Corporate Board and Corporate Governance in Chinese Capital Markets

Thesis submitted in accordance with the requirements of the University of Liverpool for the degree of Doctor in Philosophy by

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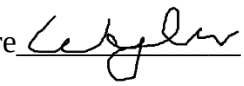
Declaration

This is to certify that that the work contained within has been composed by me and is entirely my own work. No part of this thesis has been submitted for any other degree or professional qualification.

Signature 

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Abstract

In the context of corporate governance, this thesis aims to further investigate the impact of corporate boards on the effectiveness of company governance. **First,** by investigates outside director activism behaviors which measured by their dissenting opinions, intended meeting absences and voluntary resignations, I find that the incidence of activism predicts a higher incidence of enforcement action against fraud, suggesting outside directors are playing a whistleblower role rather than a disciplinary role, and the activism signal is found to attract the attention of outside investors which strengthen the sensitivity between CEO turnover and regulatory enforcement actions. The findings support outside directors may not directly discipline manager behaviors but use their whistleblower role to attract public outrage to override CEO entrenchment. **Second,** this thesis studies the impact of corporate secretary tenure on governance quality. Results show that corporate secretary tenure is negatively associated with board meeting frequency, outside directors' in-meeting dissent and the incidence of fraud and lawsuits, and the findings are robust by additional tests. The results support the notion that tenure of the corporate secretary is no longer a "humble clerk" and can significantly influence a firm's governance quality. **Third,** this thesis examines whether director with additional directorships on the boards of firms that are shareholders of the original firm is good for shareholders' wealth. To conduct the analysis, I use the percentage of board directors of a listed firm who have also taken an additional directorship on the board of its shareholders as a measure and named it as Shareholder Interlock Director Ratio (SIDR) and find the SIDR is positively correlated with the industry-adjusted ROA, and negatively correlated with both fraud and lawsuit, such results are robust by additional tests including taking alternative

measures of the SIDR, as well as the impact of the SIDR on tunneling behavior, outside director attendance and shareholder voting behaviors. These findings suggest the director interlock in shareholder's board is good for providing better governance services. Overall, this thesis further advances the exploration on factors that affect corporate governance quality.

Chapter 1 Introduction[1]

Within the literature stream of corporate governance, this thesis aims to further examine the impact of corporate board[2] on firm governance effectiveness. Starting from three specific research niches, the thesis provides three contributions to the existing governance literature related to corporate boards. First, it contributes to the literature on outside directors[3] by identifying their new role as whistleblowers. More specifically, I take the outside directors' in-meeting activism, absence as well as resignation behaviors as the dissenter's voice and examine its impact on corporate governance outcomes. Second, this thesis contributes to an emerging stream of literature on the impact of corporate secretaries on governance quality. Corporate secretaries are a group within the senior management team who are not board members but work very closely with the corporate board. This group of managers has received little attention in the area of corporate governance until only recently. This thesis aims to further confirm the importance of corporate secretaries to governance quality. Third, this thesis contributes to the literature on director interlock and multiple directorships by exploring a specific group of directors who take additional directorships on the boards of shareholding firms and examining how this affects shareholder value. To more specifically investigate and discuss the above niches, following on from the introduction, this thesis contains five more chapters with the following contents.

[1] Reference List for Chapter 1 is combined with Chapter 2

[2] Chinese listed firms are required to hire two-tier board system (Dahya et al., 2002), but as Ran et al. (2015) shows, the supervisory board cannot provide adequate monitoring function, therefore to avoid confusions, the notion board in this thesis all refers to the management board.

[3] All the outside directors in China are required to independent from the company. Following the "Guidance on establishing the independent director mechanism", the outside director in China is defined as a director who does not take other roles in the company and does not have any relationship with the company or its shareholders that may affect their independent judgment.

Chapter 2, entitled "Chinese Capital Markets and Governance: A Review", briefly summarizes the development of the Chinese capital markets and provides a short review on the role of the corporate board, the functions that influence the effectiveness of the corporate board, and the reason why boards need to include outside directors. A brief conclusion and discussion of this research niche is also provided in this chapter.

Chapter 3, entitled "Whistleblowing and Enforcement Actions against Fraud: The Role of Dissenters in Boardrooms", investigates a new dimension in the study of outside directors by examining their activism, measured by their dissenting opinions expressed in board meetings, intended absences and voluntary resignations. I find that the activism predicts a higher incidence of regulatory enforcement against fraud, suggesting a whistleblower role rather than a disciplinary role being played by outside directors. Their activism is found to trigger the attention of outside investors, and in turn strengthens the sensitivity between CEO[4] turnover and regulatory enforcement actions. The results are more pronounced among firms that are controlled by private shareholders and followed by more financial analysts. The findings suggest that outside directors could use public outrage to override CEO entrenchment. This chapter contributes to the literature by introducing and demonstrating the whistleblower role of outside directors.

Chapter 4, entitled "Does Tenure Matter: The Role of the Corporate Secretary in Chinese Listed Firms", studies the impact of corporate secretary[5] tenure on the

[4] Based on the company law in China, the highest executive of management team is defined as "manager", and often carries the title of general manager or CEO. To avoid confusion and to be consistent with the literature, only the CEO title is used in this thesis.

[5] The "corporate secretary" is also called the "board secretary" in China, and is sometimes called the "company secretary" in the U.K. Based on definitions presented in the regulatory documents of different countries, these titles all indicate the same position. Therefore, to maintain consistency, the term "corporate secretary" is used in this thesis to represent this position.

governance quality of Chinese A-share listed firms. The results show that corporate secretary tenure is negatively associated with board meeting frequency, outside directors' in-meeting dissent and the incidence of fraud and lawsuits. Key findings are robust to an array of additional tests, including propensity score matching, instrument variable analysis, and alternative measures of governance such as analyst coverage, modified auditor opinion, number of mutual fund shareholders, and the absence of outside directors from board meetings. Overall, these results support the conclusion that the experience of the corporate secretary can significantly influence a firm's governance quality. In accordance with McNulty and Stewart (2015), the results confirm the importance of the corporate secretary in improving modern corporate governance outcomes and board processes. This chapter contributes to the literature by highlighting the importance of the corporate secretary for corporate governance quality.

Chapter 5, entitled "Does Director Interlock with Shareholder Firms' Boards Create Value? Evidence from Chinese Listed Firms", explores whether the directors of a company who take additional directorships on the boards of companies that are shareholders of the original company creates shareholder value. I develop a ratio called the "shareholder interlocked director ratio" (SIDR), which is calculated as the percentage of board directors of a listed company who have also taken additional directorships on the boards of its shareholders. The results show that the SIDR is positively correlated with the industry-adjusted return on assets and negatively correlated with both regulatory enforcement against fraud and the probability of being involved in a lawsuit. This result suggests that better governance quality could result from the interlock. Several additional tests are conducted, including instrumental variable analysis, propensity score matching, taking alternative measures of the SIDR,

as well as the impact of the SIDR on tunneling behavior, outside director attendance and shareholder voting behaviors; the results of these additional tests further support the main findings. This chapter also determines that a specific group of directors who taking multiple directorships in shareholder companies have a significant impact on governance quality. The contribution of this chapter to the literature is that it opens a new dimension of study regarding the influence of director interlock, and provides evidence for the importance of shareholder-director linkage on corporate governance quality.

Chapter 6 presents a brief overview of this thesis and its conclusions. It summarizes the main findings and presents their implications, as well as several possible research topics for future studies.

Chapter 2 Chinese Capital Markets and Governance: A Review

2.1. Introduction

This chapter of the thesis provides the institutional background of Chinese capital markets and a brief review of the literature on corporate boards. The origin of corporate board research is mainly based on either agency theory (Jensen and Meckling, 1976) or resource dependence theory (Emerson, 1964). Under these two theories, the role of the board is designed to be either monitoring, or providing resources and advice to, the management team. Despite strong theoretical support, empirical research provides mixed results regarding the effectiveness of corporate boards in one or both of these roles. To provide a solid foundation for the further exploration of corporate boards in this thesis, the following sections will first provide an overview of the institutional background of Chinese capital markets, and then review the role of corporate boards from both agency and resource dependence views. A summary of the major factors that affect board effectiveness will also be provided. In addition, since the existing literature advocates for outside directors as being a very important component of corporate boards, this chapter provides a separate review on why they are needed. The conclusion of this chapter will highlight the three research niches that will be covered in Chapters 3, 4 and 5 respectively. More detailed reviews of the specific literature on the different research questions will be provided separately in the following chapters.

2.2. Institutional Background

The Chinese stock market introduced its exchanges at the beginning of the 1990s. The Shanghai Stock Exchange was formally opened on December 19, 1990, and the Shenzhen Stock Exchange was launched about six months later on July 3,1991. Both

remain the major stock exchange institutions to this day. At the end of 2017, the total number of listed A-share companies was 3,485 and the total market value was 5,671 billion RMB, making the Chinese stock market the second largest exchange in the world based on market value, behind the New York Stock Exchange[6] (Jiang and Kim, 2015).

Two types of stocks are traded in these markets: A-share and B-share equities. The A-share stock is valued and traded in local currency for domestic investors, while the B-share stock is also valued in local currency but is traded in US dollars in the Shanghai Exchange and in HK dollars in the Shenzhen Exchange. Before 2011, only foreign investors could purchase B-share stocks, but the markets were opened up to domestic investors who held foreign currencies.

After a certain time in operation, a multilevel capital market was introduced. The Shenzhen Stock Exchange opened a small- and medium-sized enterprises market in 2004 and a growth enterprise market in 2012 to enhance the exchange's function as a funding source for small companies. In addition, the National Equities Exchange and Quotations Co., Ltd. (NEEQ) was officially established in 2012 and is now the largest over-the-counter (OTC) stock market in mainland China.

As in many other emerging economies, China's booming capital market development lacked adequate regulation and supervision (Allen et al., 2005). To protect the interests of shareholders, the Chinese government established the China Securities Regulatory Commission (CSRC) in 1992 as a specialized regulatory institution, but it only officially obtained legal status as a regulator in 1998 when the Securities Law was enacted (Jiang and Kim, 2015). The commission is authorized to issue legal mandates to regulate market participants and is empowered to directly

[6] Source: <2018 Chinese Capital Markets Investor Protection Status White Paper>

investigate fraud and enforce anti-fraud measures. Moreover, unlike in many developed countries, the CSRC is not only in charge of monitoring market activities but also intervenes heavily in the authorization of seasoned equity offerings and initial public offerings on the stock exchanges, in order to ensure the quality of listed companies, market liquidity, and other economic goals of the state. For example, as Jiang et al. (2017) reveal, the CSRC has temporarily suspended IPO approvals nine times for prolonged periods. For example, no IPO application was approved in 2013 for the entire year. The CSRC is much more powerful than regulators in developed countries. Xiqing Gao, the former vice-president of the CSRC, has said that too much power in the hands of the CSRC has harmed its efforts to monitor market activities.[7]

Regarding the development of the corporate governance system in China, despite its late start, once the CSRC was established, regulations to protect shareholder benefits were issued very quickly to implement the corresponding laws. The foundational requirement regarding corporate governance in the Chinese markets is the *Listed Company Governance Code*. The Code was published in 2002 and revised recently in 2018. There are ten chapters with 98 articles in the newly revised Code. The contents include the basic principle of governance, the operation of boards and shareholder meetings, the obligations and rights of executives, the incentive and restraint mechanism for executives, shareholder protection, restraints on controlling shareholders and related parties, guidelines on corporate social responsibility, and the requirement for information transparency. Developed over 16 years, the revised version contains more detailed information on how listed companies should practice good governance. Compared with the old version, the newly revised code has more

[7] 2016 NPC & CPPCC Henan sub-Group Interview Contents. http://news.sina.com.cn/c/sz/2016-03-06/doc-ifxqaffy3658829.shtml

requirements for dividend payments and information transparency, as well as for corporate social responsibility (CSR), which further elaborates on and emphasizes the regulatory requirements for listed companies to benefit investors and society.

Focusing on corporate boards in China, the CSRC's laws and regulations on public companies specifically establish the basic requirements for corporate board formation and operation in listed companies. As Jiang and Kim (2015) show, the corporate board is still the most important component of the corporate governance structure in China. The Chinese company law requires companies to have two-tier boards—a supervisory board and a regular board. The supervisory board must have at least three supervisory directors, and the regular board cannot have more than 19 seats or less than five seats; the regular board is required to have at least two board meetings per year. According to the CSRC regulation, as of 2003, one-third of the corporate board membership of listed companies must consist of outside directors. The outside director must be independent of the company, which is similar to the requirement in most western countries. Moreover, to standardize the operation of corporate boards in listed companies, the CSRC and the stock exchanges have released several documents and regulations, such as *Guidance on Rules of Corporate Board Meetings* and *Guidance on Listed Company Director Elections,* to help companies establish and operate boards more effectively.

2.3 The Role of the Corporate Board

2.3.1 The Monitoring Role

The monitoring function of the corporate board has been widely documented in the literature since the emergence of the modern corporate governance system (Fama and Jensen, 1983; Hermalin and Weisbach, 2003). Based on agency theory, due to diverging interests, managers may not always aim to maximize shareholder wealth. To

address such problems, the board should be designed to fulfill a monitoring mechanism, to discipline managers, and ensure shareholder benefits (Jensen and Meckling, 1976; Boyd, 1990; Hillman and Dalziel, 2003). Empirical research on the empire-building behaviors of executives (Rhoades, 1983) and executive pride (Roll, 1986) supports the existence of such problems.

Regarding the factors that affect a board's monitoring function, research has identified independence, capabilities, and busyness as possible factors. More specifically, as Dalton et al. (2007) show, independence from the management team is the most crucial characteristic for directors to make objective disciplining decisions. Both Beasley (1996) and Uzun et al. (2004) show that higher levels of independence of a corporate board will result in fewer instances of fraud in a company. Moreover, when there is enough independence, the directors are more able to help boards fulfill their monitoring function. The monitoring capability largely relies on the bargaining power the board holds with respect to the management team. Baldenius et al. (2014) show that the balance of power between CEO and shareholders will significantly affect the board's monitoring effectiveness. Usman et al. (2018) find that more gender-diverse boards will have less bargaining power with the CEO, which reduces the monitoring capability of the board. In addition, busyness is a crucial factor that affects director monitoring outcomes. Empirical research uses additional directorships to measure the busyness of a director. Mendez et al. (2015) show additional directorships reduce monitoring effectiveness in large companies due to higher workloads and greater time demands.

While the board monitoring function has been documented to be an effective mechanism for protecting shareholder wealth, several researchers have argued that monitoring is not a one-size-fits-all function. Some argue that over-disciplining the

management team may also harm company value. Guldiken and SidkiDarendeli (2016) show that there is a U-shaped curvilinear relationship between the board monitoring function and a company's research and development (R&D), which implies that too much monitoring may harm the company's motivation to innovate. Faleye et al. (2011) show that more intensive board monitoring will diminish the board's strategic advisory function and make the management team more myopic in its work. The results for company value suggest that a reduced strategic advisory function will outweigh the increased monitoring capability of the board. Moreover, Al Dah (2018) poses the question of whether a board should monitor or empower the CEO. This research again supports the notion that the board monitoring function is not a one-size-fits-all solution for corporate governance, which should prompt scholars to consider research based on other theories when looking at the role of the board and its effectiveness.

2.3.2 The Resource Provision Role

In addition to the monitoring role, resource dependence defines another role of corporate boards. Unlike agency theory, which considers the monitoring of the management team to be the board's priority, resource dependence theory suggests that resource provision is more important for company operations. To some extent, this notion stems from stewardship theory, which contends that the management team should be stewards for the shareholders and board and be given appropriate incentives to perform this role. Therefore, the board of directors should support the managers by providing resources and advice.

Regarding resource provision-related factors that affect corporate boards, existing research shows that directors' knowledge gained from prior experience, their expertise, and their outside sourcing are all very important. On one hand, a director's knowledge

and expertise enables him/her to provide advice to the management team. Guner et al. (2008) show that directors with financial expertise will help companies increase their funding sources. Harford and Schonlau (2013) show director post-acquisition experiences are important to a company's acquisition activities. When a company has directors who have previously served in companies that have made acquisitions, there is a higher probability that the new company will make an acquisition in the near future. In terms of foreign experience, Iliev and Roth (2018) show that companies may learn the best corporate governance practices from board members with such experience. On the other hand, the directors' resources also determine their resource provision capabilities. Such resources may come from past work experience or current external positions. For example, Huang et al. (2014) show that directors who have previously worked for investment banks may bring resources that help their current company make more profitable acquisitions. Masulis and Mobbs (2011) show that companies with directors hold more additional directorships earn more in acquisition deals. All these pieces of research support the idea that a well-resourced director could help the corporate board enhance its advisory and resource provision function.

2.3.3 Combining the Resource Provision and Monitoring Roles

The above sections have reviewed the role of the corporate board from the respective standpoints of agency and resource dependence theory. In most studies, scholars follow only one of these two distinct theories to conduct their research (Chen et al., 2016). However, as Hillman and Dalziel (2003) show, in a real-world context, a single theory cannot fully capture the behaviors of a board. Directors will take on both roles in their routine activities, not only disciplining but also providing resources and knowledge to the management team. For example, the resource dependence theory's

factors of expertise and knowledge are important to directors when performing the monitoring function (Hillman and Dalziel, 2003). As Tian et al. (2011) show, if directors have more resources such as social capital and ties to the management team (rather than remaining independent), they should be able to better monitor management behaviors with the knowledge they have acquired. This view has also been supported by Kroll et al. (2008), who demonstrate that directors with more experience should be better able execute their monitoring function.

In addition, since there is a trade-off between the independence and information-giving capacity of a director, an effective board should balance the monitoring and resource provision functions. Drawing on both agency and resource dependence theory, Chen et al. (2016) show outside directors with greater human and social capital could increase the probability of the company's international expansion. Pugliese et al. (2014) show that even though they are based on different theoretical backgrounds, a board's monitoring and resource provision tasks tend to enhance each other. Ocasio and Joseph (2005) show that whether a board is involved in monitoring or resource provision depends on the specific conditions of different boards and companies.

2.4. Features that Influence the Effectiveness of Corporate Boards

2.4.1 Size – Does One Size Fit All?

Board size has been widely studied in the literature, since it is the most observable feature of corporate boards (Yemack, 1996; Eisenberg et al., 1998). Despite research arguing that an increase in board size may benefit a company in areas such as business diversification and growth (Boone et al., 2007), empirical results reveal a negative impact on board effectiveness. Yemack (1996) shows that, with an increase in board size, the board's effect on company performance will diminish, a result that has been

empirically supported by Eisenberg et al. (1998). Research such as Graham and Narasimhan (2004) shows that when companies are facing depression conditions, those with smaller boards will have a higher probability to survive. Cheng (2008) demonstrates that companies with larger boards have lower variability in their accounting and market performance, as well as in other performance-related activities. Mak and Kusnadi (2005) show a negative relationship between board size and performance for non-US companies that is significant in Singapore and Malaysia. Conyon and Peck (1998) demonstrate consistent results indicting this inverse relationship between board size and performance in most European countries. Guest (2008) shows that even though UK boards play (by design) more of an advisory than a monitoring role, there is still a strong, inverse relationship between board size and Tobin's Q (a profitability measure), as well as the return on shares. Regarding these empirical findings, Coles et al.'s (2008) paper, "Boards: Does one size fit all?" provides a possible theoretical explanation for the optimal size of corporate board.

2.4.2 Independence – The Higher the Better?

Board independence, measured by proportion of outside directors on a board, is another important feature that has been widely researched in the literature as a symbol of board effectiveness. Theoretically, the appointment of more outside directors could align with agency theory (Jensen and Meckling, 1976) regarding the monitoring function, and with resource dependence theory (Emerson, 1964) regarding outside resource provision. Such theoretical arguments have been well supported by empirical research that demonstrates a consistent negative relationship between the presence of outside directors and the incidence of corporate fraud (Beasley, 1996; Uzun et al., 2004; Fich and Shivdasani, 2007). However, in terms of accounting performance, except for

the study by Pearce and Zahra (1992), research shows an insignificant or even negative relationship between outside directors and accounting performance (Baysinger and Butler, 1985; Hermalin and Weisbach, 1988; Morck et al., 1988; Mehran, 1995; Klein, 1998; Agrawal and Knoeber, 1996; Bhagat and Black, 2002). As stated by Agrawal and Knoeber (1996), "Boards of directors seem to have too many outsiders. Since the composition of the board is determined internally, this finding is puzzling." Consistent with this argument, Hermalin and Weisbach (1998) argue that board composition is actually endogenous to performance. It is argued that the outside directors may not be the reason for poor accounting performance, but rather that poor performance motivates companies to hire more outside directors to enhance governance (Fama and Jensen, 1983). Therefore, the results regarding the impact of outside directors on company accounting performance will be biased (Hermalin and Weisbach, 2003).

2.4.3 Multiple Directorships – Busyness or Reputation?

Director interlock or multiple directorships is another feature that could influence the effectiveness of corporate boards. As Booth and Deli (1996) argue, multiple directorships could help directors build bridges between companies, creating an avenue for bringing in outside resources and enhancing company value (Ferris et al., 2003; Fich and Shivdasani, 2007). Fama and Jensen (1983) show that additional directorships are an indicator of an outside director's capabilities because a good service record will favor outside directors in the labor market, and they will therefore receive more job opportunities. Gilson (1990) demonstrates that when outside directors leave a financially distressed company, they will on average lose about one-third of their additional directorships due to reputation damage. Brickley et al. (1999) find that the additional directorships held by outside directors are significantly related

to the performance of the companies they have served. Fich and Shivdasani (2007) find that when companies are involved in lawsuits, the outside directors will be more likely to lose additional directorships than their peers. All of this research supports the view that multiple directorships could be seen as a proxy for a director's reputation.

In contrast with the reputation and resource channel-building argument, another stream of literature contends that additional directorships are an indicator of busyness and inefficiency. That is, when directors have multiple directorships, their attention will be distracted, and their limited time allocated to more tasks, thus diminishing their effectiveness. Regarding this argument, Carpenter and Westphal (2001) state that "…outside directors are often inadequately prepared to participate in board discussions because their time and attention are divided and diluted by their other board appointments…". This argument is further supported by Adams et al. (2010). Empirical research such as the study by Core et al. (1999) also supports this argument, showing that with more additional directorships held by board members, the CEO's salary will be relatively higher, which may indicate that the board is less effective in its monitoring function. Consistent with Core et al. (1999), Fich and Shivdasani (2007) show that when an outside director has more than three directorships, board effectiveness will be much lower in terms of CEO replacement as well as company performance.

2.4.4 Expertise and Experience – The Importance of Director Professions

As Rong (2012) shows, the resources and advice provided by the board to the management team largely dependent on the capabilities of the directors; the experience and expertise of the directors—especially the outside directors—is very important to the board resource provision function. This idea has been further supported by Adams

et al. (2010). However, the empirical research indicates that a director's impact could vary according to their individual professions. For example, when directors have accounting and legal expertise, they can help with the operation of the company. Gilson (1990) shows that when directors have accounting and legal expertise they can provide valuable help to companies that facing legal and financial distress. Klein (1998) finds that an increase in the number of board members with an accounting background will help a company improve its financial performance. Agrawal and Knoeber (2001) argue that lawyers on the board of directors help the company better understand the law and policies and to take advantage of such regulations. Byrd and Mizruchi (2005) show that bankers sitting on a board can help a company enhance its financial performance. Guner et al. (2008) show that when directors come from commercial banks, the external funding sources available to the company will be significantly increased, which could improve the company's ability to raise capital. In contrast, when the directors are scholars, the research of Raheja (2005) and Clarke (2006) indicates that their appointment only meets legal requirements and reputation-building needs and has no direct impact on company value.

2.4.5 Gender Diversity – Board Composition beyond Independence

In addition to independence, the traditional measure of board composition, gender diversity has attracted a lot of attention in the literature over the past two decades. Research in the area of behavioral characteristics argues that there are significant and fundamental differences between women and men (Niederle and Vesterlund, 2007). Female directors are seen to have significant merits: research has found them to be more ethical, more independent, more risk-averse, less likely to be overconfident, and to have better communication skills (Beyer, 1990). With those advantages, female

directors are expected to help company boards perform better. Drawing on empirical findings, Liu (2018) demonstrates that when there are more female directors on the board, a company is less likely to be involved in behaviors that violate environmental regulations. Chen et al. (2016) show that with more female directors, a company is less likely to have internal control weaknesses. Adams and Ferreia (2009) indicate that women are more active in attending board meetings and taking roles in monitoring committees. Gul et al. (2013) reveal that with more female representation on the board, analyst forecast accuracy will be increased, which implies better transparency and monitoring qualities. However, also due to their nature, female directors will have less bargaining power than male directors, which will diminish the monitoring function. Usman et al. (2018) find that when more women are present on the board, the CEO's power will be greater, suggesting that female directors are weaker monitors.

2.5. A Crucial Component of Corporate Boards - Why Companies Need Outside Directors

It is evident in the existing literature that outside directors play a crucial role in corporate boards. To better understand the contribution they make, in this section I review the major needs outside directors fulfill for companies, and the empirical support for these needs.

2.5.1 Independent Monitoring Needs

The first and foremost reason to appoint an outside director to a company's board is to have better monitoring quality. As mentioned above, due to the agency problem between the shareholders and the management team, the board needs to perform a disciplining and monitoring function with regards to the managers. However, as

Douglas (1934) shows, since the director is also an agent for the shareholders, a conflict of interest may also exist on the board. Directors who are not independent from management may not be able properly represent the shareholders. As Dalton et al. (2007) state, "… [the] board of directors, as the stewards of the shareholders, would not be effective monitors of management if this relationship was tainted by self-interest…". This conflict of interest makes outside directors who are independent from the management team more desirable and reliable monitors than inside directors (Dalton et al., 1999; Walsh and Seward, 1990).

Despite strong theoretical support, the empirical research presents mixed results. On one hand, the literature shows a positive relationship between outside director presence and stock prices (Rosenstein and Wyatt, 1990), information transparency (Cheng and Courtenay, 2006), and higher dividend payments (Sharma, 2011). On the other hand, it has been demonstrated that outside directors have no impact on a company's operational performance (Klein, 1998; Core et al., 1999), and even have a negative influence on shareholder value (Agrawal and Knoeber, 1996; Bhagat and Black, 2002). In the case of Enron, while 80% of its board consisted of well-known, outside directors, the company still experienced a huge scandal (Ghoshal, 2005). Therefore, the evidence on whether the monitoring function of a corporate board can be fulfilled by outside directors remains inconclusive.

2.5.2 Outside Resource Needs

The second type of need is partly drawn from resource dependence theory, which indicates that outside resources are another possible reason boards hire outside directors (Pfeffer, 1972; Jensen, 1993; Hillman and Dalziel, 2003; Hillman et al., 2009). Peng (2003) used China as a research sample to demonstrate that *guanxi* is the most

important factor driving business operations. Therefore, the resources provided by outside directors may sometimes be even more desirable for a corporate board than performing disciplinary tasks (Zahra and Pearce, 1989). Peng (2004) also provides empirical support for this argument, and determined that outside directors are especially important when the market environment is uncertain.

Drawing on empirical research, Haunschild and Beckman (1998) show that directors serving on other corporate boards could provide external financial and acquisition-related resources. Rindova (2010) shows that outside directors are better role at providing advice to managers than their peers due to their superior, externally sourced cognitive capabilities. Boyd (1990) shows that better-resourced outside directors are more necessary to companies facing environmental uncertainty and challenges. Carpenter and Westphal (2001) demonstrate that outside directors with connections to strategic companies could be better advisors to the management team. In addition, as Jensen (1993) shows, both agency theory and resource dependence theory explain the appointment of outside directors from the point of view of the company's internal needs, either for monitoring or resourcing purposes.

2.5.3. Legal Needs

A corporate board may also need have outside directors to simply meet legal requirements, not just to promote shareholder wealth. In most developing and developed countries, there are specific regulations requiring a certain number of outside directors on the boards of listed companies (Peng, 2004; Dahya and McConnell, 2007; Chizema and Kim, 2010). For example, since 2003 at least one-third of board seats have to be filled by outside directors in Chinese A-share listed companies (Peng, 2004). The Sarbanes-Oxley Act requires companies listed on the NYSE and the

NASDAQ exchanges to have a majority of outside directors on their boards (Linck et al., 2009). The Cadbury Committee in the UK requires at least three outside directors for listed companies (Dahya et al., 2002a).

However, empirical research does not fully support this view. Although work by Guest (2008) and Linck et al. (2009) show a significant increase in the number of outside directors after the 2002 enactment of Sarbanes-Oxley, research by Peng (2004) shows that most outside directors in Chinese listed companies were appointed before the CSRC was established in 2001. Therefore, legal compliance pressure may be one factor motivating boards to increase the number or proportion of outside directors, but it is not likely to be the only reason.

2.5.4. Normative Needs

The final reason why companies may need to include outside directors on their corporate boards could be related to social conformity and normative needs. Organizational behavior theory indicates that coercive, mimetic, and normative motivation exerts pressure on social entities to act like others (Dimaggio and Powell, 1983). According to this view, the presence of outside directors could be attributed to social norms and pressure on companies to follow societal trends (Peng, 2004). The study by Meyer and Rowan (1977) show that social entities always take the same steps as others in their group in order to maintain legitimacy. Eisenberg (1999) shows that the adoption of a monitoring model could be due to societal norms and that this norm will cause investors and other related parties (such as the media) to pressure companies to adopt better governance mechanisms, thereby creating the need for outside directors, regardless of their validity.

2.6 Review of Corporate Governance Literature in Chinese Capital Markets

When narrowing down the literature review from the global context to China, it is clear that the existing literature on corporate governance has already much attention to Chinese markets in recent decades (Allen et al., 2005; Kato and Long, 2006; Habib and Jiang, 2015; Jiang and Kim, 2015). To better understand corporate governance in Chinese capital markets, this section provides a brief review of the important topics of corporate governance research in China from the perspectives of ownership, corporate boards, and the management team.

2.6.1 The Impact of Ownership on Corporate Governance in China

Research on the relationship between ownership and governance in Chinese companies has mostly focused on the impacts of the controlling shareholders, institutional investors, and state ownership.

Regarding controlling shareholders, as Jiang and Kim (2015) reveal, most of the companies listed in China have shareholders who control company operations. In addition, in most of these companies, the largest shareholder's holdings far exceed the second largest shareholder (Liu, 2006). One group of research studies supports the notion that the existence of a controlling shareholder could enhance the quality of direct monitoring of the management team (Xu and Wang, 1999). However, as Shleifer and Vishny (1997) and Cao et al. (2019) show, countries such as China actually have more serious agency problems from owner-owner conflicts, and controlling shareholders may damage the interests of minority shareholders by fraudulent acts of expropriation (Liu and Lu, 2007). Scholars have demonstrated that compared with having a single, large shareholder, having multiple, large shareholders is more efficient

for Chinese companies and could help them achieve better performance (Fang et al., 2018; Cao et al., 2019). Therefore, it is inconclusive as to whether the existence of a single, large shareholder can benefit corporate governance in China (Jiang and Kim, 2015).

Regarding institutional investors, existing research indicates that both mutual funds and foreign institutional investors could help enhance company governance quality in Chinese capital markets (Yuan et al., 2008; Huang and Zhu, 2015; Aggarwal et al., 2015; Liu et al., 2018). Liu et al. (2018) demonstrates that mutual funds and foreign investors could enhance the information transparency of Chinese listed companies. Yuan et al. (2008) and Huang and Zhu (2015) find that mutual funds could enhance company governance quality by offering extra monitoring functions. In this same vein, Aggarwal et al. (2014) reveal an inverse relationship between mutual fund ownership and fraudulent behavior in companies. Meng et al. (2018) show that the presence of foreign investors could increase the willingness of companies to appoint more outside directors to the board to improve the board's monitoring capability.

Regarding state ownership, the literature shows that it can produce both positive and negative impacts for governance quality and shareholder value. On one hand, empirical work, such as the study by Hou and Moore (2010), show that some degree of state ownership can reduce the probability of being subject to regulatory enforcement for fraud. Wang and Campbell (2012) demonstrate that with increased state ownership, the probability of a company being subject to in earnings management is lower. Liu and Sun (2010) provide evidence for a positive relationship between state ownership and voluntary disclosure, which implies that the state's participation could enhance the transparency of company information. On the other hand, Kato and Long (2006) suggest that state-owned companies always pursue multiple goals rather than a

single, profit-oriented goal, and therefore, they sometimes ignore the task of maximizing shareholder value. Hovey et al. (2003) show that the level of state ownership in a company is negatively associated with the company's accounting performance. Firth et al. (2011) reveal that listed state-owned enterprises (SOEs) are more likely to provide false information to the press. Wang and Wu (2011) find that state ownership has positive relationship with accounting restatements.

In addition to the proportion of state ownership, the tradability of state ownership has also attracted a lot of attention from scholars. In the early stages of capital market development in China when the state-owned enterprises went public, only a minor portion of the shares issued could be traded on the market. The state-owned shares cannot be traded, which raises the problem of company governance and stock trading speculation (Liao et al., 2014). To resolve this issue, the split-share structure reform was launched in 2005 to eliminate the dual-share structure problem, and most companies have done away with the trading restrictions on the shares that were originally non-tradable, thereby significantly improving the profitability of these companies. (Liu et al. 2014; Liao et al., 2014). The benefits of the split-share reform have also been demonstrated by Beltratti et al. (2012) and Gu et al. (2018). Beltratti et al. (2012) show that the split-share reform led to better market value and enhanced governance quality for small-cap, state-owned companies. Gu et al. (2018) contend that after the split-share structure reform, corporate decision-making and monitoring quality improved. In contrast, other research studies argue that the split-share reform may harm the interests of minority shareholders. As Wei and Xiao (2009) show, after the state's shares are liquidated, the dividend payments ratio of these state-controlled companies drops. Moreover, Liu and Tian (2012) show that the split-share reform could affect the expropriation activities of enterprises where the state owns a

controlling share through the acquisition of excess debt from the listed companies.

2.6.2 The Impact of Corporate Boards on Corporate Governance in China

Regarding corporate boards, a notable difference between China and other major economies such as the U.S. or the U.K is that China has adopted a two-tier board system, where the listed company must also have a supervisory board with at least three members (Firth et al., 2007a). Unlike the study by Tusek et al. (2009) that prove the usefulness of supervisory boards in other countries, early empirical research focusing on the Chinese market has demonstrated that the supervisory board may not be able to function effectively (Ran et al., 2015). Research such as Dahya et al. (2002b) show that the supervisory board is not given enough power to discipline executives of listed Chinese companies, so it only plays an advisory role. Jia et al. (2009) show that the size and meeting frequency of supervisory boards have no positive impact on governance quality in Chinese companies. More recently, Ran et al. (2015) provide evidence supporting the view that certain characteristics of supervisory board members could enhance accounting information quality, which to some extent supports the usefulness of supervisory boards in China.

Apart from board structure, the outside director is another of the most frequently investigated components of corporate boards in Chinese companies, which in line with research focusing on developed economies (Fama and Jensen, 1983; Adams et al. 2010). However, few of the empirical research studies had results that confirmed the outside director's effectiveness in China. Except for Chen et al. (2006) found a negative relationship between the presence of outside directors and fraudulent behavior, other research generally found no evidence to support the outside director's effectiveness in Chinese markets. Empirical work by Li and Naughton (2007)

demonstrate that the outside director has no significant impact on company performance. Bai et al. (2004) also provide evidence that the presence of outside directors does not enhance shareholder value. Jiang and Kim (2015) support the notion that outside directors cannot function effectively in Chinese companies, given the evidence that most companies only maintain the minimum number of outside directors on their boards required by regulations. More recently, Meng et al. (2018) even find that the presence of outside directors has a negative impact on company performance and that this negative impact is more pronounced in companies with higher information costs.

In addition, recent research shows the importance of some other characteristics of corporate board members for corporate governance in China. For example, Jian and Lai (2017) show that A-share listed companies with more foreign board directors could reduce the probability of earnings management. He and Luo (2018) find that corporate boards in China with an even number of directors are less efficient and often experience more board meeting absences and tunneling behaviors. Du et al. (2018) show that in China, director connections are very important for companies to obtain trade credit, especially for companies with financial constraints. Li et al. (2019) show that directors with technology backgrounds could enhance innovation in Chinese companies. Hu et al. (2019) used the negative stock market reaction to the resignation of politically connected outside directors to demonstrate the importance of political connections for corporate boards in China.

2.6.3 The Impact of the Management Team on Corporate Governance in China

Regarding the management team impacts on corporate governance, similar to research

on other countries, different aspects of the pay-performance and performance-turnover relationships in Chinese markets have been repeatedly investigated by scholars. Several research studies on the pay-performance relationship provide evidence supporting the effectiveness of cash payments to management teams in China. For example, Firth et al. (2007b) find a positive relationship between company operating profit and CEO cash compensation in Chinese capital markets. Zhou et al. (2018) show that CEO and CFO salaries have a negative relationship with the probability of committing fraud. However, as Firth et al. (2006) found when focusing on state-owned enterprises, in order to maintain social balance, the SOEs are more likely to set salary caps on management income, which diminishes the incentive function of cash payments. Moreover, it is argued that the economic efficiency and corporate profit are secondary objectives for the government (Firth et al., 2007b). Therefore, empirical research finds little evidence regarding the relationship between company performance and management pay in SOEs (Firth et al., 2006 and Conyon and He, 2011).

Regarding the performance-turnover relationship, research shows that poor performance is related to both voluntary and involuntary CEO turnover in Chinese companies (Fan et al., 2007). Also, companies with a higher risk of default will be more willing to replace their management teams (Ting, 2011). However, this relationship may not hold in certain conditions. For example, Luo (2015) shows that the pay-performance relationship does not hold for the Chinese banking industry. Moreover, it has been proved that the performance-turnover relationship is weak in state-owned companies. As Cheng et al. (2008) show, CEO turnover in SOEs always occurs when a company has high operating, administrative and financial expenses and is not directly linked to poor earnings performance. Based on empirical evidence, both Kato and Long (2006) and Chi and Wang (2009) find that the sensitivity of CEO

turnover to performance is lower in SOEs. In addition, this turnover may not always help SOEs improve their future performance (Shen and Lin, 2009). Moreover, the studies by Hu and Leung (2012) and Pessarossi and Weill (2013) show that when SOEs are broken down into central and local SOEs, performance-turnover sensitivity and positive market reactions to turnover is more pronounced in central SOEs.

In addition, recent research has also opened new dimensions for studying the impact of management team on governance quality in China. For example, Li et al. (2018) show that CEO media exposure could enhance the efficiency of incorporating company-specific news into stock prices. Wu et al. (2018) find that political connections could enhance company performance and CEO pay. Yin et al. (2019) show that a CEO's personal donations could affect consumer's attitudes to the company. Zhou et al. (2019) show that, in the banking industry, the age gap between the CEO and the board chairman could temper a bank's risk-taking behavior.

2.7 Conclusion

This chapter of the thesis provided a brief institutional background of Chinese capital markets and reviewed the role of the corporate board, its functions, and the reasons outside directors are needed on corporate boards. The review highlighted several paths for this research. First, even though the importance of outside directors has been well-documented around the world in the existing literature, there is insufficient evidence to support their usefulness in China. Any other functions that could be performed by outside directors are worthy of more research. One possible direction is further discussed in Chapter 3, regarding whether outside directors are taking on a whistleblower role. Second, existing research has paid extensive attention to the board and management team and their implications for governance effectiveness in the

Chinese market. However, how management teams could support board functions and become involved in governance work have received little attention. In Chapter 4, an exploration of the corporate secretary's impact, who works closely with the corporate board on governance quality, will be examined in detail. Third, research has demonstrated how ownership and board characteristics could affect company governance outcomes, but few research studies consider the impacts on both shareholders and boards. In Chapter 5, the research on listed company directors who take multiple directorships on the boards of its shareholder companies will be explored to determine the impacts of multiple directorships on shareholder's wealth.

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Chapter 3 Whistleblowing and Enforcement Actions against Fraud: The Role of Dissenters in Boardrooms[8]

3.1 Introduction

This research aims to explore the whistleblower role of outside directors by looking at their dissenting opinions, intentional absences from board meetings, and voluntary board resignations. Outside directors form an important part of a company's internal governance system, especially on management and control (Fama and Jensen, 1983; Hermalin and Weisbach, 2003; Adams et al., 2010). However, the literature presents mixed results regarding their impact on company performance (Agrawal and Knoeber, 1996; Mehran, 1995; Klein, 1998). Although Beasley (1996) and Fich and Shivdasani (2007) show that outside directors could help companies reduce the incidence of fraud, 80% of Enron's board consisted of high-profile outside directors who also chaired most of the key committees, yet a major scandal still occurred (Ghoshal, 2005). I argue that these mixed results could be attributed to the limitations in how outside directors are measured. To study their effectiveness, the literature mostly focuses on "who they are", relying on characteristic-based measures such as board composition (Dahya and McConnell, 2007), outside director tenure (Vafeas, 2003), multiple directorship of outside directors, and outside director expertise (Agrawal and Knoeber, 2001). However, few studies consider "what they do" by examining the actual behaviors of outside directors.

To address this issue, I propose action-based measures of "outside director activism" to revisit the role and effectiveness of outside directors, namely, dissenting

[8] The modified version of this chapter of this thesis is in the R&R process of *Journal of International Financial Markets, Institutions & Money*

opinions, intentional absences, and voluntary resignations. These proxies enable us to turn the focus from what an outside director may be capable of to what they actually do to fulfill their responsibilities. Information on dissenting opinions expressed by outside directors was not available in most countries. Recently, Schwartz-Ziv and Weisbach (2013) derived this information from the board meeting minutes of 11 Israeli government-owned businesses. Jiang et al. (2016) examined the opinions of outside directors regarding the proposals presented in board meetings, information that the regulatory commission was required to disclose. In addition, I developed a proxy for activism by using the intentional absences and voluntary resignations of outside directors. These are mechanisms used by outside directors to avoid legal responsibility for problematic board decisions. For this, I developed a sample that included all companies listed on the Shanghai and Shenzhen A-share Stock Exchanges between 2005 and 2010.

I argue that outside director activism is unlikely to be an effective disciplinary mechanism for reducing the incidence of fraud-related regulatory enforcement. Outside directors lack strong voting and negotiating power, enabling managers to still force through controversial proposals. Instead, I argue that their activism signals problems in corporate governance or in flawed market proposals by playing a whistleblowing function. This activism is expected to increase regulatory and public scrutiny, and predicts an increased incidence of fraud-related regulatory enforcement. To perform the analysis, I regress the variables of outside director activism on a dummy variable of regulatory enforcement against corporate fraud. I control for the endogeneity issue with the propensity score matching (PSM) approach and instrument variable analysis. I find that outside director activism can predict rather than deter the incidence of enforcement action. This finding suggests that protests by outside

directors are a signal to the markets and attract the attention of regulatory authorities, implying that outside directors have a whistleblowing function. In addition, I further divide the research sample by ownership type and find that the whistleblowing function is more pronounced in private companies. This shows that their whistleblower role is undermined by the controlling shareholders in politically connected SOEs.

I further test whether financial analysts and fund managers recognized the information signaled by director activism. I document that financial analysts and fund managers do react to the signals of dissenting opinions and voluntary resignations, as reflected in downgraded analyst reports and reduced fund ownership. I find that outside director activism enhances CEO accountability, as evidenced by the increasing sensitivity of CEO turnover and corporate fraud. The result is more pronounced in private companies and companies with more analyst coverage, implying that the public outrage can overcome CEO entrenchment. Overall, the finding suggests that despite the inability of outside directors to have a disciplinary effect on management teams, their whistleblowing can attract public attention and help the board fulfill its monitoring function.

This chapter makes the following contributions. First, I add a new dimension to research on outside directors by examining their activism. This is among the first few studies to focus on what outside directors do, rather than on who they are (e.g., Schwartz-Ziv and Weisbach, 2013). Second, this chapter also adds to the literature on corporate fraud by providing original evidence on information dissemination from outside director to analysts and fund managers through outside director activism (see Dyck et al. 2011). These signals could trigger public outrage and help discipline CEOs. Finally, this paper adds to the literature on emerging markets by showing that outside directors find it more difficult to exert their influence on dominant state shareholders.

The remainder of this chapter proceeds as follows. Section 3.2 reviews the institutional background and literature. Section 3.3 proposes the new action-based measure of outside director activism and develops the hypotheses. Section 3.4 introduces the research design and sample. Section 3.5 presents the empirical results, and Section 3.6 presents the conclusions.

3.2 Literature Review

3.2.1 A Review of Outside Directors

There are various motives for companies to appoint outside directors, such as monitoring and institutional needs. Each motive implies different roles and tasks for outside directors. The monitoring function is in place to deal with the agency problem (Jensen and Meckling, 1976; Fama, 1980; Fama and Jensen, 1983; and Mizruchi, 1983). Due to the separation of ownership and control, shareholders and company managers have diverging interests. Executives tend to act in their own self-interest rather than maximizing shareholder value. These different interests within boards leads to the introduction of outside directors to perform an independent monitoring function for shareholders (Dalton et al., 1999; Walsh and Seward, 1990). Another motive for companies to appoint outside directors refers to institutional theory (Scott, 1995; Peng, 2004). From an organizational perspective, the appointment of outside directors may not be voluntary and is done to fit into the institution's environment (Peng, 2004; Chizema and Kim, 2010). For example, Linck et al. (2009) show a sharp increase in the number of outside directors following the 2002 enactment of the Sarbanes-Oxley Act. It is unlikely that many listed companies suddenly demanded more outside directors to enhance the monitoring function. If this is a case of "window dressing", outside directors may not be able to fulfill their responsibilities even if they have the

capability. Therefore, examining the characteristics of outside directors is not sufficient for studying their effectiveness.

Outside directors also represent shareholders when they are performing the monitoring and consulting functions (Deutsch et al., 2011). To understand what motivates them to perform these functions, I determined three types of incentives for outside directors: reputation, pursuit of wealth, and liability avoidance. First, outside director earn good reputations by enhancing a company's operations (Fama and Jensen, 1983; Linck et al., 2009). A straightforward reward for a good reputation is having multiple directorships (Ferris et al., 2003). Kaplan and Reishus (1990) document that outside directors have a fewer opportunities for obtaining additional directorships when their companies reduce dividend payments. Fich and Shivdasani (2007) show that directors associated with instances of fraud and who have damaged reputations are less likely to be appointed by companies with good corporate governance. Sharma (2011) finds that outside directors build their reputations by actively ensuring dividend payments and in turn obtain more opportunities for additional directorships. Second, compensation provides outside directors with a direct incentive to act to maximize shareholder wealth (Linn and Park, 2005). Gilson (1990) and Harford (2003) show that compensation effectively ensures that outside directors will act on behalf of shareholder interests during hostile takeovers and times of financial distress. Johnson et al. (2007) find that outside directors who own shares in the company participate more actively in corporate strategic restructuring. Gong and Li (2011) find that equity-based compensation encourages outside directors to seek more information about the company, and use this information to protect shareholder wealth. Finally, the avoidance of legal liability also serves as an incentive for outside directors. Potential lawsuits and legal liabilities are the major career risk for outside directors. They need

to be responsible to avoid legal sanction (Vafeas, 1999) for situations such as adverse financial stress caused by irresponsibility (Cheffins and Black, 2006). Yermack (2004) adds that outside directors are likely to depart in years when companies are performing poorly to avoid potential legal liabilities. However, Black et al. (2005) find that regardless of the existing legal system, there is limited out-of-pocket liability for outside directors in both common-law and civil-law countries. A higher out-of-pocket liability could not only deter outside directors from serving on the board but also make them concentrate on avoiding such liabilities (Black et al., 2005; Cheffins and Black, 2006).

3.2.2 Characteristic-based Measures of Outside Directors

The studies in the existing body of literature mainly use static measures of the effects of outside director characteristics, such as their tenure, multiple directorships, background, expertise, and their presence in board meetings, but little has been done regarding outside director activism. Agency theory suggests that the degree of independence of outside directors determines how well they monitor company executives (Fama and Jensen, 1983). Studies mainly use the tenure of outside directors as a proxy of their independence (Hermalin and Weisbach 2003; Dalton et al., 2007), and argue that independence is weakened by the length of time served on the board. Bhagat and Black (1999) and Adams and Ferreira (2007) argue that outside directors become “lapdogs” rather than “watchdogs” after serving on a board for a period of time.

Resource dependence theory suggests that outside directors play another important role as advisors and resource providers to the board, and therefore, the quality of their service depends on their experience and knowledge (Masulis et al.,

2012). It has been found that outside directors with professional backgrounds as scholars (Raheja, 2005; Choi, Park and Yoo, 2007), politicians (Miwa and Ramseyer, 2005), accountants (Klein, 1998), and bankers (Yamori, 1998; Byrd and Mizruchi, 2005) are better able to help companies.

Multiple directorships is another important feature of outside directors. Fama and Jensen (1983) argue that multiple directorships can serve as a proxy for a director's ability because directors with good records as board members tend to be preferred by other companies. Booth and Deli (1995) add that outside directors with multiple directorships are involved in more businesses and can thus help companies obtain better access to partner companies. However, time is an issue for busy directors serving on more than one board. Carpenter and Westphal (2001) note that outside directors with multiple directorships could be too busy to prepare well for each board discussion. Adams et al. (2010) provide theoretical support for this argument that shows that the availability of outside directors is crucial for performing an effective monitoring function.

Finally, the proportion of outside directors on boards is one of the most widely studied measures for evaluating their effectiveness. However, the empirical results for this are mixed. Klein (1998) documents an insignificant relationship between board composition and company performance, whereas Bhagat and Black (2002) find a negative relationship. An endogeneity problem may be the reason for the mixed results. Hermalin and Weisbach (1998 and 2003) argue that company performance may not be led by the appointment of outside directors. Instead, poor performance may lead companies to appoint more outside directors in order to enhance corporate governance.

3.3 Outside Director Activism and Hypothesis Development

3.3.1 Outside Director Activism

To study outside director activism, I focus on three of their behaviors: dissenting opinions, intentional absences, and voluntary resignations. Dissenting opinions are expressed by outside directors to the CEO and other executives in board meetings. An absence is intentional when outside directors fail to send a proxy to vote on their behalf when they cannot attend board meetings. Voluntary resignation refers to their voluntary departure from a board during their appointment period.

Some recent research has started looking at these types of behaviors by outside directors. Regarding outside director opinions, Schwartz-Ziv and Weisbach (2013) studied the minutes of a group of Israeli companies and found that directors are more likely to play a monitoring role than an advisory role. Jiang et al. (2016) examine reputation concerns by studying the reasons why outside directors vote the way they do, and its impacts on the reputations of outside directors. Kim and Oh (2017) find that dissenting opinions by directors in Korea could affect company performance and reduce stock return volatility.

Outside directors need to review the proposals put forward by management teams and express their opinions in board meetings. As Fama and Jensen (1983) indicate, the principal task of outside directors is to monitor and control management team decisions. Hermalin and Weisbach (2003) point out that outside directors could talk with management teams before proposals are put to a vote in board meetings and advise on any necessary modifications. In China, CSRC requires that corporate secretaries send the directors any proposals to be discussed in board meetings at least 10 days prior to the meeting in order to give them enough time to review the proposals and communicate with the management team. Therefore, if a dissenting opinion is still

presented in a board meeting, it is highly likely that the management team refused to modify the proposal as requested by the outside directors. Dissenting opinions protect outside directors by enabling them to avoid potential liabilities or legal risks caused by defective proposals.

Regarding intentional board meeting absences by directors, Chou et al. (2013) studied a sample from Taiwan and found that high meeting attendance will benefit company performance, but high attendance with proxies representing directors will have an adverse effect. Regarding voluntary resignation of directors, Bar-Hava et al. (2013) found that outside directors resign from board positions to avoid the probability of company underperformance and to reduce damage to their reputations. Dewally and Peck (2009) show that when outside directors make public announcements of their resignations, it is mainly due to company underperformance or because the company has a weak board. This research study argues that resignations by outside directors could have a disciplinary impact for poor board performance. The studies mentioned above mostly focus on the causes and consequences of outside director behaviors. Few of them see these actions as a type of activism on the part of outside directors, or they only focus on one of these behaviors. In addition, most of these research studies are trying to examine the effectiveness of outside directors in their direct monitoring role. Few try to consider the whistleblowing activities of outside directors when they fail to discipline management teams. In the next section, I will explain why these three behaviors are not mere happenstance but instead indicate a certain activism on the part of outside directors.

Sonnenfeld (2002) states that attending board meetings is a basic requirement for outside directors, and their absence from meetings indicates a level of irresponsibility that harms reputations when this information is released in corporate announcements.

Intentional absence is defined as an incidence of absence from board meetings without designating a proxy to speak on their behalf in the meetings. The CSRC regulation indicates that when outside directors are not able to attend meetings, they could ask other outside directors to act as their proxy and vote or express opinions on their behalf. If the proxy sent by an outside director agrees to a problematic proposal, Chinese contract law (under a civil law system) requires that both the director and the proxy assume responsibility for the decision. The regulation also states that outside directors who are absent from three consecutive board meetings are subject to replacement in the next shareholder's meeting. I argue that these intentional absences are an indication that an outside director wants to avoid both potential liabilities and confrontations with the CEO in board meetings. On one hand, outside directors face potential liabilities if they agree to problematic proposals. On the other hand, they could offend CEOs with their dissenting opinions. Although diligent work can enhance the reputation of an outside director (Fama and Jensen, 1983), having a good relationship with the management team also matters (Hermalin and Weisbach, 2003). Therefore, an intentional absence could be the best choice in these situations. Later, I provide empirical evidence that the busyness of outside director is not significantly related to their absences from board meetings[9].

Lastly, I use voluntary resignations from boards by outside directors as a proxy for their activism. An outside director's voluntary resignation during his/her appointment period could be interpreted by shareholders as irresponsible behavior, which could jeopardize their reputations. The CSRC mandates a three-year outside director appointment period, and they cannot be reappointed more than once to ensure

[9] Per Jiraporn et al. (2009), the busyness of an outside director could be measured by their multiple directorships. The second model with dependent variable "Intended Absence" in Table 3.3 shows that the coefficient of variable "Multiple Directorships" is 0.053 and the t-value is 1.29, which is insignificant and supports the irrelevancy of these two variables.

their independence. Again, I argue that the desire to avoid potential liabilities from problematic proposals drives the voluntary departure of outside directors when they conclude that they cannot stop management malpractice. Fich and Shivdasani (2007) note that directors of companies that commit fraud find it harder to be appointed to the boards of other companies.

3.3.2 Hypothesis Development

As discussed above, I argue that dissenting directors are less likely to play a disciplinary role to monitor managers. First, outside directors typically comprise one-third of the board in Chinese listed companies and thus lack sufficient voting power to reject problematic proposals. Kaplan and Minton (2011) show that when management teams are more powerful than their boards, executives may ignore the board's monitoring function. This situation could be more pronounced in China, where outside directors tend to be nominated by CEOs[10] and where personal ties are highly valued. Second, there are opportunities for informal discussions prior to the board meetings.[11] Managers have the opportunity to know the opinions of outside directors in advance of the board meetings, and they also understand that any form of activism will be disclosed to the markets. If they have not been persuaded by outside directors and still choose to submit the proposal and force it through in board meetings, it is unlikely that any anticipated activism would alter their behaviors. As a result, I argue that activism by outside directors tends to fail in disciplining executives but serves to blow the

[10] Despite not directly, research shows that CEOs are always involved in outside directors' selection process. Early research such as Mace (1986) indicates that management team plays very important role in outside director select process, and Waldo (1985) shows that such process makes the independency of outside director skeptic. Such argument has been supported by recent research such as Carcello et al. (2011).

11 In China, by the requirement of the CSRC, the board meeting proposal has to be sent to the management team 10 days before the meeting, and as Hermalin and Weisbach (2003) shows, outside directors will have chance to talk with management team before proposals being officially put to vote in board meetings, and could provide modification advise to management team if necessary.

whistle on potential company governance problems to alert the markets. Some of this information may attract the attention from regulatory authorities, outside investors, and even public media outlets, thereby increasing regulatory scrutiny. As a result, any company malpractice is more likely to be detected. I hereby propose the whistleblowing hypothesis as follows:

H3.1: Outside director activism predicts a higher incidence of regulatory enforcement for fraud

3.4 Sample and Research Design

3.4.1 Data and Sample

I collected the data from CSMAR (China Securities Market and Accounting Research), and the sample includes all A-share listed companies in the Shanghai and Shenzhen Stock Exchanges between 2005 and 2010, with a company-year observation of 7,244[12]. I identified 390 cases of dissenting opinions in board meetings. This is in line with the magnitude measured by Schewartz-Ziv and Weisbach (2013) that showed that board members disagree with the CEO only 2.5% of the time; their study was based on a much smaller sample of board meetings minutes from 11 Israeli government-owned businesses. From the resignation reports available in the stock exchanges, I also identified 197 voluntary resignations of board members prior to completion of their appointment periods. Figure 3.1 presents the breakdown by year and industry of board member activism, showing that it is evenly distributed across industries. The incidence

[12] In 2011, the Central Commission for Discipline Inspection published its policy "To standardize former officials taking roles as independent directors and independent supervisory directors in listed companies and fund management companies", which persuaded outside directors with political backgrounds to resign from the boards of listed companies. Therefore, this research study chose to end data collection in 2011 to avoid the influence of this policy on voluntary resignations by outside directors.

of dissenting opinions (intentional absences) is higher among companies in the healthcare (financial) industries.

[Please insert Figure 3.1 about here]

3.4.2 Research Design

To test the whistleblowing hypothesis, I apply the following probit regression model:

$$Fraud_t = \alpha_0 + \alpha_1 Activism_{t-1} + \sum_{i=2}^{n} \alpha_i Control_{t-1} + Year + Industry + \varepsilon \quad (3.1)$$

The dependent variable is CSRC regulatory enforcement against fraud[13]. The one-year lagged independent variable *Activism* denotes outside director activism in one of the following three forms: dissenting opinion, intentional absence, and voluntary resignation. I also control the characteristics of outside directors, including their average tenure, additional directorships, and the proportion of their representation on the board. The additional directorships refer to the number of directorships that outside director hold in other listed companies. I also control for board characteristics, including CEO duality, board size, board meeting frequency, supervisory board size and supervisory board meeting frequency. CEO duality is a dummy variable equal to one (1) if the CEO is also the board chair and equal to zero (0) otherwise. Board size denotes the total number of directors sitting on the board. For the company characteristics, I control for market value, price-to-book ratio and return on assets. The market value is calculated as the total shares outstanding at year-end multiplied by the year-end closing market price per share. Finally, I apply the industry and year fixed effects. I use the first two digits of the GICS codes for industry classification. All these

[13] Regulatory enforcement against fraud in this thesis includes all types of fraud defined by the CSRC, including fabricated profits, false asset statements, falsified records (misleading statements), delayed disclosures, major information omissions, false disclosures, fraudulent listings, investment violations, unauthorized change in the use of funded money, unlawful use of company assets, insider trading, illegal stock trading, manipulation of stock prices, violation of guarantees, improper handling of general accounting records, and other violations.

data are collected from CSMAR database. If the coefficient of *Activism* is significantly positive, the hypothesis is supported.

3.4.3 Propensity Score Matching and Instrumental Variable Analysis

There is a concern regarding endogeneity issues. For example, outside directors do not randomly exhibit activist behavior. Companies that behave opportunistically tend to experience more activism by outside directors and also tend to experience the subsequent enforcement actions. To address this concern and to resolve the nonrandom allocation of activism, I employ the Propensity Scoring Matching (PSM) method (Rosenbaum and Rubin, 1983; Malmendier and Tate, 2009) to construct a matching-company sample and replicate the test by matching each company with outside directors demonstrating activism (treatment group) with another otherwise identical company with outside directors that could demonstrate activism but did not (control group). The reason for using this method is to predict the incidence of activism activity by their observable characteristics. For this, I use the following outside director features: board independence ratio, company-level average number of multiple directorships, and company-level average tenure of outside directors. I also use the following corporate governance quality measures: CEO duality, board meeting frequency, board size, supervisory board meeting frequency, supervisory board size, and the Herfindahl 10 index as a proxy for company characteristics to score each one of the protest variables. I employ the full sample for the PSM observations and apply the one-to-one matching criteria. After obtaining the score for each observation, I conduct a nearest-neighbor one-to-one sample match with the scores for the activism indicators. Rosenbaum and Rubin (1983) show that treated and control groups with similar scores will have almost identical distributions. Thus, if I compare the scores of matching companies, it actually transfers the sample into a randomized experiment

sample.

In addition to the propensity scoring matching, I also apply an instrument variable analysis to the matched sample to further address the endogeneity issue. As Whisenant et al. (2003) show, instrumental variable analysis is a very effective way of dealing with an endogeneity problem. Since the observations of activism behaviors are highly unbalanced, this study applies the instrumental analysis to the PSM-matched sample, which has fewer problems of partial observations in order to produce more robust and effective results. To conduct the instrumental analysis, I use two instrument variables: *OD_Regulation* and *Ln_Od_Avg_Pay*. *OD_Regulation* is a dummy variable equal to one (1) if the observation is in the year 2006 or later. This variable captures the legal status of outside directors. Before 2006, there were only a few nonlegal policies that required outside directors on boards of listed companies. In 2006, China's modified corporate law stated for the first time that listed companies must hire outside directors, and the state council was required to create the corresponding regulation. After this fundamental legal document was released, many other regulations were issued by the CSRC that further enhanced the power of outside directors and increased their responsibilities. These legal changes are exogenous to the company characteristics but have an influence on outside director behavior, which makes it suitable to function as the instrumental variable.

Ln_Od_Avg_Pay is a continuous variable that equals the average salary of all outside directors, which captures a company's salary level. Salary level shows the value and importance of a certain position (Mahoney, 1979). Therefore, the salary level exhibits the true rank and importance for the company of the outside director position. As such, it does influence the activism-related decisions of outside directors, and creates higher communication costs between outside directors and management teams,

producing greater potential for activist behavior. Moreover, the existing literature shows that cash compensation will not directly affect the incidence of fraud (Persons, 2012), so the salary level correlated with activism behavior but not with fraud is selected as another instrumental variable.

3.4.4. Descriptive Statistics

Table 3.1 presents the descriptive statistics of variables in a company-year sample. It shows that an average of 6.6% of companies are caught for fraudulent behaviors by the regulatory commission, and non-SOEs are more likely to be caught than SOEs. It also shows that on average, only 5.4% of companies have outside directors that have expressed dissenting opinions in board meetings. They are more likely to choose intentional absences (11.8% of the companies) when they do not agree with proposals. About 2.7% of the companies experienced voluntary resignations by outside directors during their appointment periods. In addition, the average percentage of outside directors on boards is 35.9%. The average additional directorships held by outside directors are 0.75. The average tenure of outside directors is approximately 4.9 years, and the median value is four years. Since the standard term in office for outside directors is three years, this result suggests that many companies renew the contracts of outside directors. However, this result is much lower than the average tenure of 8.9 years for outside directors in the U.S. (Bar-Hava et al., 2013).

[Please insert Table 3.1 about here]

Table 3.2 presents the (Pearson) correlation matrix of variables in the company-year sample. The dissenting opinions are positively related to intentional absences and resignations. They are all positively related to the incidence of regulatory enforcement. This supports the whistleblowing hypothesis that director activism failed to discipline

CEOs by deterring their misconduct. The negative correlation between multiple directorships and dissenting opinions is consistent with the finding in the study by Hermalin and Weisbach (2003) that outside directors who "make trouble" for CEOs are less popular in the job market. The positive correlation of outside director tenure with dissenting opinions and resignations implies that since outside directors can only have their contracts renewed once, they become less concerned about their relationship with the management team and are more likely to vote against proposals submitted to the board during their second appointment periods.

[Please insert Table 3.2 about here]

In addition, Table 3.3 presents the results of a regression analysis on the relationship between the traditional measure of the effectiveness of outside directors and outside director activism. Column 1 shows that the highest R-square is 0.205, suggesting the low explanatory power of traditional measures using outside director characteristics for outside director activism.

[Please insert Table 3.3 about here]

3.5 Empirical Results

3.5.1 Baseline Results

Table 3.4 presents the baseline results for the hypothesis test of the positive link between outside director activism on the incidence of regulatory enforcement. To avoid an inefficient t-value induced by potential heteroscedasticity, I cluster observations by industry and year to compute the robust standard error (Rogers, 1993). The significantly positive coefficients show that dissenting opinions (0.390), intentional absences (0.166), voluntary resignations (0.242), and activism (0.214) predict an increased incidence of regulatory enforcement for fraud. This supports the

whistleblowing hypothesis that outside directors fail to discipline CEOs and only signal governance problems that could potentially lead to future regulatory enforcement. It is also worth noting that multiple directorships and outside director tenure have been found to reduce the incidence of enforcement actions. This may be attributed to the fact that more established and experienced outside directors are more effective in enhancing governance quality. Finally, enforcement actions are less frequent among companies with concentrated ownership, larger companies and companies with better operating performance. The results are robust to the control of year and industry dummies.

To avoid a potential multicollinearity problem, the Yoder and Pettigrew-Crosby (1995) approach was followed to calculate the variance inflation factors (VIF) of each model. Initially, I found that the VIF is over 10, which exceeds the usual acceptable level. But this is due to the extremely high inflation value of the variable market value. When I replaced the market value with book value, the problem remains. I then excluded the market value and repeated the test, finding that the average VIF value dropped significantly to approximately 5.5, far lower than the borderline level. To solve a potential multicollinearity problem, I performed the analysis without the market value, finding that the coefficients for all activism variables are still significant, suggesting that the result is not biased by a multicollinearity problem[14].

[Please insert Table 3.4 about here]

3.5.2 Robustness Checks

As mentioned above, to address the potential endogeneity problem, I first construct a matching-company sample by using the Propensity Scoring Matching (PSM) method (Rosenbaum and Rubin, 1983; Malmendier and Tate, 2009). In the matching-company

[14] Please see the results in Appendix 3.A2.

sample, each company with outside directors demonstrating activism (treatment group) is matched with another otherwise identical company with outside directors that could demonstrate activism but did not (control group). I use all the control variables to predict the incidence of each activism proxy. The results are reported in Table 3.5, columns 1-4. Consistent with the baseline results, the coefficients for the activism indicators remain significantly positive. Moreover, to further ensure the robustness of the results regarding the potential endogeneity, I also employ two instrumental variables (*OD_Regulation* and *Ln_Od_Avg_Pay*) to conduct the two-stage instrumental variable analysis on the PSM sample. These results are presented in Table 5, columns 5-7 and are still consistent with the baseline results that show the whistleblower role of outside directors, further supporting Hypothesis 1b.

[Please insert Table 3.5 about here]

In addition, I believe that different levels and frequencies of activism should have different impacts on fraud. To identify this effect, I create the level variables of *Ind_Adj_Total_Dissenting*, *Ind_Adj_Total_Resignation* and *Ind_Adj_Absence_Ratio* as alternative proxies to the dummy activism variables in the baseline analysis. The *Ind_Adj_Total_Dissenting* variable equals the industry-adjusted number of dissenting behaviors for a company in one year; *Ind_Adj_Total_Resignation* equals the industry-adjusted number of directors that resigned from the board of a company in one year; and *Ind_Adj_Absence_Ratio* equals the industry-adjusted ratio of outside director intentional absences from board meetings to the total number of meetings outside directors are expected to attend. Table 6 presents the results of re-examining the models, showing that the coefficients of these industry-adjusted level variables have a significant positive relationship with the probability of regulatory enforcement for fraud, again suggesting that the frequency and level of activism could blow the whistle

on management.

[Please insert Table 3.6 about here]

3.5.3 Director Activism and State Ownership

State-owned enterprises and the commonplace state-controlled enterprises are important institutional features in China and have important implications for corporate governance. Shleifer and Vishny (1994) and Shleifer (1998) argue that government ownership deteriorates the quality of governance. Hou and Moore (2010) contend that state ownership undermines the rigor of regulatory scrutiny to detect fraud. Therefore, I expect that state ownership may also undermine the whistleblower role of outside directors. To assess this prediction, I divide the sample into non-SOEs (i.e., privately owned companies) and SOEs (state-controlled companies), and replicate the test. The results are presented in Table 3.7. Consistent with the main results from Table 4, the coefficients for the activism indicators for non-SOEs are significantly positive and much larger than in the SOEs, showing that the whistleblower role of outside directors is more prevalent in privately owned companies. This result aligns with the existing literature regarding the lenient regulatory oversight (Hou and Moore, 2010) of SOEs.

[Please insert Table 3.7 about here]

3.5.4 Director Activism and Financial Intermediaries

Since activist behavior is communicated in relevant corporate announcements, I explore whether and how information about director activism is perceived and reacted to by financial intermediaries such as financial analysts and mutual fund managers. Ding et al. (2017) suggest that corporate disclosures could enhance analyst awareness of corporate governance quality and potential risks. Sharma (2004) suggests that

institutional investors are sensitive to signals regarding corporate governance that could determine future performance. Analyst research is a critical input for the investment decisions of institutional investors. I therefore expect that the whistleblower role of outside directors is more pronounced among companies with greater analyst coverage. To assess this prediction, I divide the sample into companies with analyst coverage that is higher and lower than the median level to see whether the transparency brought by analysts could have a different impact on outside director activism. Table 3.8 presents results that show that outside director activism can better predict regulatory enforcement for fraud in companies with greater analyst coverage, which indicates the importance of information transparency for the effectiveness of the outside monitoring function.

[Please insert Table 3.8 about here]

I believe that financial analysts and fund managers can interpret the information signaled by activist behavior. Financial analysts react to this behavior by lowering their "buy" recommendations in analyst reports, and mutual fund reacts by reducing their holdings. To assess this prediction that financial intermediaries respond to the activism of outside directors, I apply the panel OLS regression model with fixed-effect as follows:

$$Sell_t = \alpha_0 + \alpha_1 Activism_t + \sum_{i=2}^{n} \alpha_i Control_t + Year + Industry + \varepsilon \qquad (3.2)$$

where the dependent variable is fewer "buy" recommendations in analyst reports as a result of outside director activism, which reflects a downgrade in analyst recommendations. The information regarding analyst recommendations was obtained from CSMAR. Since this database does not contain information on the dates when various types of activism were communicated, I could not perform an event study. The same set of control variables for board or company characteristics and operating

performance is controlled as in Equation (1). If the financial intermediaries recognize the information signaled by activism, I expect to observe an increase in the number of downgraded analyst reports.

The results of this test are presented in Table 3.9. The coefficients for the dissenting opinions and the integrated activism measure are significantly positive, indicating that downgraded financial recommendations are a consequence of outside director activism. Financial analysts react to dissenting opinions more actively than to intentional absences and resignations.

[Please insert Table 3.9 about here]

In addition, I also examine the impact of activism on fund ownership by using the following model, with fund ownership information collected from CSMAR.

$$Fund_t = \alpha_0 + \alpha_1 Activism_t + \alpha_2 Analyst_t + \alpha_3 Activism \times Analyst_t + \sum_{i=4}^{n} \alpha_i Control_t + Year + Industry + \varepsilon \quad (3.3)$$

Fund denotes the change in ownership ratio for the current year compared to the previous year. *Analyst* is the change in analyst reports for the current year compared to the previous year. The interaction term shows how the analyst coverage strengthens the sensitivity between outside director activism and reduction in fund ownership. Table 3.10 presents the regression results. The coefficients for analyst coverage are all positively significant at 1% in each column, which confirms that analyst research is an important input to institutional investor decision-making. More importantly, the coefficients of the interaction term of activism with analyst coverage change are significantly negative. This implies that fund managers react to activism by reducing ownership in the companies, with less information asymmetry reflected by higher analyst coverage.

[Please insert Table 3.10 about here]

3.5.5 Director Activism and CEO Accountability

I expect that activism influences the accountability of CEOs, reflected by the sensitivity between CEO turnover and regulatory enforcement. The studies in the existing literature suggest that outside directors play a role in replacing ineffective CEOs. For example, Kini et al. (1995) and Guo and Masulis (2012) show that outside directors have fewer economic ties to CEOs and can therefore be more objective regarding CEO turnover, thereby enhancing CEO accountability. Weisbach (1988) finds that CEOs are more likely to be replaced after poor performance by companies dominated by outside directors. Regarding the evidence from China, Chen et al. (2016) indicate that there is greater sensitivity between CEO turnover and corporate fraud when the fraud is likely to provoke public outrage.

I therefore argue that the whistleblowing information signaled by outside director activism could bring about public scrutiny and enhance CEO accountability regarding corporate fraud. To assess this prediction about the impact of activism on CEO accountability, I apply for the following probit model:

$$CEO\ Turnover_t = \alpha_0 + \alpha_1 Fraud_t + \alpha_2 Activism_t + \alpha_3 Fraud_t \times Activism_t + \sum_{i=4}^{n} \alpha_i Control_{t-1} + Year + Industry + \varepsilon \quad (3.4)$$

where the dependent variable is CEO turnover, which is set to one (1) if a CEO is replaced during the year, and zero (0) otherwise. I obtained the CEO turnover data from the CSMAR database. I only kept the data sample for nonroutine turnover and excluded turnover due to health issues and retirement, as well as turnover for CEOs over the age of 65. The explanatory variable *Fraud* is set to one (1) if the company experienced regulatory enforcement for fraud, and zero (0) otherwise. The focus of the test is the interaction term of activism and fraud, for which I expect to observe a significantly positive coefficient. The same set of control variables used in Equation (3.1) are also incorporated here to control for the possible effects of governance quality,

and company characteristics or performance.

Table 3.11 presents the results of this test. As shown in Table A, the coefficients for *Fraud* are positively correlated with CEO turnover, showing that experiencing regulatory enforcement for fraud is likely to lead to CEO replacement. While the activism proxies are not significant on their own, the interaction of dissenting opinions and fraud in Column 1 is significantly positive, showing that the director activism can increase the probability of CEO replacement in companies committing fraud that were subject to enforcement action. This result supports the argument that the whistleblower role of outside directors triggers public attention or even outrage by outside investors and exerts pressure on the board to replace a CEO.

To further explore the issue of CEO replacement, I divided the research sample by ownership type (SOEs and non-SOEs), and level of analyst coverage. Kato and Long (2006) and Chen et al. (2016) suggest that CEOs are more entrenched in state-owned enterprises. In addition, companies controlled by state shareholders can receive preferential treatment from banks, enabling them to rely less on outside investors. Therefore, public scrutiny or outrage may exert less pressure on the boards of SOEs to replace problematic CEOs. In addition, I use analyst coverage as a proxy for the information environment that fosters the dissemination of whistleblowing information. I predict that the impact of outside director activism is more pronounced among companies with greater analyst coverage. Panel B of Table 3.11 presents the results. As I expected, the coefficient for the interaction term of enforcement action and dissenting opinions is only significant for the non-SOE (private) sample, which supports the finding in Table 3.7 about the further insights on the role played by controlling state shareholders. It shows that the public scrutiny triggered by outside director activism has a larger impact on CEO accountability in non-SOEs. Columns 3

and 4 present the results for the samples partitioned by level of analyst coverage. The interaction term of enforcement action and dissenting opinions is only significant in the sample with high analyst coverage, suggesting that outside director activism is more likely to exert pressure on the CEOs of more transparent companies. Overall, these results suggest that although outside directors cannot directly discipline the CEOs, their whistleblowing function through the market mechanisms could alert outside investors and put executives under more severe scrutiny.

[Please insert Table 3.11 about here]

3.6 Conclusion

The existing literature exhibits mixed results regarding the effectiveness of outside directors. This chapter sheds light on the debate on the role of outside directors by examining their behaviors. I proposed the following indicators of outside director activism: dissenting opinions expressed in board meetings, intentional absences without sending a proxy, and voluntary resignations during the appointment period. I provided original evidence of the whistleblower role of outside directors in that their activism can predict the incidence of regulatory enforcement for fraud and that this is captured by financial intermediations. Financial analysts lower company ratings in their reports, and mutual funds reduce their shareholdings in the companies. The results are robust after using PSM to control the potential sample self-selection bias problems, as well as the instrumental variable approach. I further divided the research sample by ownership type and found that this effect is more pronounced in non-SOE companies, suggesting that the regulatory authorities are less sensitive to the signals sent by outside director activism in SOE companies when conducting fraud inspections. Finally, I demonstrated that outside director activism could exert pressure on the board and strengthen the sensitivity between fraud and CEO turnover. This result is more

pronounced in non-SOEs with less CEO entrenchment and greater analyst coverage. Overall, the findings suggest that although outside directors cannot direct regulate the management team behavior, their whistleblowing function disseminates information to regulators and market participants, effectively placing executives under scrutiny.

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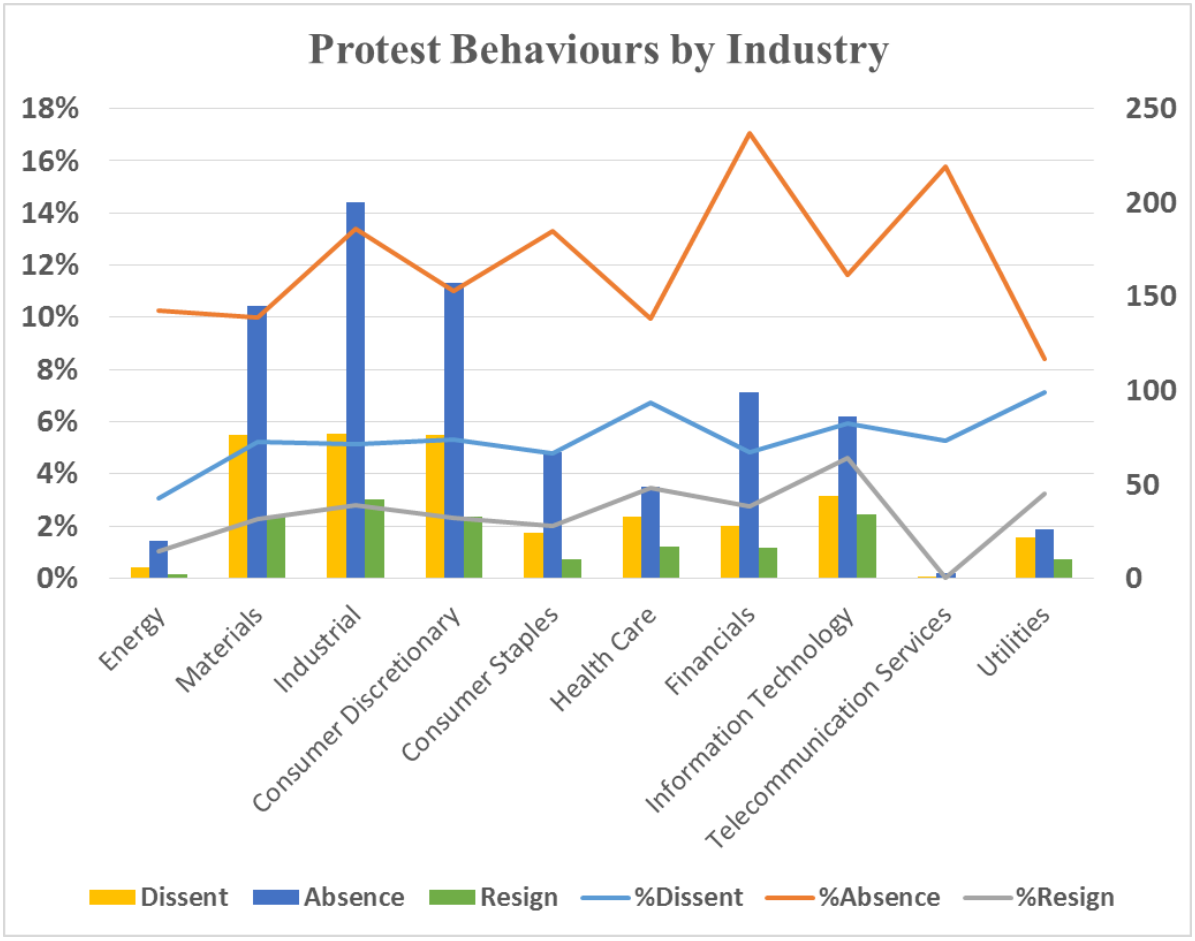
Figure 3.1

This table presents a yearly and industry breakdown of the three protest behaviors of our firm level sample. The sample period covers 2005-2010. The industry classification is based on the first 2 digits of GICS. The activism measures are defined in Table 1. Fraud is a dummy variable assigned to 1 if the firm is subject to a regulatory enforcement against fraud and 0 otherwise. Dissent is a dummy variable assigned to 1 if at least one outside director expressed dissenting opinions in board meetings during the year, and 0 otherwise. Absence is a dummy variable assigned to 1 if outside directors are absent in board meetings and fail to send a voting proxy during the year, and 0 otherwise. Resign is a dummy variable assigned to 1 if at least one outside director resigned during their term in office, and 0 otherwise. Activism is a combined dummy variable assigned to 1 if any of the Dissent, Absence or Resign assigned to 1, and 0 otherwise. Other variables are defined in Table 1.



Tables for Chapter 3

Table 3.1 Descriptive statistics

This table presents the descriptive statistics of the variables in the research sample. It reports the number of observations, mean, standard deviation, median, and first and third quartile values of all the main variables used in this chapter. Detailed definitions of all the variables are reported in Appendix 3.A1.

	Variable	N	Mean	Std Dev.	P25	Median	P75
（1）	Fraud	7148	0.066	0.249	0.000	0.000	0.000
（2）	Fraud(SOE=0)	2827	0.091	0.286	0.000	0.000	0.000
（3）	Fraud(SOE=1)	4321	0.050	0.219	0.000	0.000	0.000
（4）	Dissenting Opinion	7148	0.053	0.225	0.000	0.000	0.000
（5）	Intended Absence	7148	0.118	0.323	0.000	0.000	0.000
（6）	Resignation	7148	0.032	0.176	0.000	0.000	0.000
（7）	Activism	7148	0.181	0.385	0.000	0.000	0.000
（8）	Board Independence	7148	0.359	0.051	0.333	0.333	0.375
（9）	CEO Duality	7148	0.162	0.368	0.000	0.000	0.000
（10）	Multiple Directorship	7148	0.749	0.673	0.250	0.667	1.200
（11）	Outside Director Tenure	7148	4.924	1.415	4.000	5.000	6.000
（12）	Board Meeting Frequency	7148	8.912	3.531	7.000	8.000	10.000
（13）	Board Size	7148	9.255	1.922	9.000	9.000	10.000
（14）	Supervisory Board Size	7148	3.980	1.338	3.000	3.000	5.000
（15）	Supervisory Board Meeting Frequency	7148	4.552	1.775	3.000	4.000	6.000
（16）	Ownership Concentration	7148	0.030	0.072	0.000	0.002	0.012
（17）	Price to Book Ratio	7148	3.857	21.241	1.829	3.200	5.312
（18）	ROA	7148	0.121	37.318	-0.020	0.000	0.015
（19）	Ln(Market Value)	7148	21.816	1.195	21.016	21.731	22.501
（20）	SOE	7148	0.605	0.489	0.000	1.000	1.000
（21）	Sell	7148	-0.058	3.020	-1.000	0.000	1.000
（22）	Report	7148	1.719	9.737	-1.000	0.000	3.000
（23）	Fund_Change	7148	0.516	5.593	-0.534	0.000	1.327
（24）	CEO Turnover	7148	0.159	0.365	0.000	0.000	0.000
（25）	Leverage	7148	4.543	64.651	1.475	2.380	4.180
（26）	Od_Regulation	7148	0.845	0.362	1.000	1.000	1.000
（27）	Od_Avg_Pay	7107	45120.720	48193.640	30000.000	40000.000	50400.000
（28）	Fund_Hold_Pct	7148	4.397	7.396	0.000	0.579	5.624

Table 3.2 Pairwise correlation matrix

This table presents the descriptive statistics of the variables in the research sample. Detailed definitions of all the variables are reported in Appendix 3.A1.

	[1]	*[2]*	*[3]*	*[4]*	*[5]*	*[6]*	*[7]*	*[8]*	*[9]*	*[10]*	*[11]*	*[12]*	*[13]*	*[14]*	*[15]*	*[16]*	*[17]*	*[18]*	*[19]*	*[20]*	*[21]*	*[22]*	*[23]*	*[24]*
[1]Fraud	1.000																							
[2]Dissenting Opinion	0.080*	1.000																						
[3]Intended Absence	0.046*	0.052*	1.000																					
[4]Resignation	0.044*	0.017	0.044*	1.000																				
[5]Activism	0.075*	0.505*	0.775*	0.355*	1.000																			
[6]Board Independence	0.008	-0.021	0.000	-0.019	-0.015	1.000																		
[7]CEO Duality	0.028	0.015	-0.012	0.022	0.002	0.074*	1.000																	
[8]Multiple Directorship	-0.056*	-0.036*	-0.013	-0.010	-0.030*	-0.007	-0.038*	1.000																
[9]Outside Director Tenure	-0.075*	0.033*	0.061*	-0.114*	0.032*	-0.101*	-0.108*	-0.018	1.000															
[10]Board Meeting Frequency	0.025	0.018	0.100*	0.030	0.094*	0.041*	-0.038*	0.028	-0.050*	1.000														
[11]Board Size	-0.061*	0.006	0.049*	-0.002	0.045*	-0.271*	-0.128*	-0.027	0.084*	-0.028	1.000													
[12]Supervisory Board Size	-0.035*	0.014	0.038*	-0.010	0.033*	-0.103*	-0.117*	-0.020	0.080*	-0.042*	0.373*	1.000												
[13]Supervisory Board Meeting Frequency	-0.003	-0.006	-0.045*	0.026	-0.030	0.045*	0.037*	0.012	-0.199*	0.331*	-0.026	-0.009	1.000											
[14]Ownership Concentration	-0.025	-0.065*	-0.070*	0.006	-0.081*	0.052*	-0.042*	0.068*	-0.131*	0.006	0.009	0.031*	0.087*	1.000										
[15]Price to Book Ratio	0.022	-0.048*	-0.020	0.014	-0.032*	0.009	0.024	0.014	-0.040*	0.010	-0.012	0.004	0.030	0.021	1.000									
[16]ROA	0.010	0.012	-0.001	-0.001	0.006	0.026	-0.024	0.001	0.001	0.003	-0.005	-0.002	-0.005	-0.001	-0.004	1.000								
[17]Ln(Market Value)	-0.105*	-0.014	-0.081*	-0.006	-0.066*	0.061*	-0.051*	0.113*	-0.082*	0.178*	0.206*	0.170*	0.191*	0.248*	0.012	0.004	1.000							
[18]SOE	-0.080*	-0.016	0.023	-0.028	0.011	-0.083*	-0.197*	0.034*	0.235*	-0.060*	0.221*	0.285*	-0.109*	0.092*	-0.015	-0.004	0.139*	1.000						
[19]Sell	-0.008	0.059*	0.014	-0.003	0.040*	-0.009	-0.003	-0.013	0.076*	0.021	-0.001	0.012	-0.029	-0.091*	0.012	0.000	0.007	0.026	1.000					
[20]Report	-0.029	0.039*	-0.006	-0.014	0.011	-0.008	-0.005	0.022	0.044*	0.039*	0.056*	0.039*	0.013	-0.009	0.029	0.000	0.198*	0.018	0.286*	1.000				
[21]Fund_Change	-0.009	-0.021	0.000	-0.020	-0.016	-0.017	0.001	-0.016	0.023	-0.050*	-0.004	-0.006	-0.035*	-0.044*	0.001	0.003	-0.090*	-0.022	-0.082*	0.129*	1.000			
[22]CEO Turnover	0.067*	0.023	0.029	0.025	0.031*	0.033*	-0.039*	-0.018	-0.011	0.089*	-0.039*	-0.014	0.031*	-0.025	-0.029	0.029	-0.055*	0.000	0.010	-0.016	0.006	1.000		
[23]Leverage	-0.006	-0.003	-0.005	-0.006	-0.007	0.048*	-0.010	0.008	-0.004	-0.007	-0.007	0.011	-0.005	0.005	0.002	-0.000	-0.003	0.014	-0.012	-0.011	0.005	0.004	1.000	
[24]Fund_Hold_Pct	-0.071*	-0.007	-0.042*	-0.016	-0.034*	-0.005	-0.017	0.081*	0.001	0.094*	0.080*	0.037*	0.096*	0.069*	0.037*	-0.002	0.445*	0.046*	0.016	0.206*	-0.262*	-0.066*	-0.005	1.000

Table 3.3 Outside director characteristics and activism

This table presents the association between traditional outside director characteristics measures and activism. Variables are defined in Table 1. All z statistics are reported and adjusted for heteroskedasticity and clustered at the industry and year level. *, **, and *** denotes 10, 5 and 1% levels of significance. *OD_scholar_r, OD_acc_r, D_law_r, OD_engineer_r, OD_economists_r* denotes the percentage of outside director are scholars, accounting professions, lawyers, engineers as well as economists respectively, detailed definitions of the rest variables are reported in Appendix 3.A1.

	Dissenting Opinion	Intended Absence	Resignation	Activism
Board Independence	-0.569	1.582***	-1.709**	0.911*
	(-0.76)	(2.61)	(-2.02)	(1.78)
Multiple Directorship	-0.088*	0.053	-0.055	0.008
	(-1.68)	(1.29)	(-0.95)	(0.23)
Outside Director Tenure	-0.078***	-0.009	-0.220***	-0.066***
	(-2.70)	(-0.37)	(-6.98)	(-3.34)
OD_scholar_r	0.067	-0.118	-0.240*	-0.094
	(0.54)	(-1.28)	(-1.79)	(-1.20)
OD_acc_r	-0.121	-0.416**	-0.111	-0.316**
	(-0.55)	(-2.16)	(-0.42)	(-1.98)
OD_law_r	0.247	-0.179	-0.235	-0.079
	(0.86)	(-0.87)	(-0.85)	(-0.45)
OD_engineer_r	-0.191	-0.229	-0.216	-0.145
	(-0.78)	(-1.06)	(-0.84)	(-0.82)
OD_economists_r	-0.125	0.004	0.500*	-0.019
	(-0.42)	(0.02)	(1.77)	(-0.09)
CEO Duality	0.097	0.025	0.033	0.079
	(1.09)	(0.33)	(0.36)	(1.29)
OD_Age	-0.004	0.005	0.003	-0.000
	(-0.73)	(1.09)	(0.48)	(-0.12)
Board Meeting Frequency	-0.000	0.075***	0.026**	0.057***
	(-0.02)	(8.87)	(2.38)	(7.49)
Board Size	-0.012	0.040**	-0.019	0.026*
	(-0.59)	(2.47)	(-0.78)	(1.86)
Supervisory Board Size	0.038	0.054**	0.001	0.048**
	(1.52)	(2.41)	(0.04)	(2.42)
Supervisory Board Meeting Frequency	0.041**	-0.024	-0.038	-0.013
	(2.01)	(-1.43)	(-1.64)	(-0.84)
Ownership Concentration	0.493	-0.007	-0.742	0.004
	(0.69)	(-0.01)	(-1.24)	(0.01)
Ln(Market Value)	-0.078**	-0.138***	-0.156***	-0.137***
	(-2.07)	(-4.70)	(-3.74)	(-5.18)
Price to Book Ratio	-0.018*	-0.003	0.017**	-0.003
	(-1.87)	(-0.40)	(2.08)	(-0.42)
ROA	0.357	-0.261	0.060	-0.017
	(1.00)	(-1.00)	(0.15)	(-0.08)
Leverage	-0.014*	-0.001	-0.011	-0.005
	(-1.70)	(-0.32)	(-1.22)	(-1.08)
SOE	-0.059	0.090	0.092	0.076
	(-0.78)	(1.43)	(1.13)	(1.39)
Constant	0.205	-0.769	3.353***	0.708
	(0.24)	(-1.10)	(3.26)	(1.14)
Control Dummy	Yes	Yes	Yes	Yes
R^2	0.205	0.091	0.114	0.079
No. of Observations	5607	5607	5590	5607

Table 3.4 Outside director activism and enforcement actions against fraud

This table presents the association between outside director activism and regulatory enforcement against fraud. Variables are defined in Table 1. All z statistics are reported and adjusted for heteroskedasticity and clustered at the industry and year level. *, **, and *** denotes 10, 5 and 1% levels of significance. Detailed definitions of all the variables are reported in Appendix 3.A1.

	Fraud			
Dissenting Opinion	0.390***			
	(4.09)			
Intended Absence		0.166**		
		(2.51)		
Resignation			0.242**	
			(1.98)	
Activism				0.214***
				(3.68)
Board Independence	0.203	0.154	0.215	0.169
	(0.38)	(0.28)	(0.40)	(0.31)
Multiple Directorship	-0.086**	-0.089**	-0.088**	-0.088**
	(-2.18)	(-2.25)	(-2.24)	(-2.24)
Outside Director Tenure	-0.065***	-0.069***	-0.067***	-0.065***
	(-2.99)	(-3.14)	(-3.01)	(-2.97)
CEO Duality	-0.080	-0.076	-0.077	-0.078
	(-1.24)	(-1.17)	(-1.19)	(-1.21)
Board Meeting Frequency	0.016**	0.014*	0.016**	0.013
	(1.98)	(1.71)	(1.98)	(1.62)
Board Size	-0.001	-0.002	-0.000	-0.003
	(-0.08)	(-0.12)	(-0.01)	(-0.17)
Supervisory Board Size	-0.012	-0.012	-0.012	-0.012
	(-0.50)	(-0.51)	(-0.49)	(-0.51)
Supervisory Board Meeting Frequency	-0.024	-0.022	-0.023	-0.022
	(-1.52)	(-1.34)	(-1.40)	(-1.36)
Herfindahl 10 Index	-1.381***	-1.339***	-1.335***	-1.334***
	(-2.89)	(-2.80)	(-2.80)	(-2.79)
Fund_Hold_Pct	-0.011**	-0.011**	-0.011**	-0.011**
	(-2.41)	(-2.38)	(-2.41)	(-2.39)
Ln(Market Value)	-0.171***	-0.170***	-0.171***	-0.166***
	(-5.57)	(-5.58)	(-5.63)	(-5.48)
Price to Book Ratio	0.007	0.007	0.007	0.007
	(1.27)	(1.21)	(1.17)	(1.23)
ROA	-0.334	-0.317	-0.319	-0.328
	(-1.35)	(-1.28)	(-1.29)	(-1.34)
Leverage	-0.006	-0.006	-0.006	-0.006
	(-1.11)	(-1.13)	(-1.14)	(-1.10)
SOE	-0.159***	-0.164***	-0.165***	-0.166***
	(-2.91)	(-2.98)	(-3.01)	(-3.02)
Constant	2.569***	2.610***	2.574***	2.509***
	(3.59)	(3.67)	(3.63)	(3.56)
Control Dummy	Yes	Yes	Yes	Yes
R^2	0.059	0.056	0.056	0.058
VIF	12.29	12.33	12.30	12.32
VIF(Without Ln(Market Value)	5.57	5.57	5.56	5.58
No. of Observation	7147	7147	7147	7147

Table 3.5 Robustness checks

This table presents the association between outside director activism and regulatory enforcement against fraud. Two instrument variables are defined as follows. *OD_Regulation* is a dummy variable equals to 1 if the observation is at 2006 or later. *Ln_Od_Avg_Pay* is a continuous variable equals to the average salary of all outside directors. Other variables are reported in Appendix 3.A1. All z statistics are reported and adjusted for heteroskedasticity and clustered at the industry and year level. *, **, and *** denotes 10, 5 and 1% levels of significance.

	Fraud						
	PSM Matching Sample				PSM Matching Sample With IV		
Dissenting Opinion	0.402***				1.880***		
	(2.63)				(5.12)		
Intended Absence		0.192**				1.732***	
		(1.99)				(8.94)	
Resignation			0.690***				1.852***
			(2.99)				(12.61)
Activism				0.307***			
				(3.87)			
Board Independence	0.018	0.150	-2.142	-0.031	0.920	0.637	-0.836
	(0.01)	(0.16)	(-0.78)	(-0.04)	(0.79)	(1.07)	(-0.57)
Multiple Directorship	0.043	-0.144*	0.399**	-0.089	0.030	-0.025	0.251***
	(0.39)	(-1.77)	(2.30)	(-1.47)	(0.41)	(-0.42)	(2.82)
Outside Director Tenure	-0.190***	-0.163***	0.306***	-0.089***	-0.070	-0.057*	0.055
	(-3.16)	(-3.80)	(2.80)	(-2.58)	(-1.37)	(-1.84)	(1.08)
CEO Duality	-0.391*	-0.046	-0.551*	-0.086	-0.135	-0.010	-0.123
	(-1.85)	(-0.33)	(-1.79)	(-0.80)	(-1.03)	(-0.12)	(-0.87)
Board Meeting Frequency	-0.024	0.016	0.009	0.017	0.004	0.013	0.001
	(-1.10)	(1.16)	(0.25)	(1.44)	(0.22)	(1.37)	(0.06)
Board Size	0.053	0.029	-0.199**	0.013	0.028	0.029	-0.073
	(1.23)	(0.93)	(-2.00)	(0.55)	(1.10)	(1.60)	(-1.41)
Supervisory Board Size	-0.092	-0.089**	-0.143	-0.040	-0.040	-0.100***	-0.044
	(-1.35)	(-1.99)	(-1.14)	(-1.11)	(-1.03)	(-2.74)	(-0.79)
Supervisory Board	0.027	-0.038	0.103	-0.017	0.010	-0.015	0.007
Meeting Frequency	(0.60)	(-1.19)	(1.58)	(-0.67)	(0.39)	(-0.70)	(0.16)
Herfindahl 10 Index	-0.674	-5.538**	-4.626*	-4.678***	-3.326**	-3.298**	-1.872*
	(-0.36)	(-2.57)	(-1.82)	(-3.86)	(-2.12)	(-2.22)	(-1.87)
Fund_Hold_Pct	-0.021	-0.023*	0.004	-0.027***	-0.011	-0.029***	-0.016
	(-1.56)	(-1.85)	(0.23)	(-2.61)	(-1.07)	(-2.60)	(-0.77)
Ln(Market Value)	-0.031	-0.033***	-0.042*	-0.008	-0.004	-0.021***	-0.016**
	(-1.49)	(-2.64)	(-1.79)	(-1.02)	(-0.43)	(-2.59)	(-2.17)
Price to Book Ratio	-0.240***	-0.273***	-0.598***	-0.204***	-0.033	-0.137***	-0.266**
	(-2.60)	(-3.98)	(-3.66)	(-4.18)	(-0.41)	(-2.81)	(-2.48)
ROA	0.033***	0.006	-0.076***	0.000	0.002	-0.005	-0.037**
	(2.64)	(0.52)	(-3.69)	(0.00)	(0.22)	(-0.76)	(-2.10)
Leverage	-0.282	-0.422	-0.661	-0.430	-0.386	-0.143	-0.777*
	(-0.42)	(-1.13)	(-0.86)	(-1.26)	(-0.89)	(-0.56)	(-1.68)
SOE	-0.124	-0.027	0.065	-0.143	-0.159	-0.033	0.053
	(-0.85)	(-0.23)	(0.28)	(-1.61)	(-1.40)	(-0.48)	(0.37)
Constant	4.511**	5.539***	12.978***	3.342***	-0.990	2.025	6.424
	(2.11)	(3.56)	(3.32)	(2.94)	(-0.61)	(1.62)	(.)
Instrument Variables					**Dissenting Opinion**	**Intended Absence**	**Resignation**
Od_Regulation					0.784***	-0.251***	0.718***
					(5.80)	(-3.31)	(3.08)
Ln_Od_Avg_Pay					-0.244**	-0.224***	-0.217*
					(-2.36)	(-4.09)	(-1.68)
Control Dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.155	0.148	0.358	0.107			
No. of Observations	762	1689	360	2599	734	1620	372

Table 3.6 Industry adjusted activism and enforcement actions against fraud

This table presents the association between outside director activism and regulatory enforcement against fraud. *Ind_Adj Total Dissenting opinion* is an ordinary variable equals to the industry adjusted value of the amount of outside director expressed dissenting opinions in board meetings during the year. *Ind_Adj Intended absence Ratio* is a percentage equals to the industry adjusted value of the percentage of outside directors that are absent in board meetings and fail to send a voting proxy during the year. *Ind_Adj Total Resignation* is an ordinary variable equals to the amount of outside director resigned during their term in office during a year. Other variables are defined in Appendix 3.A1. All z statistics are reported and adjusted for heteroskedasticity and clustered at the industry and year level. *, **, and *** denotes 10, 5 and 1% levels of significance.

	Fraud					
Ind.Adj Total Dissenting Opinion	0.440***	0.378***				
	(4.65)	(3.94)				
Ind.Adj Intended Absence Ratio			1.813***	1.077*		
			(2.78)	(1.65)		
Ind.Adj Total Resignation					0.339***	0.221**
					(3.07)	(1.98)
Board Independence		0.201		0.178		0.219
		(0.38)		(0.33)		(0.41)
Multiple Directorship		-0.086**		-0.087**		-0.089**
		(-2.18)		(-2.20)		(-2.25)
Outside Director Tenure		-0.066***		-0.068***		-0.067***
		(-2.99)		(-3.12)		(-3.01)
CEO Duality		-0.080		-0.075		-0.077
		(-1.24)		(-1.16)		(-1.19)
Board Meeting Frequency		0.016**		0.016*		0.016**
		(1.99)		(1.92)		(1.99)
Board Size		-0.001		-0.000		0.000
		(-0.07)		(-0.03)		(0.01)
Supervisory Board Size		-0.012		-0.012		-0.012
		(-0.50)		(-0.50)		(-0.50)
Supervisory Board		-0.024		-0.022		-0.023
Meeting Frequency		(-1.51)		(-1.38)		(-1.40)
Herfindahl 10 Index		-1.378***		-1.350***		-1.340***
		(-2.88)		(-2.83)		(-2.81)
Fund_Hold_Pct		-0.011**		-0.011**		-0.011**
		(-2.41)		(-2.41)		(-2.41)
Ln(Market Value)		-0.006		-0.006		-0.006
		(-1.11)		(-1.14)		(-1.14)
Price to Book Ratio		-0.171***		-0.171***		-0.171***
		(-5.58)		(-5.61)		(-5.63)
ROA		0.007		0.007		0.007
		(1.25)		(1.21)		(1.15)
Leverage		-0.331		-0.318		-0.313
		(-1.34)		(-1.29)		(-1.26)
SOE		-0.160***		-0.164***		-0.165***
		(-2.91)		(-2.98)		(-3.01)
Constant	-1.778***	2.585***	-1.777***	2.598***	-1.780***	2.579***
	(-13.24)	(3.62)	(-13.13)	(3.65)	(-13.16)	(3.64)
Control Dummy	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.014	0.059	0.010	0.055	0.011	0.0554
No. of Observations	7147	7147	7147	7147	7145	7145

Table 3.7 State controlling shareholder and the effect of activism

This table presents the role of outside director activism in the split sample of *SOEs* (state-owned enterprises) and *non-SOEs* (i.e. private firms). Variables are defined in Appendix 3.A1. All z statistics are reported and adjusted for heteroskedasticity and clustered at the industry and year level. *, **, and *** denotes 10, 5 and 1% levels of significance.

	Fraud							
	SOEs				Non-SOEs			
Dissenting Opinion	0.290**				0.493***			
	(2.13)				(3.55)			
Intended Absence		0.061				0.271***		
		(0.63)				(2.75)		
Resignation			0.221				0.293*	
			(1.22)				(1.80)	
Activism				0.091				0.342***
				(1.12)				(3.93)
Board Independence	0.208	0.176	0.239	0.187	0.113	0.094	0.118	0.086
	(0.27)	(0.22)	(0.31)	(0.24)	(0.15)	(0.13)	(0.16)	(0.12)
Multiple Directorship	-0.140**	-0.141**	-0.141**	-0.141**	-0.047	-0.051	-0.048	-0.049
	(-2.30)	(-2.32)	(-2.35)	(-2.33)	(-0.88)	(-0.94)	(-0.91)	(-0.91)
Outside Director Tenure	-0.113***	-0.116***	-0.114***	-0.115***	-0.021	-0.023	-0.022	-0.017
	(-3.26)	(-3.36)	(-3.27)	(-3.31)	(-0.75)	(-0.82)	(-0.79)	(-0.60)
CEO Duality	-0.125	-0.128	-0.125	-0.129	-0.038	-0.027	-0.032	-0.031
	(-1.07)	(-1.10)	(-1.07)	(-1.11)	(-0.47)	(-0.34)	(-0.40)	(-0.38)
Board	0.018	0.017	0.017	0.017	0.011	0.008	0.012	0.007
Meeting Frequency	(1.60)	(1.49)	(1.52)	(1.44)	(0.99)	(0.75)	(1.10)	(0.64)
Board Size	-0.015	-0.016	-0.015	-0.016	0.006	0.008	0.010	0.006
	(-0.71)	(-0.77)	(-0.73)	(-0.78)	(0.23)	(0.33)	(0.40)	(0.25)
Supervisory Board Size	-0.001	-0.001	-0.001	-0.001	-0.035	-0.036	-0.035	-0.035
	(-0.03)	(-0.03)	(-0.03)	(-0.03)	(-0.87)	(-0.89)	(-0.87)	(-0.86)
Supervisory Board	-0.065***	-0.063***	-0.063***	-0.063***	0.020	0.023	0.021	0.023
Meeting Frequency	(-2.76)	(-2.67)	(-2.65)	(-2.67)	(0.90)	(1.04)	(0.92)	(1.03)
Herfindahl 10 Index	-1.720***	-1.707***	-1.678***	-1.703***	-1.081	-0.978	-1.030	-0.975
	(-2.66)	(-2.64)	(-2.60)	(-2.63)	(-1.45)	(-1.33)	(-1.40)	(-1.32)
Fund_Hold_Pct	-0.013**	-0.013**	-0.013**	-0.013**	-0.007	-0.007	-0.007	-0.007
	(-2.12)	(-2.13)	(-2.15)	(-2.13)	(-1.13)	(-1.08)	(-1.07)	(-1.09)
Ln(Market Value)	-0.152***	-0.152***	-0.150***	-0.150***	-0.197***	-0.194***	-0.203***	-0.190***
	(-3.77)	(-3.79)	(-3.76)	(-3.75)	(-4.32)	(-4.28)	(-4.46)	(-4.20)
Price to Book Ratio	0.005	0.004	0.004	0.004	0.008	0.008	0.008	0.009
	(0.53)	(0.44)	(0.39)	(0.43)	(1.19)	(1.28)	(1.21)	(1.34)
ROA	-0.543	-0.541	-0.517	-0.537	-0.203	-0.171	-0.203	-0.208
	(-1.27)	(-1.25)	(-1.20)	(-1.24)	(-0.65)	(-0.56)	(-0.65)	(-0.68)
Leverage	-0.009	-0.009	-0.009	-0.009	-0.000	-0.000	-0.000	-0.000
	(-1.28)	(-1.28)	(-1.29)	(-1.27)	(-0.02)	(-0.04)	(-0.02)	(-0.03)
Constant	2.551***	2.596***	2.500***	2.545***	2.841***	2.791***	2.923***	2.684**
	(2.69)	(2.75)	(2.67)	(2.71)	(2.61)	(2.59)	(2.71)	(2.49)
Control Dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.076	0.074	0.075	0.075	0.042	0.038	0.036	0.043
No. of Observations	4314	4314	4314	4314	2826	2826	2826	2826

Table 3.8 Analyst coverage and the effects of activism

This table presents the role of outside director activism in the split sample of high level of *Analyst Followings* and low level of *Analyst followings* calculated by the industry mean value in each year. *Analyst Following* denote the number of financial analysts who write reports for the firm in a given year. Other variables are defined in Appendix 3.A1. All z statistics are reported and adjusted for heteroskedasticity and clustered at the industry and year level.*, **, and *** denotes 10, 5 and 1% levels of significance.

	Fraud							
	High Analyst Following				Low Analyst Following			
Dissenting Opinion	0.393***				0.365*			
	(3.60)				(1.87)			
Intended Absence		0.184**				0.080		
		(2.38)				(0.59)		
Resignation			0.252*				0.216	
			(1.68)				(1.08)	
Activism				0.251***				0.089
				(3.70)				(0.80)
Board Independence	0.886	0.800	0.891	0.841	-1.027	-1.007	-1.006	-1.015
	(1.35)	(1.21)	(1.35)	(1.28)	(-1.19)	(-1.17)	(-1.17)	(-1.18)
Multiple Directorship	-0.077	-0.082	-0.082*	-0.082	-0.103*	-0.102	-0.099	-0.101
	(-1.54)	(-1.63)	(-1.65)	(-1.63)	(-1.65)	(-1.64)	(-1.60)	(-1.62)
Outside Director Tenure	-0.082***	-0.086***	-0.085***	-0.082***	-0.040	-0.042	-0.038	-0.040
	(-2.96)	(-3.09)	(-3.03)	(-2.94)	(-1.15)	(-1.21)	(-1.10)	(-1.16)
CEO Duality	-0.170**	-0.165**	-0.164**	-0.167**	0.061	0.065	0.062	0.064
	(-2.09)	(-2.04)	(-2.03)	(-2.06)	(0.57)	(0.61)	(0.59)	(0.60)
Board Meeting Frequency	0.016*	0.014	0.017*	0.013	0.011	0.009	0.010	0.009
	(1.69)	(1.47)	(1.73)	(1.33)	(0.74)	(0.61)	(0.66)	(0.62)
Board Size	0.013	0.012	0.014	0.011	-0.026	-0.026	-0.025	-0.026
	(0.67)	(0.60)	(0.72)	(0.55)	(-0.96)	(-0.96)	(-0.92)	(-0.96)
Supervisory Board Size	-0.028	-0.029	-0.029	-0.028	0.027	0.027	0.028	0.027
	(-0.96)	(-1.00)	(-1.01)	(-0.98)	(0.74)	(0.76)	(0.79)	(0.76)
Supervisory Board Meeting Frequency	-0.019	-0.016	-0.017	-0.016	-0.030	-0.028	-0.029	-0.029
	(-1.00)	(-0.85)	(-0.89)	(-0.82)	(-1.06)	(-0.97)	(-1.00)	(-1.00)
Herfindahl 10 Index	-1.971***	-1.921***	-1.910***	-1.916***	-0.676	-0.647	-0.647	-0.648
	(-2.96)	(-2.90)	(-2.89)	(-2.89)	(-1.03)	(-0.98)	(-0.98)	(-0.98)
Fund_Hold_Pct	-0.016***	-0.016***	-0.016***	-0.016***	0.004	0.004	0.004	0.004
	(-3.07)	(-3.04)	(-3.06)	(-3.05)	(0.45)	(0.48)	(0.45)	(0.47)
Ln(Market Value)	-0.179***	-0.176***	-0.180***	-0.173***	-0.126**	-0.130**	-0.126**	-0.128**
	(-5.32)	(-5.28)	(-5.35)	(-5.17)	(-1.97)	(-2.03)	(-1.98)	(-2.00)
Price to Book Ratio	0.002	0.002	0.002	0.002	0.021*	0.021*	0.021*	0.021*
	(0.39)	(0.36)	(0.28)	(0.38)	(1.94)	(1.89)	(1.90)	(1.88)
ROA	-0.247	-0.234	-0.245	-0.249	-0.911	-0.875	-0.857	-0.877
	(-0.95)	(-0.90)	(-0.94)	(-0.97)	(-1.37)	(-1.30)	(-1.28)	(-1.31)
Leverage	-0.009	-0.009	-0.008	-0.008	0.002	0.002	0.001	0.001
	(-1.37)	(-1.37)	(-1.34)	(-1.33)	(0.21)	(0.18)	(0.15)	(0.17)
SOE	-0.104	-0.105	-0.110	-0.108	-0.248***	-0.256***	-0.254***	-0.256***
	(-1.51)	(-1.51)	(-1.59)	(-1.56)	(-2.76)	(-2.83)	(-2.82)	(-2.82)
Constant	2.612***	2.628***	2.620***	2.511***	1.689	1.807	1.663	1.748
	(3.24)	(3.29)	(3.27)	(3.15)	(1.16)	(1.24)	(1.16)	(1.21)
Control Dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.076	0.073	0.072	0.076	0.057	0.054	0.055	0.055
No. of Observations	4659	4659	4659	4659	2479	2479	2479	2479

Table 3.9 Analyst recommendations and outside director activism

This table presents the impact of outside director activism on analyst reports. All variables are defined in Appendix 3 A1. The sample period covers 2005–2010 and clustered at the firm level. All z statistics are reported and adjusted for heteroskedasticity. *, **, and *** denotes 10, 5 and 1% levels of significance.

	Sell			
Dissent	0.501***			
	(3.25)			
Absence		0.036		
		(0.30)		
Resign			-0.054	
			(-0.29)	
Activism				0.245**
				(2.45)
Board Independence	0.388	0.376	0.359	0.432
	(0.41)	(0.40)	(0.38)	(0.46)
Multiple Directorship	-0.115*	-0.126*	-0.126*	-0.122*
	(-1.66)	(-1.82)	(-1.82)	(-1.76)
Outside Director Tenure	0.231***	0.242***	0.241***	0.238***
	(6.44)	(6.75)	(6.73)	(6.66)
CEO Duality	0.059	0.064	0.063	0.066
	(0.45)	(0.49)	(0.48)	(0.51)
Board Meeting Frequency	0.073***	0.074***	0.074***	0.071***
	(4.46)	(4.51)	(4.55)	(4.35)
Board Size	0.022	0.025	0.024	0.023
	(0.63)	(0.68)	(0.68)	(0.63)
Supervisory Board Size	-0.043	-0.043	-0.043	-0.044
	(-0.63)	(-0.64)	(-0.63)	(-0.64)
Supervisory Board Meeting Frequency	-0.069***	-0.071***	-0.071***	-0.068**
	(-2.64)	(-2.69)	(-2.71)	(-2.57)
Herfindahl 10 Index	-4.260***	-4.366***	-4.373***	-4.283***
	(-6.81)	(-7.00)	(-7.01)	(-6.87)
Ln(Market Value)	0.155***	0.171***	0.170***	0.170***
	(3.12)	(3.47)	(3.45)	(3.46)
Price to Book Ratio	0.039***	0.039***	0.039***	0.039***
	(4.82)	(4.77)	(4.78)	(4.80)
ROA	1.183***	1.153***	1.149***	1.193***
	(3.02)	(2.94)	(2.93)	(3.04)
Leverage	-0.001***	-0.001***	-0.001***	-0.000***
	(-5.88)	(-5.89)	(-5.90)	(-5.71)
Constant	-5.020***	-7.525***	-7.506***	-5.346***
	(-4.01)	(-4.98)	(-4.96)	(-4.29)
Control Dummy	Yes	Yes	Yes	Yes
R^2	0.033	0.031	0.031	0.032
No. of Observations	7148	7148	7148	7148

Table 3.10 Outside director protests and change in fund ownership

This table presents the impact of outside director activism on fund ownership. *Fund_Change* is the annual change of the fund ownership measured by the difference of the ratio of shares held by mutual fund in the current year minus the ratio in the previous year. The *Interaction Term* capture the interaction between report and *Dissent*, *Absence*, *Resign* and *Report*, respectively. Other variables are defined in Appendix 3.A1. The sample period covers 2005–2010. All z statistics are reported and adjusted for heteroskedasticity and clustered at the firm level. *, **, and *** denotes 10, 5 and 1% levels of significance.

	Fund_Change			
Dissent	-0.369			
	(-1.48)			
Absence		-0.217		
		(-0.92)		
Resign			0.212	
			(0.58)	
Activism				-0.283
				(-1.51)
Report	0.099***	0.092***	0.095***	0.097***
	(8.29)	(7.78)	(8.09)	(7.90)
Interaction Term	-0.066**	0.028	-0.013	-0.012
	(-2.04)	(0.67)	(-0.17)	(-0.46)
Board Independence	-0.587	-0.527	-0.437	-0.571
	(-0.28)	(-0.25)	(-0.21)	(-0.28)
Multiple Directorship	-0.346**	-0.331**	-0.331**	-0.336**
	(-2.34)	(-2.23)	(-2.23)	(-2.27)
Outside Director Tenure	0.012	-0.000	0.001	0.003
	(0.16)	(-0.00)	(0.01)	(0.05)
CEO Duality	0.103	0.104	0.106	0.098
	(0.36)	(0.36)	(0.37)	(0.34)
Board Meeting Frequency	-0.134***	-0.135***	-0.137***	-0.133***
	(-4.36)	(-4.39)	(-4.48)	(-4.34)
Board Size	-0.067	-0.070	-0.069	-0.066
	(-0.82)	(-0.86)	(-0.84)	(-0.81)
Supervisory Board Size	0.058	0.064	0.058	0.057
	(0.44)	(0.49)	(0.44)	(0.44)
Supervisory Board	0.079	0.079	0.081	0.077
Meeting Frequency	(1.50)	(1.50)	(1.54)	(1.46)
Herfindahl 10 Index	0.741	0.880	0.883	0.755
	(0.69)	(0.83)	(0.83)	(0.71)
Ln(Market Value)	-1.241***	-1.261***	-1.255***	-1.255***
	(-10.27)	(-10.38)	(-10.39)	(-10.41)
Price to Book Ratio	-0.010	-0.013	-0.013	-0.013
	(-0.74)	(-0.95)	(-0.94)	(-0.90)
ROA	0.327	0.313	0.315	0.330
	(0.90)	(0.86)	(0.86)	(0.90)
Leverage	0.001	0.001	0.001	0.001
	(1.42)	(1.38)	(1.40)	(1.34)
Constant	28.900***	29.365***	27.817***	29.255***
	(5.55)	(5.59)	(5.63)	(5.61)
Control Dummy	Yes	Yes	Yes	Yes
R^2	0.055	0.053	0.053	0.054
No. of Observations	7148	7148	7148	7148

Table 3.11 Outside director activism and CEO accountability

This table presents the impact of outside director activism on the sensitivity of CEO turnover on corporate fraud, the main results are presented in Panel A, a split sample results by state ownership and analyst followings is presented in Panel B, the calculation on analyst following level is same as Table 3.8. All variables are defined as the same in Appendix 3.A1. All z statistics are reported and adjusted for heteroskedasticity and clustered at the industry and year level. *, **, and *** denotes 10, 5 and 1% levels of significance.

Panel A

	CEO Turnover			
Dissenting Opinion	-0.012			
	(-0.14)			
Intended Absence		0.022		
		(0.39)		
Resignation			0.090	
			(0.79)	
Activism				0.001
				(0.02)
Fraud	0.231***	0.278***	0.258***	0.232***
	(3.18)	(3.72)	(3.67)	(2.89)
Interaction Term	0.405**	0.044	0.411	0.176
	(2.00)	(0.25)	(1.42)	(1.21)
Board Independence	0.919**	0.920**	0.940**	0.930**
	(2.33)	(2.32)	(2.38)	(2.35)
Multiple Directorship	-0.019	-0.018	-0.018	-0.018
	(-0.67)	(-0.65)	(-0.63)	(-0.63)
Outside Director Tenure	-0.026*	-0.027*	-0.025	-0.026
	(-1.69)	(-1.71)	(-1.57)	(-1.64)
CEO Duality	-0.203***	-0.201***	-0.201***	-0.201***
	(-3.71)	(-3.69)	(-3.68)	(-3.68)
Board Meeting Frequency	0.040***	0.040***	0.040***	0.040***
	(6.79)	(6.69)	(6.72)	(6.73)
Board Size	-0.015	-0.016	-0.015	-0.015
	(-1.42)	(-1.43)	(-1.41)	(-1.42)
Supervisory Board Size	0.005	0.005	0.005	0.005
	(0.34)	(0.29)	(0.30)	(0.30)
Supervisory Board	0.022**	0.022**	0.022**	0.022**
Meeting Frequency	(1.99)	(2.04)	(2.06)	(2.03)
Herfindahl 10 Index	0.148	0.151	0.162	0.148
	(0.47)	(0.48)	(0.51)	(0.47)
Ln(Market Value)	-0.094***	-0.094***	-0.093***	-0.094***
	(-4.79)	(-4.77)	(-4.72)	(-4.77)
Price to Book Ratio	0.001	0.001	0.001	0.001
	(0.27)	(0.24)	(0.15)	(0.24)
ROA	0.100	0.105	0.108	0.103
	(0.51)	(0.54)	(0.55)	(0.53)
Leverage	0.000	0.000	0.000	0.000
	(0.39)	(0.40)	(0.40)	(0.39)
Constant	0.352	0.348	0.300	0.339
	(0.77)	(0.76)	(0.65)	(0.74)
Control Dummy	Yes	Yes	Yes	Yes
R^2	0.033	0.032	0.032	0.032
No. of Observations	7147	7147	7147	7147

Panel B

	CEO Turnover			
	SOEs	Non-SOEs	High Analyst Following	Low Analyst Following
Dissenting Opinion	0.028	-0.052	-0.063	0.167
	(0.25)	(-0.33)	(-0.60)	(0.99)
Fraud	0.164	0.301***	0.213**	0.261**
	(1.59)	(2.86)	(2.46)	(2.07)
Interaction Term	0.068	0.631**	0.509**	-0.308
	(0.21)	(2.18)	(2.24)	(-0.49)
Board Independence	0.750	0.738	1.252***	0.398
	(1.48)	(1.14)	(2.62)	(0.57)
Multiple Directorship	-0.050	0.043	0.006	-0.058
	(-1.39)	(0.94)	(0.17)	(-1.22)
Outside Director Tenure	-0.045**	-0.015	-0.035*	-0.023
	(-2.18)	(-0.61)	(-1.92)	(-0.83)
CEO Duality	-0.043	-0.281***	-0.190***	-0.254***
	(-0.52)	(-3.74)	(-2.89)	(-2.68)
Board Meeting Frequency	0.036***	0.050***	0.038***	0.045***
	(4.72)	(5.05)	(5.09)	(4.65)
Board Size	-0.002	-0.052**	-0.008	-0.023
	(-0.13)	(-2.51)	(-0.62)	(-1.20)
Supervisory Board Size	-0.006	-0.011	0.011	-0.004
	(-0.36)	(-0.30)	(0.54)	(-0.18)
Supervisory Board Meeting Frequency	0.045***	0.000	0.018	0.031
	(3.13)	(0.01)	(1.32)	(1.63)
Herfindahl 10 Index	0.079	-0.833	0.110	0.240
	(0.21)	(-1.29)	(0.27)	(0.46)
Ln(Market Value)	-0.077***	-0.149***	-0.125***	0.010
	(-3.26)	(-3.77)	(-5.45)	(0.24)
Price to Book Ratio	0.003	0.001	-0.001	0.010
	(0.46)	(0.20)	(-0.22)	(1.16)
ROA	-0.235	0.340	0.161	-0.264
	(-0.76)	(1.45)	(0.73)	(-0.57)
Leverage	-0.000	0.001**	0.001*	-0.000
	(-0.56)	(1.97)	(1.78)	(-0.82)
Constant	0.071	1.331	0.973*	-1.956**
	(0.13)	(1.38)	(1.82)	(-2.03)
Control Dummy	Yes	Yes	Yes	Yes
R^2	0.024	0.070	0.039	0.037
No. of Observations	4321	2826	4659	2488

Appendix 3.A1 Variable definitions

Variables	Definition
Dissenting Opinion	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.
Intended Absence	A dummy variable assigned to 1 if at least one outside director is absent in board meetings and fail to send a voting proxy, and 0 otherwise.
Resignation	A dummy variable assigned to 1 if at least outside director resigned during their term in office, and 0 otherwise.
Activism	A combined dummy variable assigned to 1 if any of the Dissenting opinion, Intended absence or Resignation assigned to 1, and 0 otherwise.
Outside Director Tenure	The average number of years that all outside directors serving in the office
Multiple Directorship	The average number of outside director holding additional directorships
Board Independence	Number of outside directors divided by the board size.
Board Meeting Frequency	Number of times corporate board meetings took place in a financial year.
Board Size	Number of directors on the firm's board at the end of the financial year.
Supervisory Board Size	Number of directors on the firm's supervisory board at the end of the financial year.
Supervisory Board Meeting Frequency	Number of times supervisory board meetings took place in a financial year.
CEO Duality	A dummy variable, which equals to 1 if the CEO is also the chairman of the board, 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.
Analyst Following	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.
Ownership Concentration	The Herfindahl Index of the largest 10 shareholders
Price to Book Ratio	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.
ROA	Industry adjusted return on equity, i.e. net income divided by the average total equity of the current and last fiscal year minus the annual industry mean value.
Sell	A variable measures the difference of the number of analyst report that rate the firm as "Hold" or "Sale" minus the number in the previous year.
Report	The total number of analyst report covering the firm during the financial year
Fund_Change	A variable measures the annual change of the fund ownership measured by the difference of the ratio of shares held by mutual fund in the current year minus the ratio in the previous year.
Fund_Hold_Pct	The percentage of share hold by fund investors during the financial year
CEO Turnover	A dummy variable, which equals to 1 if the CEO is replaced at least once 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.

Appendix 3.A2 Outside director activism and enforcement actions against fraud without firm value control variables

This appendix table presents the association between outside director activism and regulatory enforcement against fraud. Variables are defined in Table 1. All z statistics are reported and adjusted for heteroskedasticity and clustered at the industry and year level. *, **, and *** denotes 10, 5 and 1% levels of significance. Detailed definitions of all the variables are reported in Appendix 3.A1.

	Fraud			
Dissenting Opinion	0.412***			
	(4.43)			
Intended Absence		0.194***		
		(2.90)		
Resignation			0.240**	
			(2.10)	
Activism				0.241***
				(4.24)
Board Independence	-0.086	-0.142	-0.069	-0.118
	(-0.17)	(-0.29)	(-0.14)	(-0.24)
Multiple Directorship	-0.100***	-0.103***	-0.102***	-0.102***
	(-2.70)	(-2.79)	(-2.77)	(-2.76)
Outside Director Tenure	-0.074***	-0.078***	-0.076***	-0.074***
	(-3.51)	(-3.68)	(-3.55)	(-3.47)
CEO Duality	-0.072	-0.069	-0.068	-0.071
	(-1.13)	(-1.08)	(-1.07)	(-1.12)
Board Meeting Frequency	0.010	0.008	0.010	0.007
	(1.36)	(1.02)	(1.31)	(0.94)
Board Size	-0.014	-0.015	-0.013	-0.015
	(-0.95)	(-1.02)	(-0.86)	(-1.05)
Supervisory Board Size	-0.021	-0.022	-0.021	-0.021
	(-1.00)	(-1.01)	(-0.99)	(-0.99)
Supervisory Board Meeting Frequency	-0.025	-0.022	-0.023	-0.022
	(-1.60)	(-1.42)	(-1.51)	(-1.43)
Herfindahl 10 Index	-1.529***	-1.490***	-1.482***	-1.485***
	(-3.43)	(-3.35)	(-3.34)	(-3.33)
Fund_Hold_Pct	-0.022***	-0.022***	-0.022***	-0.021***
	(-4.94)	(-4.89)	(-4.94)	(-4.85)
Price to Book Ratio	0.005	0.005	0.005	0.005
	(0.95)	(0.91)	(0.83)	(0.93)
ROA	-0.350	-0.329	-0.336	-0.343
	(-1.29)	(-1.23)	(-1.24)	(-1.29)
Leverage	-0.197***	-0.202***	-0.202***	-0.202***
	(-3.74)	(-3.85)	(-3.85)	(-3.85)
SOE	-0.829***	-0.763**	-0.840***	-0.796**
	(-2.59)	(-2.41)	(-2.65)	(-2.52)
Constant	2.569***	2.610***	2.574***	2.509***
	(3.59)	(3.67)	(3.63)	(3.56)
Control Dummy	Yes	Yes	Yes	Yes
R-Square	0.059	0.056	0.056	0.058
VIF(Without Ln(Market Value)	5.57	5.57	5.56	5.58
Observation	7147	7147	7147	7147

Chapter 4 Does Tenure Matter: Role of the Corporate Secretary in Chinese Listed Firms[15]

4.1 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), I 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).

[15] The modified version of this chapter is accepted by *Accounting Horizon* and expected to be printed in March 2019

I 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 chapter I concentrate on corporate secretaries, whose role overtime has evolved from a '*humble clerk*' to the key governance officer of a firm.[16] 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).

This chapter 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 good and unique sample to quantitatively study the effectiveness of corporate secretary on the outside directors' board room behavior. Most importantly, I focus on the 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

[16] 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.

in defining the tasks of a corporate secretary in publicly 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 exposed to great risk of disciplinary penalties, administrative sanctions, and even legal liabilities in cases of misconduct.[17] 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 top management team. Chinese regulators expect the corporate secretaries to promote and sustain good governance practice by implementing effective and lawful board process, 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

[17] There have been many cases where corporate secretaries in China were punished due to failing to properly execute their duties, or involving in fraudulent activities. For example, in the year of 2012 only, corporate secretaries in 18 firms received the disciplinary penalties from the stock exchanges, and corporate secretaries in another 12 firms received the administrative sanctions from the CSRC (*i.e.*, China Securities Regulatory Commission). The following are some of the representative or notable cases: 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 ZhangXianZhu and another three top managers also received 1-3 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 the 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.

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 as a legal officer, while simultaneously acting as the *conscience seeker* of the company to monitor the behavior 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 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., these are mostly the duties of 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 I 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 the analysis, I focus in this chapter 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.[18]

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) point 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 director attend meeting with adequate related information 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) show, 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.,

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

2010), the ability of the corporate secretary to summarize, filter, interpret, draw inference from and distribute '*the right 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, in many countries the corporate secretaries 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 behavior of the executives and board members, and can directly report to the regulators if they identify any inappropriate behavior 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 firm in China, I empirically study their importance on governance quality by examining the impact of their in-firm tenure. The 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. In addition, except 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, I employ the instrument variable analysis and the PSM method to address any potential endogeneity issue. In a subsample analysis, I also control for additional factors that reflect the unique setting of the governance environment for firms in China. All of the conclusions remain. Lastly, I examine the impact of corporate secretary tenure on outside director absence from board meeting, Modified Audit Opinion (MAO), analyst coverage, and number of mutual funds investing in the firm as alternate measures of firm-level governance outcome. All the results are consistent with the main hypotheses.

This chapter contributes to the existing literature on corporate governance by focusing on the role of corporate secretary. The 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, the findings of this chapter 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, I 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

I believe that the findings are of interest to not only Chinese regulators and policymakers, but also 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.

4.2 Literature Review and Hypothesis Development

4.2.1 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) report 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 good proxy for his/her performance, risk tolerance, and effectiveness in improving governance quality. In the following sub-sections, I 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.

4.2.2 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 an important corporate governance personnel in the firm. Dalton and Dalton (2005) mention 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) include 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.

I capture the efficiency of the board meetings by the board meeting frequency in the empirical analysis. As Pye and Pettigrew (2005) show "…*[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'.* " This explains that good director work does not require frequent board meetings. Using the U.S. data, Vafeas (1999) found that more frequent board meetings can significantly harm the firm value and is positively correlated with the weakness of internal control. Goh (2009) also argues that high frequency of corporate board meeting indicates the magnitude of the problems being faced by the firm.

In context of the Chinese market, Chen et al. (2006) find 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 Xing et al. (2017) find 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 room efficiency can be captured by the board meeting frequency, I expect tenured corporate secretary in China to enhance the board process efficiency and to reduce the frequency of corporate board meeting. 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, I propose the following hypothesis:

H4.1: Corporate secretary with longer tenure reduces the board meeting frequency.

4.2.3 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 centerpiece for monitoring a firm's decision making

process (Raheja, 2005; Harris and Raviv, 2008).[19] 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), I use the outside director in-meeting dissent behavior 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' behavior in the monitoring process. Adams et al. (2010) argue that instead of asking the question of '*who they are'*, it will be wiser for the studies on outside directors to ask the question of '*what they do'*. 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 / 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

[19] 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).

parties before the meeting. This will help the management team to enhance the positive outcome of the pre-meeting negotiation with the outside directors, so that, 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 behavior 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 corporate secretaries are appointed by the board of directors rather than the CEO. 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. I believe that reduced dissent should is more likely to reflect the good quality of boundary spanning work rather than the result of collusion behavior of the corporate secretary.[20] Based on this discussion, I propose the following hypothesis:

H4.2: Corporate secretary with longer tenure reduces the incidence of outside director in-meeting dissent opinion.

[20] If the collusion hypothesis dominates, then I would expect to find the dissent opinion to be negatively correlated with the firm's fraudulent behaviour. That is, less dissent opinion is expressed in the board meetings due to insufficient information, and the outside directors fail to play their monitoring role. The preliminary results however show that the dissent opinions of the outside directors are positively correlated with the fraudulent behaviour of the firms suggesting that outside directors play the role of whistle blower through their dissent opinions.

4.2.4 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 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, I 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) have 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.

I 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 entrenchment 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 behavior. 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 these discussions, I propose the following hypothesis:

H4.3: Corporate secretary with longer tenure reduces the incidence of corporate fraud and lawsuit.

4.3 Variable Description and Methodology

4.3.1 Variable Description

In this chapter, I test the 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. The sample period commences in 2004 and extends through 2012. To eliminate the influence of outliers, I winsorize the variables at both top and bottom one percent of their respective distributions. After matching all the available firm-level data, excluding the missing values, and addressing the lead-lag requirement of the model specification, I end up with 13,164 firm-year observations. Appendix 4.A1 provides detailed definition for each variable used in this chapter.

Table 4.1 presents the descriptive statistics of the variables used in this chapter. Average tenure of the corporate secretary in the sample is 5.057 years, with 2 and 7 years at the first and third quartiles. The board size in the 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 the sample, most of the proposals presented in the board meetings are agreed upon by outside directors as their dissent behavior 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 the sample that have experienced lawsuit and regulatory enforcement against corporate fraud respectively. I observe that 14.5% of the firm-years report actual fraudulent behavior which is higher than the incidence of regulatory enforcement against fraud. This is due to the fact that some of the fraudulent behavior 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 chapter are classified as SOEs *i.e.* have government as a controlling shareholder. This reflects an almost equal distribution between SOEs and Non-SOEs in this chapter 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 the

sample of 13,164 firm-years, from 2004 to 2012, I find that the corporate secretary can undertake a dual role of senior executive of the firm in 24% cases, and lastly as the CFO of the firm in only 8.2% cases.

[Please insert Table 4.1 about here]

In Table 4.2, I report the correlation coefficients among different variables used in this chapter. 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 the baseline hypotheses.

[Please insert Table 4.2 about here]

4.3.2 Methodology

To test the three hypotheses, I use the following models:

$$Board\ Meeting\ Frequency_{j,t} = \alpha + \delta ln(Secretary\ Tenure)_{j,t} + \sum_{i=1}^{n} \beta_i\ Control_{j,t} + \varepsilon_{j,t} \quad (4.1)$$

$$Dissent_{j,t} = \alpha + \delta ln(Secretary\ Tenure)_{j,t} + \sum_{i=1}^{n} \beta_i\ Control_{j,t} + \varepsilon_{j,t} \quad (4.2)$$

$$Fraud\_Lawsuit_{j,t+1} = \alpha + \delta ln(Secretary\ Tenure)_{j,t} + \sum_{i=1}^{n} \beta_i\ Control_{j,t} + \varepsilon_{j,t} \quad (4.3)$$

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 opinions 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(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*.

The 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(Market Value)*), outstanding debt (*Leverage*), profitability (*Sales Growth*), and relative profitability (*Adjusted ROE*). I also control for the age of the firm (*Ln(Firm Age)*). The second group of firm-level control variables represents governance indicators. At the board-level, I 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 equation 4.2 and equation 4.3, I also include the *Board Meeting Frequency* as the control variable. Besides, following Jiang et al. (2016), I add the outside director dissent behavior (*Dissent*) as governance related control variable in Model 4.3. 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 equation 4.3 to account for the impact of analyst coverage as the outside monitor. In regressions with continuous variables as the dependent variables, I use the firm fixed effect model and control the year dummies. In regressions when dependent variables are dummies, I apply the probit model and control the industry and year effects. 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) I use a 1-year lead for the dependent variable (*Fraud_Lawsuit*) in equation 4.3 in order to address the potential endogeneity concerns.

4.4 Empirical Evidence for the Three Main Hypotheses

4.4.1 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 4.3. Columns 1 and 2 report that the coefficients of *Ln(Secretary Tenure)* are significantly negative at 1% level, both with (*t-stat.=-7.84*) or without (*t-stat.=-8.10)* the control variables. These basic results are consistent with hypothesis ***H4.1***, *i.e.* the board meeting frequency is negatively associated with the corporate secretary tenure.

In columns 3 and 4 of Table 4.3, I can see that consistent with ***H4.2***, the coefficients for *Ln(Secretary Tenure)* are significantly negative at 1% level with (*t-stat.=-3.31*) or without (*t-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 the conjecture that longer tenured secretary can play a better role of boundary spanning 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 meetings.

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 4.3. The coefficients for *Ln(Secretary Tenure)* are significantly negative at 1 percent level for both without (*t-stat.=-6.87*) and with (*t-stat.=-3.69*) control variables respectively. This is consistent with the hypothesis 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 4.3 about here]

4.4.2 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), and the governance in SOEs is always seen as less efficient (Cornett et al., 2010). 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 incentivized 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, I investigate

whether the impact of corporate secretary tenure differs in SOEs versus in Non-SOEs. To start with, I rerun the regressions specified in Table 4.3 with SOE and Non-SOE subsamples respectively and report the results in Table 4.4. I then conduct the Chow tests for the 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 impacts of corporate secretary tenure differ. In Table 4.4, I report the Chi^2 statistics and relevant P-values that indicate whether the coefficients on *Ln(Secretary Tenure)* are significantly different between SOEs and Non-SOEs. I 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 hypotheses 1 and 3.

However, for the *Outside Director Dissent,* I 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 behavior 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 I 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 backgrounds. Consequently, their ability to conduct good boundary spanning role suffers.

[Please insert Table 4.4 about here]

4.5 Further Addressing the Endogeneity Concern

In prior analysis, although I use a 1-year lead for *Fraud_Lawsuit* as the dependent variable to address the potential endogeneity issues in the research sample, I 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, I adopt three approaches, namely the propensity score matching (PSM), the instrumental variable (IV) regression analysis, as well as using additional control variables to check the robustness of the findings.

4.5.1 Propensity Score Matching (PSM) Method

I conduct the PSM on the three models that examine the 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 4.3, I 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.[21] After the matching process, I obtain 4,750 and 892 as well as 4,522 observations for models predicting board meeting frequency, dissent opinion and fraud and lawsuit respectively.[22] I then re-run the regression on the propensity score matched samples. Results in Table 4.5 show that, in the propensity score matched samples; the coefficients of corporate secretary tenure remain significant with the same sign with those in Table 4.3.

[Please insert Table 4.5 about here]

4.5.2 Instrument Variable Analysis

In addition to the PSM analysis, I also employ the instrument variable (IV) analysis which is widely used by research in accounting and finance areas (Weber and Willenborg, 2003; Whisenant et al., 2003) to address the endogeneity concern. In this chapter, following previous studies (e.g., Laeven and Levine, 2007; Leary and Roberts, 2014; Xia, 2014), I use the average corporate secretary tenure for the industry in which a particular firm belongs to as the value of the instrument variable for the firm.[23] The

[21] For the variable *Dissent* and *Fraud_Lawsuit*, I 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, I take observations with meeting frequency greater than or equal to 12 as the master sample (*i.e.*, 17.70% of the observations). Following the advice in Shipman et al. (2017), to maximize the treatment effect, I 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. I 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), the conclusions remain.

[22] I perform a 1 to 1 match to find the observations with nearest score in the matching sample to the master sample.

[23] In line with Leary and Roberts (2014), I 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.

reason I construct such variable as the instrument is because the industrial average length of corporate secretary tenure reflects the industrial specific job market environment for corporate secretaries. According to the theory of work adjustment, how fit 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 where the firm operates. During the sample period between 2004 and 2012, only a small proportion of the Chinese corporate secretaries act as professionalized corporate secretaries who may 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.[24] Furthermore, the industry average of corporate secretary tenure should have little relation with the dependent variables such as the particular firm's board meeting frequency, outside director dissent or fraud or lawsuit. Even if there 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 the industry dummies included in both the first stage and second stage regressions.[25] The results for the two stage regressions are shown in Table 4.6. It could be found that all the coefficients of corporate secretary tenure remain significant after control for potential endogenous issue, which further support

[24] In the meantime, since I dropped the specific firm-year corporate secretary tenure when calculating the industry average, the instrument is exogenous from the specific firm.

[25] By conduct the instrument analysis, all other control variables in the second stage regression has been added into the first stage analysis as control variables. Moreover, as the tenure of corporate secretary is an ordinary variable which suffers from potential autoregressive issue, following Beck and Katz (1995) I add the lagged value of *Ln(corporate secretary tenure)* to the first step regression to eliminate this problem.

the main results.

[Please insert Table 4.6 about here]

4.5.3 Robustness Checks with Additional Country-specific Variables

In this section, I include a wider range of explanatory variables in the 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 of the senior executives such as CEO or CFO had prior experience of working in the government. As I have discussed, this may influence both the effectiveness of the corporate secretaries and the governance quality of the relevant firms. I include two dummy variables, namely *CEO Political Connection* and *CFO Political Connection*, to reduce the impacts of this feature. In addition, in the research 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. I 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, I 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. I 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 4.1 shows that most of the Chinese firms have 33.33% of the outside directors, resulting in negligible variation with *Board Independence* variable.[26] To better capture a firm's initiative in bringing more outside directors than required by

[26] 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.

the regulatory requirements, I 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 4.7, I report the results for regressions with the aforementioned country- and firm-specific variables. Due to the limitation of data, this renders us with more than 50% reduction in the number of observations. Despite this, I 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 4.3.

[Please insert Table 4.7 about here]

4.6 Further Analysis

4.6.3 Alternative Measures of Internal Control on Governance Outcomes

In this last sub-section, I investigate the influence of corporate secretary tenure on several alternative measures of firm-level internal control quality. Firstly, I split the *Fraud_Lawsuit* variable used in Table 4.3 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 behavior is identified by the regulators, I also test the relation between the variable *Fraud Happen,* which is based on the actual time of fraudulent behavior, with the corporate secretary tenure. Thirdly, to observe the governance outcome from market's perspective, I 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.

The empirical results based on the above models are shown in Table 4.9. It could be found from columns 1 to 8 that corporate secretary tenure is negatively related to each of these dependent variables, either with or without the control variables. These

results further support the conclusion that tenured corporate secretary could help enhance the internal control outcome of the firm.

[Please insert Table 4.9 about here]

4.6.1 Alternative Measure of Board Meeting Efficiency and Boundary Spanning to Outsider Directors

While testing the main hypotheses, I find that the corporate secretary tenure has significant impact in reducing the *Board Meeting Frequency* and *Dissent*. This supports the 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 behavior 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*, I use a third variable – the outside directors' board meeting absent behavior 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.[27]

I 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

[27] I consider representative's attendance in lieu of the outside director as an absence behaviour 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).

management as well as boundary spanning to outside directors. Adams and Ferreira (2008) suggest 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 behavior 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 publicly contradicting with the executive decision and offend the CEOs.

The results which are reported in columns 1 and 2 of Table 4.8 show that the corporate secretary's tenure within the firm is negatively associated with the outside director absence ratio either with or 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 4.8 about here]

4.6.2 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, I take the advantage of the 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, I 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). Intuitional investors such as mutual funds, due to their accessibility of superior information and exit threat, are considered as better monitors compared to retail investors (Chemmanur et al., 2009; 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 4.8, I 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.

4.7 Conclusion

This chapter 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 behavior, 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. The main findings are robust to potential endogeneity issues. I 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 the 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, I 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.

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Tables for Chapter 4

Table 4.1 Descriptive statistics

This table reports the descriptive statistics of variables for Chinese A-share listed firms used in this chapter from 2004 to 2012. It reports the number of observations, mean, standard deviation, median, and first and third quartile values of all the main variables used in this chapter. Detailed definitions of all the variables are reported in Appendix 4.A1.

	Variable	N	Mean	Std Dev.	P25	Median	P75
(1)	Secretary Tenure	13,164	5.057	3.388	2.000	4.000	7.000
(2)	Board Size	13,164	9.271	1.975	9.000	9.000	10.000
(3)	Board Meeting Frequency	13,164	8.878	3.366	7.000	8.000	11.000
(4)	Board Independence	13,164	0.361	0.052	0.333	0.333	0.375
(5)	Dissent	13,164	0.034	0.181	0.000	0.000	0.000
(6)	Absence	13,164	0.053	0.076	0.000	0.028	0.083
(7)	Fraud	13,164	0.081	0.272	0.000	0.000	0.000
(8)	Lawsuit	13,164	0.106	0.308	0.000	0.000	0.000
(9)	Fraud Happen	13,164	0.145	0.352	0.000	0.000	0.000
(10)	Modified Auditor Opinion	13,164	0.022	0.147	0.000	0.000	0.000
(11)	Analyst Coverage	13,164	6.076	8.647	0.000	2.000	9.000
(12)	No. of Mutual Funds	13,164	16.904	29.060	1.000	4.000	19.000
(13)	Secretary Turnover	13,164	0.149	0.356	0.000	0.000	0.000
(14)	CEO Duality	13,164	0.156	0.363	0.000	0.000	0.000
(15)	Ownership Concentration	13,164	0.567	0.158	0.457	0.578	0.683
(16)	BTMV	13,164	0.449	0.290	0.231	0.392	0.608
(17)	Ln(Market Value)	13,164	22.152	1.279	21.301	21.972	22.762
(18)	Leverage	13,164	0.615	7.818	0.340	0.504	0.646
(19)	Sales Growth	13,164	0.226	0.571	-0.011	0.143	0.323
(20)	Adjusted ROE	13,164	0.000	0.178	-0.038	0.008	0.065
(21)	Equity Turnover	13,164	3.569	2.826	1.550	2.864	4.826
(22)	Firm Age	13,164	13.264	4.711	10.000	13.000	16.000
(23)	Big4 Auditor	13,164	0.070	0.256	0.000	0.000	0.000
(24)	SOE	13,164	0.524	0.499	1.000	1.000	0.000
(25)	Duality CEO or VP	13,164	0.240	0.427	0.000	0.000	0.000
(26)	Duality CFO	13,164	0.082	0.275	0.000	0.000	0.000
(27)	Dependence Dummy	6,307	0.983	0.130	1.000	1.000	1.000
(28)	Central SOE	6,307	0.180	0.384	0.000	0.000	0.000
(29)	Local SOE	6,307	0.363	0.481	0.000	0.000	1.000
(30)	CEO Political Connection	6,307	0.182	0.393	0.000	0.000	0.000
(31)	CFO Political Connection	6,307	0.065	0.250	0.000	0.000	0.000
(32)	Adjusted Secretary Salary	6,307	5.655	22.945	-8.610	0.000	13.305
(33)	Cash Flow Volatility	6,307	3.180	8.028	0.455	0.982	2.407

Table 4.2 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 4.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 4.3 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 OLS fixed-effect method and clustered at firm and year level, columns 3, 4, 5, and 6 use probit regression and clustered at industry and year level. R^2 and Wald Chi^2/F-value values across all the regression models are reported. Values in parenthesis below each coefficient are their respective robust t-statistics. 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 4.A1. ***, **, * indicates significance at 1%, 5%, and 10% level respectively.

	Board Meeting Frequency		Outside Director Dissent		Fraud_Lawsuit	
	(1)	(2)	(3)	(4)	(5)	(6)
Ln(Secretary Tenure)	-0.365***	-0.351***	-0.139***	-0.109***	-0.134***	-0.076***
	(-8.10)	(-7.84)	(-4.24)	(-3.31)	(-6.87)	(-3.69)
Board Independence		-0.086		-0.156		-0.071
		(-0.10)		(-0.29)		(-0.22)
Board Size		-0.023		0.011		0.008
		(-0.75)		(0.77)		(0.89)
CEO Duality		0.071		-0.023		-0.088***
		(1.37)		(-0.60)		(-3.70)
Ownership		0.833*		-0.085		-0.464***
		(1.69)		(-0.37)		(-3.60)
BTMV		-0.293*		-0.221*		-0.607***
		(-1.82)		(-1.83)		(-7.49)
Ln(Market Value)		0.720***		-0.082**		-0.040*
		(8.03)		(-2.52)		(-1.91)
Leverage		0.002***		-0.002**		0.019
		(3.37)		(-2.34)		(1.51)
Sales Growth		0.019		-0.053		-0.027
		(0.42)		(-1.10)		(-1.03)
Adjusted ROE		-0.012		-0.018		-0.037***
		(-0.48)		(-1.01)		(-2.82)
Equity Turnover		-0.022*		-0.029*		0.010
		(-1.71)		(-1.89)		(1.50)
Ln(Firm Age)		-0.104		-0.002		0.153***
		(-0.23)		(-0.03)		(2.90)
Big4 Auditor		-0.053		-0.176		-0.107
		(-0.35)		(-1.45)		(-1.33)
Board Meeting Frequency				0.028***		0.024***
				(3.40)		(4.45)
Dissent						4.087***
						(3.85)
Analyst Coverage						-0.015***
						(-5.80)
Constant	10.330***	-6.743***	-2.101***	-0.399	-0.486***	0.269
	(119.22)	(-3.09)	(-16.94)	(-0.50)	(-6.43)	(0.56)
Control Dummy	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
Chi^2/F-Value	139.01***	67.01***	513.39***	589.02***	356.70***	656.24***

Table 4.4 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 OLS fixed-effect method and clustered at firm and year level, columns 3, 4, 5, and 6 use probit regression and clustered at industry and year level. R^2 and Wald Chi^2/F-value across all the regression models are reported. Values in parenthesis below each coefficient are their respective robust t-statistics. 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 Chi^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 4.A1. ***, **, * indicates significance at 1%, 5%, and 10% level respectively.

	Board Meeting Frequency		Outside Director Dissent		Fraud_Lawsuit	
	Non-SOEs (1)	SOEs (2)	Non-SOEs (3)	SOEs (4)	Non-SOEs (5)	SOEs (6)
Ln(Secretary Tenure)	-0.411***	-	-0.196***	-0.035	-0.073**	-0.075**
	(-5.56)	(-5.59)	(-3.91)	(-0.79)	(-2.47)	(-2.57)
Board Independence	0.463	-0.358	-0.292	0.131	-0.062	-0.147
	(0.36)	(-0.33)	(-0.37)	(0.18)	(-0.14)	(-0.30)
Board Size	-0.036	-0.011	0.043*	-0.009	0.024*	-0.001
	(-0.71)	(-0.27)	(1.86)	(-0.47)	(1.82)	(-0.07)
CEO Duality	0.185**	-0.012	-0.032	-0.015	-0.084***	-0.075**
	(2.30)	(-0.18)	(-0.57)	(-0.29)	(-2.60)	(-2.12)
Ownership Concentration	1.068	0.578	-0.140	-0.065	-0.569***	-0.316
	(1.47)	(0.86)	(-0.42)	(-0.20)	(-3.28)	(-1.60)
BTMV	-0.206	-0.339	-0.243	-0.167	-0.829***	-0.420***
	(-0.82)	(-1.61)	(-1.39)	(-1.00)	(-7.12)	(-3.78)
Ln(Market Value)	0.851***	0.591***	-0.145***	-0.032	-0.059*	-0.000
	(6.10)	(4.99)	(-2.90)	(-0.73)	(-1.93)	(-0.01)
Leverage	0.002***	-0.010	-0.008	0.014	0.012	0.071
	(3.45)	(-1.03)	(-0.37)	(1.58)	(1.10)	(1.43)
Sales Growth	-0.006	0.053	-0.095	-0.012	-0.012	-0.047
	(-0.10)	(0.78)	(-1.52)	(-0.16)	(-0.35)	(-1.14)
Adjusted ROE	-0.034	0.002	-0.036	0.000	-0.057***	-0.013
	(-0.90)	(0.05)	(-1.49)	(0.02)	(-3.08)	(-0.67)
Equity Turnover	-0.021	-0.021	-0.051**	-0.009	0.012	0.010
	(-1.18)	(-1.20)	(-2.24)	(-0.44)	(1.32)	(1.02)
Ln(Firm Age)	0.054	-0.073	0.066	-0.078	0.040	0.238***
	(0.07)	(-0.13)	(0.52)	(-0.72)	(0.54)	(3.12)
Big4 Auditor	0.147	-0.174	0.071	-0.350**	0.059	-0.272**
	(0.57)	(-0.98)	(0.38)	(-2.31)	(0.54)	(-2.46)
Board Meeting Frequency			0.032***	0.023**	0.021***	0.027***
			(2.74)	(2.00)	(2.80)	(3.48)
Analyst Coverage					-0.013***	-0.021***
					(-3.47)	(-5.24)
Dissent					3.610**	3.813**
					(2.38)	(2.39)
Constant	-10.644***	-4.992*	0.616	-1.238	1.019	-0.978
	(-3.41)	(-1.91)	(0.50)	(-1.12)	(1.51)	(-1.31)
Control Dummy	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
Chi^2/F-Value	28.805***	42.358**	346.928**	322.691	283.86***	413.26**
Coefficients difference in *Ln(Secretary Tenure)*	Chi^2=1.24 P-Value=0.2659		Chi^2=5.85 P-Value=0.0156		Chi^2=0.00 P-Value=0.9549	

Table 4.5 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. Columns 1 uses the OLS fixed-effect method and clustered at firm and year level, columns 2 and 3 use probit regression and clustered at industry and year level. R^2 and Wald Chi^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 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 4.A1. ***, **, * indicates significance at 1%, 5%, and 10% level respectively.

	Board Meeting Frequency	Outside Director Dissent	Fraud_Lawsuit
	(1)	(2)	(3)
Ln(Secretary Tenure)	-0.444***	-0.182***	-0.064**
	(-4.43)	(-2.91)	(-2.40)
Board Independence	1.325	0.482	-0.435
	(0.67)	(0.49)	(-1.08)
Board Size	0.097	0.012	0.010
	(1.34)	(0.49)	(0.83)
CEO Duality	0.105	-0.014	0.054*
	(0.75)	(-0.21)	(1.74)
Ownership Concentration	1.639	0.179	0.051
	(1.50)	(0.42)	(0.31)
BTMV	0.060	0.124	-0.058
	(0.17)	(0.58)	(-0.62)
Ln(Market Value)	0.593***	0.028	-0.004
	(3.11)	(0.54)	(-0.17)
Leverage	0.230	0.147	0.007
	(0.59)	(1.15)	(0.72)
Sales Growth	-0.084	-0.133*	-0.025
	(-0.93)	(-1.83)	(-0.81)
Adjusted ROE	-0.094	0.042	-0.007
	(-1.39)	(1.42)	(-0.42)
Equity Turnover	-0.050*	-0.029	0.005
	(-1.90)	(-1.05)	(0.08)
Ln(Firm Age)	1.177	-0.008	-0.095
	(1.14)	(-0.05)	(-0.84)
Big4 Auditor	0.007	0.168	0.147
	(0.02)	(0.72)	(0.25)
Board Meeting Frequency		-0.007	-0.002
		(-0.50)	(-0.30)
Dissent			0.241
			(0.17)
Analyst Coverage			0.000
			(0.06)
Constant	-8.009*	-0.595	-0.064**
	(-1.77)	(-0.45)	(-2.40)
Control Dummy	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 4.6 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 controlling variables in stage two regressions, are included in the first stage of the estimation. Moreover, to remove the potential autoregressive in the corporate secretary tenure, we also added the 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 industry-level. Detailed definitions of all variables are reported in Appendix 4.A1. ***, **, * indicates significance at 1%, 5%, and 10% level respectively.

Panel A: Coefficients on the Instrument Variable in First Stage Regressions						
	Ln(Secretary Tenure)					
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						
	Board Meeting		Outside Director		Fraud_Lawsuit	
	(1)	(2)	(3)	(4)	(5)	(6)
Ln(Secretary Tenure)	-0.264***	-0.403***	-	-0.140***	-	-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	-	-0.589	-	-0.581
	(24.86)	(-1.02)	(-14.74)	(-0.72)	(-9.79)	(-1.03)
Control Dummy	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 4.7 Effect of corporate secretary tenure with additional 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. Columns 1 uses the OLS fixed-effect method and clustered at firm and year level, columns 2 and 3 use probit regression and clustered at industry and year level. 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 Chi^2 and F-values across all the regression models are reported. Detailed definitions of all variables are reported in Appendix 4.A1. ***, **, * indicates significance at 1%, 5%, and 10% level respectively.

	Board Meeting	Outside Director Dissent	Fraud Lawsuit
	(1)	(2)	(3)
Ln(Secretary Tenure)	-0.192**	-0.195***	-0.077**
	(-2.25)	(-2.59)	(-2.21)
Independence Dummy	-0.761***	-0.011	-0.080
	(-2.75)	(-0.03)	(-0.55)
Board Size	-0.021	-0.012	0.012
	(-0.40)	(-0.45)	(0.93)
CEO Duality	0.057	-0.096	-0.053
	(0.49)	(-0.89)	(-1.13)
Ownership Concentration	1.004	-0.628	-0.698***
	(1.39)	(-1.55)	(-4.26)
BTMV	-0.428*	-0.282	-0.676***
	(-1.66)	(-1.00)	(-6.07)
Ln(Market Value)	0.717***	-0.094	0.003
	(5.53)	(-1.14)	(0.09)
Leverage	-0.048**	0.019	0.057
	(-2.33)	(0.98)	(1.55)
Sales Growth	0.035	0.088	0.041
	(0.51)	(1.12)	(1.11)
Adjusted ROE	0.090	0.008	-0.105*
	(1.09)	(0.08)	(-1.88)
Equity Turnover	-0.036**	-0.050*	0.000
	(-2.33)	(-1.73)	(0.05)
Ln(Firm Age)	-0.869	0.165	0.005
	(-0.91)	(0.88)	(0.06)
Big4 Auditor	-0.239	-0.369	-0.236**
	(-1.26)	(-1.00)	(-2.04)
Board Meeting Frequency		0.040***	0.027***
		(2.77)	(3.66)
Dissent			-4.418
			(-1.37)
Analyst Coverage			-0.020***
			(-5.26)
Central SOE	-0.195	-0.235	-0.108
	(-0.29)	(-1.33)	(-1.51)
Local SOE	-0.023	-0.021	-0.212***
	(-0.03)	(-0.19)	(-4.05)
CEO Political Connection	0.107	0.121	0.086
	(0.48)	(1.03)	(1.53)
CFO Political Connection	-0.204	0.128	0.265***
	(-0.61)	(0.63)	(2.77)
Cash Flow Volatility	-0.013	0.012*	0.004
	(-0.94)	(1.66)	(1.17)
Adjusted Secretary Salary	0.002	0.002	-0.000
	(0.59)	(0.80)	(-0.27)
Duality CFO	-0.274	-0.314	0.061
	(-0.74)	(-1.35)	(0.77)
Constant	-3.239	0.267	-0.145
	(-0.85)	(0.15)	(-0.19)
Control Dummy	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 4.8 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 OLS fixed-effect method clustered at firm-level. 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. Detailed definitions of all variables are reported in Appendix 4.A1. ***, **, * indicates significance at 1%, 5%, and 10% level respectively.

	Outside Director Absence Ratio		Analyst Coverage		No. of Mutual Funds	
	(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				0.048**		-0.037
				(2.22)		(-0.63)
Analyst Coverage						1.373***
						(24.87)
Constant	0.068***	0.177***	3.090***	-	11.383***	-
	(30.35)	(2.89)	(17.40)	(-20.97)	(19.38)	(-17.38)
Control Dummy	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 4.9 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, and Modified Auditor Opinion* for Chinese A-share listed firms from 2004 to 2012. All columns use probit regression with fixed effects. R^2 and Wald Chi^2 values across all the regression models are reported. Values in parenthesis below each coefficient are their respective robust t-statistics, clustered at industry-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 4.A1. ***, **, * indicates significance at 1%, 5%, and 10% level respectively.

	Fraud		Fraud Happen		Lawsuit		Modified Auditor Opinion	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ln(Secretary Tenure)	-0.116***	-0.081***	-0.076***	-0.053**	-0.120***	-0.047*	-0.116**	-0.104**
	(-5.51)	(-3.57)	(-3.38)	(-2.25)	(-4.74)	(-1.76)	(-2.56)	(-2.09)
Dissent		1.619		0.007		4.926***		-1.788
		(1.35)		(0.01)		(3.98)		(-0.89)
Board Independence		-0.177		-0.056		0.127		0.083
		(-0.51)		(-0.14)		(0.31)		(0.11)
Board Meeting Frequency		0.020***		0.013**		0.026***		0.030**
		(3.45)		(2.17)		(3.91)		(2.33)
Board Size		0.004		0.032**		0.001		0.006
		(0.35)		(2.45)		(0.07)		(0.28)
CEO Duality		-0.049*		-0.086***		-0.073***		-0.081*
		(-1.71)		(-2.81)		(-2.72)		(-1.85)
Ownership Concentration		-0.238*		-0.205		-0.581***		-0.690**
		(-1.77)		(-1.28)		(-3.60)		(-2.33)
BTMV		-0.355***		-0.151*		-0.734***		-0.995***
		(-4.17)		(-1.69)		(-7.19)		(-5.67)
Ln(Market Value)		-0.077***		-0.140***		0.022		-0.051
		(-3.25)		(-5.21)		(0.87)		(-0.81)
Leverage		-0.001		-0.002*		0.019*		-0.001
		(-0.70)		(-1.74)		(1.85)		(-0.49)
Sales Growth		-0.049		-0.010		-0.047		-0.210**
		(-1.56)		(-0.39)		(-1.35)		(-2.49)
Adjusted ROE		-0.028*		-0.039***		-0.028**		-0.045**
		(-1.72)		(-2.84)		(-2.04)		(-2.55)
Analyst Coverage		-0.009***		-0.006**		-0.020***		-0.050***
		(-3.32)		(-2.03)		(-5.30)		(-3.41)
Equity Turnover		0.012		0.013*		0.014*		-0.006
		(1.60)		(1.72)		(1.83)		(-0.46)
Ln(Firm Age)		0.035		0.125*		0.226***		0.171
		(0.60)		(1.79)		(3.39)		(1.39)
Big4 Auditor		-0.175*		-0.293***		-0.054		-0.008
		(-1.82)		(-3.12)		(-0.56)		(-0.04)
Constant	-0.863***	0.925*	-1.027***	1.600***	-1.100***	-1.906***	-2.264***	-0.959
	(-11.18)	(1.73)	(-10.75)	(2.65)	(-12.83)	(-3.19)	(-13.77)	(-0.67)
Control Dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Observations	13,163	13,163	13,164	13,164	13,164	13,164	13,164	13,164
R^2	0.039	0.065	0.013	0.040	0.073	0.133	0.071	0.164
Chi^2	255.85***	422.52***	95.52***	231.99***	573.81***	812.88***	169.24***	264.75***

Appendix 4.A1 Variable definitions

Variables	Definition
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 behavior 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.e.* 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 CEO or VP	A dummy variable, which equals to 1 if the corporate secretary of the firm is also the CEO or Vice President, 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.
Cash Flow Volatility	Equals to the standard deviation of the operating cash flows in previous eight quarters at the end of the year.

Chapter 5 Does Director Interlock with Shareholder Firms' Boards Create Value? Evidence from Chinese Listed Firms

5.1 Introduction

Directors form an important part of the modern corporate governance mechanism. Research focuses on various characteristics of directors, including their independence, personal characteristics, and experience. Among those features, the interlocking of director has received a lot of attention in the areas of management and finance. Director interlock is described by Fich and White (2005) as "a person is on the board of directors of two or more corporations, providing a link or interlock between them". That is, when directors taking multiple directorships in different companies, it forms a bridge between them.[28] Existing research shows director interlock might not only provide better information channels and lower environmental uncertainty (Beckman and Haunschild, 2002) but also bring problems of lower independence and director availability (Core et al, 1999). The empirical research shows a positive (Horton et al., 2012; Phan et al., 2003), negative (Devos et al., 2009; Fich and Shivdasani, 2006) or no impact of director interlock on firm performance and governance quality (Fligstein and Brantley, 1992). To explain these mixed results, Zona et al. (2018) developed a combined framework by fitting both agency theory and resource dependence theory into their research, and concluded that differences in target interlock firm characteristics could determine whether director interlock benefits the firm.

Inspired by Zona et al. (2018), by focusing on firms with specific characteristics,

[28] Following Han et al. (2017), I define director interlock as follows: "If one firm had a common director with another firm, those firms were considered as interlocked partners." Directors taking other roles (e.g CEOs) in other firms are not considered as being interlocked in this research.

this chapter further investigates the impact from one unique group of interlocked firms, that is, the shareholders. Shareholders are the ultimate beneficiary of firm operations and the principals who monitor the management agents; thus, taking a dual role as director of a listed firm and a director of a firm that holds shares in it should have an effect on firm performance and governance quality. To capture such an impact, I construct the shareholder interlocked director ratio (SIDR) which is measured as the percentage of directors on the board of a listed firm who also take a dual role as a director on the board of its shareholders. I first examine whether the SIDR affects firm performance, and find that it is positively correlated with the industry-adjusted return on assets, suggesting such interlock is a good source of resource dependence. Then, I examine whether the governance quality is affected by such interlocking, finding a negative relationship between the SIDR and both regulatory enforcement against fraud and the probability of being involved in a lawsuit, suggesting that a better monitoring function is provided by the interlock relationship. In addition, I present several additional tests, including instrumental variable (IV) analysis, propensity score matching (PSM) analysis, alternative measures of the SIDR, and the impact of the SIDR on tunneling behavior, outside director attendance and shareholder voting behaviors. These results further support the main findings.

This chapter makes the following contributions to the literature. First, this chapter opens a new dimension to study the indirect impact of shareholder on corporate governance via these multi-appointed directors. Moreover, in line with the notion of Zona et al. (2018), this chapter finds that directors with specific background (shareholders) could provide consistent impact on governance quality. Third, this chapter finds alternative factor that could affect firm performance and probability involving in fraud and lawsuits. In addition, this chapter provides new evidence on the

governance and performance differences between state-owned enterprises (SOEs) and non-SOEs.

The rest of this chapter is organized as follows. The literature review and hypothesis development are presented in section 5.2. Section 5.3 describes the data and models. The main results are demonstrated and discussed in section 5.4. Several additional tests are presented in section 5.5. A brief conclusion is drawn in section 5.6.

5.2 Literature Review and Hypothesis Development

5.2.1 The Importance of Director Interlock

The nature of corporate board has received extensive attention in the literature. A recent review work by Johnson et al. (2013) has summarized the research angles on boards beyond independence, director interlock being one of them. Director interlock is described as occurring "when a person is on the board of directors of two or more corporations, providing a link or interlock between them" (Fich and White, 2005). Existing literature has documented extensive evidence on the importance of interlocked directors, and both good and bad consequences. On the good side, from the view of resource dependence theory (Emerson, 1976), it is argued that interlocked directors could bring outside resources to the firm from their external positions (Pfeffer and Salancik, 1978), reduce environmental uncertainty (Beckman et al., 2004), enhance the information environment (Beckman and Haunschild, 2002), and make the directors better at performing the corporate governance practice (Palmer et al., 1993). Moreover, social theory and social embeddedness theory (Granovetter, 1985) demonstrate that economic decisions and behaviors are largely influenced by social relations. As Han et al. (2017) show, director interlock could provide firms with good

connections, which reduce the cost of information transmission (Haunschild, 1993). Moreover, the reputation effect driven by multiple directorships also explains the impact of interlock. Early studies such as Fama and Jensen (1983) show that the more companies outside directors are serving at the same time in their multiple directorships, the more able they should be. This is because, if outside directors show a good performance track record, they will be favored by more firms, and hired by more boards. Consistent with Fama and Jensen (1983), Booth and Deli (1996) show that directors with multiple directorships are involved in more businesses, and could help firms gain easier access to partner companies, to further enhance their businesses.

While the good side of interlocking is supported by the above literature, there is another group of research, looking at this from the aspect of agency theory, which suggests that interlocked directors are less independent and have few incentives to monitor management teams, as they wish to avoid social sanctions from their director network (Mizruchi, 1996; Westphal and Khanna, 2003; Zona et al., 2018), which may increase the agency cost and depress performance (Dalton et al., 2007). Moreover, the interlocking of directors may lessen their effectiveness by adding to the workload of their peer directors and distracting them from their jobs (Carpenter and Westphal, 2001; Fich and Shivdasani, 2006). Adams et al. (2010) provide theoretical support for this argument, showing the busyness of outside directors will harm their effectiveness.

5.2.2 Shareholder Interlocked Directors

From the above existing literature, it can be seen that director interlocks do have a significant influence, either good or bad, on firm operations, and according to Zona et al. (2018) the impact should be largely dependent on the relationship between and nature of the interlocked firms a director is serving simultaneously. Following this

notion, I focus on one specific group of interlocked firms, that is, the shareholders. Shareholders are proven to be a very important factor linked to corporate governance quality and performance (McCahery et al., 2016). Therefore, I believe that, when directors also holds multiple directorships on the boards of the firm's shareholders, they should be able to express more shareholder-specific views to the firm, which will alter the governance and performance outcomes of the firm. As demonstrated by Fama and Jensen (1983) and Ertimur et al. (2008), shareholders are rarely directly involved in the firm's operations, either because the separation of ownership and control means that only certain proposals have to go through the shareholders' meeting, or because the law or company articles require a complex process in order for shareholders' proposals to be implemented regarding issues that a board will normally handle. However, if there are interlocked directorships between two firms, this could be seen as an additional channel for shareholders to communicate and express their ideas, directly and more efficiently, which should improve firm performance in terms of both operations and governance, and in turn help to protect shareholder wealth.

To capture such an impact, a good proxy is required. Based on a review of the literature, I decided to construct the SIDR, as mentioned earlier, calculated as the percentage of directors of a listed firm who have interlocked directorships in its shareholder's board. As the outcomes of a board will rely on director voting, this percentage-based proxy could well reflect the impact of shareholder interlocked director seats on the board and on firm performance and governance outcomes. Later in this section I will discuss how this might happen, in developing the hypotheses.

5.2.3 Shareholder Interlocked Directors and Firm Performance

First, I would like to see whether the SIDR affects firm performance. The literature

frequently investigates how boards might affect firm performance. Board independence is one of the most frequently used measures of evaluating this (Bhagat and Black, 2001; Klein, 1998). Among other measures, director compensation, board demographic diversity, and board members' foreign experience have all been shown to affect firm performance (Brick et al., 2006; Erhardt et al., 2003; Masulis et al., 2012). Drawing attention to board director interlock specifically, research has already demonstrated that this can significantly affect firm performance (Brown and Maloney, 1999; Ferris et al., 2003; Harris and Shimizu, 2004). It is argued that multiple directorships could bring to the firm resources from stakeholders such as suppliers and customers (Booth and Deli, 1996). Moreover, the higher the level at which directors are engaged in the external environment, the better resources they may bring to the firm, and the more they may increase firm performance (Jackling and Johl, 2010). Such an argument is also applied to shareholder interlocked directors. I believe that, due to the resources brought by shareholders, higher SIDR should alter firm performance. Becht et al. (2009) argue that institutional investor engagement could significantly help firms outperform their peers. Andres (2008), looking at the aspect of family business, argues that, when the founding family as the largest shareholder is also represented on the board, the firm performance will be distinguishable from that of other firms. Therefore, if I narrow down the definition of interlocked firms to that related to the shareholders, the resource provision function of interlocked directors should be more comprehensive, with directors not only getting better support from the shareholders, but also make the firm better understanding and meeting the shareholders' needs. Thus, it will create an extra channel between the shareholder and the listed firm for information exchange, with the director acting as a boundary spanner and enhancing firm performance (McNulty and Stewart, 2015).

Moreover, despite research such as Lipton and Lorsch (1992) arguing that the largest problem for directors who serve on multiple boards is a lack of time to carry out their jobs, which may reduce the firm performance, it is also argued that, if the firms have the same or aligned natures, the workload should be much lower than expected (Kiel et al., 2005). In line with this notion, the directors of firms that hold shares in the listed firm, with expertise in areas specific to the listed firm, or experience handling post-investment management for listed firms, may largely be free from the problem of distraction caused by the additional workload, and the additional resources and knowledge brought may compensate for any such distraction.

Based on the above arguments, I empirically analyze the effect of the SIDR on firm performance by following Eisenberg et al. (1998) and using the industry-adjusted return on assets (ROA) as a proxy for performance. I propose the following hypothesis:

H5.1: A higher SIDR leads to a higher industry-adjusted ROA.

5.2.4 Shareholder Interlocked Directors and Governance Outcomes

As well as firm performance, governance outcomes are also an important aspect of the firm's operations and the shareholders' wealth. Internal control is crucial for corporate governance and shareholders' wealth. The failure of internal control could lead to firms being involved in lawsuits or subject to regulatory enforcement regarding fraud (Persons, 2006). Corporate boards, as the most important governance mechanism, play a very important role in enhancing the quality of internal control. However, literature on the relationship between corporate boards and the incidence of fraud show mixed results (Beasley, 1996; Fich and Shivdasani, 2006; Uzun et al., 2004). Although research such as Beasley (1996) argue that independent board could significantly reduce the likelihood of corporate fraud, others, such as Schnatterly (2010),

demonstrate that the board has only a limited impact on management team behavior. It has even been found that the presence of different types of committees has no impact (Beasley, 1996) or even a negative impact on the incidence of fraud (Uzun et al., 2004).

Such mixed results lead to the question of whether the board can constrain the opportunistic/self-serving CEO behaviors. Regarding the issue of CEO-board power, the literature refers to various determinants of this relationship, including CEO equity holdings (Westphal and Zajac, 1995), CEO duality (Zajac and Westphal, 1996), board insider ratio (Westphal and Zajac, 1995), and director-CEO relative tenure (Zajac and Westphal, 1996).

In addition to the above factors, by taking a dual role on a shareholder firm's board not only represent themselves, but also a specific shareholder, and could thereby carry higher bargaining power. Thus, when a board has more shareholder interlocked directors, it should have stronger bargaining power, and the CEO's behaviors could be more effectively constrained by the board's monitoring.

Another possible explanation derives from the theory of information. A low-quality information environment and poor transmission efficiency to shareholders is one of the most serious obstacles to effective board monitoring. Links with outside parties, meanwhile, could significantly reduce the transparency issue. For example, Hillman et al. (1999) show that links established between a firm and the government could significantly reduce the related uncertainties by improving information channels. In the same way, the presence of a shareholder interlocked director who is acting as a boundary spanner (Kiel et al. 2005; McNulty and Stewart, 2015; Zahra and Pearce, 1989) could also deliver information directly between the listed firm and its shareholders, enhance transparency and efficiency, make shareholder monitoring and guidance more accountable, and therefore reduce the probability of lawsuits and the

occurrence of fraud.

In addition, a critical issue of director effectiveness is the degree of independence (Hermalin and Weisbach, 2003), even for outside directors. Bhagat and Black (1999) suggest that, no matter the independence level of outside directors when they initially begin sitting on a board, after a certain period of tenure, they will become a "lapdog" rather than a "watchdog". The reason is their fear of offending the management team. However, since the shareholder interlocked director has power from the shareholders, they should be more independent and have a better chance of conducting the monitoring job effectively. Based on the above arguments, I propose the following hypothesis:

H5.2: A higher SIDR reduces the probability of a firm being involved in a lawsuit or a regulatory enforcement against to fraud.

5.3 Data and Sample

5.3.1 Data

To conduct the empirical research, a firm-year panel data sample of all the A-share listed firms in China between 2004 and 2015 was used. In line with major research on the Chinese market (Chen et al., 2006; Hou and Moore, 2010), the CSMAR and CCER datasets which are the most widely used datasets were used to source research data. In order to avoid biased results caused by extreme data points, I winsorized all data at the top and bottom 1% of the dataset. After taking out the observations with missing values, 16,431 observations remained. The descriptive statistics and correlation matrix are shown in Tables 5.1 and 5.2. The definitions of all the variables can be found in Appendix 5.A1.

Table 5.1 provides the descriptive statistics of the variables. The mean value shows

that about 12% of observations in the sample of this research contain fraud. The mean of *SIDR* is about 15.9%, with a standard deviation of 16.59% and a 25th percentile of 0, which shows that the variation of *SIDR* is relatively large across different firms and years. The median value of *Board Independence* is 0.367 with a standard deviation of 0.0526 and a 75th percentile of 0.4, implying that most of the firms in China have boards comprising one third outside directors to meet the minimum requirement imposed by the China Security Regulatory Commission. *Board Size* is very similar across firms and years, with a 25th percentile of 8 and a 75th percentile of 9. *Sales Growth* has a very big standard deviation; this may be driven by the extreme values at the two tails.

[Please insert Table 5.1 about here]

Table 5.2 presents the correlation coefficients of all the variables. The largest correlation 0.86 is observed between *Top 10 Hold* and *Shareholder Vote PCT*, but these two variables will be on different sides of the equation. The second largest correlation is 0.57, which is observed between *Leverage* and *BTMV,* suggesting that there is no significant multicollinearity problem in the models.

[Please insert Table 5.2 about here]

5.3.2 Models

In order to perform the analysis of ***H5.1*** and ***H5.2***, the following models were used:

$$Ind\_ROA_{j,k} = \alpha + \delta SIDR_{j,k} + \sum_{i=1}^{n} \beta_i \, Control_{j,k} + \varepsilon_{j,k} \quad (5.1)$$

$$Fraud\ and\ Lawsuit_{j,k+1} = \alpha + \delta SIDR_{j,k} + \sum_{i=1}^{n} \beta_i \, Control_{j,k} + \varepsilon_{j,k} \quad (5.2)$$

where $Ind\_ROA_{j,k}$ on the left-hand side of equation 5.1 is a continuous variable capturing the industry-adjusted return on assets of firm j at year k.

$Fraud\ and\ Lawsuit_{j,k+1}$ on the left-hand side of equation 5.2 is a dummy variable equal to 1 if there is at least one enforcement against fraud by the regulator or lawsuit against firm j at year k+1. I lead the year of the dependent variable by 1 to resolve the potential endogeneity problem. $SIDR_{j,k}$ on the right-hand side of both equations is a percentage that captures the shareholder interlocked director ratio, which is equal to the number of directors with additional directorships on the boards of shareholder firms, divided by the board size. Moreover, two groups of control variables are included on the right-hand sides of equations 5.1 and 5.2. The first group captures the governance characteristics of the firm, and includes *Independence Ratio, Board Meeting Freq., Board Size* and *CEO Duality*. *Independence Ratio* captures the percentage of outside directors on the board. *Board Meeting Freq.* equals the number of board meetings held within the particular year. *CEO Duality* is a dummy variable equal to 1 if the CEO is also the chairman of the firm during the given year, and otherwise equal to 0. The second group of control variables captures the fundamental characteristics of the firm, and includes *BTMV, Ln(Market Value), Top 10 Hold, Sales Growth* and *Leverage. BTMV* measures the book to market ratio*, Ln(Market Value)* measures the log of the total market value of the firm*, Top 10 Hold* equals the sum of the percentage of shares held by the top ten shareholders*, Sales Growth* equals the growth rate in the firm's revenue compared to last year, and *Leverage* equals the ratio of debt to total assets. The Model 5.1 is estimated by panel OLS method with firm fixed effect and year fixed effect, and the Model 5.2 is estimated by the probit method with industry and year fixed effect.

5.4 Results and Interpretations

5.4.1 Impact of SIDR on Firm Performance and Governance Quality

Table 5.3 reports the panel OLS with fixed effect regression results for the relationship between the *SIDR* and the *Ind ROA*, as well as the probit regression results between *SIDR* and fraud and lawsuits. For the *Ind ROA* results, the coefficient of *SIDR* is 2.439 with t-value 2.89 (column 1), which is significant at the 1% level, and the results remain significant after controlling for the various governance and fundamental variables in column 2. Since the dependent variable is the industry-adjusted return on assets, apart from the key factor *SIDR*, only the board size and the book to market ratio are significantly related to it. The results suggest that a higher presence of shareholder-director interlock could bring resources from shareholder and enhance firm performance, which supports ***H5.1***. For the impact of the *SIDR* on governance quality, in column 3, the coefficient is -0.426, which is significantly negative at the 1% level, and the coefficient remains significant at the same level in column 4 after controlling for the fundamental and governance factors. These results suggest that, as the shareholder-director interlock increases, the probability that a company faces regulatory enforcement against fraud or a lawsuit will be lower, which supports ***H5.2***. This result is in line with the notion that director interlock could improve the interchange of information between each of the interlocked firms, which would enhance communication efficiency and reduce information asymmetry, increase the cost for the management team of engaging in fraud, and thereby reduce the probability of regulatory enforcement against fraud. This result might also be supported by the notion of bargaining power, where the interlocked director has directing rights in the shareholder company, which empowers the interlocked director in the listed firm and reduces the chances of wrongdoing on the part of the management team.

[Please insert Table 5.3 about here]

5.4.2 The Impact of State Ownership

Moreover, I further split the research sample into SOEs and non-SOEs to see whether such an effect is dependent on ownership type. As Allen et al. (2005) show, state-owned firms differ significantly from privately owned companies. Despite the impact of ownership type on firm performance seems inclusive (Ehrlich et al., 1994; Kole and Mulherin, 1997), due to the operating system, the governance quality of SOEs is always less efficient than that of non-SOEs (Cornett et al., 2010). Since I am focusing on the influence of directors taking a dual role on the boards of shareholder companies, the ownership type differences become even more crucial.

To conduct such analysis, I ran the regression from Table 5.3 again using the split sample. The results are shown in Table 5.4. The results for *Ind ROA* are shown in the first two columns. The chi^2 value of the difference-in-means test on the coefficients of *SIDR* is 7.10, which is significant at the 1% level, suggesting that the relationship between *SIDR* and *Ind ROA* is stronger in SOE firms. This implies that shareholder interlocked directors in SOEs could better help these firms to increase their performance. A possible explanation for this result could stem from the unique features of the SOE executives. As Jiang and Kim (2015) show, unlike those in non-SOEs, many executives in SOEs hold entitled political positions, and directors of the shareholder companies commonly have much higher political ranks than those of the subsidiary companies. Political position is very important for communication, and without such interlocking directorships, communication may rely solely on formal report relationships which are less efficient. It will be very hard in such cases to communicate directly with top-tier management in the shareholder companies on an

equal footing to ask for resources and support. Another possible explanation aligns with Megginson and Netter (2001) in that the state could use SOEs to pursue non-profit goals that may not always maximize the interests of minority shareholders. This will create pressure on the company's board when making decisions. Therefore, when the number of shareholder interlocked directors sitting on the board increases, the director who sits on the boards of SOE shareholder companies will be more careful when dealing with those non-profit goals in order to balance the interest of other shareholders.

The results from the probit regression on fraud and lawsuits are shown in columns 3 and 4 of Table 5.4. The chi^2 value of the difference-in-means test on the coefficient of *SIDR* is 4.03 and significant at the 1% level, suggesting that shareholder interlocked directors perform better in their disciplining role in the non-SOEs. Directors with interlocked directorships in privately owned shareholder companies will be better connected to the shareholders' interests, and will have a greater incentive as well as capabilities to monitor the management team in the subsidiary listed firm. For the SOEs, as the monitoring function puts the interlocked directors and the management team on opposite sides, the self-interest aspect of the directors mean that they may not willing to offend the management team and other colleagues since their political career depends more on colleague evaluation than on their monitoring reward.

[Please insert Table 5.4 about here]

5.5 Further Tests

5.5.1 IV Test and PSM Analysis

Although the SIDR is largely dependent on the nomination and election process of the board, which is less likely to produce an endogeneity problem with the dependent

variables, the fear of reputational harm for individual directors, or the idea of performance and governance outcomes being measures of directors' capabilities, could affect the shareholder company's decision to appoint a director of the shareholder company to the listed firm's board. Even if the director of the listed firm perform well, they may be appointed as the directors of the shareholder firm for wider career reasons or as a political promotion in an SOE. Based on these concerns, to add further robustness to the main results, I ran both IV analysis and PSM analysis.

5.5.1.1 IV Analysis

IV analysis is widely used in research to control potential endogeneity problems (Weber and Willenborg, 2003). To apply the IV analysis, I employ two variables as the instruments, which are correlated with the independent variable SIDR, but not with the dependent variables. The first is the one-year-lagged averaged value of SIDR for different industries and years, and the calculation of this value does not include the observation itself. This method is consistent with previous studies (see, e.g., Laeven and Levine, 2007; Leary and Roberts, 2014; Xia, 2014), in terms of appropriately reflecting the industry-specific level of shareholder interlocked director status. The second variable is the change in the number of shares outstanding of the firm. Since ownership and control are designed to be separated, the change on number of shares outstanding may have little effect on the dependent variables in this chapter. However, according to the *Chinese Company Law*, directors are elected by the shareholder meeting, and the company article always defines a certain portion of shares will provide rights to the shareholder to nominate a director. Therefore, when more shares are issued by the company, the nomination rights among shareholders will change accordingly, which would affect the composition of board, and therefore affect the

level of *SIDR*. By applying these two instrument variables, The results of the IV analysis are shown in columns 1 and 2 of Table 5.5. They show that, after controlling for the IVs, the relationship between *SIDR* and the dependent variables remains significant, which supports the main results.

5.5.1.2 PSM Analysis

In addition to the IV analysis, existing literature demonstrates that the PSM approach can provide more efficient statistical results through accurate matching (Conniffe et al., 2000; Rosenbaum and Rubin, 1983). I conduct 1-on-1 matching with no replacement for all the dependent variables in Tables 5.3 and 5.4. I use all the independent variables apart from *SIDR* as the matching criteria.[29] After this process, I have 6,324 and 12,468 observations as two separate subsamples. Then, I run the regressions from Tables 5.3 and 5.4 again. The results are shown in Table 5.5 and are consistent.

[Please insert Table 5.5 about here]

5.5.2 Alternative Measures

5.5.2.1 Breaking Down the Overall Governance Outcome into Fraud and Lawsuits Respectively

In the main test presented in Table 5.4, I follow Persons (2006), and use a combined variable for fraud and lawsuit events. To add further robustness to the main results, I break the variable down to test the impact of *SIDR* on fraud and lawsuits separately. The probit regression results are shown in columns 1 to 4 of Table 5.6. It can be seen

[29] Since Industry adjusted ROA is a continuous variable, to ensure the matching process is valid, I take the value at top 20% of the sample as the host sample, and use the rest sample as the matching sample to conduct the 1-1 match.

that, after the separation, the results remain the same, which further supports the idea that a higher *SIDR* could reduce the probability of a firm facing these distress situations.

[Please insert Table 5.6 about here]

5.5.2.2 Alternative Measure for SIDR

As a further robustness test, in addition to the original SIDR variable, I take the actual number of directors with interlocking directorships on shareholder companies' boards as an alternative measure, and use it in the regression analyses for the two hypotheses. The results are shown in Table 5.7. Consistent with the results in Tables 5.3 and 5.4, the amount of director interlock with shareholder boards has a positive relationship with industry-adjusted ROA and a negative relationship with fraud and lawsuits, respectively. This result further confirms the benefits of directors' interlocked relationships with shareholders.

[Please insert Table 5.7 about here]

5.5.3 The SIDR and Tunneling Behaviors

Apart from the traditional financial and market-based measures, another potential issue that may be linked to the SIDR is the risk of tunneling. The literature shows that, in countries with weak legal protection for investors, controlling shareholders may tunnel wealth from listed firms, harming the interests of minority shareholders (Johnson et al., 2000). Gao and Kling (2008) show that outside directors and a dispersed ownership structure could reduce the chances of tunneling, while large firms and less leveraged firms also face a lower probability of tunneling behaviors. Wang and Xiao (2011) show that tunneling behavior reduces executive pay-performance sensitivity, and that controlling shareholders with the incentive to tunnel will have less of an incentive to

increase such sensitivity. To perform the analysis on the relationship between the SIDR and tunneling, the following panel OLS model with fixed effect is employed:

$$Tunneling_{j,k+1} = \alpha + \delta SIDR_{j,k} + \sum_{i=1}^{n} \beta_i \, Control_{j,k} + \varepsilon_{j,k} \qquad (5.3)$$

where $Tunneling_{j,k+1}$ on the left-hand side of the equation is a continuous variable capturing the tunneling behavior in firm j at year k+1. Moreover, in order to capture the tunneling effect, following Jian and Wong (2010) and Ying and Wang (2013), I use the abnormal related party transaction which generate income to the shareholder as the measure.[30] To construct the variable, I first regress the level of related party transactions between the listed firm and the shareholder firm against the listed firm's Size, Leverage, and Tobin's Q. Following Jian and Wong (2010), the related party transactions is include by the purchase of goods and assets, guarantees, mortgages and other forms of cooperation. Moreover, following Ying and Wang (2013), I include an industry dummy within the regression to control the industry effects. After running the regression, I take the residual as the abnormal part of the related party transactions, and use it as a proxy for the tunneling effect. Where the larger number of the residual implies higher level of potential tunneling behaviors. In addition, I lead the dependent variable by one year to address the potential endogeneity problem. $SIDR_{j,k}$ and the other control variables are defined the same as those in equation 5.2.

Table 5.8 reports the regression results for the relationship between *SIDR* and the probability of shareholder tunneling. In column 1, the coefficient of *SIDR* is -0.016, which is significantly negative at the 5% level. In column 2, the coefficient of *SIDR* remains significant at the same level after controlling for the various fundamental and governance factors. A possible explanation for this result could stem from both the

[30] This thesis use the same method and control variables hired by Ying and Wang (2013) to calculate the degree of shareholder's tunneling behaviors.

capability and willingness of shareholders to tunnel from the listed firm. Regarding capabilities, I believe that, when the SIDR increases, the monitoring function of directors is enhanced. Shleifer and Vishny (1986) show that concentrated ownership will enhance monitoring quality and better align the interests of majority and minority shareholders. Since a higher SIDR implies more concentrated ownership[31], these shareholder-representing directors will tend to provide a better monitoring function. Moreover, as Jensen and Murphy (1990) and Gao and Kling (2008) show, an increased number of directors could strengthen the effectiveness of their monitoring of each other, which would better coordinate and balance the interests of different parties and reduce the incidence of tunneling. In line with this notion but from the point of view of accountability rather than the number of directors, I believe that interlock makes directors' interests better aligned with the represented shareholders. Interlocked directors are more empowered by the shareholders to execute their monitoring function, which reduces the probability of tunneling. In addition, director interlock could be seen as an indicator that the listed firm is strategically important to the shareholders. According to the company law, the number of directors that can be nominated by the shareholders is pre-agreed by company articles. Therefore, if they choose to appoint a director to an interlocked position in a listed firm, it indicates that the listed firm is more likely to be used for business extension or company brand creation, rather than as a drilling machine which tunnels the money from listed firm and to harm the minority shareholders' interests. Otherwise, the director of a shareholder company does not need to take an interlocked position in a listed firm in-person to be exposed to the minority shareholders, potential public scrutiny and outrage. A scapegoat as

[31] Shareholders need enough shares to nominate its own board member to be seated at the board of the listed firm, therefore, a higher SIDR implies higher ownership concentration

proxy to seat in listed firm's board could satisfy these needs.

[Please insert Table 5.8 about here]

5.5.4 The SIDR and Shareholder Voting Engagement

To further explore whether shareholder interlocked directors enhance firm governance quality, I also examine the relationship between the SIDR and shareholder voting engagement behaviors. Voting rights are valuable to shareholders; research such as Kalay et al. (2014) uses the contingent claims approach to simulate synthetic stock by bond and option, and finds that voting rights do have a premium value. Therefore, failing to execute such rights could be seen as abandoning part of the stock value. Moreover, it is argued that shareholders could use voting as a channel for communicating with the directors (Yermack, 2010)[32], enhancing firm transparency and increasing the efficiency of communication. Therefore, if shareholder voting engagement increased, both shareholder wealth and governance quality should be enhanced. Since shareholder interlocked directors provide a good bridge between the shareholder firm and the listed firm, the chances of shareholders participating in voting should be higher. To empirically examine this hypothetical argument, the following panel OLS model with fixed effect is employed:

$$Shareholder\ Vote\ PCT_{\ j,k} = \alpha + \delta SIDR_{j,k} + \sum_{i=1}^{n} \beta_i\ Control_{j,k} + \varepsilon_{j,k} \qquad (5.4)$$

where *Shareholder Vote PCT* is the percentage of shareholders who attended the shareholder meeting and voted, for a given firm and year. Other variables are defined as in Table 5.3. The results are shown in columns 3 and 4 of Table 5.8. As I can see, the SIDR enhances the percentage of shareholders attending the meeting and voting,

[32] As Yermack (2010) shows, the votes in shareholder's meeting provide opportunities for communications between shareholders, directors, as well as the management team.

suggesting that a higher SIDR could enhance shareholder voting engagement. This in turn could help shareholders understand company operations, it could enhance the efficiency of the communication channel between the director and shareholders, and it could reduce the information asymmetry between shareholders, which would enhance the shareholders' wealth (Yermack, 2010).

5.5.5 The SIDR and Outside Directors' Meeting Absence

In addition, I believe shareholder interlocked directors may not only directly help promote governance quality, but also indirectly enhance board efficiency by increasing outside director effectiveness. Information is the most significant disadvantage of outside directors. As discussed above, shareholder interlocked directors have better knowledge and access to information from shareholder companies and they perform a very useful boundary-spanning function for the outside directors through communications during the board meeting. With more information, outside directors could become more effectively involved in the governance process and make higher-quality decisions. Moreover, not offending the management team is a self-interested motivation of outside directors with less monitoring power. Since shareholder interlocked directors could enhance the board's bargaining power, the probability of the management team making risky proposals should be reduced, and even when they do make such proposals, boards with higher bargaining power should be able to reject them and not leave outside directors with opposing opinions standing alone. To conduct the analysis on how shareholder interlocked directors affect outside director effectiveness, I use outside director attendance as a proxy for their effectiveness (Adams and Ferreira, 2008; Lin et al., 2014) and propose the following probit model:

$$OD\ Absence\ _{j,k+1} = \alpha + \delta SIDR_{j,k} + \sum_{i=1}^{n} \beta_i\ Control_{j,k} + \varepsilon_{j,k} \qquad (5.5)$$

where *OD Absence* is a dummy variable that equals 1 if there is at least one outside director absence during a financial year, and otherwise equals 0. Other variables are defined as in Table 5.3. The results are shown in columns 5 and 6 of Table 5.8. As I can see, the SIDR reduces the probability of outside director absence, with or without control variables, at the 1% level, suggesting that a higher SIDR could enhance outside directors' active engagement in their job. This result again confirms the notion that an increase in the SIDR could enhance the information environment and communication channels, thereby improving governance by outside directors.

5.6 Conclusion

This paper has empirically tested the impact of shareholder interlocked directors on firm performance and governance quality. The results show that, the higher is the percentage of shareholder interlocked directors on the board, the greater is the ROA, and the lower is the probability of fraud and lawsuits. The results suggest that shareholder interlocked directors could bring extra resources to the firm, help corporate boards make more effective decisions, better regulate the behavior of the management team, and reduce the probability of majority shareholders harming the interests of minority shareholders. The impact of shareholder interlocked directors varies according to the ownership type. The results are robust after controlling for potential endogeneity problems using IV and PSM approaches. This chapter also shows higher SIDR will enhance shareholder voting engagement, lower outside director absence as well as decrease the incidence of shareholder tunneling, which further support the main findings.

This chapter makes the following contributions to the literature and regulators. First, in line with the notion in Zona et al. (2018), this chapter, by extending the study on director interlock and focusing on one specific group of firms with unique characteristics, finds significant influence on firm performance and governance quality when firms' directors take interlock directorship in their shareholder's board. Second, empirical results of this chapter point to an new factor that could affect firms' governance and performance. Third, this chapter provides new evidence on the governance and performance differences between SOEs and non-SOEs. Fourth, the results urge the regulators and market practitioners to take into account the SIDR as a positive indicator for board effectiveness.

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Tables for Chapter 5

Table 5.1 Descriptive statistics

This table reports the descriptive statistics of the variables for the Chinese A-share listed firms used in this chapter, from 2004 to 2015. We report the number of observations, mean, standard deviation, median, and first and third quartile values of all the main variables used in this chapter. Detailed definitions of all the variables are reported in Appendix A1.

	Variable	N	Mean	Standard Dev.	P25	Median	P75
(1)	SIDR	16431	0.1590	0.1659	0.0000	0.1111	0.2500
(2)	Tunneling	16431	-0.0001	0.0782	-0.0295	-0.0206	-0.0088
(3)	Lawsuit	16431	0.4117	0.4922	0.0000	0.0000	1.0000
(4)	OD Absence	16431	0.1310	0.3374	0.0000	0.0000	0.0000
(5)	Fraud	16431	0.1233	0.3288	0.0000	0.0000	0.0000
(6)	Ind ROA	16431	-0.8802	10.0165	-0.0242	0.0044	0.0404
(7)	Independence Ratio	16431	0.3677	0.0526	0.3333	0.3333	0.4000
(8)	Board Meeting Freq.	16431	9.4105	3.6736	7.0000	9.0000	11.0000
(9)	Board Size	16431	9.1003	1.9648	8.0000	9.0000	9.0000
(10)	CEO Duality	16431	1.7871	0.4094	2.0000	2.0000	2.0000
(11)	BTMV	16431	1.0017	1.0612	0.3777	0.6534	1.1991
(12)	Ln(MV)	16431	15.5017	1.0796	14.7423	15.3781	16.0995
(13)	Top 10 Hold	16431	58.8672	15.6179	47.8900	59.8900	70.8300
(14)	Sales Growth	16431	0.4292	1.4565	-0.0472	0.1109	0.3841
(15)	Shareholder Vote PCT	16407	52.7826	16.4419	40.5967	53.3948	65.3245
(16)	Leverage	16431	0.4561	0.2193	0.2869	0.4575	0.6197

Table 5.2 Pairwise correlation matrix

This table reports the pairwise correlation matrix for the main variables from 2004 to 2015. Detailed definitions of all variables are reported in Appendix A1. * indicates significance at the 1% level.

	[1]	*[2]*	*[3]*	*[4]*	*[5]*	*[6]*	*[7]*	*[8]*	*[9]*	*[10]*	*[11]*	*[12]*	*[13]*	*[14]*	*[15]*	*[16]*
[1]SIDR	1.00															
[2]Tunneling	0.00	1.00														
[3]Lawsuit	-0.06*	-0.08*	1.00													
[4]OD Absence	-0.06*	-0.03*	0.13*	1.00												
[5]Fraud	-0.02*	0.00	0.06*	0.00	1.00											
[6]Ind ROA	0.02	-0.01	0.07*	0.00	0.02	1.00										
[7]Independence Ratio	-0.06*	-0.06*	0.09*	0.02*	0.00	0.02	1.00									
[8]Board Meeting Freq.	0.00	-0.08*	0.06*	0.04*	0.04*	-0.02	0.06*	1.00								
[9]Board Size	0.05*	0.06*	-0.18*	-0.02*	-0.02*	-0.02	-0.35*	-0.02*	1.00							
[10]CEO Duality	0.06*	0.07*	-0.17*	-0.07*	-0.03*	-0.02*	-0.10*	0.00	0.18*	1.00						
[11]BTMV	0.06*	-0.01	-0.14*	-0.05*	-0.01	0.00	0.00	0.10*	0.29*	0.15*	1.00					
[12]Ln(MV)	0.05*	0.01	0.10*	-0.06*	-0.04*	0.05*	0.07*	0.18*	0.25*	0.08*	0.12*	1.00				
[13]Top 10 Hold	0.07*	0.01	0.09*	0.05*	-0.04*	-0.01	0.04*	-0.01	0.03*	-0.04*	-0.01	0.23*	1.00			
[14]Sales Growth	-0.04*	0.02	0.01	0.00	0.01	0.01	0.03*	0.10*	-0.05*	0.01	0.01	0.02	0.00	1.00		
[15]Leverage	0.08*	0.02*	-0.23*	-0.10*	0.03*	0.02	-0.02*	0.18*	0.23*	0.18*	0.57*	0.16*	-0.12*	0.07*	1.00	
[16]Shareholder Vote PCT	0.07*	0.02	0.05*	0.05*	-0.04*	0.00	0.00	-0.08*	0.07*	-0.03*	-0.01	0.15*	0.86*	-0.04*	-0.15*	1.00

Table 5.3 Effect of shareholder interlocked director ratio on return on assets and fraud and lawsuits

This table reports the panel OLS/probit regression results for the effect of the shareholder interlocked director ratio (SIDR) on the industry-adjusted return on assets (Ind ROA) for Chinese A-share listed firms from 2004 to 2015. Models 1 and 2 report panel OLS results for the SIDR as the key independent variable for the full sample, without and with control variables respectively, regressed on Ind ROA and clustered at firm and year level. Models 3 and 4 report the corresponding results for the SIDR regressed on the fraud and lawsuits variable, clustered at industry and year level. Adjusted R^2/pseudo R^2 and F-value/chi^2-value are reported for all the regression models. Values in parenthesis below each coefficient are their respective robust t-statistics, clustered at the firm level. Detailed definitions of all variables are reported in Appendix A1. ***, **, and * indicate significance at the 1%, 5%, and 10% levels respectively.

	(1)	(2)	(3)	(4)
	Ind ROA	Ind ROA	Fraud and Lawsuits	Fraud and Lawsuits
SIDR	2.439***	2.500***	-0.426***	-0.263***
	(2.89)	(2.94)	(-4.16)	(-2.60)
Independence Ratio		1.601		0.259
		(0.57)		(0.77)
Board Meeting Freq.		-0.008		0.015***
		(-0.21)		(2.71)
Board Size		0.208**		-0.006
		(2.22)		(-0.53)
CEO Duality		-0.143		-0.088***
		(-0.56)		(-3.05)
BTMV		0.371**		-0.233***
		(2.36)		(-7.92)
Ln(MV)		0.204		0.002
		(0.81)		(1.11)
Ind ROA				-0.288***
				(-6.95)
Top 10 Hold		-0.004		0.008***
		(-0.30)		(5.32)
Sales Growth		-0.007		-0.001
		(-0.11)		(-0.14)
Leverage		-0.749		-0.393***
		(-0.88)		(-3.70)
Constant	1.352***	-5.582	2.280***	6.244***
	(7.84)	(-1.24)	(21.02)	(14.65)
No. of Observations	16431	16431	16431	16431
R^2	0.1307	0.1313	0.4075	0.4384
F-Value/Chi^2	81.984***	45.256***	3596.20***	3378.33***
Control Dummy	Yes	Yes	Yes	Yes

Table 5.4 Effect of shareholder interlocked director ratio on return on assets and fraud and lawsuits by ownership type

This table reports the panel OLS/probit regression results for the effect of the shareholder interlocked director ratio (SIDR) on the industry-adjusted return on assets (Ind ROA) for Chinese A-share listed firms from 2004 to 2015. Models 1 and 2 report results for the SIDR as the key independent variable regressed on Ind ROA and clustered at firm and year level, for the SOE and non-SOE samples respectively. Models 3 and 4 report the corresponding results for the regression on the fraud and lawsuits variable, clustered at industry and year level. Adjusted R^2/pseudo R^2 and F-value/chi^2-value are reported for all the regression models. Values in parenthesis below each coefficient are their respective robust t-statistics, clustered at the firm level. The t-values of the differences in the SIDR coefficients between the SOEs and non-SOEs for columns 1/2 and 3/4 are presented separately. Detailed definitions of all variables are reported in Appendix A1. ***, **, and * indicate significance at the 1%, 5%, and 10% levels respectively.

	(1)	(2)	(3)	(4)
	Ind ROA (SOE=0)	Ind ROA (SOE=1)	Fraud and Lawsuits (SOE=0)	Fraud and Lawsuits (SOE=1)
SIDR	1.124	3.954***	-0.467***	-0.154
	(1.12)	(2.98)	(-3.56)	(-0.98)
Independence Ratio	3.116	-0.474	0.640	-0.182
	(1.15)	(-0.10)	(1.38)	(-0.37)
Board Meeting Freq.	0.004	-0.031	0.011*	0.009
	(0.13)	(-0.46)	(1.66)	(1.17)
Board Size	0.158	0.191	0.009	0.015
	(1.26)	(1.46)	(0.51)	(1.04)
CEO Duality	-0.341	0.000	-0.176***	-0.162**
	(-1.16)	(0.00)	(-3.47)	(-2.02)
BTMV	0.817***	0.121	-0.117*	-0.043
	(2.86)	(0.64)	(-1.95)	(-1.44)
Ln(MV)	1.046***	-0.504	-0.240***	-0.137***
	(3.80)	(-1.27)	(-7.06)	(-3.16)
Ind ROA			0.002	0.002
			(0.89)	(0.83)
Top 10 Hold	-0.019	-0.015	0.013***	0.000
	(-1.36)	(-0.68)	(7.88)	(0.06)
Sales Growth	-0.068	0.052	-0.014	0.008
	(-1.49)	(0.40)	(-1.11)	(0.53)
Leverage	-0.622	-1.255	-0.099	-0.152
	(-0.69)	(-0.80)	(-0.67)	(-0.94)
Constant	-16.257***	6.716	5.694***	4.673***
	(-4.02)	(1.06)	(9.76)	(7.40)
Difference in coefficient on SIDR	Chi2= 7.10 Prob > chi2 =0.0077***		Chi2= 4.03 Prob > chi2 = 0.0448***	
No. of Observations	8457	7974	8457	7974
R^2	0.098	0.151	0.4205	0.416
F-Value/Chi^2	11.946***	29.786***	1849.70***	1655.87***
Control Dummy	Yes	Yes	Yes	Yes

Table 5.5 Effect of shareholder interlocked director ratio on return on assets and fraud and lawsuits with propensity score matching and instrumental variables

This table reports the propensity score matching (PSM) 1-on-1 matching subsample regression results and instrumental variable (IV) analysis for the effect of the shareholder interlocked director ratio (SIDR) on the industry-adjusted return on assets (Ind ROA), and fraud and lawsuits, for Chinese A-share listed firms from 2004 to 2015. Model 1 and 3 is clustered at firm and year level, and Model 2 and 4 clustered at industry and year level. Adjusted R^2 and F-values/chi^2 are reported for all the regression models. Values in parenthesis below each coefficient are their respective robust t-statistics, clustered at the firm level. The t-value of the differences in the SIDR coefficients between SOEs and non-SOEs are presented separately. Detailed definitions of all variables are reported in Appendix A1. ***, **, and * indicate significance at the 1%, 5%, and 10% levels respectively.

	(1)	(2)	(3)	(4)
	Ind ROA	Fraud and Lawsuit	Ind ROA	Fraud and Lawsuit
	IV		PSM	
SIDR	106.917***	-34.646***	3.317*	-0.304***
	(2.86)	(-3.80)	(1.74)	(-2.96)
Independence Ratio	20.547**	-6.262***	5.729	0.189
	(2.36)	(-3.20)	(0.81)	(0.55)
Board Meeting Freq.	0.022	0.013	0.006	0.018***
	(0.30)	(1.00)	(0.09)	(3.32)
Board Size	0.214	-0.079**	0.052	-0.008
	(1.06)	(-2.36)	(0.25)	(-0.67)
BTMV	-0.531	0.074	1.223**	-0.119***
	(-1.30)	(0.94)	(2.04)	(-3.79)
Ln(MV)	-0.970*	0.067	0.158	-0.206***
	(-1.96)	(0.66)	(0.30)	(-6.57)
Ind ROA		0.015**		-0.005
		(2.43)		(-1.10)
CEO Duality	-2.129**	0.394*	-0.122	-0.199***
	(-2.17)	(1.90)	(-0.21)	(-5.09)
Top 10 Hold	-0.084**	0.033***	0.005	0.007***
	(-2.46)	(4.36)	(0.18)	(4.94)
Sales Growth	0.388**	-0.108**	-0.081	-0.003
	(2.18)	(-2.47)	(-0.59)	(-0.27)
Leverage	-6.176**	1.575***	-1.200	-0.314***
	(-2.43)	(2.79)	(-0.68)	(-2.92)
Constant	2.703	4.762***	-5.685	4.453***
	(0.44)	(5.15)	(-0.69)	(9.80)
		SIDR[33]		
SIDR_Ind_Avg_Lag1		-.0002		
		(-1.83)*		
No. of Shares Outstanding		-.0133		
		(-3.32)***		
No. of Observations	16332	16332	6324	12468
R^2	NA	NA	0.139	0.231
F-Value/Chi^2	8.429***	565.70***	10.250***	2264.74***
Control Dummy	Yes	Yes	Yes	Yes

[33] To ensure there is significant correlation between the SIDR and the IVs, the results of a simple OLS between the SIDR and the IVs have been presented here.

Table 5.6 Effect of shareholder interlocked director ratio on fraud and lawsuits separately

This table reports the probit regression results for the effect of the shareholder interlocked director ratio (SIDR) on regulatory enforcement against fraud and involvement in lawsuits, separately, for Chinese A-share listed firms from 2004 to 2015. Industry and year fixed effects are controlled across all the regression models. Pseudo R^2 and chi^2 values are reported for all regression models. Values in parenthesis below each coefficient are their respective robust t-statistics. Detailed definitions of all variables are reported in Appendix A1. ***, **, and * indicate significance at the 1%, 5%, and 10% level respectively.

	(1)	(2)	(3)	(4)
	Fraud	Fraud	Lawsuit	Lawsuit
SIDR	-0.225**	-0.186**	-0.427***	-0.212*
	(-2.40)	(-1.97)	(-3.54)	(-1.77)
Independence Ratio		-0.093		-0.010
		(-0.31)		(-0.03)
Board Meeting Freq.		0.018***		0.011*
		(4.67)		(1.65)
Board Size		0.014		-0.022
		(1.42)		(-1.61)
BTMV		-0.104***		-0.016
		(-5.05)		(-0.44)
Ln(MV)		-0.146***		-0.193***
		(-7.57)		(-4.83)
Ind ROA		0.000		0.004
		(0.30)		(0.96)
CEO Duality		-0.055		-0.328***
		(-1.58)		(-6.50)
Top 10 Hold		-0.001		0.011***
		(-1.15)		(5.26)
Sales Growth		0.001		0.001
		(0.06)		(0.06)
Leverage		0.671***		-1.174***
		(7.63)		(-8.84)
Constant	-1.175***	0.779**	1.990***	5.885***
	(-15.67)	(2.51)	(17.91)	(10.66)
No. of Observations	16431	16431	16431	16431
R^2	0.032	0.049	0.502	0.544
Chi^2	278.84***	455.34***	2817.48***	2632.20***
Control Dummy	Yes	Yes	Yes	Yes

Table 5.7 Effect of number of shareholder interlocked directors on performance and governance quality

This table reports the panel OLS/probit regression results for the effect of the number of shareholder interlocked directors on the board, on the industry-adjusted ROA (Ind ROA) and on the fraud and lawsuits variable, for Chinese A-share listed firms from 2004 to 2015. Models 1 and 2 report the regression results for Ind ROA and clustered at firm and year level for the full sample, without and with control variables respectively. Models 3 and 4 show the regression results for fraud and lawsuits and clustered at industry and year level. Pseudo R^2/adjusted R^2 and F-values/chi^2 are reported for all regression models. Values in parenthesis below each coefficient are their respective robust t-statistics. Detailed definitions of all variables are reported in Appendix A1. ***, **, and * indicate significance at the 1%, 5%, and 10% levels respectively.

	(1)	(2)	(3)	(4)
	Ind ROA	Ind ROA	Fraud and Lawsuit	Fraud and Lawsuit
SID Total	0.304***	0.284***	-0.053***	-0.023**
	(3.31)	(3.02)	(-4.70)	(-2.05)
Independence Ratio		1.588		0.269
		(0.57)		(0.80)
Board Meeting Freq.		-0.008		0.015***
		(-0.21)		(2.70)
Board Size		0.167*		-0.002
		(1.76)		(-0.21)
CEO Duality		-0.141		-0.289***
		(-0.55)		(-6.97)
BTMV		0.371**		-0.088***
		(2.36)		(-3.05)
Ln(MV)		0.200		-0.234***
		(0.79)		(-7.94)
Top 10 Hold		-0.004		0.008***
		(-0.30)		(5.28)
Sales Growth		-0.007		-0.001
		(-0.11)		(-0.12)
Leverage		-0.745		-0.396***
		(-0.88)		(-3.73)
Ind ROA				0.002
				(1.10)
Constant	1.287***	-5.156	2.284***	6.214***
	(7.43)	(-1.15)	(21.07)	(14.57)
No. of Observations	16431	16431	8457	7974
R^2	0.130	0.130	0.408	0.438
F-Value/Chi^2	81.710***	45.277***	3589.64***	3375.50***
Control Dummy	Yes	Yes	Yes	Yes

Table 5.8 Effect of shareholder interlocked director ratio on tunneling, shareholder voting as well as outside director meeting attendance

This table reports the panel OLS/probit regression results for the effect of the shareholder interlocked director ratio (SIDR) on tunneling, shareholder engagement in the shareholders' meeting (measured by voting percentage), and outside directors' board meeting absence, for Chinese A-share listed firms from 2004 to 2015. Models 1 and 2 report results for the tunneling behavior as the dependent variable, without and with control variables respectively. Models 3 and 4 report OLS results for shareholder engagement as the dependent variable, without and with control variables respectively. Models 5 and 6 report probit results for outside directors' board meeting absence as the dependent variable, without and with control variables respectively. Adjusted R^2/pseudo R^2 and F-values/chi^2 values are reported for all regression models. Values in parenthesis below each coefficient are their respective robust t-statistics. Model 1 to 4 are clustered at firm and year level, Model 5 and 6 are clustered at industry and year level. Detailed definitions of all variables are reported in Appendix A1. ***, **, and * indicate significance at the 1%, 5%, and 10% levels respectively.

	(1) Tunneling	(2) Tunneling	(3) Shareholder Vote PCT	(4) Shareholder Vote PCT	(5) OD Absence	(6) OD Absence
SIDR	-0.016**	-0.016**	7.807***	2.714***	-0.534***	-0.425***
	(-2.48)	(-2.51)	(6.33)	(3.74)	(-4.63)	(-3.73)
Independence Ratio		-0.061***		-3.309*		0.938***
		(-2.88)		(-1.77)		(2.68)
Board Meeting Freq.		-0.001**		-0.066***		0.034***
		(-2.24)		(-2.69)		(7.64)
Board Size		-0.000		0.324***		0.045***
		(-0.29)		(4.18)		(3.96)
CEO Duality		0.002		0.063		-0.032
		(0.88)		(0.23)		(-1.41)
BTMV		-0.003**		0.316**		-0.163***
		(-2.15)		(2.22)		(-7.49)
Ln(MV)		-0.004*		-1.042***		0.001
		(-1.93)		(-5.03)		(0.59)
Top 10 Hold		0.000		0.735***		-0.148***
		(0.09)		(61.17)		(-3.60)
Sales Growth		0.000		-0.418***		0.006***
		(0.73)		(-5.35)		(4.92)
Ind ROA		-0.000*		0.005		-0.002
		(-1.72)		(1.05)		(-0.15)
Leverage		-0.009		-2.798***		-0.600***
		(-0.97)		(-3.54)		(-5.29)
Constant	0.005	0.103***	62.337***	22.618***	-1.567***	0.225
	(1.58)	(2.62)	(142.50)	(6.25)	(-17.49)	(0.63)
No. of Observations	16431	16431	16407	16407	16431	16431
R^2	0.001	0.005	0.239	0.558	0.072	0.098
F-Value/Chi^2	1.648***	2.252***	140.060***	406.027***	676.36***	732.03***
Control Dummy	Yes	Yes	Yes	Yes	Yes	Yes

Appendix 5.A1 Variable definitions

Variable	Definition
SIDR	A ratio calculated by the number of directors also taking a dual role on the board of a shareholder company, divided by the original listed firm's board size.
Board Meeting Freq.	Number of times corporate board meetings took place in the financial year.
Fraud_Lawsuit	A dummy variable, which equals 1 if the firm received at least one enforcement against fraud by the regulator or was involved in a lawsuit during the financial year, and 0 otherwise.
Fraud	A dummy variable, which equals 1 if the firm received at least one enforcement against fraud by the regulator during the financial year, and 0 otherwise.
Lawsuit	A dummy variable, which equals 1 if the firm was involved in at least one lawsuit during the financial year, and 0 otherwise.
OD Absence	A dummy variable, which equals 1 if an outside director was absent from a board meeting during the financial year, and 0 otherwise.
Independence Ratio	Number of outside directors divided by the board size.
CEO Duality	A dummy variable, which equals 1 if the CEO is also the chairman of the board, and 0 otherwise.
Board Size	Number of directors on the firm's board at the end of the financial year.
Top 10 Hold	The percentage of the total shares outstanding that are held by the top 10 shareholders.
BTMV	Book value divided by the market value of the firm at the end of the financial year.
Ln(MV)	Natural logarithm of the total market value of the firm at the end of the financial year.
Leverage	Total debt divided by total assets of the firm at the end of the financial year.
Sales Growth	Growth in sales during the financial year compared to the previous year.
Ind ROA	Industry-adjusted return on assets, *i.e.* net income divided by the total assets of the current year minus the annual industry mean value.
Tunneling	A continuous variable equal to the residual of a regression measuring the level of tunneling from the listed firm
Shareholder Vote PCT	The annual average percentage of shareholders participating in the voting during a financial year.
SOE	A dummy variable, which equals 1 if the government is the controlling shareholder in the firm, and 0 otherwise.

Chapter 6 Conclusion

This thesis examines the impacts on corporate governance quality of in-meeting dissension by outside directors, the tenure of the corporate secretary, and director interlock with shareholder company boards. Chapter 3 discusses the whistleblower role of outside directors, in that their in-meeting activism can predict the incidence of regulatory enforcement for fraud, as captured by financial intermediations. Financial analysts lower the ratings of these companies in their reports, and mutual funds reduce their holdings in these companies. The results are robust using PSM to control potential self-selection bias and an instrumental variable approach. This chapter also shows the impacts of state ownership, outside director activism on CEO turnover, and financial analyst coverage. These findings provide evidence that, despite outside directors' apparent inability to discipline the management team, their whistleblowing function could lead to the dissemination of negative information to markets and regulators, which effectively places executives under scrutiny.

Chapter 4 discusses how the corporate secretary's tenure is negatively associated with board meeting frequency, in-meeting dissension by outside directors, and the propensity for fraud and lawsuits. These results support the theoretical foundation established by McNulty and Stewart (2015), who show that the corporate secretary can have a significant influence on a company's internal governance quality. The main findings are robust to potential endogeneity issues. Also tested were the impacts of tenure on the absence of outside directors from board meetings, on analyst coverage, and on the number of mutual funds, as well as on an array of different internal quality control measures. All results are consistent with the main findings. The results support

the importance of the corporate secretary and reinforce the need for academics, regulators, media, policy-makers, and practitioners to take corporate secretaries into account when evaluating corporate governance structure and effectiveness.

Chapter 5 examines the impacts of the shareholder interlocked director ratio (SIDR) on company performance and governance quality. The results show that the SIDR has a positive relationship with industry-adjusted ROA and a negative relationship with fraud and lawsuits. These results are influenced by ownership type and are steadfast under several robustness checks such as the instrumental variable and propensity score matching approaches. These results suggest that an increase of shareholder interlocked directors could enhance company performance and help boards discipline management teams. Moreover, additional tests on tunneling behaviors, meeting attendance by outside directors, and shareholder meeting attendance further support this finding. These results open up a new subdimension for the study of director interlock with specific companies and urge regulators and market practitioners to use the SIDR as a positive indicator for board effectiveness.

Several implications can be obtained from the empirical results of the thesis. The results presented in Chapter 3 urge regulators and policy-makers to endow outside directors with more power, which can help turn outside directors from whistleblowers into real monitors. Moreover, more limits on absences and resignations by outside directors may also be helpful for outside directors to proactively address problematic proposals. The results presented in Chapter 4 advocates for companies and market participants to recognize the importance of the corporate secretary, to separate the assessment of corporate secretaries from CEOs, and to require companies to institute practical policies that enable corporate secretaries to better fulfill their duties. The results presented in Chapter 5 reveal the importance of shareholder interlocked

directors, and urge the market to recognize its impact on governance quality, as well as the importance of links between shareholders and boards.

This thesis has revealed several areas for further research. First, future research could take more steps towards examining the motivations for and consequences of whistleblowing by outside directors, especially regarding other characteristics that could affect the incidence of whistleblowing. Second, future research could use other characteristics of corporate secretaries to further explore their impact on governance quality and effectiveness. Lastly, scholars could further examine the impacts of having multiple directorships in other certain types of companies to see whether such interlocking could affect shareholder value.