board for good decision making.

Second, as McNulty and Stewart (2015) shows, in addition to the company clerk role, corporate secretaries are also required to play the boundary spanning role to ensure quality information flow to the outside directors. Information constraints can severely hinder the ability of even highly talented board members to effectively execute the monitoring role and to evaluate the management and firm's strategy (Jensen, 1993). Since good information flow is one of the key attributes for effective board processes and the outside director activism (Payne et al., 2009; Duchin et al., 2010), the ability of the corporate secretary to summarize, filter, interpret, draw inference from and distribute '*the right*

³ Xing et al (2017) has analyzed the impacts of corporate secretaries in China on the quality of financial disclosure. We will leave the discussion or any empirical analysis on corporate secretaries' impact on investor relation for future research.

information to the right person at the right time’ is crucial in ensuring the effective performance of the outside directors and the board in general.

Third, in recent years, the corporate secretaries internationally are taking an additional responsibility of guiding and facilitating the board (McNulty and Stewart, 2015). All the board members are expected to have a clear understanding about the company compliance code as well as their duties and responsibilities before undertaking tasks. In the U.S., although it is not mandatory as in China, the corporate secretary in many listed firms often takes the dual role of the general counsel who guides and disciplines the firm on legal and compliance matters (Kwak et al., 2012). Besides, in some emerging countries like China and India, lately corporate secretaries not only conduct the guiding and facilitating role, but are also required to monitor the behaviour of the executives and board members, and can directly report to the regulators if they identify any inappropriate behaviour by the senior management team without obtaining the formal consent from the CEO or the board. Simply put, this mechanism restricts the possibility of illegal collusion between the outside directors and insiders, thereby not only negating the possibility of principal-agent conflict, but also the agency conflict between shareholders and outside directors (Kumar and Sivarmakrishnan, 2008; Deutsch et al., 2011).

To sum it all up, these discussions show that the quality of corporate secretaries’ work may have great impact on the firm-level governance quality. The role of a corporate secretary is no longer that of a ‘*humble clerk*’ who is merely expected to follow orders from the management team. Rather, they act as the person who advocates the collective conscience of the company regarding efficient corporate governance (Xing et al., 2017; Kwak et al., 2012; McNulty and Stewart, 2015).

Since appointing a corporate secretary is mandatory for the A-share listed firms in China, we empirically study their importance on governance quality by examining the impact of their in-firm tenure. Our empirical results show that the corporate secretaries with longer in-firm tenures in their job exhibit a better understanding of the firm and relevant skills which have a direct influence in reducing the board meeting frequency, outside director in-meeting dissent, and most importantly incidence of corporate fraud and related lawsuits. Furthermore, except for the outside director dissent opinion, the impact of corporate secretary tenure on board meeting efficiency and internal control quality is equally effective on the SOEs and the non-SOEs. As a robustness check, we employ the instrument variable analysis and the propensity score matching (PSM) method to address any potential endogeneity issue. In a subsample analysis, we also control for additional factors that reflect the unique setting of the governance environment for firms in China. Our findings are robust to these different methodologies and model specifications. Lastly, we examine the impact of corporate secretary tenure on outside director absence from board meeting, Modified Audit Opinion (MAO), analyst coverage, number of mutual funds investing in the firm, and CEO pay-performance sensitivity as alternate measures of firm-level governance outcome. All the results are consistent with our main hypotheses.

This study contributes to the existing literature on corporate governance by focusing on the role of corporate secretary. Our empirical results about the importance of the corporate secretary on positive governance outcome directly confirm the theoretical foundation proposed in McNulty and Stewart (2015) and empirical test with respect to management earnings forecast by Xing et al. (2017). More generally, our findings advocate the research on corporate governance to extend from the effectiveness of monitors to the parties who may directly influence and channelize such effectiveness. Additionally, using the corporate secretary tenure as the proxy for their effectiveness on governance related factors, we add new evidence to the existing literature (see Miller, 1991; Thomas et al., 1991; Hambrick and Cannella, 1993) on the importance of executive tenure towards their job performance and risk tolerance

We believe that our findings are of interest to not only Chinese regulators and policymakers, but also to the concerned authorities in those countries where the corporate secretaries share the similar roles and responsibilities of a corporate secretary in China. The evidence presented is also of interest to retail investors who are generally oblivious of the day to day activities of the firm, and are likely to be blindsided in case of a corporate fraud (*e.g.*, Enron in 2001, Worldcom in 2002, AIG in 2005, Satyam Computers in 2009, *etc.*). By appointing a competent and experienced corporate secretary, firms can not only mitigate the possibility of a corporate fraud, but also improve the board process, and assist in reducing principal-agent conflict.

2. Literature review and hypothesis development

2.1. The importance of management tenure

Previous studies document the organizational tenure of the manager as an important factor that directly influences their performance and level of risk tolerance. With respect to job performance, upper echelons theory suggests that managerial tenure has significant impact on organizational outcome—strategic decision making and organizational performance (Hambrick and Mason, 1984; Hambrick and Cannella, 1993). Sturman (2003) shows that the organizational tenure gained from working in a specific job will not only help the employee in enhancing their knowledge, but also have a unique positive impact on their performance. The empirical research has demonstrated a positive impact of CEO tenure on the firms' acquisition strategy and international expansion since longer tenured CEOs have better expertise, knowledge and commitment Herrmann and Datta, 2002; Jaw and Lin, 2009). Regarding the level of risk tolerance, through a survey study, Clinard (1983) shows that the middle management with shorter tenure exhibit a higher likelihood of being involved in illegal activities since they are not only more aggressive, but are also inclined to focus on *quick* profit maximizing strategies. This survey study also documents that the CEOs with a longer tenure are more likely to become '*stale in the saddle*' *i.e.* unwilling to take risk. Consistent with Clinard (1983), both Miller (1991) and Thomas et al. (1991) find that CEOs with longer tenure are more likely to adopt

less risky firm strategies. Wiersema and Bantel (1992) demonstrate that experienced managers reduce the probability of organizational risk taking.

Xing et al. (2017) reports that the responsibilities of corporate secretaries are way more demanding and legally binding in China compared to the western markets. A corporate secretary's tenure in the firm would be a perfect proxy for his/her performance, risk tolerance, and effectiveness in improving governance quality. In the following sub-sections, we develop the hypotheses on how tenured corporate secretary have better capacity of enhancing board meeting efficiency, provide better boundary spanning function, as well as reduce the incidence of corporate fraud and lawsuit.

2.2. Corporate secretary tenure and board process efficiency

Compared with other frequently mentioned factors such as director shareholding, independent ratios, CEO duality or board size, board process could be even more influential in determining the board effectiveness (Finkelstein and Mooney, 2003). As discussed above, the basic function of the corporate secretary is to act as a company clerk by engaging in the board meeting process. The potential impact of corporate secretary on the efficiency of board process is suggested in several studies. Keil and Nicholson (2005), for their research on board and director evaluation, considers the corporate secretary as important corporate governance personnel in the firm. Dalton and Dalton (2005) mentions that the CEO and the corporate secretary need to establish an appropriate agenda for the board to ensure that all directors could timely receive the meeting material. Wan and Ong (2005) includes corporate secretary in their research on board meetings in Singapore, because their interviewees recommended that the corporate secretary is important for the board meeting process.

We capture the efficiency of the board meetings by the board meeting frequency in our empirical analysis. As Pye (2001) shows “...[Outside Director] may meet only six times a year, yet their decision-making is considered vital to their organizations and organizing. Much of their work takes place either behind closed doors or ‘back-stage’. Not the high-volume of board meeting means any good.” This explains that good director work does not require frequent board meetings.⁴ In context of the Chinese market, Chen et al. (2006) finds that board meeting frequency is positively related to the incidence of corporate fraud. They argue that the firms that commit frauds have more board meetings because the directors realize some acts or decisions are borderline legal, so there is more debate about executing these decisions, resulting in more meetings. Consistent with Chen et al. (2006), although

⁴ A number of studies have investigated the impact of board meeting frequency on firm performance and governance quality. The results are mixed. For example, Hahn and Lasfer (2016) show that the financially distressed firms tend to have higher board meeting frequency in the UK. Adams and Ferreira (2009) and Johl et al. (2015) have demonstrated a significantly negative relationship between board meeting frequency and firm accounting performance (e.g., Tobin's Q and ROA) in the U.S. and Malaysia respectively. However, a few other studies have found an insignificant impact of board meeting frequency on firm-level accounting performance. For example, Jackling and Johl (2009) show an insignificant relationship between board meeting frequency with ROA and Tobin's Q in the Indian market. Andres et al. (2005) demonstrate that board meeting frequency is irrelevant to the value of the firm in the OECD countries. Mehdi (2007) shows the board meeting frequency has insignificant impact on economic performance in Tunisian market.

Xing et al. (2017) finds a significant positive relation between the frequency of board meetings in China and the frequency of earnings forecast by the management, they find an insignificant effect of meeting frequency on actual quality, accuracy and the information content of the earnings forecast released by the board. This clearly shows that in the Chinese setting, frequent board meetings do not signal increased vigilance and oversight of the top management of the firm.

To the extent that the board meeting frequency can capture the boardroom efficiency, we expect tenured corporate secretary to enhance the board process efficiency and to reduce the frequency of corporate board meeting in the Chinese context. Although the corporate secretary does not decide the frequency of board meetings, an experienced and diligent corporate secretary should have a better understanding of the dynamics in the board room, knowledge of the firm, and the attributes of various directors. They are more likely to provide a more comprehensive picture of the key issues to be discussed in the board meeting and better utilize the board meeting time for constructive dialogue between management and directors. In principle, they should have better capacities to increase the quality of the meeting, and reduce the meeting inefficiency as well as the number of necessary meetings. Therefore, based on the above argument and literature, we propose the following hypothesis:

H1: *Corporate secretary with longer tenure reduces the board meeting frequency.*

2.3. Corporate secretary tenure and pre-meeting negotiation between outside directors and executives

As emphasized in McNulty and Stewart (2015), the corporate secretary also acts as a boundary spanner who delivers information to the outside parties including the outside directors, who although suffer adversely from information asymmetry, are conventionally considered as the centrepiece for monitoring a firm's decision making process (Raheja, 2005; Harris and Raviv, 2008).⁵ From the governance space perspective, information is critical for outside directors' effectiveness, especially when they lack relevant industry knowledge (Dass et al., 2014). Therefore, corporate secretary as a boundary space spanner should communicate information between the insiders and outside directors, thereby helping the later to participate in effective decision-making process.

Following Jiang et al. (2016), we use the outside director in-meeting dissent behaviour to capture the effectiveness in corporate secretary's boundary spanning role. Firstly, the in-board meeting opinion of outside directors (*e.g.*, outside director dissent) is a good reflection of outside directors' behaviour in the monitoring process. Adams et al. (2010) argue that instead of asking the question '*who they are*', it will be wiser for the studies on outside directors to ask the question '*what they do*'.

⁵ Due to the knowledge-work complexity, level of market competition, economic conditions and change in the flat-work structure, organizational teams are required to coordinate interdependently by linking the inside of the team with the outside environment (Marrone, 2010). Such interdependent work linkage, both within the organization or across the boundary to the outside parties is termed as boundary spanning (Ancona, 1990).

The dissent opinion of the outside directors in board meetings is an excellent variable that partially capture ‘*what they do*’. Secondly, the dissent opinion of the outside directors could be a potential indicator for the quality in the corporate secretary’s boundary spanning work. It indicates inadequate pre-meeting negotiations or communications between the directors and management team (Dalton and Dalton, 2005), which leaves the outside directors with an only choice to say ‘*No*’ publicly to proposals that the executives insist in pursuing.

Since the corporate secretary acts as the boundary spanner between the outside directors and the management team, those with longer tenure with the firm should be able to better digest, understand, deliver and explain the information between the two parties before the meeting. This will help the management team to enhance the positive outcome of the pre-meeting negotiation with the outside directors, therefore if possible, they can reach an agreement before the meeting commences. As Finkelstein and Mooney (2003) states, effective information flow could avoid the outside directors to stand-up and challenge the CEOs in public; *i.e.* the incidence of in-meeting dissent will be reduced.

Contrarily, the incidence of in-meeting dissent could also reduce if the collusion behaviour exists between the corporate secretary and the executives. That is the corporate secretary may withhold critical information from the outside independent directors prior to the board meeting, with the aim of reducing their expression of dissenting opinions in meetings. However, in China, the board of directors rather than the CEO appoints the corporate secretaries. They have important legal and regulatory duties and they act as the liaison between firms and different regulatory bodies which subject them to greater litigation risks arising from irresponsible information disclosure (Xing et al., 2017) or any other misconduct. We believe that reduced dissent is more likely to reflect the good quality of boundary spanning work rather than the result of collusion of the corporate secretary.⁶ Based on this discussion, we propose the following hypothesis:

H2: Corporate secretary with longer tenure reduces the incidence of outside director in-meeting dissent opinion.

2.4. Corporate secretary tenure and internal control outcomes

Jensen (1993) shows that internal control mechanisms headed by the board of directors is a critical part of corporate control. Apart from the two key roles discussed above, corporate secretaries also assist in improving the internal control of the firm. For example, corporate secretary facilitates the board members in their function by either training or guiding the directors on compliance and legal matters, or as legally obliged in China and India, undertake a disciplinarian role on the decisions

⁶ If the collusion hypothesis dominates, then we would expect to find the dissent opinion to be negatively correlated with the firm’s fraudulent behavior. This means that less dissent opinion is expressed in the board meetings due to insufficient information, and the outside directors fail to play their monitoring role. Our preliminary results however show that the dissent opinions of the outside directors are positively correlated with the fraudulent behavior of the firm, suggesting that outside directors play the role of whistle blower through their dissent opinions.

of the managers and directors. Additionally, in countries such as U.S., the corporate secretary sometimes serves as the Chief Legal Officer of the firm, which helps shaping the firm's corporate governance quality (Bird et al., 2015).

To empirically examine the impact of corporate secretary on the quality of internal control, we focus their impact on corporate fraud and lawsuit, both of which are largely induced by poor internal control (Persons, 2006; Beasley, 1996). Caplan (1999) shows that management frauds are more likely to appear in firms with weaker internal controls. Bell and Carcello (2000) has also documented a direct linkage between the quality of internal control and the incidence of accounting fraud. Aharony et al. (2015) and Liu (2016) argue that lawsuits are likely to be caused by directors' and executives' failure in identifying the potential legal risk and also due to ineffective internal control.

We argue that the longer tenured corporate secretary could better enhance the internal control qualities and reduce the incidence of fraud and lawsuit. This argument is largely motivated by the following rationales: First, as Hambrick and Mason (1984) shows, tenure is related to managerial performance. Longer tenure indicates that the corporate secretary has better knowledge and understanding of the firm-specific compliance and legal issues, thereby guiding and facilitating the board in proper decision making process. Second, management tenure generally appears to have a positive association with the level of risk aversion of the senior management (Clinard, 1983; Miller, 1991; Thomas et al., 1991; Wiersema and Bantel, 1992), and it is likely that corporate secretaries will be no exception. A lower tolerance for risk will cause them to be less averse to any activities that may lead managers to conduct fraud or expose the firm to legal risk. Third, longer tenured corporate secretary who has better understanding of the operations, business strategies, financial status, market competition, and management activities of the firm should have better ability in summarizing, filtering, interpreting and most importantly communicating the information to both internal and external board members in order to assist them in monitoring the management team, and steer the firm away from potential legal liabilities.

At last, literature documents that managerial tenure is positively associated with managers' bargaining power (Chava et al., 2010; Salas, 2010). It is expected that longer tenured corporate secretaries are not only more skilled, but also have greater power, resources and support to effectively oversee and facilitate the actions of the management and board. They are also better motivated to conduct their duties and reduce the incidence of corporate fraud or lawsuit to protect their personal reputation and career. Alternatively, a corporate secretary with long tenure may use the increased bargaining power to engage in self-benefiting entrenched activities. However, although CEO compensation in China is directly dependent on a firm's reported earnings (Firth et al., 2006), hence motivating them to undertake fraudulent activities to boost the firm earnings, this is not the case when it comes to the compensation of other executives in China (Huang and Zhang, 1998; Mengistae and Xu, 2004). In China, the primary role of the corporate secretary is that of a facilitator among board-members, executives, shareholders, and regulators and it is unlikely that they will directly

benefit from the fraudulent behaviour. Consistent with this, Xing et al. (2017) find that corporate secretaries who issue high-quality and less optimistically biased earnings forecast receive significantly higher compensation in China. Based on this discussion, we propose the following hypothesis:

H3: *Corporate secretary with longer tenure reduces the incidence of corporate fraud and lawsuit.*

3. Variable description and methodology

3.1. Variable description

In this study, we test our hypotheses using a sample of A-share Chinese firms listed on Shanghai and Shenzhen Stock Exchanges. Following Hou and Moore (2010) and Chen et al. (2006), the data is sourced from CCER, CSMAR, and Wind Info. These databases are popular sources for the firm-level accounting, financial, board and legal data for Chinese listed firms. Our sample period commences in 2004 and extends through 2012. To eliminate the influence of outliers, we winsorize the variables at both top and bottom one percent of their respective distribution. After matching all the available firm-level data, excluding the missing values, and addressing the lead-lag requirement of the model specification, we end up with 13,164 firm-year observations. Appendix A1 provides detailed definition for each variable used in our study.

Table 1 presents the descriptive statistics of the variables used in this study. Average tenure of the corporate secretary in our sample is 5.057 years, with 2 and 7 years at the first and third quartiles. The board size in our sample is relatively similar across firms with 9 to 10 members in the range of first and third quartiles, who on average (median) meet 8.878 (8.0) times annually. The median (third quartile) board independence of 0.333 (0.375) with a low standard deviation of 0.05 clearly implies that most Chinese firms only hire one in three outside directors on their board. This is primarily to meet the minimum requirement mandated by the regulators in China. Next, in our sample, most of the proposals presented in the board meetings are agreed upon by outside directors as their dissent behaviour appears only in 3.4% cases. On an average, 5.3% outside directors are absent in board meetings. There are about 10.6% and 8.1% of the firm-year observations in our sample that have experienced lawsuit and regulatory enforcement against corporate fraud respectively. We observe that 14.5% of the firm-years report actual fraudulent behaviour which is higher than the incidence of regulatory enforcement against fraud. This is due to the fact that some of the fraudulent behaviour exists for more than one year. There appears to be a significant firm-level variation in analyst coverage, with no analyst coverage during a fiscal year at 25th percentile and up to 9 analysts covering a firm at 75th percentile of the sample distribution. The variation in the number of mutual funds investing in the firm is also significant, with 1 mutual fund holding the firm in their portfolio at 25th percentile and 19 mutual funds holding the firm at the 75th percentile. Mean ownership concentration of the largest ten shareholders is 56.7%; suggesting that the ownership of Chinese firms is highly concentrated. About 14.9% of firm-year observations experienced corporate secretary turnover over

the sample period, suggesting a relatively high mobility of the corporate secretary position. Finally, 52.4% of the firm-years in this study are classified as SOEs *i.e.* have government as a controlling shareholder. This reflects an almost equal distribution between SOEs and Non-SOEs in our study. The corporate secretaries in China sometimes take other management positions in the firm. As reported in Table 1, the corporate secretary can simultaneously hold an additional dual position of a senior executive such as CEO or VP, or the CFO of the firm. In our sample of 13,164 firm-years, from 2004 to 2012, we find that the corporate secretary can undertake a dual role of CFO of the firm in 8.2% cases.

[Please insert Table 1 about here]

In Table 2, we report the correlation coefficients among different variables used in this study. The results show a significant negative correlation between the corporate secretary tenure and corporate fraud (-0.06), lawsuit (-0.06), outside director dissent (-0.04), and annual board meeting frequency (-0.09). These significant negative correlation coefficients are consistent with our three baseline hypotheses.

[Please insert Table 2 about here]

3.2. Methodology

To test our three hypotheses, we use the following models:

$$\begin{aligned} & \text{Board Meeting Frequency}_{j,t} \\ &= \alpha + \delta \ln(\text{Secretary Tenure})_{j,t} + \sum_{i=1}^n \beta_i \text{Control}_{j,t} + \varepsilon_{j,t} \end{aligned} \quad (1)$$

$$\begin{aligned} & \text{Dissent}_{j,t} = \alpha + \delta \ln(\text{Secretary Tenure})_{j,t} + \sum_{i=1}^n \beta_i \text{Control}_{j,t} \\ &+ \varepsilon_{j,t} \end{aligned} \quad (2)$$

$$\begin{aligned} & \text{Fraud_Lawsuit}_{j,t+1} \\ &= \alpha + \delta \ln(\text{Secretary Tenure})_{j,t} + \sum_{i=1}^n \beta_i \text{Control}_{j,t} \\ &+ \varepsilon_{j,t} \end{aligned} \quad (3)$$

The *Board Meeting Frequency* is the number of times corporate board meeting took place in a financial year t for firm j . *Dissent* is a dummy variable, which equals to 1 if there is at least one outside director issued different opinion towards the board proposal during the board meeting of firm j in year t , 0 otherwise. *Fraud_Lawsuit* is a dummy variable which equals to 1 if either the firm received a regulatory enforcement against fraud or a lawsuit was filed against the firm j in year t , 0 otherwise. On the right hand side of the equation, the key explanatory variable $\ln(\text{Secretary Tenure})$

represents the natural logarithm of the number of years the corporate secretary has served in the said position up to year t with firm j .

Our three basic models also incorporate an array of firm-level control variables which may have a significant influence on board processes. The first group of control variables capture the conventional firm-level financials and accounting parameters such as firms' growth opportunities (*BTMV*), size ($\ln(\text{Market Value})$), outstanding debt (*Leverage*), profitability (*Sales Growth*), and relative profitability (*Adjusted ROE*). We also control for the age of the firm ($\ln(\text{Firm Age})$). The second group of firm-level control variables represent governance indicators. At the board-level, we control for the total number of directors on the firms' board (*Board Size*), the proportion of outside directors on the firms' board (*Board Independence*), and *CEO Duality*. For Model 2 and Model 3, we also include the *Board Meeting Frequency* as the control variable. Besides, following Jiang et al. (2016), we add the outside director dissent behaviour (*Dissent*) as governance related control variable in Model 3. Finally, the third group of control variables represent market-related features, including trading liquidity of the firm (*Equity Turnover*) and a dummy variable indicating whether the firm is audited by one of the big four accounting firms (*Big4 Auditor*). The number of analysts covering a firm in a financial year (*Analyst Coverage*) is also included in the third group in Model 3 to account for the impact of analyst coverage as the outside monitor. Furthermore, since there is a potential lag between the actual incidence of fraud and the regulatory enforcement against the fraud, following Hou and Moore (2010) we use a 1-year lead for the dependent variable (*Fraud_Lawsuit*) in Model 3 in order to address the potential endogeneity concerns.

4. Empirical evidence for the three main hypotheses

4.1. Full sample results

The results about the impact of corporate secretary tenure on the board meeting frequency, outside director dissent opinion and the incidence of corporate fraud and lawsuit are reported in Table 3. Columns 1 and 2 report that the coefficients of $\ln(\text{Secretary Tenure})$ are significantly negative at 1% level, both with ($t\text{-stat.}=-7.87$) or without ($t\text{-stat.}=-8.10$) the control variables. These basic results are consistent with our hypothesis **H1**, i.e. the board meeting frequency is negatively associated with the corporate secretary tenure.

In columns 3 and 4 of Table 3, we can see that consistent with **H2**, the coefficients for $\ln(\text{Secretary Tenure})$ are significantly negative at 1% level with ($t\text{-stat.}=-3.32$) or without ($t\text{-stat.}=-4.24$) the control variables, indicating that tenure of the corporate secretary is negatively associated with the incidence of outside director dissent during the board meeting. This supports our conjecture that longer tenured secretary can play a better role of boundary spanner to promote a more effective communication and pre-meeting negotiations between the executives and outside directors. This is likely to motivate executives to propose a low risk project with an approach for shareholder

wealth maximization, resulting in outside directors to raise less dissent opinions during the board meeting.

Lastly, the results for the impact of corporate secretary tenure on the incidence of corporate fraud and lawsuit are shown in columns 5 and 6 of Table 3. The coefficients for $Ln(\text{Secretary Tenure})$ are significantly negative at 1 percent level for both without ($t\text{-stat.}=-6.87$) and with ($t\text{-stat.}=-5.15$) control variables respectively. This is consistent with our hypothesis **H3** that longer tenured corporate secretaries are more likely to induce a better quality of internal control and result in lower incidence of fraud and lawsuit. These findings are also consistent with the risk-averse notion of Clinard (1983) and Miller (1991), which suggests that the tenured corporate secretary is less likely to comply with the risky activities of the executives.

[Please insert Table 3 about here]

4.2. Results in SOE and non-SOE subsamples

In vein with Allen et al (2005), there may be significant difference between state-owned enterprises (SOEs) and private sector listed firms (Non-SOEs), the governance in SOEs is always seen as less efficient (Cornett et al., 2009). For example, the governance structure of Chinese SOEs needs to ensure that the Chinese Communist Party organization has significant influence on their decisions (Wang, 2014), which makes the decision making process more complicated. In addition, the motivation of management team in SOEs may differ from those in Non-SOEs. Many executives in SOEs have political positions (Jiang and Kim, 2015), and they may eventually return to the government as officers after their tenure with the firm (Firth et al., 2006; Conyon and He, 2011). In this case, these politically connected executives may be more incentivised by political promotion rather than financial compensation. For them, the financial performance of the firm is sometimes less important than production targets (White, 2000), and their decisions may put other social objectives ahead of the shareholder wealth (Fan et al., 2007). Finally, the regulatory environment for SOEs is also different from Non-SOEs. Hou and Moore (2010) shows that, possibly due to the mutual affiliation of the SOEs and the regulatory commission, the probability of the listed SOEs receiving regulatory enforcement against fraud decreases as the proportion of state holding increases.

Motivated by the potential difference between SOEs and Non-SOEs, we investigate whether the impact of corporate secretary tenure differs in SOEs versus in Non-SOEs. To start with, we rerun the regressions specified in Table 3 with SOE and Non-SOE subsamples respectively and report the results in Table 4. We then conduct the Chow tests for our three models, and find that the set of coefficients for each model are significantly different between SOEs and non-SOEs suggesting that the governance environments are indeed different in these two subsamples. However, this does not necessarily imply that the impact of corporate secretary tenure may differ. In Table 4, we report the Chi^2 statistics and relevant P-values that indicate whether the coefficients on $Ln(\text{Secretary Tenure})$ are significantly different between SOEs and Non-SOEs. We can see that the impact of secretary tenure

on *Board Meeting Frequency* and *Fraud_Lawsuit* are both significant in two subsamples and there is no significant difference between SOEs and Non-SOEs. This suggests that the corporate secretaries' impact in increasing board meeting efficiency and quality of internal control are quite pervasive irrespective of the ownership structure of the firm. These results provide strong supports to our hypotheses 1 and 3.

However, for the *Outside Director Dissent*, we can see that the coefficient on the secretary tenure is not significant in SOEs, and the difference of that between SOEs and Non-SOEs is significantly different from zero. The dissent behaviour of outside directors in the board meetings is an indicator of the poor quality of pre-meeting negotiation, and the ineffectiveness of the corporate secretary in facilitating this negotiation process in SOEs may be due to following reasons: first, SOEs are likely to put greater emphasis on other social objectives in addition to the shareholder wealth, and the outsider directors may propose dissent opinions when they believe the proposals are not in the best interest of the shareholders. Second, as we have discussed, many of the executives in SOEs also hold positions in government, and they may be seeking political promotion rather than the recognition from the market (Jiang and Kim, 2015). Their willingness and incentives to communicate and take advice from outside directors is less than those executives in the non-SOEs. Third, some SOEs are highly hierarchy oriented communities. However long their tenure is, corporate secretaries in these firms may have far less bargaining power while dealing with the executives with government background. Consequently, their ability to conduct good boundary spanning role suffers.

[Please insert Table 4 about here]

5. Endogeneity concerns

In prior analysis, although we use a 1-year lead for *Fraud_Lawsuit* as the dependent variable to address the potential endogeneity issues in our sample, we still cannot ignore the fact that the corporate secretary is an insider who is likely to know and resign (hence influence tenure) before the ongoing corporate fraud is revealed by the regulators. To further address the endogeneity problem, we adopt three approaches: the propensity score matching (PSM), the instrumental variable (IV) regression analysis, as well as using additional control variables to check the robustness of our initial findings.

5.1. Propensity score matching (PSM) method

We conduct the PSM on the three models that examine our main hypotheses. Existing literature recommends the PSM approach as a superior econometric method which could provide more accurate and effective matching results (Rosenbaum and Rubin, 1983; Conniffe et al., 2000; Drucker and Puri, 2005). To implement the matching process, for each of the dependent variable in Table 3, we first distinguish the sample into treated and control subsamples and then calculate the propensity score

with the independent variables (except corporate secretary tenure) as the matching criteria.⁷ After the matching process, we obtain 4,750, 892 and 4,522 observations for models predicting board meeting frequency, dissent opinion and fraud and lawsuit respectively.⁸ We then re-run the regression on the propensity score matched samples. Results in Table 5 show that, in the propensity score matched samples, the coefficients of corporate secretary tenure remain theoretically and statistically significant in line with those in Table 3.

[Please insert Table 5 about here]

5.2. Instrument variable analysis

In addition to the PSM analysis, we also employ the instrument variable (IV) analysis which is widely used by research in accounting and finance area (Weber and Willenborg, 2003; Whisenant et al., 2003) to address the endogeneity concern. In this study, following previous studies (e.g., Laeven and Levine, 2007; Leary and Roberts, 2014; Xia, 2014), we use the average corporate secretary tenure for the industry in which a particular firm belongs as the value of the instrument variable for the firm.⁹ The rationale behind this approach is the fact that the industrial average length of corporate secretary tenure reflects the industry-specific job market environment for corporate secretaries. According to the theory of work adjustment, suitability of an individual to the organization will decide their working tenure (Bertz and Judge, 1994). The job market for Chinese corporate secretaries is not professionalized and corporate secretaries are usually someone promoted within the firm and someone who are familiar with the firm or the industry in which the firm operates. During our sample period between 2004 and 2012, only a small proportion of the Chinese corporate secretaries acted as professional corporate secretaries who change jobs across industries. In this case, the industry average corporate secretary tenure strongly reflects the working environment, supply of corporate secretary human capital and the level of competition within the industry.¹⁰ Furthermore, the industry average of corporate secretary tenure should have little relation with our dependent variables such as the particular firm's board meeting frequency, outside director dissent or fraud or lawsuit. Even if there

⁷ For the variable *Dissent* and *Fraud_Lawsuit*, we take observations with value equals to 1 as the master sample and observations with value equals to 0 as the control sample. For the variable *Board Meeting Frequency*, since it is a categorical variable, we take observations with meeting frequency greater than or equal to 12 as the master sample (i.e., 17.70% of the observations). Following Shipman et al. (2017), to maximize the treatment effect, we drop observations with number of meeting frequency between 8 and 12, and use observations with number of meeting frequency lower than or equal to 8 (i.e., 52.06% of the observations) as the control sample for matching. We also tried different cutoff points of meeting frequency (e.g., greater than or equal to 14 as the master sample and less than or equal to 6 as the control sample), our results hold.

⁸ We perform a one-to-one match to find the observations with nearest score in the matching sample to the master sample.

⁹ In line with Leary and Roberts (2014), we calculate the industry average corporate secretary tenure for a firm in a year by excluding the firm's own value of corporate secretary tenure in the year itself to remove the potential endogenous relationship between the mean industry tenure and the tenure of the specific firm-year observation.

¹⁰ In the meantime, since we dropped the specific firm-year corporate secretary tenure when calculating the industry average, our instrument is exogenous from the specific firm.

might exist a slight pattern in terms of these second stage dependent variables across industries which may cause a small proportion of the industry average corporate secretary tenure to be endogenous, the impact of this possibility is eliminated through our industry dummies included in both the first stage and second stage regressions.¹¹ The results for the two stage regressions are shown in Table 6. It could be found that all the coefficients of corporate secretary tenure remain significant after control for potential endogenous issue, which further support our main results.

[Please insert Table 6 about here]

5.3. Robustness checks with additional firm-specific variables

In this section, we include a wider range of explanatory variables in our analysis in order to reduce the potential problem of omitted variables as well as to consider some unique features of the Chinese firms. For example, in SOEs, many senior executives such as CEO or CFO had prior experience of working in the government. As we have discussed, this may influence both the effectiveness of the corporate secretaries and the governance quality of the relevant firms. We include two dummy variables, namely *CEO Political Connection* and *CFO Political Connection*, to reduce the impacts of this feature. In addition, in our sample, corporate secretaries also act as CFOs in *circa* 8 percent of firm-year observations. This apparently gives them greater power in influencing the quality of the information disclosure which may have implications on the firm's governance quality as well as the boundary spanning role of the corporate secretaries. We therefore control the dual role of the corporate secretary with *Duality CFO* which equals to one if the corporate secretary is also the CFO of the firm, and zero otherwise. Furthermore, we include two dummy variables to capture whether a SOE is a central SOE or a local SOE, and *Cash Flow Volatility* to capture the business risk of the firm. We also add a variable that measures the corporate secretary's salary to control any potential impacts it may have on governance quality. At last, descriptive statistics in Table 1 shows that most of the Chinese firms have 33.33% of the outside directors, resulting in negligible variation with our *Board Independence* variable.¹² To better capture a firm's initiative in bringing more outside directors than required by the regulatory requirements, we replace *Board Independence* with a variable (*i.e. Independence Dummy*) which equals to one if the board independence ratio is greater than 33.33%, and zero otherwise.

In Table 7, we report the results for regressions with the aforementioned firm-specific variables. Due to the limitation of data, this renders us with more than 50% reduction in the number of

¹¹ In the instrument analysis, all the control variables in the second stage regression have been added into the first stage analysis. Moreover, as the tenure of corporate secretary is an ordinary variable which suffers from potential autoregressive issues, following Beck and Katz (1995) we add the lagged value of *Ln(Corporate Secretary Tenure)* to the first step regression to eliminate this problem.

¹² Since 2001, the CSRC (*i.e.*, China Securities Regulatory Commission) requires that the Chinese listed firms have at least one third of the board members to be outside directors.

observations. Despite this, we can see that the coefficients on *Ln(Secretary Tenure)* are all significantly negative. These are consistent with the results for the full sample reported in Table 3.

[Please insert Table 7 about here]

6. Further analysis

6.1. Alternative measure of board meeting efficiency and boundary spanning to outsider directors

While testing our main hypotheses, we find that the corporate secretary tenure has significant impact in reducing the *Board Meeting Frequency* and *Dissent*. This supports our argument that tenured secretary are more proficient in organizing effective board meetings and playing the boundary spanning role. However, one may argue that the higher board meeting frequency not only reflect an effective board process, but also the fact that board members are more actively conducting their jobs (Vafeas, 1999), or the fact that corporate secretaries are diligently doing their jobs. In addition, the dissent behaviour of outside directors is not the only consequence of the inefficient pre-meeting negotiation and information delivery to outside directors. To provide further evidence to support *H2* and *H3*, we use a third variable - the outside directors' board meeting absent behaviour defined as the total number of outside directors absent from the board meeting divided by the total number of meetings the outside directors are required to attend, to test corporate secretary's impact in improving board processes and pre-meeting negotiation.¹³

We argue that the absence of outside directors from the board meetings could also reflect the capabilities of corporate secretary on conducting their role for board process management as well as boundary spanning to outside directors. Adams and Ferreira (2008) suggests that the major task for the outside directors is to attend the board meetings, their choice to be absent from the board meetings is less likely to be discretionary. Rather the absence may be caused by reasons such as scheduling conflict or disagreement with the proposals to be discussed in the board meetings. The former may occur if board meetings are not well scheduled, or when the meeting materials are not timely dispatched to board members which leave the outside directors insufficient time to prepare for the meeting. The disagreements on the board meeting proposals may happen when there is inadequate and ineffective pre-meeting negotiation/communication between the outside directors and the management team. Although the absence behaviour may potentially harm the outside directors' reputation, it may be a better strategy for them to avoid agreeing to potentially risky proposals that they have not fully evaluated, or even publically contradicting with the executive decision and offend the CEOs.

The results which are reported in columns 1 and 2 of Table 8 show that the corporate secretary's tenure within the firm is negatively associated with the outside director absence ratio either with or

¹³ We consider representative's attendance in lieu of the outside director as an absence behavior since it also represents the ineffectiveness of meeting organization and information transmission. Such representative attendance could have adverse effect on governance outcome (Chou et al, 2013).

without the control variables. The results support the notion that longer tenured corporate secretaries improve the board process and the information flow and communication between the outside directors and the management team.

[Please insert Table 8 about here]

6.2. Corporate secretary's tenure and the quality of boundary spanning to external monitors

Next, to further test the influence of corporate secretary tenure on their boundary spanning function, we take the advantage of our Chinese setting where corporate secretaries (rather than the CEO or CFO) are contractually and legally obligated to take an additional responsibility of the head of firm's investor relations. This regularity requirement allows us to empirically examine whether the corporate secretary tenure is influential in their boundary spanning function to parties such as the security analysts and institutional investors. For instance, we can investigate whether the corporate secretary can increase a firm's analyst coverage and the number of institutional investors investing in the firm.

The literature has documented the security analysts as an important intermediary between the firm and market in reducing the information asymmetry and increasing the market-wide scrutiny of the firm as well as the governance outcome (Yu, 2008; Sun, 2009; Armstrong et al., 2015). Institutional investors such as mutual funds, due to their accessibility of superior information and exit threat, are considered as better monitors compared to retail investors (Chiang et al., 2010; Tong et al., 2013). They also limit managerial expropriation. Therefore, the potential relationship of corporate secretary with respect to analyst coverage and number of institutional investors may not only reflect the quality of their boundary spanning role, but also support the notion that tenured corporate secretary, through their impact on analyst coverage and institutional investors, could exert an external governance pressure on the management team.

From columns 3 to 6 of Table 8, we can see that the corporate secretary's tenure with the firm is positively associated with both the number of analysts covering the firm and the number of mutual funds holding the firm in their portfolio. Overall, these results support the notion that tenured corporate secretary could play a better boundary spanning role, even to analysts and investors. Moreover, to the extent that the analysts and institutional investors act as an effective monitor, this result also supports the notion that tenured corporate secretary could further enhance the external governance outcomes.

6.3. Alternative measures of internal control on governance outcomes

In this last sub-section, we investigate the influence of corporate secretary tenure on several alternative measures of firm-level internal control quality. Firstly, we split the *Fraud_Lawsuit* variable used in Table 3 into two components *Fraud* and *Lawsuit*, and use both of them as dependent variable separately. Secondly, since the variable *Fraud* actually corresponds to the time when the fraudulent behaviour is identified by the regulators, we also test the relation between the variable

Fraud Happen, which is based on the actual time of fraudulent behaviour, with the corporate secretary tenure. Thirdly, to observe the governance outcome from market's perspective, we use the variable *Modified Auditor Opinion (MAO)* which captures the change in auditor's opinion towards the firm as an alternative measure of internal control quality. Fourthly, we also examined whether tenured corporate secretary could enhance CEO pay-performance relationship, which from another aspect reflects the efficiency of the internal control outcomes. In such analysis, the dependent variable *CEO Pay* is the annual total salary of the CEO in the current fiscal year. We include an interaction term between the corporate secretary tenure and firm performance in the regression, and examine whether the coefficient for the interaction term is significant and positive.¹⁴

The empirical results based on the above models are shown in Table 9. It could be found from columns 1 to 4 that corporate secretary tenure is negatively related to *Fraud*, *Lawsuit*, *Fraud Happen* as well as *MAO*, either with or without the control variables. These results further support our conclusion that tenured corporate secretary could help enhance the internal control outcome of the firm. In column 5, the interaction term between corporate secretary tenure and *ROA* is positively correlated with the *CEO Pay*, suggesting that the tenured corporate secretary could further strengthen the pay-performance sensitivity of the firm, which reflects better internal control quality.

[Please insert Table 9 about here]

7. Conclusion

This paper empirically examines the impact of corporate secretary's tenure on corporate governance quality of the A-share listed firms in the Chinese stock market. The results show that corporate secretary's tenure is negatively associated with the board meeting frequency, outside director in-meeting dissent behaviour, as well as the propensity of fraud and lawsuits. These results support the theoretical foundation laid by McNulty and Stewart (2015), which shows that the corporate secretary can have a significant influence on internal governance quality of the firm. Our main findings are robust to potential endogeneity issues. We also test the impact of tenure on outside director's absence from the board meeting, analyst coverage and number of mutual fund, as well as an array of different internal quality control measures. All results are consistent with our main findings.

These findings are critically important for academics, regulators, policy-makers and practitioners (both institutional and individual investors) alike who have varied vested interests in firm-level internal control and board efficiency. Overall, we try to partially address the growing concern of how to improve the governance outcome in the wake of enhanced public, media, and regulatory scrutiny of the boardroom working.

¹⁴ To makes the interaction term easier to interpret, following Cadman (2010) we use non-industry-adjusted ROA as a proxy for the performance measure.

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Table 1: Descriptive statistics

This table reports the descriptive statistics of variables for our Chinese A-share listed firms used in this study from 2004 to 2012. We report the number of observations, mean, standard deviation, median, and first and third quartile values of all the main variables used in this study. Detailed definitions of all the variables are reported in Appendix A1.

| Variable | N | Mean | Std Dev. | P25 | Median | P75 |
|---------------------------|--------|--------|----------|--------|--------|--------|
| Secretary Tenure | 13,164 | 5.057 | 3.388 | 2.000 | 4.000 | 7.000 |
| Board Size | 13,164 | 9.271 | 1.975 | 9.000 | 9.000 | 10.000 |
| Board Meeting Frequency | 13,164 | 8.878 | 3.366 | 7.000 | 8.000 | 11.000 |
| Board Independence | 13,164 | 0.361 | 0.052 | 0.333 | 0.333 | 0.375 |
| Dissent | 13,164 | 0.034 | 0.181 | 0.000 | 0.000 | 0.000 |
| Absence | 13,164 | 0.053 | 0.076 | 0.000 | 0.028 | 0.083 |
| Fraud | 13,164 | 0.081 | 0.272 | 0.000 | 0.000 | 0.000 |
| Lawsuit | 13,164 | 0.106 | 0.308 | 0.000 | 0.000 | 0.000 |
| Fraud Happen | 13,164 | 0.145 | 0.352 | 0.000 | 0.000 | 0.000 |
| Modified Auditor Opinion | 13,164 | 0.022 | 0.147 | 0.000 | 0.000 | 0.000 |
| Analyst Coverage | 13,164 | 6.076 | 8.647 | 0.000 | 2.000 | 9.000 |
| No. of Mutual Funds | 13,164 | 16.904 | 29.060 | 1.000 | 4.000 | 19.000 |
| Secretary Turnover | 13,164 | 0.149 | 0.356 | 0.000 | 0.000 | 0.000 |
| CEO Duality | 13,164 | 0.156 | 0.363 | 0.000 | 0.000 | 0.000 |
| Ownership Concentration | 13,164 | 0.567 | 0.158 | 0.457 | 0.578 | 0.683 |
| BTMV | 13,164 | 0.449 | 0.290 | 0.231 | 0.392 | 0.608 |
| Ln(Market Value) | 13,164 | 22.152 | 1.279 | 21.301 | 21.972 | 22.762 |
| Leverage | 13,164 | 0.615 | 7.818 | 0.340 | 0.504 | 0.646 |
| Sales Growth | 13,164 | 0.226 | 0.571 | -0.011 | 0.143 | 0.323 |
| Adjusted ROE | 13,164 | 0.000 | 0.178 | -0.038 | 0.008 | 0.065 |
| Equity Turnover | 13,164 | 3.569 | 2.826 | 1.550 | 2.864 | 4.826 |
| Firm Age | 13,164 | 13.264 | 4.711 | 10.000 | 13.000 | 16.000 |
| Big4 Auditor | 13,164 | 0.070 | 0.256 | 0.000 | 0.000 | 0.000 |
| SOE | 13,164 | 0.524 | 0.499 | 1.000 | 1.000 | 0.000 |
| Duality CFO | 13,164 | 0.082 | 0.275 | 0.000 | 0.000 | 0.000 |
| Independence Dummy | 6,307 | 0.983 | 0.130 | 1.000 | 1.000 | 1.000 |
| Central SOE | 6,307 | 0.180 | 0.384 | 0.000 | 0.000 | 0.000 |
| Local SOE | 6,307 | 0.363 | 0.481 | 0.000 | 0.000 | 1.000 |
| CEO Political Connection | 6,307 | 0.182 | 0.393 | 0.000 | 0.000 | 0.000 |
| CFO Political Connection | 6,307 | 0.065 | 0.250 | 0.000 | 0.000 | 0.000 |
| Adjusted Secretary Salary | 6,307 | 5.655 | 22.945 | -8.610 | 0.000 | 13.305 |
| Cash Flow Volatility | 6,307 | 3.180 | 8.028 | 0.455 | 0.982 | 2.407 |

Table 2: Pairwise correlation matrix

This table reports the pairwise correlation matrix for main variables from 2004 to 2012. Detailed definitions of all variables are reported in Appendix A1. * indicates significance at 1% level.

| | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] | [17] | [18] | [19] | [20] | [21] | [22] | [23] |
|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|--------|-------|--------|--------|------|
| [1]Fraud | 1.00 | | | | | | | | | | | | | | | | | | | | | | |
| [2]Lawsuit | 0.06* | 1.00 | | | | | | | | | | | | | | | | | | | | | |
| [3]Fraud Happen | 0.44* | 0.05* | 1.00 | | | | | | | | | | | | | | | | | | | | |
| [4]Modified Auditor Opinion | 0.11* | 0.21* | 0.13* | 1.00 | | | | | | | | | | | | | | | | | | | |
| [5]Dissent | 0.04* | 0.09* | 0.05* | 0.09* | 1.00 | | | | | | | | | | | | | | | | | | |
| [6]Absence | -0.01 | 0.12* | -0.01 | 0.10* | 0.09* | 1.00 | | | | | | | | | | | | | | | | | |
| [7]Ln(Secretary Tenure) | -0.06* | -0.06* | -0.05* | -0.04* | -0.04* | -0.02 | 1.00 | | | | | | | | | | | | | | | | |
| [8]Board Independence | 0.02 | -0.04* | 0.00 | -0.01 | -0.02* | -0.10* | -0.05* | 1.00 | | | | | | | | | | | | | | | |
| [9]Board Meeting Frequency | 0.06* | 0.01 | 0.05* | 0.00 | 0.02* | -0.11* | -0.09* | 0.06* | 1.00 | | | | | | | | | | | | | | |
| [10]Board Size | -0.06* | -0.01 | -0.04* | -0.03* | 0.01 | 0.16* | 0.04* | -0.29* | -0.03* | 1.00 | | | | | | | | | | | | | |
| [11]CEO Duality | 0.05* | -0.01 | 0.07* | 0.01 | 0.00 | -0.07* | -0.04* | 0.08* | -0.00 | -0.14* | 1.00 | | | | | | | | | | | | |
| [12]Ownership Concentration | -0.04* | -0.05* | -0.08* | -0.05* | 0.00 | 0.03* | -0.10* | 0.00 | -0.02 | 0.08* | -0.05* | 1.00 | | | | | | | | | | | |
| [13]BTMV | -0.07* | -0.05* | -0.07* | -0.08* | -0.05* | 0.03* | 0.04* | -0.03* | -0.02 | 0.13* | -0.07* | 0.02 | 1.00 | | | | | | | | | | |
| [14]Ln(Market Value) | -0.07* | -0.16* | -0.09* | -0.11* | -0.05* | -0.05* | 0.09* | 0.07* | 0.20* | 0.33* | 0.20* | 0.14* | 0.10* | 1.00 | | | | | | | | | |
| [15]Leverage | 0.00 | 0.04* | 0.00 | 0.08* | 0.00 | 0.03* | -0.02 | 0.00 | 0.00 | 0.00 | -0.01 | -0.02 | -0.03* | -0.02 | 1.00 | | | | | | | | |
| [16]Sales Growth | 0.00 | -0.02 | -0.03* | -0.08* | 0.00 | 0.02 | -0.05* | 0.01 | 0.06* | 0.00 | 0.00 | 0.12* | -0.07* | 0.08* | -0.02 | 1.00 | | | | | | | |
| [17]Adjusted ROE | -0.01 | -0.11* | 0.00 | -0.10* | -0.03* | -0.05* | 0.01 | 0.02 | 0.03* | 0.02 | 0.05* | 0.03* | -0.03* | 0.11* | -0.08* | 0.06* | 1.00 | | | | | | |
| [18]Equity Turnover | 0.05* | -0.06* | 0.10* | 0.01 | -0.03* | -0.11* | 0.04* | 0.04* | 0.06* | -0.14* | 0.14* | -0.51* | -0.17* | -0.13* | 0.00 | -0.10* | 0.03* | 1.00 | | | | | |
| [19]Ln(Firm Age) | 0.05* | 0.01 | 0.06* | 0.01 | -0.04* | -0.13* | 0.06* | 0.05* | 0.14* | -0.06* | 0.12* | -0.33* | -0.11* | 0.13* | 0.02 | -0.02 | 0.01 | 0.16* | 1.00 | | | | |
| [20]Big4 Auditor | -0.05* | -0.04* | -0.07* | -0.02* | -0.02 | 0.03* | 0.02 | 0.02 | 0.05* | 0.20* | 0.03* | 0.17* | 0.09* | 0.39* | 0.00 | -0.01 | 0.03* | -0.15* | -0.03* | 1.00 | | | |
| [21]Analyst Coverage | -0.04* | -0.15* | -0.07* | -0.10* | -0.08* | -0.10* | 0.05* | 0.05* | 0.12* | 0.20* | 0.14* | 0.25* | -0.06* | 0.61* | -0.01 | 0.05* | 0.11* | -0.17* | 0.03* | 0.23* | 1.00 | | |
| [22]No. of Mutual Funds | -0.06* | -0.11* | -0.08* | -0.08* | -0.05* | -0.04* | 0.07* | 0.06* | 0.12* | 0.23* | 0.12* | 0.17* | -0.06* | 0.71* | -0.01 | 0.05* | 0.09* | -0.23* | 0.05* | 0.28* | 0.77* | 1.00 | |
| [23]Secretary Turnover | 0.03* | 0.04* | 0.04* | 0.03* | 0.03* | 0.02 | -0.70* | 0.03* | 0.10* | -0.03* | 0.01 | 0.00 | -0.02 | -0.03* | 0.02* | 0.05* | 0.00 | 0.01 | 0.01 | -0.02 | -0.04* | -0.04* | 1.00 |

Table 3: Effect of corporate secretary tenure on governance quality

This table reports the regression results for the effect of corporate secretary's work tenure on a firm's *Board Meeting Frequency*, *Outside Director Dissent* and *Fraud_Lawsuit* for Chinese A-share listed firms from 2004 to 2012. Columns 1 and 2 use the firm fixed-effect method, columns 3, 4, 5, and 6 use probit regression method. R^2 and Wald χ^2/F -value values across all the regression models are reported. Values in parenthesis below each coefficient are their respective robust t-statistics, clustered at firm-level. To reduce endogeneity problem, all independent variables in columns 5 and 6 are lagged by one year. In addition, the variable *Dissent* used in column 6 is a predicted value from column 4. Detailed definitions of all variables are reported in Appendix A1. ***, **, * indicates significance at 1%, 5%, and 10% level respectively.

| | <u>Board Meeting Frequency</u> | | <u>Outside Director Dissent</u> | | <u>Fraud Lawsuit</u> | |
|-----------------------|--------------------------------|----------------------|---------------------------------|----------------------|----------------------|----------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Ln(Secretary Tenure) | -0.365*** (-8.10) | -0.351*** (-7.84) | -0.139*** (-4.24) | -0.109*** (-3.31) | -0.134*** (-6.87) | -0.076*** (-3.69) |
| Board Independence | | -0.086 (-0.10) | | -0.156 (-0.29) | | -0.071 (-0.22) |
| Board Size | | -0.023 (-0.75) | | 0.011 (0.77) | | 0.008 (0.89) |
| CEO Duality | | 0.071 (1.37) | | -0.023 (-0.60) | | -0.088*** (-3.70) |
| Ownership | | 0.833* (1.69) | | -0.085 (-0.37) | | -0.464*** (-3.60) |
| BTMV | | -0.293* (-1.82) | | -0.221* (-1.83) | | -0.607*** (-7.49) |
| Ln(Market Value) | | 0.720*** (8.03) | | -0.082** (-2.52) | | -0.040* (-1.91) |
| Leverage | | 0.002*** (3.37) | | -0.002** (-2.34) | | 0.019 (1.51) |
| Sales Growth | | 0.019 (0.42) | | -0.053 (-1.10) | | -0.027 (-1.03) |
| Adjusted ROE | | -0.012 (-0.48) | | -0.018 (-1.01) | | -0.037*** (-2.82) |
| Equity Turnover | | -0.022* (-1.71) | | -0.029* (-1.89) | | 0.010 (1.50) |
| Ln(Firm Age) | | -0.104 (-0.23) | | -0.002 (-0.03) | | 0.153*** (2.90) |
| Big4 Auditor | | -0.053 (-0.35) | | -0.176 (-1.45) | | -0.107 (-1.33) |
| Board Meeting | | | | 0.028*** (3.40) | | 0.024*** (4.45) |
| Dissent | | | | | | 4.087*** (3.85) |
| Analyst Coverage | | | | | | -0.015*** (-5.80) |
| Constant | 10.330*** (119.22) | -6.743*** (-3.09) | -2.101*** (-16.94) | -0.399 (-0.50) | -0.486*** (-6.43) | 0.269 (0.56) |
| Industry Fixed Effect | No | No | Yes | Yes | Yes | Yes |
| Year Fixed Effect | Yes | Yes | Yes | Yes | Yes | Yes |
| No. of Observations | 13,164 | 13,164 | 13,164 | 13,164 | 13,164 | 13,164 |
| R^2 | 0.132 | 0.145 | 0.174 | 0.185 | 0.029 | 0.077 |
| χ^2/F -Value | 139.01*** | 67.01*** | 513.39*** | 589.02*** | 356.70*** | 656.24*** |

Table 4: Effect of corporate secretary tenure on governance quality by ownership type

This table reports the regression results for the effect of corporate secretary's work tenure on a firm's *Board Meeting Frequency*, *Outside Director Dissent* and *Fraud_Lawsuit* for Chinese A-share listed SOE and non-SOE firms from 2004 to 2012. Columns 1 and 2 use the firm fixed-effect method, columns 3, 4, 5, and 6 use probit regression method. R^2 and Wald χ^2 /F-value across all the regression models are reported. Values in parenthesis below each coefficient are their respective robust t-statistics, clustered at firm-level. To reduce endogeneity problem, all independent variables in columns 5 and 6 are lagged by one year. In addition, the variable *Dissent* used in column 6 is a predicted value from column 4. The row *Coefficients Difference in Ln(Secretary Tenure)* reflect the χ^2 and p-value of the coefficient differences of *Ln(Secretary Tenure)* by seemingly unrelated test. Detailed definitions of all variables are reported in Appendix A1. ***, **, * indicates significance at 1%, 5%, and 10% level respectively.

| | <u>Board Meeting Frequency</u> | | <u>Outside Director Dissent</u> | | <u>Fraud Lawsuit</u> | |
|-------------------------|--------------------------------|----------------------|---------------------------------|---------------------|----------------------|----------------------|
| | Non-SOEs | SOEs | Non-SOEs | SOEs | Non-SOEs | SOEs |
| Ln(Secretary Tenure) | -0.411*** (-5.56) | -0.312*** (-5.59) | -0.196*** (-3.91) | -0.035 (-0.79) | -0.073** (-2.47) | -0.075** (-2.57) |
| Board Independence | 0.463 (0.36) | -0.358 (-0.33) | -0.292 (-0.37) | 0.131 (0.18) | -0.062 (-0.14) | -0.147 (-0.30) |
| Board Size | -0.036 (-0.71) | -0.011 (-0.27) | 0.043* (1.86) | -0.009 (-0.47) | 0.024* (1.82) | -0.001 (-0.07) |
| CEO Duality | 0.185** (2.30) | -0.012 (-0.18) | -0.032 (-0.57) | -0.015 (-0.29) | -0.084*** (-2.60) | -0.075** (-2.12) |
| Ownership | 1.068 (1.47) | 0.578 (0.86) | -0.140 (-0.42) | -0.065 (-0.20) | -0.569*** (-3.28) | -0.316 (-1.60) |
| BTMV | -0.206 (-0.82) | -0.339 (-1.61) | -0.243 (-1.39) | -0.167 (-1.00) | -0.829*** (-7.12) | -0.420*** (-3.78) |
| Ln(Market Value) | 0.851*** (6.10) | 0.591*** (4.99) | -0.145*** (-2.90) | -0.032 (-0.73) | -0.059* (-1.93) | -0.000 (-0.01) |
| Leverage | 0.002*** (3.45) | -0.010 (-1.03) | -0.008 (-0.37) | 0.014 (1.58) | 0.012 (1.10) | 0.071 (1.43) |
| Sales Growth | -0.006 (-0.10) | 0.053 (0.78) | -0.095 (-1.52) | -0.012 (-0.16) | -0.012 (-0.35) | -0.047 (-1.14) |
| Adjusted ROE | -0.034 (-0.90) | 0.002 (0.05) | -0.036 (-1.49) | 0.000 (0.02) | -0.057*** (-3.08) | -0.013 (-0.67) |
| Equity Turnover | -0.021 (-1.18) | -0.021 (-1.20) | -0.051** (-2.24) | -0.009 (-0.44) | 0.012 (1.32) | 0.010 (1.02) |
| Ln(Firm Age) | 0.054 (0.07) | -0.073 (-0.13) | 0.066 (0.52) | -0.078 (-0.72) | 0.040 (0.54) | 0.238*** (3.12) |
| Big4 Auditor | 0.147 (0.57) | -0.174 (-0.98) | 0.071 (0.38) | -0.350** (-2.31) | 0.059 (0.54) | -0.272** (-2.46) |
| Board Meeting | | | 0.032*** (2.74) | 0.023** (2.00) | 0.021*** (2.80) | 0.027*** (3.48) |
| Analyst Coverage | | | | | -0.013*** (-3.47) | -0.021*** (-5.24) |
| Dissent | | | | | 3.610** (2.38) | 3.813** (2.39) |
| Constant | -10.644*** (-3.41) | -4.992* (-1.91) | 0.616 (0.50) | -1.238 (-1.12) | 1.019 (1.51) | -0.978 (-1.31) |
| Industry Fixed Effect | No | No | Yes | Yes | Yes | Yes |
| Year Fixed Effect | Yes | Yes | Yes | Yes | Yes | Yes |
| No. of Observations | 6,266 | 6,898 | 6,266 | 6,898 | 6,266 | 6,898 |
| R^2 | 0.147 | 0.147 | 0.216 | 0.173 | 0.066 | 0.089 |
| χ^2 /F-Value | 28.805*** | 42.358*** | 346.928*** | 322.691*** | 283.86*** | 413.26*** |
| Coefficients difference | $\chi^2=1.24$ | | $\chi^2=5.85$ | | $\chi^2=0.00$ | |

Table 5: Effect of corporate secretary tenure using Propensity Score Matching (PSM)

This table reports the results for the effect of corporate secretary's work tenure on a *Board Meeting Frequency*, *Outside Director Dissent* and *Fraud Lawsuit* using the propensity score matched (PSM) samples. Column 1 uses the firm fixed-effect method, columns 3 and 4 use probit regression method. R^2 and Wald Chi²/F-value across all the regression models are reported. Values in parenthesis below each coefficient are their respective robust t-statistics, clustered at firm-level. To reduce endogeneity problem, all independent variables in column 3 are lagged by one year. In addition, the variable *Dissent* used in column 3 is a predicted value from column 2. Detailed definitions of all variables are reported in Appendix A1. ***, **, * indicates significance at 1%, 5%, and 10% level respectively.

| | <u>Board Meeting Frequency</u> (1) | <u>Outside Director Dissent</u> (2) | <u>Fraud Lawsuit</u> (3) |
|-------------------------|---|--|-----------------------------|
| Ln(Secretary Tenure) | -0.444*** (-4.43) | -0.182*** (-2.91) | -0.064** (-2.40) |
| Board Independence | 1.325 (0.67) | 0.482 (0.49) | -0.435 (-1.08) |
| Board Size | 0.097 (1.34) | 0.012 (0.49) | 0.010 (0.83) |
| CEO Duality | 0.105 (0.75) | -0.014 (-0.21) | 0.054* (1.74) |
| Ownership Concentration | 1.639 (1.50) | 0.179 (0.42) | 0.051 (0.31) |
| BTMV | 0.060 (0.17) | 0.124 (0.58) | -0.058 (-0.62) |
| Ln(Market Value) | 0.593*** (3.11) | 0.028 (0.54) | -0.004 (-0.17) |
| Leverage | 0.230 (0.59) | 0.147 (1.15) | 0.007 (0.72) |
| Sales Growth | -0.084 (-0.93) | -0.133* (-1.83) | -0.025 (-0.81) |
| Adjusted ROE | -0.094 (-1.39) | 0.042 (1.42) | -0.007 (-0.42) |
| Equity Turnover | -0.050* (-1.90) | -0.029 (-1.05) | 0.005 (0.08) |
| Ln(Firm Age) | 1.177 (1.14) | -0.008 (-0.05) | -0.095 (-0.84) |
| Big4 Auditor | 0.007 (0.02) | 0.168 (0.72) | 0.147 (0.25) |
| Board Meeting Frequency | | -0.007 (-0.50) | -0.002 (-0.30) |
| Dissent | | | 0.241 (0.17) |
| Analyst Coverage | | | 0.000 (0.06) |
| Constant | -8.009* (-1.77) | -0.595 (-0.45) | -0.064** (-2.40) |
| Industry Fixed Effect | No | Yes | Yes |
| Year Fixed Effect | Yes | Yes | Yes |
| No. of Observations | 4,750 | 892 | 4,522 |
| R ² | 0.046 | 0.020 | 0.003 |
| Chi2/F-Value | 5.08*** | 21.93*** | 18.88*** |

Table 6: Effect of corporate secretary tenure using instrument variable analysis

This table reports the 2-stage regression results for the effect of corporate secretary's work tenure with a firm on *Board Meeting Frequency*, *Outside Director Dissent* and *Fraud_Lawsuit* for Chinese A-share listed firms from 2004 to 2012. To address the potential endogeneity problem, the instrument variable *Industry Ln(Secretary Tenure)* and all the control variables in stage two regressions, are included in the first stage of the estimation. Moreover, to remove the potential autoregressive issues in the corporate secretary tenure, we also add lagged value of *Ln(Secretary Tenure)* in the first stage regression. In panel A, we report the coefficients on the instrument variable only. In Panel B, we report the results for the second stage regressions. Values in parenthesis below each coefficient are their respective robust t-statistics, clustered at firm-level. Detailed definitions of all variables are reported in Appendix A1. ***, **, * indicates significance at 1%, 5%, and 10% level respectively.

| Panel A: Coefficients on the Instrument Variable in First Stage Regressions | | | | | | |
|---|--------------------------------|-----------|---------------------------------|-----------|----------------------|-----------|
| | | | <u>Ln(Secretary Tenure)</u> | | | |
| Industry Ln(Secretary Tenure) | 0.073*** | 0.055** | 0.073*** | 0.044* | 0.073*** | 0.047* |
| | (2.87) | (2.11) | (2.87) | (1.66) | (2.87) | (1.78) |
| Panel B: Second Stage Regression Results | | | | | | |
| | <u>Board Meeting Frequency</u> | | <u>Outside Director Dissent</u> | | <u>Fraud Lawsuit</u> | |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Ln(Secretary Tenure) | -0.264*** | -0.403*** | -0.176*** | -0.140*** | -0.164*** | -0.123*** |
| | (-2.87) | (-4.31) | (-3.38) | (-2.66) | (-4.39) | (-3.35) |
| Board Independence | | -0.122 | | -0.264 | | -0.050 |
| | | (-0.12) | | (-0.47) | | (-0.13) |
| Board Size | | -0.094*** | | 0.004 | | 0.006 |
| | | (-2.89) | | (0.28) | | (0.59) |
| CEO Duality | | 0.058 | | -0.026 | | -0.057** |
| | | (1.01) | | (-0.67) | | (-2.21) |
| Ownership Concentration | | -0.129 | | -0.062 | | -0.620*** |
| | | (-0.29) | | (-0.26) | | (-3.97) |
| BTMV | | -0.079 | | -0.154 | | -0.789*** |
| | | (-0.38) | | (-1.28) | | (-7.60) |
| Ln(Market Value) | | 0.504*** | | -0.066** | | -0.032 |
| | | (8.61) | | (-1.98) | | (-1.29) |
| Leverage | | -0.000 | | -0.002** | | 0.077 |
| | | (-1.01) | | (-2.57) | | (1.35) |
| Sales Growth | | 0.242*** | | -0.027 | | -0.004 |
| | | (4.43) | | (-0.54) | | (-0.13) |
| Adjusted ROE | | -0.236 | | -0.359*** | | -0.375*** |
| | | (-1.21) | | (-3.14) | | (-4.79) |
| Equity Turnover | | 0.014 | | -0.034** | | 0.001 |
| | | (0.79) | | (-2.08) | | (0.12) |
| Ln(Firm Age) | | 0.440*** | | -0.002 | | 0.273*** |
| | | (2.76) | | (-0.02) | | (4.27) |
| Big4 Auditor | | -0.093 | | -0.172 | | -0.105 |
| | | (-0.40) | | (-1.41) | | (-1.12) |
| Board Meeting Frequency | | | | 0.025*** | | 0.036*** |
| | | | | (3.06) | | (5.74) |
| Dissent | | | | | | 0.473*** |
| | | | | | | (6.35) |
| Analyst Coverage | | | | | | -0.019*** |
| | | | | | | (-4.95) |
| Constant | 8.863*** | -1.629 | -2.060*** | -0.589 | -0.922*** | -0.581 |
| | (24.86) | (-1.02) | (-14.74) | (-0.72) | (-9.79) | (-1.03) |
| Industry Fixed Effect | No | No | Yes | Yes | Yes | Yes |
| Year Fixed Effect | Yes | Yes | Yes | Yes | Yes | Yes |
| No. of Observations | 12,864 | 12,864 | 12,864 | 12,864 | 12,864 | 12,864 |
| Chi2/F-test | 88.83*** | 52.63*** | 497.07*** | 566.51*** | 597.92*** | 921.11*** |

Table 7: Effect of corporate secretary tenure with additional country- and firm-specific control variables

This table reports the regression results for the effect of duration of corporate secretary's work tenure with a firm on *Board Meeting Frequency*, *Outside Director Dissent* and *Fraud_Lawsuit* for Chinese A-share listed firms from 2004 to 2012. Model specifications and methods are similar to the ones reported in Tables 3 but with additional control variables. The significant drop of observation is due to the missing data from the dataset of these additional variables. To reduce endogeneity problem, all independent variables in column 3 are lagged by one year. In addition, the variable *Dissent* used in column 3 is a predicted value from column 2. Values in parenthesis below each coefficient are their respective robust t-statistics, clustered at firm-level. Wald Chi² and F-values across all the regression models are reported. Detailed definitions of all variables are reported in Appendix A1. ***, **, * indicates significance at 1%, 5%, and 10% level respectively.

| | <u>Board Meeting Frequency</u> | <u>Outside Director Dissent</u> | <u>Fraud Lawsuit</u> |
|---------------------------|--------------------------------|---------------------------------|----------------------|
| | (1) | (2) | (3) |
| Ln(Secretary Tenure) | -0.192** (-2.25) | -0.195*** (-2.59) | -0.077** (-2.21) |
| Independence Dummy | -0.761*** (-2.75) | -0.011 (-0.03) | -0.080 (-0.55) |
| Board Size | -0.021 (-0.40) | -0.012 (-0.45) | 0.012 (0.93) |
| CEO Duality | 0.057 (0.49) | -0.096 (-0.89) | -0.053 (-1.13) |
| Ownership Concentration | 1.004 (1.39) | -0.628 (-1.55) | -0.698*** (-4.26) |
| BTMV | -0.428* (-1.66) | -0.282 (-1.00) | -0.676*** (-6.07) |
| Ln(Market Value) | 0.717*** (5.53) | -0.094 (-1.14) | 0.003 (0.09) |
| Leverage | -0.048** (-2.33) | 0.019 (0.98) | 0.057 (1.55) |
| Sales Growth | 0.035 (0.51) | 0.088 (1.12) | 0.041 (1.11) |
| Adjusted ROE | 0.090 (1.09) | 0.008 (0.08) | -0.105* (-1.88) |
| Equity Turnover | -0.036** (-2.33) | -0.050* (-1.73) | 0.000 (0.05) |
| Ln(Firm Age) | -0.869 (-0.91) | 0.165 (0.88) | 0.005 (0.06) |
| Big4 Auditor | -0.239 (-1.26) | -0.369 (-1.00) | -0.236** (-2.04) |
| Board Meeting Frequency | | 0.040*** (2.77) | 0.027*** (3.66) |
| Dissent | | | -4.418 (-1.37) |
| Analyst Coverage | | | -0.020*** (-5.26) |
| Central SOE | -0.195 (-0.29) | -0.235 (-1.33) | -0.108 (-1.51) |
| Local SOE | -0.023 (-0.03) | -0.021 (-0.19) | -0.212*** (-4.05) |
| CEO Political Connection | 0.107 (0.48) | 0.121 (1.03) | 0.086 (1.53) |
| CFO Political Connection | -0.204 (-0.61) | 0.128 (0.63) | 0.265*** (2.77) |
| Cash Flow Volatility | -0.013 (-0.94) | 0.012* (1.66) | 0.004 (1.17) |
| Adjusted Secretary Salary | 0.002 (0.59) | 0.002 (0.80) | -0.000 (-0.27) |
| Duality CFO | -0.274 (-0.74) | -0.314 (-1.35) | 0.061 (0.77) |
| Constant | -3.239 (-0.85) | 0.267 (0.15) | -0.145 (-0.19) |
| Industry Fixed Effect | No | Yes | Yes |
| Year Fixed Effect | Yes | Yes | Yes |
| No. of Observations | 6,307 | 6,307 | 6,307 |
| R ² | 0.059 | 0.081 | 0.062 |
| Chi2/F-Value | 13.02*** | 111.14*** | 247.82*** |

Table 8: Effect of corporate secretary tenure on alternative measures of board meeting efficiency and boundary spanning to outsider directors

This table reports the regression results for the effect of corporate secretary's work tenure on a firm's *Outside Director Absence Ratio*, *Analyst Coverage* and *No. of Mutual Funds* for Chinese A-share listed firms from 2004 to 2012. All columns use the firm fixed-effect method. R^2 and F-value values across all the regression models are reported. Values in parenthesis below each coefficient are their respective robust t-statistics, clustered at firm-level. Detailed definitions of all variables are reported in Appendix A1. ***, **, * indicates significance at 1%, 5%, and 10% level respectively.

| | <u>Outside Director Absence Ratio</u> | | <u>Analyst Coverage</u> | | <u>No. of Mutual Funds</u> | |
|-------------------------|---------------------------------------|----------|-------------------------|-------------|----------------------------|-------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Ln(Secretary Tenure) | -0.002* | -0.002* | 0.177* | 0.242*** | 0.728** | 0.464* |
| | (-1.65) | (-1.70) | (1.69) | (2.58) | (2.16) | (1.94) |
| Board Independence | | -0.040* | | -0.100 | | 4.685 |
| | | (-1.74) | | (-0.06) | | (1.24) |
| Board Size | | 0.002* | | 0.091 | | 0.078 |
| | | (1.85) | | (1.29) | | (0.46) |
| CEO Duality | | -0.000 | | 0.088 | | -0.313 |
| | | (-0.18) | | (0.87) | | (-1.24) |
| Ownership | | -0.013 | | 3.092*** | | -10.729*** |
| | | (-1.06) | | (2.96) | | (-3.83) |
| BTMV | | -0.000 | | -1.314*** | | -11.542*** |
| | | (-0.10) | | (-3.53) | | (-11.33) |
| Ln(Market Value) | | -0.004* | | 4.624*** | | 12.683*** |
| | | (-1.94) | | (21.21) | | (19.37) |
| Leverage | | 0.000*** | | 0.011*** | | 0.022*** |
| | | (11.25) | | (9.12) | | (10.43) |
| Sales Growth | | 0.001 | | -0.586*** | | -1.565*** |
| | | (0.76) | | (-7.96) | | (-7.60) |
| Adjusted ROE | | -0.002* | | 0.063* | | 0.101 |
| | | (-1.66) | | (1.73) | | (1.11) |
| Equity Turnover | | -0.000 | | -0.147*** | | -0.812*** |
| | | (-1.12) | | (-6.67) | | (-11.11) |
| Ln(Firm Age) | | -0.011 | | 3.303*** | | -3.213 |
| | | (-0.87) | | (3.01) | | (-1.20) |
| Big4 Auditor | | -0.001 | | 0.082 | | 2.154* |
| | | (-0.25) | | (0.21) | | (1.87) |
| Board Meeting Frequency | | | | 0.048** | | -0.037 |
| | | | | (2.22) | | (-0.63) |
| Analyst Coverage | | | | | | 1.373*** |
| | | | | | | (24.87) |
| Constant | 0.068*** | 0.177*** | 3.090*** | -106.918*** | 11.383*** | -259.596*** |
| | (30.35) | (2.89) | (17.40) | (-20.97) | (19.38) | (-17.38) |
| Industry Fixed Effect | No | No | No | No | No | No |
| Year Fixed Effect | Yes | Yes | Yes | Yes | Yes | Yes |
| No. of Observations | 13,164 | 13,164 | 13,164 | 13,164 | 13,164 | 13,164 |
| R^2 | 0.136 | 0.140 | 0.237 | 0.360 | 0.197 | 0.517 |
| F-Value | 82.96*** | 62.94*** | 94.32*** | 61.34*** | 74.35*** | 89.29*** |

Table 9: Effect of corporate secretary tenure on alternative internal quality control governance measures

This table reports the regression results for the effect of corporate secretary's work tenure on a firm's *Fraud*, *Fraud Happen*, *Lawsuit*, *Modified Auditor Opinion*, and *CEO Pay* for Chinese A-share listed firms from 2004 to 2012. Columns 1 to 4 use probit regression method and column 5 uses the firm fixed-effect method. R^2 and Wald χ^2 or F values are reported. Values in parenthesis below each coefficient are their respective robust t-statistics, clustered at firm-level. To reduce endogeneity problem, all independent variables are lagged by one year. In addition, the variable *Dissent* is a predicted value from column 2 of Table 3. Detailed definitions of all variables are reported in Appendix A1. ***, **, * indicates significance at 1%, 5%, and 10% level respectively.

| | <u>Fraud</u> | <u>Fraud Happen</u> | <u>Lawsuit</u> | <u>Modified Auditor Opinion</u> | <u>CEO Pay</u> |
|--------------------------|----------------------|----------------------|----------------------|---------------------------------|-----------------------|
| | (1) | (2) | (3) | (4) | (5) |
| Ln(Secretary Tenure) | -0.081*** (-3.57) | -0.053** (-2.25) | -0.047* (-1.76) | -0.104** (-2.09) | 0.051 (0.93) |
| Ln(Secretary Tenure)*ROA | | | | | 1.176** (2.23) |
| Dissent | 1.619 (1.35) | 0.007 (0.01) | 4.926*** (3.98) | -1.788 (-0.89) | -0.006 (-0.00) |
| Board Independence | -0.177 (-0.51) | -0.056 (-0.14) | 0.127 (0.31) | 0.083 (0.11) | 0.130 (0.14) |
| Board Meeting Frequency | 0.020*** (3.45) | 0.013** (2.17) | 0.026*** (3.91) | 0.030** (2.33) | -0.018 (-1.30) |
| Board Size | 0.004 (0.35) | 0.032** (2.45) | 0.001 (0.07) | 0.006 (0.28) | 0.082** (2.12) |
| CEO Duality | -0.049* (-1.71) | -0.086*** (-2.81) | -0.073*** (-2.72) | -0.081* (-1.85) | -0.068 (-0.88) |
| Ownership Concentration | -0.238* (-1.77) | -0.205 (-1.28) | -0.581*** (-3.60) | -0.690** (-2.33) | 1.218** (1.99) |
| BTMV | -0.355*** (-4.17) | -0.151* (-1.69) | -0.734*** (-7.19) | -0.995*** (-5.67) | 0.636*** (3.35) |
| Ln(Market Value) | -0.077*** (-3.25) | -0.140*** (-5.21) | 0.022 (0.87) | -0.051 (-0.81) | 0.771*** (6.25) |
| Leverage | -0.001 (-0.70) | -0.002* (-1.74) | 0.019* (1.85) | -0.001 (-0.49) | 0.008 (0.46) |
| Sales Growth | -0.049 (-1.56) | -0.010 (-0.39) | -0.047 (-1.35) | -0.210** (-2.49) | -0.111* (-1.89) |
| Adjusted ROE | -0.028* (-1.72) | -0.039*** (-2.84) | -0.028** (-2.04) | -0.045** (-2.55) | |
| ROA | | | | | 2.064** (2.52) |
| Analyst Coverage | -0.009*** (-3.32) | -0.006** (-2.03) | -0.020*** (-5.30) | -0.050*** (-3.41) | 0.058*** (6.29) |
| Equity Turnover | 0.012 (1.60) | 0.013* (1.72) | 0.014* (1.83) | -0.006 (-0.46) | 0.000 (0.01) |
| Ln(Firm Age) | 0.035 (0.60) | 0.125* (1.79) | 0.226*** (3.39) | 0.171 (1.39) | -1.611** (-2.49) |
| Big4 Auditor | -0.175* (-1.82) | -0.293*** (-3.12) | -0.054 (-0.56) | -0.008 (-0.04) | 0.121 (0.62) |
| Constant | 0.925* (1.73) | 1.600*** (2.65) | -1.906*** (-3.19) | -0.959 (-0.67) | -10.456*** (-3.42) |
| Industry Fixed Effect | Yes | Yes | Yes | Yes | No |
| Year Fixed Effect | Yes | Yes | Yes | Yes | Yes |
| No. of Observations | 13,163 | 13,164 | 13,164 | 13,164 | 9,766 |
| R^2 | 0.065 | 0.040 | 0.133 | 0.164 | 0.268 |
| χ^2 / F-Value | 422.52*** | 231.99*** | 812.88*** | 264.75*** | 41.02*** |

Appendix A1: Variable definitions

| <u>Variables</u> | <u>Definition</u> |
|--------------------------------|---|
| Ln(Secretary Tenure) | Natural logarithm of the number of years a corporate secretary has served in the said capacity with the firm. |
| Board Meeting Frequency | Number of times corporate board meetings took place in a financial year. |
| Outside Director Dissent | A dummy variable, which equals to 1 if there is at least one outside director issued dissent opinion to board proposal during the board meeting in the year, 0 otherwise. |
| Fraud_Lawsuit | A dummy variable, which equals to 1 if the firm received at least one enforcement against fraud by the regulator or were involved in the lawsuit during the financial year, 0 otherwise. |
| Fraud | A dummy variable, which equals to 1 if the firm received at least one enforcement against fraud by the regulator during the financial year, 0 otherwise. |
| Fraud Happen | A dummy variable, which equals to 1 if at least one fraud happened in the firm in the fiscal year, 0 otherwise. |
| Lawsuit | A dummy variable, which equals to 1 if the firm was involved in at least one lawsuit during the financial year, 0 otherwise. |
| Outside Director Absence Ratio | The ratio of outside director absence behaviour from the board meeting. It is equal to the total number of outside directors absent from board meeting (including representative attendance) divided by the total meeting outside directors are required to attend during the financial year. |
| Analyst Coverage | Total number of analysts covering the firm during the financial year. |
| No. of Mutual Funds | Number of Mutual Funds as the shareholder of the firm in a fiscal year. |
| Modified Auditor Opinion | A dummy variable, which equals to 1 if the firm receives modified auditor opinions in the year, 0 otherwise. |
| Board Independence | Number of outside directors divided by the board size. |
| CEO Duality | A dummy variable, which equals to 1 if the CEO is also the chairman of the board, 0 otherwise. |
| Board Size | Number of directors on the firm's board at the end of the financial year. |
| Ownership Concentration | Ownership concentration of the ten largest shareholders in the firm. |
| BTMV | Book value divided by the market value of the firm at the end of the financial year. |
| Ln(Market Value) | Natural logarithm of the total market value of the firm at the end of the financial year. |
| Leverage | Total debt divided by total asset of the firm at the end of the financial year. |
| Sales Growth | Growth in sales during the financial year compared to the previous year. |
| Adjusted ROE | Industry adjusted return on equity, <i>i.e.</i> net income divided by the average total equity of the current and last fiscal year minus the annual industry mean value. |
| Equity Turnover | Trading turnover ratio of the firm's stock during the financial year. |
| Ln(Firm Age) | Natural logarithm of the number of years since the firm was founded / incorporated. |
| Big4 Auditor | A dummy variable, which equals to 1 if the auditor of the firm is one of the Big-4 accounting and auditing firms in the year, 0 otherwise. |
| SOE | A dummy variable, which equals to 1 if the government is the controlling shareholder in the firm, 0 otherwise. |
| Duality CFO | A dummy variable, which equals to 1 if the corporate secretary of the firm is also the CFO, 0 otherwise. |
| Adjusted Secretary Salary | Annual salary of corporate secretary minus the annual industry average level, in RMB 10,000. |
| Central SOE | A dummy variable, which equals to 1 if the company is a central SOE, 0 otherwise |

| | |
|-------------------------------|---|
| Local SOE | A dummy variable, which equals to 1 if the company is a local SOE, 0 otherwise |
| CEO Political Connection | A dummy variable, which equals to 1 if the CEO has the experience working in the government, 0 otherwise |
| CFO Political Connection | A dummy variable, which equals to 1 if the CFO has the experience working in the government, 0 otherwise |
| Independence Dummy | A dummy variable, which equals to 1 if the percentage of outside director in board exceeds 33% of the total board members, otherwise equals to 0. |
| Industry Ln(Secretary Tenure) | Equals to the annual industry average secretary tenure, exclude the observation value itself. |
| ROA | Firm's return on asset, <i>i.e.</i> net income divided by the total asset of the current fiscal year. |
| CEO Pay | The annual total salary of the CEO in the current fiscal year. |
| Cash Flow Volatility | Equals to the standard deviation of the operating cash flows in previous eight quarters at the end of the year. |
