Aguilera Ruth (Orcid ID: 0000-0002-1144-1499)

# State Ownership and Securities Fraud: A Political Governance Perspective

Running title: State Ownership and Securities Fraud

#### Wei Shi

Miami Herbert Business School University of Miami 5250 University Drive 414J Coral Gables, FL 33134 wshi@bus.miami.edu

# **Ruth Aguilera**

D'Amore-McKim School of Business Northeastern University 360 Huntington Avenue Boston, MA 02115 r.aguilera@northeastern.edu

# Kai Wang\*

College of Business Administration
Capital University of Economics and Business
No. 121, Zhangjialukou, Fengtai District, Beijing, China 100070
(+86) 13512075530

wangkai@cueb.edu.cn
\*corresponding author

**Acknowledgments:** This research was supported by National Natural Science Foundation of China [Grant Number 71702114, 71972111] and Scientific Research Plan of Beijing Municipal Education Commission [Grant Number SM202010038015]. We would like to thank handling editor J.(Hans) van Oosterhout and two anonymous reviewers for their constructive feedback and excellent guidance.

**Conflict of interest statement:** The authors declare no conflict of interest.

This article has been accepted for publication and undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process which may lead to differences between this version and the Version of Record. Please cite this article as doi: 10.1111/corg.12313

Manuscript Type: Empirical

**Research Question/Issue**: This study attempts to shed new light on how the state as a controlling shareholder can affect the interests of minority shareholders by investigating the role of state ownership in deterring securities fraud commission.

**Research Findings/Insights**: Using archival data from a large sample of Chinese publicly traded firms, we uncover that state ownership is negatively associated with the likelihood of securities fraud commission. Further, CEO political background reinforces this negative relationship. We also uncover that firms with high state ownership are more likely to dismiss CEOs than those with low or no state ownership upon securities fraud detection.

**Theoretical/Academic Implications**: Departing from agency theory-centric research on state ownership and corporate governance, this study introduces a political governance perspective to unpack the role of state ownership in corporate governance. Political governance refers to organizational control mechanisms deployed by political actors to achieve their objectives.

**Practitioner/Policy Implications**: Studying how political governance systems influence managerial behaviors is critical to gaining a complete insight into the implications of state ownership on corporate governance.

**Keywords:** Corporate Governance; State Ownership; Securities Fraud; CEO Dismissal; Ownership

After over two decades of extensive state reforms and privatization, firms with state ownership still loom large both in developing and developed countries. A plethora of research has investigated how state ownership can affect the quality of corporate governance (Bruton et al., 2015; Grosman, Aguilera & Wright, 2019; Grosman, Okhmatovskiy & Wright, 2016; Musacchio, Lazzarini & Aguilera, 2015). Most of existing studies (Jiang, Lee & Yue, 2010; Liu & Sun, 2005; Megginson & Netter, 2001; Shleifer & Vishny, 1997) draw upon agency theory to argue that the state as a controlling shareholder can be detrimental to effective corporate governance and harm the interests of minority shareholders because the state controls the appointment of board members and top

managers but the state's priorities often differ from those of minority shareholders (Young et al., 2008).

This study attempts to introduce a political governance perspective to understand the implications of state ownership on corporate governance by investigating the influence of state ownership on securities fraud. Political governance refers to control mechanisms used by political actors to achieve their political objectives (Wang, 2014a). The importance of political governance is particularly salient in Chinese state-owned enterprises (SOEs) because the ultimate goal of the state, controlled by the Chinese Communist Party (CCP), is to gain and safeguard its political legitimacy (Donald, 2016; Greve & Zhang, 2017; Wang, 2014a; Zhou, Gao & Zhao, 2017). Securities fraud refers to deceptive practices used by firms to induce investors to make purchase or sale decisions on the basis of false information (Cumming, Leung & Rui, 2015b). We choose to test the implications of political governance associated with state ownership in the context of securities fraud because securities fraud, compared with other types of corporate misconduct, can directly hurt the interests of numerous retail investors and is highly visible. In particular, in China, firms on average lose between 15% and 25% of their value when government agencies announce securities fraud investigations (Chen et al., 2005). Therefore, investors are highly attentive to securities fraud. In addition, investigating what affects corporate misconduct (including securities fraud) is an important topic in governance research because effective governance is partly designed to prevent corporate misconduct (Mohliver, 2019; Neville et al., 2019; Schnatterly, Gangloff & Tuschke, 2018; Zorn et al., 2017).

We argue that political governance associated with state ownership can deter securities fraud commission for two reasons. First, the state's primary objective in their involvement in SOEs is generally first and foremost to accomplish political and social goals

rather than to generate financial profits (Bai & Xu, 2005; Stan, Peng & Bruton, 2014).

Therefore, the state as a shareholder is less likely to impose financial performance pressure on managers. Meanwhile, managers are less likely to engage in corporate misconduct in the absence of financial performance pressure (Schnatterly et al., 2018; Shi, Connelly & Hoskisson, 2017). Second, as noted, securities fraud is a type of high-profile misconduct that can harm financial interests of numerous investors. Thus, associating state ownership with securities fraud can be detrimental to the political legitimacy of the CCP rule. Consequently, we argue that the CCP will enforce stronger disciplinary actions on managers of firms with higher state ownership who have committed securities fraud, deterring the occurrence of securities fraud.

We then propose that the negative influence of state ownership on securities fraud hinges on the CEOs' political background. CEOs with political background in SOEs are likely or even expected to return to politics and become higher-level government officials (Lin, 2013). Meanwhile, engaging in securities fraud can call an end to their political careers (Wang, 2014a). In addition, although firms with high state ownership are less likely to commit securities fraud than those with low or no state ownership, the former are more inclined to dismiss their CEOs upon fraud detection than the latter. This is because the Party-state<sup>1</sup> pays great attention to whether managers of SOEs have conducted themselves to safeguard its political legitimacy (Wang, 2014a) and securities fraud, a conspicuous form of corporate misconduct, can adversely affect the Party's political legitimacy (Arjoon, 2005).

Using a large sample of Chinese publicly traded firms, we find support for our arguments using bivariate probit regressions with partial observability that control for the influence of state ownership on fraud detection. Our study makes two significant contributions to the corporate governance literature. First, we enhance our insights into

research on state ownership and corporate governance. To date, state ownership is generally perceived, as detrimental to effective corporate governance and the interests of minority shareholders (Grosman et al., 2016; Megginson & Netter, 2001). We argue that political governance associated with state ownership can deter managers from committing securities fraud, advancing our knowledge about the role of state ownership in corporate governance. Second, the role of ownership structure has been a core topic in corporate misconduct (Burns, Kedia & Lipson, 2010; Cheng & Firth, 2005; Hadani, Goranova & Khan, 2011; Shi et al., 2017). We extend and test this body of work within the context of concentrated ownership, more salient outside North America, contributing to corporate governance research in emerging economies (Armitage et al., 2017).

#### THEORETICAL BACKGROUND

# **State Ownership and Corporate Governance**

as a matter of fact, SOEs generate around one tenth of world gross domestic product and account for around 20% of global equity market value (Economist, 2012). Agency theory suggests that the state as a controlling shareholder can adversely affect the interests of non-state minority shareholders (Borisova et al., 2012; Shleifer & Vishny, 1997). Specifically, agency theory assumes that conflicts of interest among principals (Young et al., 2008). The state as a controlling shareholder may have interests different from minority shareholders and attempts to influence firm decisions that benefit the interests of the state but not the minority shareholders (e.g., through appointing board members or top managers).

SOEs' top managers are evaluated mostly based on whether they have fulfilled political and social goals (Du, Tang & Young, 2012). Therefore, CEO compensation bears a weak association with firm financial performance among firms with the state as a controlling

shareholder (Firth, Fung & Rui, 2006b). In addition, SOEs have a lower CEO turnoverperformance sensitivity than privately-owned enterprises (POEs) (Kato & Long, 2006).

Furthermore, SOEs in emerging economies such as China often receive financial and policy support from the government and do not face the pressure from external governance mechanisms (such as the market for corporate control and investor activism) (Jiang et al., 2010). As a result, SOEs exhibit lower investment efficiencies (Chen et al., 2017) and lower propensities for corporate risk-taking than POEs (Boubakri, Cosset & Saffar, 2013). All of these consequences can potentially harm the interests of minority shareholders.

In addition, the state as a controlling shareholder may engage in related-party transactions to tunnel resources from listed subsidiary firms to other underperforming subsidiaries (Jiang et al., 2010). Relatedly, the state can harm the interests of the minority shareholders when it forces firms to appoint politicians as managers or to pursue projects on the basis of political and social returns instead of financial returns (Cuervo & Villalonga, 2000; Dharwadkar, George & Brandes, 2000; Shleifer, 1998). Further, SOEs can become tools for politicians and friends of the state to advance their own political interests (Boycko, Shleifer & Vishny, 1996; Shleifer & Vishny, 1994).

Although most studies suggest that state ownership can be detrimental to effective corporate governance, a recent study (Yiu, Wan & Xu, 2018) argues that "state ownership plays a strong governance role in firms" (p. 2696). This is because the state has a low level of information asymmetry with managers, facilitating monitoring of managers. Consistent with their arguments, they find that the percent of a firm's state nontradable shares is negatively associated with financial misconduct. However, their empirical model does not control for the influence of state nontradable shares on misconduct detection.

In sum, most of existing studies adopt an agency theory perspective to argue that the state as a controlling shareholder can adversely affect firms' adoption and implementation of effective governance mechanisms, thereby detrimental to the interests of minority shareholders. Yet, such research neglects the existence of political governance in SOEs as well as the more prominent role of political governance in influencing SOEs' managerial decisions and behaviors.

#### **Securities Fraud**

Our study focuses specifically on securities fraud, which is a type of illegal corporate misconduct that can be in the forms of falsifying financial statements, asset fabrication, illegal guarantees, and share price manipulation (Cumming et al., 2015b). We focus on securities fraud rather than other types of corporate misconduct because securities fraud can directly hurt the interests of many retail investors and is highly visible. Specifically, the exposure of securities fraud can have a destructive impact on firm value and investor confidence (Cumming, Dannhauser & Johan, 2015a). This is particularly true in China given the prevalence of securities fraud. Our data shows that over 31% of publicly traded firms in China have engaged in securities fraud during the period of 2003 to 2012. Given that China's stock market is dominated by domestic retail investors, securities fraud can directly harm the interests of a vast number of investors (Deng, 2017). This differentiates securities fraud from other types of corporate misconduct (such as bribery, exorbitant on-duty consumption or related-party transactions), which may indirectly affect minority shareholder interests. Thus, the exposure of securities fraud can have a pronounced influence on the political legitimacy of the state.

What drives firms to engage in corporate misconduct has been a key topic in corporate governance research (Connelly, Shi & Zyung, 2017; Schnatterly et al., 2018; Zorn

et al., 2017). A key trigger of misconduct is the pressure faced by managers. For instance, performance pressure has been found to trigger corporate misconduct. Mishina et al. (2010) find that "good" firms undertake misconduct to alleviate external performance pressures. Competitive pressure can also sow the seed of misconduct (Bennett et al., 2013). In addition, pressure from investors can lead firms to engage in misconduct (Hadani et al., 2011; Shi et al., 2017). Shi et al. (2017) argue that "subject to unrelenting external expectations from dedicated institutional investors and activists, [managers] may feel compelled to make financial reporting decisions not from their own beliefs, but merely to satisfy the expectations of the firm's owners" (p. 1272). Consistent with their arguments, the authors find that ownership by dedicated institutional ownership is positively associated with fraud commission. Another important trigger of corporate misconduct is executive compensation. A large body of research suggests that top executives are often incentivized to commit misconduct to inflate the stock price as a way to boost their compensation (Harris & Bromiley, 2007; Shi, Connelly & Sanders, 2016). In particular, option pay has been consistently found to be associated with corporate misconduct (Burns & Kedia, 2006; Harris & Bromiley, 2007; Zhang et al., 2008). In the next section, we build on the political governance perspective to explore the influence of state ownership on securities fraud.

#### **HYPOTHESES**

# **Political Governance in SOEs and Securities Fraud**

On the surface, listed Chinese SOEs have a governance system aligned with global corporate governance standards and institutions (Lin & Milhaupt, 2013). In reality, Chinese SOEs are subject to two parallel coexisting systems of governance: legal governance and political governance (Donald, 2016; Wang, 2014a). Legal governance refers to governance backed by enforceable corporate laws, and political governance refers to influence and

control mechanisms by political bodies. Specifically, political governance is concerned about a process orchestrated by the Chinese Communist Party (CCP) to control personnel appointments and decision-making in SOEs. Among Chinese SOEs, the ultimate controlling shareholder is an ownership agency of the central or local government known as the State-Owned Assets Supervision and Administration Commission (SASAC). Given that the Chinese government is ruled by the CCP, Chinese SOEs are essentially under the direct control of the CCP (Wang, 2014a). Despite the fact that political governance in listed firms operates in the shadows, it often supersedes legal governance (Wang, 2014a; Zhou et al., 2017).

As the only ruling party in China, the CCP does not gain its political legitimacy through democratic elections. SOEs support CCP in attaining and retaining its political legitimacy. SOEs lay an economic foundation for the CCP's sovereignty in that they "not only enable the Party-state to pay for the requisite human and political expenses, but also cause the citizens of China to depend on the Party-state for a living" (Wang, 2014a: 639). In this sense, the CCP consolidates its control over SOEs through the central and local SASACs to achieve its political objectives, while economic goals are secondary.

Although Chinese corporate laws state that the board of directors is empowered to make strategic decisions, appoint top managers, and monitor managerial performance (Wang, 2014b), SOEs often are not governed in such a way. Political governance in Chinese SOEs plays a significant role given that (1) all top managers (generally CCP members) in SOEs must comply with the Party line, (2) the CCP is in charge of appointing and promoting SOEs' top managers, (3) the CCP investigates and punishes SOE managers accused of wrongdoing under Party discipline, and (4) Party organizations participate in SOE strategic decision-making (McNally, 2002; Wang, 2014a). This CCP logic situates political governance above more formalistic legal governance. The dominance of political governance in Chinese SOEs

triggers different firm outcomes when it comes to corporate misconduct. Although misconduct is systemic in SOEs (Shleifer, 1998), state ownership may deter misconduct that can compromise the political legitimacy of the CCP. More specifically, we propose that firms with high state ownership are less likely to commit securities fraud, a type of high-profile misconduct, for two reasons.

First, most SOE managers are CCP members and the CCP expects its members to put "the interest of the Party and the people above everything," according to the CCP Constitution. For SOEs, the pursuit of political and social objectives often supersedes the pursuit of financial objectives. Demotion and promotion decisions of SOE managers hinge on whether they have achieved the CCP's political objectives (Lin, 2013). In contrast, political governance does not guide POEs and their decision-making is not subject to direct influence from the CCP. In POEs, generating desirable financial performance is a primary objective for their managers. Accordingly, shareholders and boards evaluate managers based on firm financial performance. Research suggests that performance pressure can lead managers to engage in corporate misconduct (Schnatterly et al., 2018; Shi et al., 2017). In this sense, managers of firms with low or no state ownership should have more incentives to resort to securities fraud to satisfy investors' performance expectation than those of firms with high state ownership.

Second, the Party-state as a controlling shareholder is more likely to discipline managers for securities fraud than private controlling shareholders. Securities fraud is highly visible and can affect the financial interests of millions of Chinese retail investors, which is greatly detrimental to the political legitimacy of the CCP. Meanwhile, the CCP expects all SOE managers to behave within the boundaries of the Party line and has the power to appoint and promote managers. The CCP has the ability to impose stringent disciplinary

actions on SOE managers who have engaged in securities fraud. Many SOE managers, belonging to the ranks of politicians, expect promotion to a higher government official post and disciplining actions by the CCP can suspend their political careers (Lin, 2013; Zhang, Marquis & Qiao, 2016). Unlike in SOEs, political governance typically does not overshadow POEs and their boards of directors, staffed with controlling shareholders, are a powerful decision maker. Although exposure of securities fraud may bring significant financial losses to POEs, these firms may not necessarily discipline managers for securities fraud because the controlling shareholders of most POEs are either individuals or families who have either colluded with managers or benefited from securities fraud.<sup>2</sup>

In essence, unlike agency theory, the political governance perspective does not assume conflicts of interests between controlling shareholders and minority shareholders. Instead, the perspective is predicted on the assumption that the state as the controlling shareholder is oriented to protect the political legitimacy of the state. Because securities fraud can harm the political legitimacy of the state, the state will use various political governance mechanisms to rein in securities fraud and discipline managers that who have engaged in such fraud, potentially benefiting minority shareholders.

Hypothesis 1. A firm's state ownership is negatively associated with its likelihood of securities fraud.

#### **Moderating Effect of CEO Political Background**

Given the prominent influence of top managers on firm decisions (Finkelstein, Hambrick & Cannella, 2009), governance research has paid great attention to the role of top managers (particularly CEOs) in corporate misconduct. Existing research has shown that managerial compensation structures (e.g., equity pay, option pay) (Hass, Tarsalewska & Zhan, 2016; Zhang et al., 2008) and demographic characteristics (e.g., gender, educational

background, functional background) (Cumming et al., 2015b; Daboub et al., 1995; Zahra, Priem & Rasheed, 2005) can predict managerial fraudulent behaviors. A key feature for executives of SOEs is their ties to the CCP and their political careers within the CCP. We investigate the role of CEOs' political background in shaping the relationship between state ownership and securities fraud. We consider that a CEO has political background if this CEO has taken or is taking a formal position in political organizations (Chizema et al., 2015).

There are two main pathways to becoming CEOs of SOEs (Chizema et al., 2015; Lin, 2013): internal promotion of managers within SOEs or by appointment of government officials. For example, Biting Chen was the vice-governor of Jiangsu Province before being appointed to CEO of Shenhua Group, one of the largest energy SOEs in China. There are rare cases that CEOs of SOEs are hired from the external managerial labor market (outside the system). In terms of post-CEO career prospects, some CEOs retire after reaching mandatory retirement. Others, if prior to being CEO, hold government positions, then many of them are promoted to higher government official positions.

We propose that the deterrence influence of state ownership on securities fraud is stronger among CEOs with a political background than those without such a background. For CEOs of SOEs with a political background, they anticipate a promotion to a higher official position in the future. An association with securities fraud will tarnish their reputation and end their political careers. However, for CEOs of SOEs without a political background, their chance of being promoted to a high-level government official is slim, and therefore they do not have such obvious political career concerns. Thus, we propose that securities fraud implies higher costs for those with a political background than for those without a political background.

For CEOs of POEs who have a political background, they may perceive that their political connections reduce their chances of securities fraud detection (Hou & Moore, 2010), encouraging them to commit securities fraud. Yet, for CEOs of POEs without a political background, they may not have such immunity perceptions and might be more concerned about the potential consequences of securities fraud being detected. In sum, we expect that the negative relationship between state ownership and securities fraud will be stronger when CEOs have a political background than when they lack a political background.

Hypothesis 2. The negative relationship between state ownership and the likelihood of securities fraud is stronger among CEOs with a political background than those without a political background.

### **Securities Fraud and CEO Dismissal**

We have argued that firms with higher state ownership are more likely to discipline managers for securities fraud. Specifically, we focus on CEO dismissal decisions upon exposure of securities fraud<sup>3</sup> because CEOs are the pivotal firm decision makers (even if symbolic in political governance) and changes in CEOs can have a profound influence on strategic decisions as well as political legitimation management (Finkelstein et al., 2009; Kato & Long, 2006).

Generating economic profits is often not the sole or most important responsibility of SOE managers as these firms shoulder the governance function of preserving social and political stability (Shi, Hoskisson & Zhang, 2016). This explains why CEOs of SOEs are less likely to be dismissed due to weak financial returns (Kato & Long, 2006) and may receive poor evaluations from the state if SOEs that they lead fail to fulfill political and social objectives (Du et al., 2012). Because securities fraud is a conspicuous form of corporate misconduct, the exposure of securities fraud can tarnish the image and accountability of the

Party-state and is detrimental to its political legitimacy. Meanwhile, SOEs are more likely to receive media attention than POEs given the nature of SOEs—representing the interests of all the citizens (Wang, Sewon & Claiborne, 2008). Thus, the Party-state may choose to dismiss CEOs after SOEs are exposed to have committed securities fraud. In addition, CEOs of SOEs often belong to the rank of government officials and are appointed by the Party-state (Bruton et al., 2015). In this sense, the Party-state has direct control over CEOs of SOEs through its political governance system (Lin, 2013; Milhaupt & Zheng, 2014).

In contrast, controlling shareholders of POEs may focus on garnering economic profits and expect managers of their invested firms to seek consistent and desirable financial returns. As a result, controlling shareholders of POEs may not only impose performance pressure on managers but also tacitly support or even collude with managers to "boost" firm performance through securities fraud, which can benefit these shareholders handsomely prior to fraud detection. In addition, to dismiss CEOs in listed firms, private owners need to appoint their own board members and remove CEOs through the board of directors. Thus, private owners may not be able to exert a direct and strong influence on CEO dismissal decisions upon securities fraud detection. Therefore, we predict:

Hypothesis 3. Firms with high state ownership are more likely to dismiss their CEOs than firms with low or no state ownership following securities fraud detection.

#### **METHOD**

# Sample

We test our hypotheses using a sample of publicly listed Chinese firms. The sample includes all the A-share companies listed at mainland China's two stock exchanges (i.e., Shanghai Stock Exchange and Shenzhen Stock Exchange) with available data from 2003 to

2012. After matching control variables, our sample includes 2,246 firms for the 10-year sample period (14,598 firm years).

We start our sample selection from 2003 in that the data for several important control variables begin in 2003. In addition, in 2001 China enacted a new regulation, "Solutions for Listed Firm Checks," which endows the China Securities Regulatory Commission (CSRC) with greater authority and heighten corporate inspection standards by mandating "regular checks" on all listed firms and "special checks" on specialized items (Hou & Moore, 2010). This anti-fraud regulation has a more profound influence on SOEs than on POEs as it makes it more difficult for SOEs to avoid inspection. Moreover, any potential fraudulent activities are more likely to be exposed and trigger regulatory punishments in the post-regulation period (Hou & Moore, 2010). Our sample selection starts from 2003, which was after the enactment of this anti-fraud regulation. This allows us to reduce potential biases associated with differential fraud detection between SOEs and POEs. We end our sample frame in 2012 for two reasons. First, the detection of securities fraud could take time and ending our sample in latest years may bias our dependent variable—securities fraud. In other words, we focus on frauds occurring up to 2012 and some of those frauds could be detected after 2012. Second, the 18th National Congress of the CCP held at the end of 2012 initiated a new round of anti-corruption reforms in China (Lin et al., 2016), which can also bias the securities fraud measure.

We obtain information on variables used in this study from the China Stock Market and Accounting Research (CSMAR) database, which have been used in recent management studies in the Chinese context (Cumming et al., 2015b; Greve & Zhang, 2017; Shen & Lin, 2009; Zhou et al., 2017).

#### Measures

**Dependent Variables.** We have two dependent variables. The first dependent variable is *securities fraud*. Although we are theoretically interested in securities fraud commission, we can only observe securities fraud that has been committed and subsequently detected. To address the partial observability issue associated with securities fraud, we use a method of bivariate probit regressions with partial observability. We will elaborate this in the model and result section.

We obtain information on committed and detected securities fraud from the CSRC's Enforcement Action Research Database maintained by CSMAR. The CSRC established a division that surveys companies and securities firms by probing "red flags" and has a practice of regular reviews as well as random inspections of listed firms and securities firms. The CSRC investigates firms based on information and complaints from investors, current and former employees, insiders, newspapers, stock exchange, legal proceedings, and police investigations (Chen et al., 2006). CSMAR collects securities fraud information on all firms listed on the Shanghai and Shenzhen Stock Exchanges from public announcements by the CSRC, firms that receive CSRC investigations, and newspaper media officially designated by the CSRC. The database provides information about when a firm was investigated for securities fraud, when the fraud was committed and what the outcomes of the investigation were.

Following prior fraud research (Connelly et al., 2017; Harris & Bromiley, 2007; Mishina et al., 2010), we use an indicator variable to measure securities fraud, which equals "1" if a firm is found to have committed securities fraud in a firm year and the CSRC investigation did show that the firm committed fraud in that firm year. If a firm did not commit fraud in a firm year, that firm year receives a value of "0." During the period of

2003-2012, a total number of 1,773 firm years are associated with committed and detected securities fraud. The types of securities fraud include inflated profits, asset fabrication, false statement, disclosure failure, violation of fund provisions, illegal guarantee, inappropriate accounting practices, and illegal insider trading. Inflating profit is a common type of securities fraud and regards illicit accounting manipulations used to "boost" financial performance. Asset fabrication refers to accounting techniques to increase the level of assets for the sake of improving capital structure. False statement occurs when firms make false records and misleading statements which are against the truth of major events. Disclosure failure takes place when firms fail to disclose information critical to investors' purchase and sell decisions. Violation of fund provisions refers to firms' using funds for unintended purposes. Illegal guarantee takes place when firms fail to fulfill relevant decision-making or disclosure procedures for external guarantee. Inappropriate accounting practices means that accounting records are not kept in accordance with correct procedures. Illegal insider trading refers to the illegal practice of trading based on one's own advantage through confidential information.

Our second dependent variable is *CEO dismissal*. We identify involuntary CEO turnover (i.e., CEO dismissal) based on CSMAR data. Based on the listed companies' announcements about CEO turnover, CSMAR codes CEO turnover into the following categories: job change, retirement, term expiration, ownership change, resignation, dismissal, health reasons, governance reform, and criminal charge. We code CEO turnover due to resignation, dismissal, and criminal charge as CEO dismissal. We include resignation because CEOs of Chinese listed firms are often forced to resign for face saving (Firth, Fung & Rui, 2006a). Our approach of including "resignation" in measuring CEO dismissal is consistent with prior research (Firth et al., 2006a).

Independent Variable. The independent variable is *state ownership*, which is measured as the total percentage of shares held by all forms of government agencies (Greve & Zhang, 2017; Zhou et al., 2017). Around 51% of firm year observations are associated with zero state ownership (pure POEs), 31% of firm year observations are associated with state ownership greater than 30%, and 16% of firm year observations are associated with state ownership greater than 50%. We choose to use a continuous measure instead of a dummy variable (i.e., a dummy variable based on the percentage of state ownership) for two reasons. First, the literature is unclear about the threshold of ownership percentage that can be used to classify firms into SOEs or POEs (Inoue, Lazzarini & Musacchio, 2013).

Second, bivariate probit models with partial observability can run into estimation failure when many dummy variables are included in the model.

Moderator. Our moderator is *CEO political background*. This variable moderates the relationship between state ownership and securities fraud commission. A CEO is considered to have political background (receiving a value of "1") if he or she was formerly a government official or was/is a member of the Chinese People's Congress or the Chinese People's Political Consultative Conference at county and above levels (Chizema et al., 2015), and "0" otherwise.

Control Variables for Fraud Commission. We use bivariate probit regressions with partial observability to test our hypotheses. Such regressions model fraud commission and fraud detection simultaneously yet require different control variables for commission and detection equations, but allow for inclusion of overlapping variables in the commission and detection equations (Wang, 2013). A firm's likelihood of fraud commission can be influenced by both *ex ante* detection factors as well as factors related to fraud commission benefits (Wang, 2013). Ex ante detection factors capture the expected cost of committing

fraud and reflect the deterrence of detection. When the deterrence of detection is high, firms are less likely to commit securities fraud. We first discuss factors related to fraud commission benefits. Ex ante detection factors will be explained when discussing fraud detection variables.

Managers of firms with poor financial performance can benefit from fraud commission because doing so helps protect their personal wealth. We use *industry adjusted ROA* to capture financial performance, which is measured as the difference between a firm's ROA (the ratio of operating profit to total assets) and the industry average ROA.

Higher *debt ratio* may increase the probability of securities fraud by providing incentives for firms to inflate reported earnings and other accounting measures to avoid violating debt covenants (Khanna, Kim & Lu, 2015). Debt ratio is measured as the ratio of total liabilities to total assets. Higher *cash holding ratio* may weaken firms' incentives to inflate their earnings as such firms are less constrained financially. Cash holding ratio is measured as the ratio of cash and cash equivalents to total assets.

We control for *TMT* (top management team) ownership because research shows that top managers' equity incentives can affect their propensity for fraudulent behavior (Efendi, Srivastava & Swanson, 2007). TMT ownership is the percentage of ownership by top managers to total shares outstanding. We control for *CEO tenure* because CEOs with a long term have a high level of reputation capital at risk if they engage in securities fraud. CEO tenure is measured as the number of years since a CEO took office. CEOs educated abroad and those educated in China may react differently to political pressures. Therefore, we control for *CEO foreign education* which receives a value of "1" if a CEO studied abroad and "0" otherwise.

Following Chen et al. (2006), we control some corporate governance variables. We control for *foreign auditor* since foreign auditors are more professional, which can prevent CEOs from committing security fraud. It is a dummy variable which receives a value of "1" if the firm hires a foreign auditor, and "0" otherwise. We also control for *foreign ownership*, which is measured as the percentage of ownership by foreign institutional investors to total shares outstanding. Monitoring from large investors and the board of directors can also affect securities fraud commission (Chen et al., 2006). We therefore we control for *Herfindahl\_5* and *board meeting*. Herfindahl\_5 is measured as square sum of shareholding proportions of the top five shareholders and board meeting is measured as the natural logarithm of the number of board meetings.

Following Dechow et al. (2011), we control for firm's external financing needs, which receives a value of 1 if (cash from operations-lagged capital expenditures)/current assets is less than -0.5 and a value of 0 otherwise. In addition, some variables related to the capital market may affect CEOs' fraud commission benefits. For example, we control for annual stock returns because if market performance is going well, CEOs would have weaker incentives to commit securities fraud. Annual stock return is measured as the ratio of stock price at the end of each year to stock price at the beginning of each year minus one. Given that our sample period covers the global financial crisis in 2007-2008 and firms may be more incentivized to engage in fraud to "boost" performance during challenging times, we control for financial crisis which receives a value of "1" for years 2007 and 2008 and "0" for other years (Canova & Hickey, 2012).

**Control Variables for Fraud Detection.** Fraud detection determinants include *ex ante* factors whose effects on the probability can be expected at the time of fraud decision whereas *ex post* factors whose effects on fraud detection cannot be anticipated at the time

of fraud detection. As noted above, **ex ante detection factors** can also influence the probability of fraud commission and are included in the fraud commission equation as well. First, we control for *firm size* and *firm age*. Small and young firms may attract less attention from the CSRC and their fraud is less likely to be detected. However, such firms lack legitimacy and are more likely to commit fraud to satisfy external stakeholders' expectations. Firm size is measured as the natural logarithm of total assets and firm age is measured as the number of years since founding. In addition, in China, if a firm reports loss over two consecutive years, it will receive a special treatment (ST) status. If a third year of losses is reported, firm is suspended from trading. This special treatment status has similar effect on fraud as small and young firms. We therefore control for *loss* that receives a value of "1" if the firm has recorded a loss in each of the prior two years, and "0" otherwise.

We include *intangible asset ratio* as a control. Firms with high intangible asset ratio have high information asymmetry with investors (Barth, Kasznik & McNichols, 2001) and thus attain greater investor attention. In addition, intangible asset ratio can influence fraud commission as a high intangible asset ratio makes it easier for managers to commit fraud. Intangible asset ratio is measured as the ratio of intangible asset to total asset. We control for two variables related to firm investment as Wang (2013) suggests that new investments can influence firms' fraud commission and detection. The first is *capital investment*, which is measured as the ratio of capital expenditure to total assets and the second is *merger and acquisition* (*M&A*) value, measured as the ratio of the total value of all the M&As completed by a firm in a year to total assets.

We include *board political connection* as a control variable, which is measured as the ratio of the number of outside directors with political connections to board size. We use the same criterion in identifying CEO political background to classify whether an outside director

has political connections. Board political connection can affect the likelihood of fraud detection in that outside directors may use their political connections to reduce the probability of a firm being targeted. In addition, the perception of being "protected" by politically connected boards may increase the likelihood of fraud commission. We control for the number of financial analysts covering a firm (analyst coverage). As important information intermediaries, financial analysts play a significant role in monitoring top executives (Chen, Harford & Lin, 2015). Monitoring by financial analysts can reduce the likelihood of commission but increase the likelihood of detection. We take the natural logarithm of the variable to address skewness. Monitoring by institutional investors gives rise to a higher likelihood of fraud detection but dampens the probability of fraud commission (Aggarwal, Hu & Yang, 2015). We thus control for institutional ownership, which is measured as the ratio of shares owned by institutional investors to total shares outstanding. Lastly, given that we cannot include year dummy variables in bivariate probit regressions, we control for China's GDP growth rate to control for the influence of macroeconomic growth on fraud commission and detection.

We include the following **ex post fraud detection factors**. We include CEO duality and board independence as board monitoring may affect fraud detection (Dalton et al., 2007). CEO duality receives a value of "1" if a CEO is also board chairman and "0" otherwise. Board independence is the ratio of the number of independent directors to board size. We control for *marketization index* of firms' different locations since the higher the degree of marketization, the stricter the inspection of securities fraud. Data about the marketization index of different provinces is from Fan and Wang (2011). We control for *discretionary accruals* (Jones, Krishnan & Melendrez, 2008). Discretionary accruals refer to non-obligatory expense that is yet to be realized but is recorded in the account books (e.g., an anticipated

discretionary accruals. We include *stock return volatility* and *abnormal stock turnover* as control variables because firms with high return volatility and abnormal stock trading activities are more likely to be targeted by the CSRC for fraud. Stock return volatility is measured as the standard deviation of monthly stock returns in a year and abnormal stock turnover is measured as the natural logarithm of the demeaned monthly turnover in a year. Firms that operate in industries where fraud is common are more likely to be selected for investigation. Therefore, we add *adjusted industry fraud detection* as a control. This variable is measured as the difference between the number of detected securities fraud in an industry year and the average number of detected securities fraud cases across our sample frame. Lastly, employees play a crucial role in detecting fraud (Dyck, Morse & Zingales, 2010). We thus control for *employee ownership*, measured as the ratio of shares held by employees (excluding top managers) to total shares outstanding.

All the ex ante detection variables and fraud commission benefit variables are measured in Year *t*-1 and ex post detection variables are measured in Year *t*.

# **Control Variables for CEO Dismissal**

When modeling CEO dismissal, we include the following control variables. Because large firms tend to remove their top-level executives more frequently than small firms (Grusky, 1961), we control for *firm size*. We control for *ROA* and *annual stock return* because firm performance is an important determinant of CEO dismissal (Brickley, 2003). Since firms with a high level of financial constraints are more likely to dismiss CEOs (Hazarika, Karpoff & Nahata, 2012), *debt ratio*, *cash holding ratio* and *revenue growth* (revenue growth rate) are controlled for.

Corporate governance variables play important roles in predicting CEO dismissal (Chen et al., 2016). Research has shown analyst coverage (Wiersema & Zhang, 2011) and institutional ownership (Parrino, Sias & Starks, 2003) can predict CEO dismissal; therefore, we control for *analyst coverage* and *institutional ownership*. In addition to institutional ownership, other ownership structure variables are controlled for, including *Herfindahl\_5* and *foreign ownership*. Board power dynamics and political factors influence the likelihood of CEO dismissal (Ocasio, 1994; Shen & Cannella, 2002) and we thus control for *CEO ownership*, *CEO tenure*, *CEO duality*, *board independence*, *board meeting* and *board size* (the number of board members). Lastly, we control for *year fixed-effects* and *industry fixed-effects*.

We measure CEO dismissal in Year *t* and predictors are measured in Year *t*-1. Table 1A provides descriptive statistics for variables used in this study separately for SOEs and POEs and Table 1B provides the correlation matrix.

[Insert Table 1A and Table 1B here]

### **MODELS AND RESULTS**

### Models and Results for Hypotheses 1-2

The empirical challenge in testing Hypotheses 1-2 is that we can only observe committed and detected securities fraud but we are theoretically interested in committed securities fraud. To address this estimation challenge, we follow recent fraud research (Khanna et al., 2015; Wang, 2013; Wang, Winton & Yu, 2010) using bivariate probit regressions with partial observability. Such regressions model the influence of state ownership on fraud commission and fraud detection simultaneously (Poirier, 1980). It is highly possible that firms with high state ownership are less likely to become targets of

fraud detection than firms with no or low state ownership. Thus, probit or logistic regressions could result in estimation bias.

Let  $F_i^*$  represent firm i's probability of fraud commission, and  $D_i^*$  represent the firm's probability of fraud detection conditional on fraud being committed. The reduced form model is then:

$$F_i^* = x_{F,i} \beta_F + u_i \quad (1),$$

$$D_i^* = x_{D,i} \beta_D + v_i \quad (2)$$

where  $x_{F,i}$  is a row vector with variables pertaining to the probability for firm i to engage in securities fraud, and  $x_{D,i}$  is a second row vector with variables pertaining to the firm's likelihood of being detected conditional on fraud commission. To model fraud commission, we transform  $F_i^*$  into a binary variable  $F_i$ , where  $F_i = 1$  if  $F_i^* > 0$ , and  $F_i = 0$  otherwise. To model fraud detection conditional on fraud commission, we transform  $D_i^*$  into a binary variable in the same way. We cannot observe all the realizations of  $F_i^*$  and  $D_i^*$ , but note that

$$Z_i = F_i \times D_i \quad (3)$$

where  $Z_i=1$  if firm i has committed fraud that has been detected, and  $Z_i=0$  otherwise. The empirical model for estimating  $Z_i$  can be:

$$P(Z_{i} = 1) = P(F_{i}D_{i} = 1) = P(F_{i} = 1, D_{i} = 1) = F(x_{F,i}b_{F}, x_{D,i}b_{D}, \rho)$$
(4)  

$$P(Z_{i} = 0) = P(F_{i}D_{i} = 0) = P(F_{i} = 0, D_{i} = 0) + P(F_{i} = 1, D_{i} = 0) = 1 - F(x_{F,i}b_{F}, x_{D,i}b_{D}, \rho)$$
(5)

There are two main requirements to achieve full identification for bivariate probit regressions with partial observability (Poirier, 1980). First, variables used to model fraud commission and detection should not be entirely the same. Yet, such regressions allow some overlapping variables to be used in both fraud commission and detection. Second, the predictors included in regressions should have significant variation. Put differently, the model is better identified if continuous instead of dummy variables are used in regressions

(Wang, 2013). Although year fixed-effects and industry fixed-effects are often included as control variables in fraud research, we do not include them as control variables. Inclusion of them leads to estimation failure. This is a key disadvantage of bivariate probit regressions with partial observability. We control for industry adjusted ROA, financial crisis, and GDP growth to mitigate potential industry and macro-economic effects on fraud commission. We cluster the standard errors by firms to account for the possibility of correlation among residuals of each firm.

We show the results for our tested hypotheses in Table 2. Models 1, 3, and 5 are about fraud commission – P(F) whereas Models 2, 4, and 6 are about fraud detection – P(D|F). Model 1 and 2 show the regression results with only control variables included. We add our independent variable – state ownership into Model 3 and 4. Hypothesis 1 predicts that the percentage of state ownership is negatively associated with the likelihood of securities fraud commission. In Model 3 [P(F)], the coefficient estimate of *State ownership* is negative and statistically significant ( $\beta$  = -1.239, p < .05), consistent with Hypothesis 1. In terms of economic magnitude, when state ownership increases from its 25th percentile value to its 75th percentile value, the likelihood of securities fraud commission decreases around 24.9%. In Model 4 [P(D|F)], the coefficient estimate of *State ownership* is positive and marginally significant ( $\beta$  = 0.994, p < .10). This indicates that state ownership is positively associated with securities fraud detection.

# [Insert Table 2 here]

Scholars use Akaike's information criterion (AIC) to compare the goodness-of-fit between different bivariate probit models, and a smaller AIC indicates higher goodness-of-fit (Adachi & Hisada, 2017; Flannery & Cullinan, 2014). The AIC of Model 1 and 2 is 10368.4,

while the AIC of Model 3 and 4 is 10327.2, which indicates that adding state ownership as a predictor increases the explanatory power for securities fraud.

Hypothesis 2 suggests that the negative relationship between state ownership and securities fraud becomes stronger when CEOs have a political background. In Model 5 [P(F)], the coefficient estimate of *State ownership* × *CEO political background* is negative and significant ( $\beta$  = -0.273, p < .05), consistent with Hypothesis 2. Figure 1 shows the moderating effect of CEO political background. When CEO political background takes the value of "0," the likelihood of securities fraud decreases around 24.6% when state ownership increases from its 25th percentile value to its 75th percentile value (the solid line). However, when CEO political background take the value of "1," the likelihood of securities fraud commission decreases 29.4% for the same increase in state ownership (the dotted line).

# [Insert Figure 1 here]

observability is that we cannot include many fixed effects (dummy variables). Thus, we test Hypotheses 1-2 using firm fixed-effects logistic regressions. Firm fixed-effects logistic regressions capture how change in firm ownership structure affects change in firms' likelihood of securities fraud. Such within-firm analyses help mitigate the role of the CSRC's detection in biasing our estimation. Firm fixed-effects regressions also address bias from time-invariant firm heterogeneity. It is important to highlight that firm fixed-effects logistic regressions can only include firms with a time-variant dependent variable. For firms that have not engaged in any securities fraud, they are excluded from our estimation, which explains the sample size drop (14,598 versus 5,438). The results are presented in Table 3. As shown in Table 3, we continue to find support for our two hypotheses.

#### [Insert Table 3 here]

### Models and Results for Hypothesis 3

Hypothesis 3 suggests that firms with a high level of state ownership are more likely to dismiss their CEOs upon securities fraud detection than those with a low level of state ownership or no state ownership. We test Hypothesis 3 using a subsample associated with fraud detection. We identify all the firm years associated with fraud detection (1,130 observations). The number of fraud commission years is greater than the number of fraud detection years because one detection event may reveal that a firm has engaged in securities fraud in multiple years. We then examine whether there is a forced CEO turnover within two years upon fraud detection. Given that we have a cross-sectional dataset and the dependent variable is a dummy variable, we conduct probit regressions to test Hypothesis 3.

Results used to test Hypothesis 3 are presented in Table 4. Model 1 of Table 4 is a base model which only includes control variables. State ownership is introduced in Model 2. As indicated in Model 2, the coefficient estimate of *State ownership* is positive and statistically significant ( $\beta$  = 0.590, p < .05), supporting Hypothesis 3. In terms of economic significance, when state ownership increases from its 25th percentile value to its 75th percentile value, the likelihood of CEO dismissal increases around 38.7%.

[Insert Table 4 here]

# **DISCUSSION**

Based on a large sample of publicly traded firms in China, we find that managerial agents are less likely to engage in securities fraud when firms have a higher level of state ownership. We also uncover that the negative influence of state ownership on securities fraud hinges on whether a CEO has a political background. Lastly, if we look at the managerial consequence of securities fraud, firms with higher state ownership are more likely to dismiss CEOs subsequent to detection of securities fraud.

Our findings can advance governance research in several ways. Foremost, our study adds to what we know of the implication of state ownership on corporate governance. Agency theory assumes a conflict of interest between the state as a controlling shareholder and minority shareholders. For instance, the state may retain unproductive managers or employees for the sake of social stability. Our study introduces the political perspective on corporate governance and argues that the state as a controlling shareholder focuses on political legitimacy. When managerial behaviors can harm the political legitimacy of the state, the state will try to constrain such behaviors, which can potentially benefit minority shareholders. Yet, when managerial behaviors are irrelevant to the political legitimacy of the state, there can introduce a conflict of interest between the state and minority shareholders. Specifically, political governance systems in Chinese SOEs safeguard the CCP's political legitimacy, while leaving financial gains as a secondary goal. As a result, the state as a shareholder is less likely to impose performance pressure on managers but more likely to punish CEOs for activities that can tarnish political legitimacy, resulting in a lower likelihood of securities fraud commission.

Recent management research has suggested that state ownership may give rise to potential benefits. Inoue et al. (2013) argue that state ownership helps fill institutional voids in developing countries such as Brazil and show that minority state ownership positively affects firm economic performance and promotes long-term capital expenditures by firms with otherwise constrained opportunities. Similarly, Zhou et al. (2017) propose that state ownership enables firms to attain more resources to invest in R&D activities and show that SOEs have higher R&D intensity than POEs, which can benefit firms' long-run competitiveness. Our findings indicate that firms with higher state ownership are less likely to engage in securities fraud, a potential positive implication of state ownership. Yet, this

does not imply that firms with high state ownership have an effective governance system in place to protect the interests of non-state minority shareholders nor that managers of these firms do not engage in other types of less visible corporate misconduct as shown in prior research (Cai, Fang & Xu, 2011; Firth, Rui & Wu, 2011).

Our study also contributes to research on corporate misconduct (Greve et al., 2010). How to rein in corporate misconduct is a key topic in governance research (Shi et al., 2017). Scholars have examined how internal and external governance mechanisms are related to corporate malfeasance. For instance, option pay (Harris & Bromiley, 2007; O'Connor et al., 2006) and institutional ownership (Burns et al., 2010; Hadani et al., 2011) have been found to influence accounting fraud. We extend this stream of research by uncovering the role of state ownership in restraining securities fraud in China, extending corporate misconduct research in emerging economies (Armitage et al., 2017).

ownership may be detrimental to firms' adoption of governance practices that help safeguard minority shareholders' interests, it can also help rein in securities fraud. Given that securities fraud can damage investor confidence, decrease shareholder value, cause capital misallocation, and give rise to financial market instability, this study suggests that state ownership may not always harm the interests of minority shareholders. Our findings also have implications for policymakers in developed economies. Corporate governance may benefit from studying how political governance systems influence managerial behaviors in Chinese SOEs. The corporate sector in the U.S. has been plagued by shareholders' concerns about corporate misconduct, an indication that corporate governance mechanisms have not fully worked. Perhaps, there can be benefits for corporate governance to adopt practices in

public governance (Benz & Frey, 2007), such as attenuating performance pressure imposed on managers.

We want to acknowledge some limitations of this work that could point to some interesting ideas for future research. Our focus on the Chinese context allows us to have a clean institutional context. Yet, this can also be a limitation of our study. The CCP plays a critical role in disciplining and promoting top managers of SOEs. In this sense, the political governance perspective may be specific to China which has a one-party political system. In other words, we expect that the impact of state ownership on securities fraud will be weaker in countries where states have a lower level of capacity to intervene in SOEs' decision making. In addition, we have focused on securities fraud—a type of highly visible, illegal misconduct that can affect the political legitimacy of the state. Future research can investigate whether our arguments and findings hold in the case of corporate misconduct that does not have a pronounced influence on the political legitimacy of the state.

While prior research has adopted agency theory to explain how state ownership is detrimental to the interests of minority shareholders, this study highlights the important role of political governance in deterring securities fraud, which can potentially benefit minority shareholders. We show that firms with high state ownership are less likely to commit securities fraud but are more likely to dismiss their CEOs upon securities fraud detection than firms with low or no state ownership, indicating managers of the former will face low financial performance pressure to commit securities fraud but receive more severe punishment for committing securities fraud. We hope that this study can motivate more future research exploring the ramifications of political governance in SOEs.

#### **Endnotes:**

- 1. The Party-state refers to the Chinese state ruled by the Chinese Communist Party. We use the Party-state and Chinese Communist Party interchangeably.
- 2. In our sample, we have a total number 1,584 POEs in our sample, 62.3% of which can be considered as family owned firms. We define POEs being family owned if individual shareholders from the same family, by blood or marriage, collectively held at least 10% common stocks and are the largest shareholders in the firm (Xu et al., 2019).
- 3. Chen et al. (2016) uncover that CEOs of SOEs face a lower likelihood of turnover than those of POEs subsequent to corporate fraud. Our study differs from Chen et al. (2016) that focus on CEO turnover decisions (both voluntary and involuntary leaves). In contrast, we focus only on involuntary CEO leaves CEO dismissals.

### **REFERENCES**

- Adachi, T., & Hisada, T. 2017. Gender differences in entrepreneurship and intrapreneurship: An empirical analysis. *Small Business Economics*, 48: 447-486.
- Aggarwal, R., Hu, M., & Yang, J. 2015. Fraud, market reaction, and role of institutional investors in Chinese listed firms. *Journal of Portfolio Management*, 41(5): 92-109.
- Arjoon, S. 2005. Corporate governance: An ethical perspective. *Journal of Business Ethics*, 61: 343-352.
- Armitage, S., Hou, W., Sarkar, S., & Talaulicar, T. 2017. Corporate governance challenges in emerging economies. *Corporate Governance: An International Review*, 25: 148-154.
- Bai, C.-E., & Xu, L. C. 2005. Incentives for CEOs with multitasks: Evidence from Chinese stateowned enterprises. *Journal of Comparative Economics*, 33: 517-539.
- Barth, M. E., Kasznik, R., & McNichols, M. F. 2001. Analyst coverage and intangible assets. *Journal of Accounting Research*, 39: 1-34.
- Bennett, V., Pierce, L., Snyder, J. A., & Toffel, M. W. 2013. Customer-driven misconduct: How competition corrupts business practices. *Management Science*, 59: 1725-1742.
- Benz, M., & Frey, B. S. 2007. Corporate governance: What can we learn from public governance? *Academy of Management Review*, 32: 92-104.
- Borisova, G., Brockman, P., Salas, J. M., & Zagorchev, A. 2012. Government ownership and corporate governance: Evidence from the EU. *Journal of Banking & Finance*, 36: 2917-2934.
- Boubakri, N., Cosset, J.-C., & Saffar, W. 2013. The role of state and foreign owners in corporate risk-taking: Evidence from privatization. *Journal of Financial Economics*, 108: 641-658.
- Boycko, M., Shleifer, A., & Vishny, R. W. 1996. A theory of privatisation. *The Economic Journal*, 106: 309-319.
- Brickley, J. A. 2003. Empirical research on CEO turnover and firm-performance: A discussion. *Journal of Accounting and Economics*, 36: 227-233.
- Bruton, G. D., Peng, M. W., Ahlstrom, D., Stan, C., & Xu, K. 2015. State-owned enterprises around the world as hybrid organizations. *The Academy of Management Perspectives*, 29: 92-114.

- Burns, N., & Kedia, S. 2006. The impact of performance-based compensation on misreporting. *Journal of Financial Economics*, 79: 35-67.
- Burns, N., Kedia, S., & Lipson, M. 2010. Institutional ownership and monitoring: Evidence from financial misreporting. *Journal of Corporate Finance*, 16: 443-455.
- Cai, H., Fang, H., & Xu, L. C. 2011. Eat, drink, firms, government: An investigation of corruption from the entertainment and travel costs of Chinese Firms. *The Journal of Law & Economics*, 54: 55-78.
- Canova, N. P., & Hickey, G. M. 2012. Understanding the impacts of the 2007–08 Global Financial Crisis on sustainable forest management in the Brazilian Amazon: A case study. *Ecological Economics*, 83: 19-31.
- Chen, G., Firth, M., Gao, D. N., & Rui, O. M. 2005. Is China's securities regulatory agency a toothless tiger? Evidence from enforcement actions. *Journal of Accounting and Public Policy*, 24: 451-488.
- Chen, G. M., Firth, M., Gao, D. N., & Rui, O. M. 2006. Ownership structure, corporate governance, and fraud: Evidence from China. *Journal of Corporate Finance*, 12: 424-448.
- Chen, J., Cumming, D., Hou, W., & Lee, E. 2016. CEO accountability for corporate fraud: Evidence from the split share structure reform in China. *Journal of Business Ethics*, 138: 787-806.
- Chen, R., El Ghoul, S., Guedhami, O., & Wang, H. 2017. Do state and foreign ownership affect investment efficiency? Evidence from privatizations. *Journal of Corporate Finance*, 42: 408-421
- Chen, T., Harford, J., & Lin, C. 2015. Do analysts matter for governance? Evidence from natural experiments. *Journal of Financial Economics*, 115: 383-410.
- Chen, Y., Li, W., & Lin, K. J. 2015. Cumulative voting: Investor protection or antitakeover? Evidence from family firms in China. *Corporate Governance: An International Review*, 23: 234-248.
- Cheng, S. W., & Firth, M. 2005. Ownership, corporate governance and top management pay in Hong Kong. *Corporate Governance: An International Review*, 13: 291-302.
- Chizema, A., Liu, X., Lu, J., & Gao, L. 2015. Politically connected boards and top executive pay in Chinese listed firms. *Strategic Management Journal*, 36: 890-906.
- Connelly, B. L., Shi, W., & Zyung, J. 2017. Managerial response to constitutional constraints on shareholder power. *Strategic Management Journal*, 38: 1499-1517.
- Cuervo, A., & Villalonga, B. 2000. Explaining the variance in the performance effects of privatization. *Academy of Management Review*, 25: 581-590.
- Cumming, D., Dannhauser, R., & Johan, S. 2015a. Financial market misconduct and agency conflicts: A synthesis and future directions. *Journal of Corporate Finance*, 34: 150-168
- Cumming, D., Leung, T. Y., & Rui, O. 2015b. Gender diversity and securities fraud. *Academy* of *Management Journal*, 58: 1572-1593.
- Daboub, A. J., Rasheed, A. M. A., Priem, R. L., & Gray, D. A. 1995. Top management team characteristics and corporate illegal activity. *Academy of Management Review*, 20: 138-170.
- Dalton, D. R., Hitt, M. A., Certo, S. T., & Dalton, C. M. 2007. The fundamental agency problem and its mitigation: Independence, equity, and the market for corporate control. *Academy of Management Annals*, 1: 1-64.

- Dechow, P. M., Ge, W. L., Larson, C. R., & Sloan, R. G. 2011. Predicting material accounting misstatements. *Contemporary Accounting Research*, 28: 17-82.
- Deng, C. 2017. China securities czar to listed firms: Fraud won't pay dividends. *The Wall Street Journal*, 8 April 2017.
- Dharwadkar, R., George, G., & Brandes, P. 2000. Privatization in emerging economies: An agency theory perspective. *Academy of Management Review*, 25: 650-669.
- Donald, D. C. 2016. Conceiving corporate governance for an Asian environment. *University* of *Pennsylvania Asian Law Review*, 12(2): 1-51.
- Du, F., Tang, G., & Young, S. M. 2012. Influence activities and favoritism in subjective performance evaluation: Evidence from Chinese state-owned enterprises. *The Accounting Review*, 87: 1555-1588.
- Dyck, A., Morse, A., & Zingales, L. 2010. Who blows the whistle on corporate fraud?. *Journal of Finance*, 65: 2213-2253.
- **Economist.** 2012. The world in their hands: State capitalism looks outward as well as inward. 15-17.
- Efendi, J., Srivastava, A., & Swanson, E. P. 2007. Why do corporate managers misstate financial statements? The role of option compensation and other factors. *Journal of Financial Economics*, 85: 667-708.
- Fan, G., & Wang, X. F. 2011. *NERI index of marketization of China's provinces*. Beijing: Economics Science Press.
- Finkelstein, S., Hambrick, D. C., & Cannella, A. A. 2009. *Strategic leadership: Theory and research on executives, top management teams, and boards*. New York: Oxford University Press.
- Firth, M., Fung, P. M., & Rui, O. M. 2006a. Firm performance, governance structure, and top management turnover in a transitional economy. *Journal of Management Studies*, 43: 1289-1330.
- Firth, M., Fung, P. M. Y., & Rui, O. M. 2006b. Corporate performance and CEO compensation in China. *Journal of Corporate Finance*, 12: 693-714.
- Firth, M., Rui, O. M., & Wu, W. 2011. Cooking the books: Recipes and costs of falsified financial statements in China. *Journal of Corporate Finance*, 17: 371-390.
- Flannery, D., & Cullinan, J. 2014. Where they go, what they do and why it matters: The importance of geographic accessibility and social class for decisions relating to higher education institution type, degree level and field of study. *Applied Economics*, 46: 2952-2965.
- Greve, H., & Zhang, C. M. 2017. Institutional logics and power sources: Merger and acquisition decisions. *Academy of Management Journal*, 60: 671-694.
- Greve, H. R., Palmer, D., & Pozner, J. E. 2010. Organizations gone wild: The causes, processes, and consequences of organizational misconduct. *Academy of Management Annals*, 4: 53-107.
- Grosman, A., Aguilera, R. V., & Wright, M. 2019. Lost in translation? Corporate governance, independent boards and blockholder appropriation. *Journal of World Business*, 54: 258-272.
- Grosman, A., Okhmatovskiy, I., & Wright, M. 2016. State control and corporate governance in transition economies: 25 Years on from 1989. *Corporate Governance: An International Review*, 24: 200-221.
- Grusky, O. 1961. Corporate size, bureaucratization, and managerial succession. *American Journal of Sociology*, 67: 261-269.

- Hadani, M., Goranova, M., & Khan, R. 2011. Institutional investors, shareholder activism, and earnings management. *Journal of Business Research*, 64: 1352-1360.
- Harris, J., & Bromiley, P. 2007. Incentives to cheat: The influence of executive compensation and firm performance on financial misrepresentation. *Organization Science*, 18: 350-367.
- Hass, L. H., Tarsalewska, M., & Zhan, F. 2016. Equity incentives and corporate fraud in China. *Journal of Business Ethics*, 138: 723-742.
- Hazarika, S., Karpoff, J. M., & Nahata, R. 2012. Internal corporate governance, CEO turnover, and earnings management. *Journal of Financial Economics*, 104: 44-69.
- Hou, W., & Moore, G. 2010. Player and referee roles held jointly: The effect of state ownership on China's regulatory enforcement against fraud. *Journal of Business Ethics*, 95: 317-335.
- Inoue, C. F. K. V., Lazzarini, S. G., & Musacchio, A. 2013. Leviathan as a minority shareholder: Firm-level implications of state equity purchases. *Academy of Management Journal*, 56: 1775-1801.
- Jiang, G., Lee, C. M., & Yue, H. 2010. Tunneling through intercorporate loans: The China experience. *Journal of Financial Economics*, 98: 1-20.
- Jones, K. L., Krishnan, G. V., & Melendrez, K. D. 2008. Do models of discretionary accruals detect actual cases of fraudulent and restated earnings? An empirical analysis. *Contemporary Accounting Research*, 25: 499-531.
- Kato, T., & Long, C. 2006. Executive turnover and firm performance in China. *American Economic Review*, 96: 363-367.
- Khanna, V., Kim, E., & Lu, Y. 2015. CEO connectedness and corporate fraud. *Journal of Finance*, 70: 1203-1252.
- Kothari, S. P., Leone, A. J., & Wasley, C. E. 2005. Performance matched discretionary accrual measures. *Journal of Accounting and Economics*, 39: 163-197.
- Lin, C., Morck, R., Yeung, B., & Zhao, X. 2016. *Anti-corruption reforms and shareholder valuations: Event study evidence from China*. Working paper, National Bureau of Economic Research.
- Lin, L.-W. 2013. State ownership and corporate governance in China: An executive career approach. *Columbia Business Law Review*, 2013: 743-800.
- Lin, L.-W., & Milhaupt, C. J. 2013. We are the (national) champions: Understanding the mechanisms of state capitalism in China. *Stanford Law Review*, 65: 697-760.
- Liu, G. S., & Sun, P. 2005. The class of shareholdings and its impacts on corporate performance: A case of state shareholding composition in Chinese public corporations. *Corporate Governance: An International Review*, 13: 46-59.
- McNally, C. A. 2002. Strange bedfellows: Communist party institutions and new governance mechanisms in Chinese state holding corporations. *Business and Politics*, 4: 91-115.
- Megginson, W. L., & Netter, J. M. 2001. From state to market: A survey of empirical studies on privatization. *Journal of Economic Literature*, 39: 321-389.
- Milhaupt, C. J., & Zheng, W. 2014. Beyond ownership: State capitalism and the Chinese firm. *Georgetown Law Journal*, 103: 665-722.
- Mishina, Y., Dykes, B. J., Block, E. S., & Pollock, T. G. 2010. Why "good" firms do bad things: The effects of high aspirations, high expectations, and prominence on the incidence of corporate illegality. *Academy of Management Journal*, 53: 701-722.
- Mohliver, A. 2019. How misconduct spreads: Auditors' role in the diffusion of stock-option backdating. *Administrative Science Quarterly*, 64: 310-336.

- Musacchio, A., Lazzarini, S. G., & Aguilera, R. V. 2015. New varieties of state capitalism: Strategic and governance implications. *The Academy of Management Perspectives*, 29: 115-131.
- Neville, F., Byron, K., Post, C., & Ward, A. 2019. Board independence and corporate misconduct: A cross-national meta-analysis. *Journal of Management*, 45: 2538-2569.
- O'Connor, J. P., Priem, R. L., Coombs, J. E., & Gilley, K. M. 2006. Do CEO stock options prevent or promote fraudulent financial reporting? *Academy of Management Journal*, 49: 483-500.
- Ocasio, W. 1994. Political dynamics and the circulation of power: CEO succession in U. S. industrial corporations, 1960-1990. *Administrative Science Quarterly*, 39: 285-312.
- Parrino, R., Sias, R. W., & Starks, L. T. 2003. Voting with their feet: Institutional ownership changes around forced CEO turnover. *Journal of Financial Economics*, 68: 3-46.
- Poirier, D. J. 1980. Partial observability in bivariate probit models. *Journal of Econometrics*, 12: 209-217.
- Schnatterly, K., Gangloff, K. A., & Tuschke, A. 2018. CEO wrongdoing: A review of pressure, opportunity, and rationalization. *Journal of Management*, 44: 2405-2432.
- Shen, W., & Cannella, A. A. 2002. Power dynamics within top management and their impacts on CEO dismissal followed by inside succession. *Academy of Management Journal*, 45: 1195-1206.
- Shen, W., & Lin, C. 2009. Firm profitability, state ownership, and top management turnover at the listed firms in China: A behavioral perspective. *Corporate Governance: An International Review*, 17: 443-456.
- Shi, W., Connelly, B. L., & Hoskisson, R. E. 2017. External corporate governance and financial fraud: Cognitive evaluation theory insights on agency theory prescriptions. *Strategic Management Journal*, 38: 1268–1286.
- Shi, W., Connelly, B. L., & Sanders, W. G. 2016. Buying bad behavior: Tournament incentives and securities class action lawsuits. *Strategic Management Journal*, 37: 1354–1378.
- Shi, W., Hoskisson, R., & Zhang, Y. 2016. A geopolitical perspective into the opposition to globalizing state-owned enterprises in target states. *Global Strategy Journal*, 6: 13–30.
- Shleifer, A. 1998. State versus private ownership. *Journal of Economic Perspectives*, 12: 133-150.
- Shleifer, A., & Vishny, R. W. 1994. Politicians and firms. *Quarterly Journal of Economics*, 109: 995-1025.
- Shleifer, A., & Vishny, R. W. 1997. A survey of corporate governance. *Journal of Finance*, 52: 737-783.
- Stan, C. V., Peng, M. W., & Bruton, G. D. 2014. Slack and the performance of state-owned enterprises. *Asia Pacific Journal of Management*, 31: 473-495.
- Wang, J. 2014a. The political logic of corporate governance in China's state-owned enterprises. *Cornell International Law Journal*, 47: 631-669.
- Wang, J. Y. 2014b. *Company law in China: Regulation of business organizations in a socialist market economy*. Edward Elgar: Edward Elgar.
- Wang, K., Sewon, O., & Claiborne, M. C. 2008. Determinants and consequences of voluntary disclosure in an emerging market: Evidence from China. *Journal of International Accounting, Auditing and Taxation*, 17: 14-30.
- Wang, T. Y. 2013. Corporate securities fraud: Insights from a new empirical framework. *Journal of Law Economics and Organization*, 29: 535-568.

- Wang, T. Y., Winton, A., & Yu, X. Y. 2010. Corporate fraud and business conditions: Evidence from IPOs. *Journal of Finance*, 65: 2255-2292.
- Wiersema, M. F., & Zhang, Y. 2011. CEO dismissal: The role of investment analysts. *Strategic Management Journal*, 32: 1161-1182.
- Xu, D., Chen, C., & Wu, X. 2019. Ownership structure and the use of non-family executives in family-dominated Chinese listed firms: An institutional logics perspective. *Asia Pacific Journal of Management*, 36: 797-820.
- Yiu, D. W., Wan, W. P., & Xu, Y. 2018. Alternative governance and corporate financial fraud in transition economies: Evidence from China. *Journal of Management*: 149206318764296.
- Young, M. N., Peng, M. W., Ahlstrom, D., Bruton, G. D., & Jiang, Y. 2008. Corporate governance in emerging economies: A review of the principal–principal perspective. *Journal of Management Studies*, 45: 196-220.
- Zahra, S. A., Priem, R. L., & Rasheed, A. A. 2005. The antecedents and consequences of top management fraud. *Journal of Management*, 31: 803-828.
- Zhang, J., Marquis, C., & Qiao, K. 2016. Do political connections buffer firms from or bind firms to the government? A study of corporate charitable donations of Chinese firms. *Organization Science*, 27: 1307-1324.
- Zhang, X. M., Bartol, K. M., Smith, K. G., Pfarrer, M. D., & Khanin, D. M. 2008. CEOs on the edge: Earnings manipulation and stock-based incentive misalignment. *Academy of Management Journal*, 51: 241-258.
- Zhou, K. Z., Gao, G. Y., & Zhao, H. 2017. State ownership and firm innovation in China. **Administrative Science Quarterly**, 62: 375 404.
- Zorn, M. L., Shropshire, C., Martin, J. A., Combs, J. G., & Ketchen, D. J. 2017. Home alone: The effects of lone-insider boards on CEO pay, financial misconduct, and firm performance. *Strategic Management Journal*, 38: 2623-2646.

Wei Shi is an associate professor of management at Miami Herbert Business School, University of Miami. He obtained his doctorate in business administration from Rice University in 2016. His primary research interests are at the intersection of corporate governance, upper echelons, and corporate strategy. His research has been published at outlets such as Academy of Management Journal, Strategic Management Journal, Journal of Management, and Journal of Corporate Finance.

Ruth V. Aguilera is the Distinguished Darla and Frederick Brodsky Trustee Professor in Global Business at the D'Amore-McKim School of Business at Northeastern University and a Visiting Professor at ESADE Business School in her native Barcelona. Her research interests lie at the intersection of strategic organization, economic sociology and global strategy, specializing in international corporate governance and corporate social responsibility. She is a Senior Editor at Organization Science, an Associate Editor at Corporate Governance: An International Review, and a Consulting Editor at the Journal of International Business Studies and Global Strategy Journal. She serves on the Board of Directors of the Strategic Management Society and the International Corporate Governance Society, and is a Fellow of the Academy of International Business and the Strategic Management Society.

**Kai Wang** is an associate professor at College of Business Administration, Capital University of Economics and Business, China. He obtained his doctorate in corporate

governance from Nankai University, China in 2016. As a visiting PhD student, he spent one year at Rice University from 2014 to 2015. His primary research interests are at the intersection of corporate governance, corporate strategy, and organization theory. His research has been published at outlets such as Technology Analysis & Strategic Management, and Management and Organization Review.

TABLE 1A,
Summary Statistics for SOEs and POEs

			Statistics for SOEs and	I POES			
Variable		SOEs			POEs		difference
- Variable	mean	median	S.D.	mean	median	S.D.	t-value
Securities fraud	0.092	0.000	0.289	0.153	0.000	0.360	12.317***
CEO dismissal	0.044	0.000	0.205	0.040	0.000	0.196	-1.322
State ownership	0.312	0.334	0.250	0.026	0.000	0.079	-96.326***
CEO political background	0.099	0.000	0.299	0.135	0.000	0.342	7.395***
Industry adjusted ROA	0.001	0.005	0.073	0.000	0.011	0.090	-0.700
Debt ratio	0.520	0.517	0.228	0.490	0.461	0.326	-6.837***
Cash holding ratio	0.162	0.130	0.125	0.221	0.166	0.183	24.231***
Top manager ownership	0.001	0.000	0.012	0.100	0.000	0.195	49.788***
CEO tenure	1.322	1.000	1.554	1.537	1.000	1.739	8.575***
Foreign auditor	0.081	0.000	0.272	0.017	0.000	0.129	-18.819***
Foreign ownership	0.006	0.000	0.035	0.019	0.000	0.067	16.382***
Herfindahl_5	0.051	0.002	0.095	0.027	0.002	0.061	-19.241***
Board meeting	2.190	2.197	0.338	2.214	2.197	0.387	4.420***
External financing needs	0.004	0.000	0.326	0.009	0.000	0.095	4.098***
Annual stock returns	0.096	-0.105	0.657	0.021	-0.138	0.615	-7.637***
Financial crisis	0.199	0.000	0.399	0.163	0.000	0.369	-5.991***
CEO foreign education	0.013	0.000	0.112	0.031	0.000	0.174	8.535***
Firm size	21.857	21.672	1.341	21.096	20.999	1.094	-40.121***
Firm age	12.211	12.000	4.919	12.729	12.000	4.809	6.870***
Loss	0.032	0.000	0.176	0.043	0.000	0.203	3.769***
Analyst coverage	1.393	1.099	1.370	1.520	1.386	1.364	6.076***
Institutional ownership	0.146	0.066	0.190	0.130	0.065	0.165	-5.654***
Board political connections	0.034	0.000	0.062	0.035	0.000	0.068	1.471
Intangible asset ratio	0.042	0.023	0.055	0.044	0.029	0.053	3.157***
Capital investment ratio	0.056	0.039	0.059	0.058	0.041	0.062	2.296**
M&A ratio	0.006	0.000	0.026	0.010	0.000	0.034	10.049***
GDP growth rate	0.105	0.100	0.017	0.101	0.097	0.017	-15.064***
CEO duality	0.081	0.000	0.273	0.273	0.000	0.446	34.909***
Board independence	0.354	0.333	0.054	0.365	0.333	0.054	12.710***
Marketization index	8.418	8.391	2.215	9.565	9.810	2.353	32.092***
Discretionary accruals	-0.006	-0.005	0.087	0.005	0.001	0.106	7.910***
Stock return volatility	0.132	0.118	0.060	0.137	0.123	0.060	5.077***
Abnormal stock turnover (Log)	17.479	17.511	1.135	17.161	17.131	1.035	-18.714***
Adjusted industry fraud detection	-0.921	-0.904	4.525	0.046	-0.659	5.928	12.152***
Employee ownership	0.000	0.000	0.007	0.000	0.000	0.006	-1.259
Revenue growth	0.220	0.146	0.524	0.229	0.136	0.642	0.905
CEO ownership	0.001	0.000	0.010	0.050	0.000	0.109	43.787***
Board size	9.712	9.000	2.134	8.714	9.000	1.772	-32.618***

Note: SOEs refer to firms with controlling shareholders as the state and POEs refer to firms with a non-state controlling shareholder. The numbers of observations for SOEs and POEs are 9614 and 7645, respectively.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

TABLE 1B, Correlation Tal

					1			Correlati	on Table										
Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Securities fraud	1.00																		
2. CEO dismissal	0.02	1.00																	
3. State ownership	-0.09	0.03	1.00				4												
4. CEO political background	0.01	-0.01	-0.04	1.00	'														
5. Industry adjusted ROA	-0.11	-0.05	0.05	0.05	1.00														
6. Debt ratio	0.05	0.04	0.01	-0.04	-0.48	1.00													
7. Cash holding ratio	-0.01	-0.04	-0.11	0.04	0.26	-0.44	1.00												
8. Top manager ownership	0.06	-0.04	-0.21	0.08	0.08	-0.27	0.39	1.00											
9. CEO tenure	0.01	-0.04	-0.15	0.05	0.04	-0.07	0.09	0.15	1.00										
10. Foreign auditor	-0.05	0.01	0.11	0.02	0.00	0.07	-0.09	-0.06	-0.02	1.00									
11. Foreign ownership	-0.01	0.01	-0.07	-0.00	0.04	-0.06	0.07	-0.03	-0.02	0.01	1.00								
12. Herfindahl_5	-0.02	-0.03	-0.34	0.01	0.03	0.05	-0.06	-0.10	0.14	0.10	-0.09	1.00							
13. Board meeting	0.06	0.02	-0.13	0.03	-0.02	0.07	0.01	0.05	-0.03	0.00	-0.00	0.05	1.00						
14. External financing needs	0.03	0.05	-0.02	-0.01	-0.12	0.09	-0.00	-0.02	-0.01	-0.01	-0.01	-0.01	-0.00	1.00					
15. Annual stock returns	-0.02	0.04	0.01	-0.01	-0.05	0.11	-0.15	-0.11	-0.05	-0.01	-0.03	0.00	0.03	0.02	1.00				
16. Financial crisis	-0.01	0.05	0.09	-0.01	0.00	0.07	-0.10	-0.11	-0.11	-0.03	0.02	-0.18	0.15	0.01	0.12	1.00			
17. CEO foreign education	-0.01	-0.01	-0.06	0.03	0.03	-0.04	0.08	0.09	0.03	0.00	0.07	0.04	0.04	-0.01	-0.02	-0.02	1.00		
18. Firm size	-0.09	-0.04	0.09	0.05	0.22	0.13	-0.10	-0.11	0.09	0.28	-0.00	0.30	0.18	-0.09	-0.00	-0.02	0.04	1.00	
19. Firm age	0.04	-0.02	-0.35	0.00	-0.12	0.19	-0.12	-0.06	0.12	0.02	-0.01	0.19	0.15	0.03	0.05	-0.02	-0.00	0.09	1.00
20. Loss	0.02	0.02	-0.02	-0.02	-0.10	0.09	-0.07	-0.03	-0.04	-0.04	-0.01	-0.03	-0.00	0.06	0.01	0.01	-0.02	-0.07	0.01
21. Analyst coverage	-0.07	-0.07	-0.14	0.11	0.36	-0.13	0.22	0.17	0.14	0.10	0.03	0.26	0.15	-0.06	0.02	-0.04	0.10	0.54	0.06
22. Institutional ownership	-0.05	-0.04	-0.03	0.05	0.20	-0.05	0.10	-0.04	0.07	0.03	0.04	0.09	0.06	-0.02	0.08	0.02	0.03	0.21	0.08
23. Board political connections	0.00	-0.01	-0.03	0.05	0.01	0.01	0.02	0.03	0.05	-0.02	0.00	0.04	0.04	-0.01	0.01	0.01	0.03	0.08	0.06
24. Intangible asset ratio	0.06	0.01	-0.06	0.01	-0.13	0.02	-0.12	-0.02	0.01	-0.02	-0.03	0.02	0.03	0.03	0.02	0.03	-0.02	-0.11	0.05
25. Capital investment ratio	-0.02	-0.03	0.04	0.05	0.24	-0.22	0.13	0.13	0.03	-0.01	0.06	-0.02	0.01	-0.04	-0.08	-0.02	0.03	0.12	-0.18
26. M&A ratio	0.03	0.00	-0.05	0.03	-0.01	-0.00	0.08	0.09	0.00	-0.03	0.00	-0.03	0.00	0.02	0.12	0.05	0.03	0.05	0.01
27. GDP growth rate	-0.07	0.07	0.27	-0.03	-0.00	0.11	-0.18	-0.23	-0.34	0.05	0.02	-0.29	-0.03	0.00	0.42	0.41	-0.06	-0.12	-0.20
28. CEO duality	0.06	-0.00	-0.17	0.15	-0.01	-0.09	0.16	0.22	0.10	-0.06	0.04	-0.05	0.02	0.00	-0.02	-0.02	0.04	-0.11	0.05
29. Board independence	0.01	-0.01	-0.13	0.04	-0.02	0.00	0.05	0.09	0.04	0.02	-0.01	0.09	0.08	0.01	0.02	0.01	0.03	0.06	0.08
30. Marketization index	-0.01	-0.05	-0.33	0.04	0.09	-0.10	0.22	0.24	0.20	0.04	0.07	0.23	0.14	-0.01	-0.05	-0.07	0.07	0.16	0.28
31. Discretionary accruals	-0.04	-0.03	0.03	0.03	0.21	-0.16	0.13	0.07	0.00	-0.02	0.01	-0.05	0.03	0.06	-0.03	-0.01	-0.00	0.05	-0.08
32. Stock return volatility	0.04	0.06	-0.00	-0.01	-0.13	0.14	-0.10	-0.06	-0.07	-0.06	0.00	-0.11	0.14	0.04	0.36	0.58	-0.02	-0.11	0.05
33. Abnormal stock turnover (Log)	-0.01	-0.02	-0.13	0.03	-0.02	0.14	-0.19	-0.15	0.05	0.05	-0.05	0.23	0.18	-0.01	0.21	0.16	0.02	0.53	0.28
34. Adjusted industry fraud	0.07	-0.03	-0.22	0.03	-0.02	-0.07	0.10	0.23	0.34	-0.05	-0.01	0.17	0.09	0.01	-0.07	-0.20	0.03	0.09	0.19
detection																			
35. Employee ownership	-0.00	-0.01	0.02	-0.01	0.02	-0.02	0.01	-0.01	-0.01	-0.01	-0.01	-0.03	-0.03	-0.00	-0.03	-0.03	-0.01	-0.02	-0.02
36. Revenue growth	-0.03	-0.01	0.06	0.01	-0.02	0.03	0.00	-0.01	-0.06	-0.01	0.00	-0.04	0.05	-0.05	0.08	0.02	0.01	0.07	-0.03
37. CEO ownership	0.07	-0.03	-0.19	0.11	0.08	-0.22	0.32	0.64	0.14	-0.06	-0.02	-0.09	0.03	-0.02	-0.09	-0.06	0.05	-0.11	-0.05
38. Board size	-0.04	-0.01	0.17	0.02	0.08	0.06	-0.07	-0.12	-0.00	0.17	0.02	0.02	-0.04	-0.03	-0.00	0.01	-0.03	0.32	-0.07

4	)
2	)
2	)

Variable	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
20. Loss	1.00																		
21. Analyst coverage	-0.10	1.00																	
22. Institutional ownership	-0.04	0.37	1.00																
23. Board political connections	-0.02	0.06	0.05	1.00															
24. Intangible asset ratio	0.01	-0.04	-0.03	0.01	1.00														
25. Capital investment ratio	-0.03	0.25	0.12	0.00	0.06	1.00													
26. M&A ratio	0.00	0.03	0.03	0.01	0.06	0.02	1.00												
27. GDP growth rate	0.02	-0.23	-0.06	-0.07	-0.04	-0.05	-0.01	1.00											
28. CEO duality	-0.02	0.06	0.04	0.03	0.02	0.04	0.03	-0.09	1.00										
29. Board independence	0.00	0.10	0.03	0.11	0.02	-0.00	0.02	-0.08	0.09	1.00									
30. Marketization index	-0.08	0.26	0.10	0.04	-0.05	-0.03	0.02	-0.29	0.15	0.12	1.00								
31. Discretionary accruals	-0.03	0.07	0.03	0.02	-0.11	0.01	-0.00	0.00	0.02	-0.00	0.02	1.00							
32. Stock return volatility	0.02	-0.06	-0.01	0.01	0.05	-0.10	0.05	0.33	0.01	0.04	-0.06	-0.04	1.00						
33. Abnormal stock turnover (Log)	0.02	0.28	0.04	0.08	0.02	-0.05	-0.03	0.02	-0.04	0.13	0.16	-0.06	0.29	1.00					
34. Adjusted industry fraud	-0.02	0.11	0.04	0.05	0.,04	0.03	0.04	-0.45	0.09	0.07	0.25	-0.01	-0.10	0.05	1.00				
detection																			
35. Employee ownership	-0.01	-0.04	-0.02	-0.01	-0.01	0.03	-0.01	0.00	-0.02	-0.02	-0.05	0.01	-0.04	-0.05	-0.02	1.00			
36. Revenue growth	-0.02	0.06	0.06	0.01	-0.02	0.05	0.06	0.07	-0.01	0.01	-0.04	0.04	0.04	-0.04	-0.03	0.00	1.00		
37. CEO ownership	-0.02	0.15	-0.02	0.01	-0.01	0.13	0.07	-0.16	0.39	0.09	0.21	0.08	-0.03	-0.13	0.14	-0.01	0.01	1.00	
38. Board size	-0.06	0.15	0.08	0.00	-0.05	0.07	-0.04	0.05	-0.14	-0.29	-0.07	0.02	-0.07	0.10	-0.06	0.01	0.00	-0.11	1.00

Note: Absolute values of correlations greater than 0.02 significantly at p<.05.

TABLE 2,

	Biva	riate Probit Regression		servation		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Fraud	Fraud detection	Fraud commission	Fraud detection	Fraud	Fraud detection
Variable	commission P(F)	P(D F)	P(F)	Fraud detection P(D F)	commission P(F)	P(D F)
State ownership	. (. )	1 (5)11)	-1.239**	0.994*	-1.193**	0.975*
			[0.546]	[0.543]	[0.539]	[0.533]
State ownership					-0.273**	
× CEO political background					[0.139]	
CEO political background					0.079*	
Industry adjusted ROA	-1.880*		-0.678***		[0.046] -0.682***	
modally adjusted NOA	[1.090]		[0.226]		[0.230]	
Debt ratio	0.671*		0.207**		0.208**	
	[0.344]		[0.083]		[0.085]	
Cash holding ratio	0.257		0.026		0.016	
Top manager ownership	[0.248]		[0.094] 0.337***		[0.094] 0.332***	
Top manager ownership	3.326 [3.553]		[0.120]		[0.120]	
CEO tenure	-0.012		-0.012*		-0.013*	
	[0.011]		[0.007]		[0.007]	
Foreign auditor	-0.022		-0.058		-0.063	
	[0.107]		[0.071]		[0.075]	
Foreign ownership	0.563		-0.027		-0.034	
Unafin dalah E	[0.719]		[0.268]		[0.273]	
Herfindahl_5	-0.256 [0.310]		-0.412** [0.184]		-0.411** [0.194]	
Board meeting	0.282**		0.174***		0.175***	
	[0.137]		[0.048]		[0.049]	
External financial needs	1.555		0.195		0.196	
	[3.212]		[0.144]		[0.145]	
Annual stock returns	-0.013		-0.005		-0.004	
F1	[0.029]		[0.013]		[0.013]	
Financial crisis	0.068 [0.068]		0.044 [0.033]		0.045 [0.033]	
CEO foreign education	-0.174		-0.084		-0.082	
ezo rereigir cuadation	[0.159]		[0.073]		[0.075]	
Firm size	-0.302***	0.098	0.229	-0.266	0.235	-0.272
	[0.097]	[0.088]	[0.211]	[0.243]	[0.222]	[0.262]
Firm age	-0.026	0.019	0.032*	-0.030	0.033*	-0.031
1	[0.026]	[0.018]	[0.019]	[0.020]	[0.019]	[0.020]
Loss	0.678 [0.814]	-0.355 [0.315]	-1.043* [0.561]	1.116 [0.983]	-1.034* [0.537]	1.110 [0.989]
Analyst coverage	0.260***	-0.176***	-0.088	0.060	-0.092	0.064
	[0.073]	[0.039]	[0.185]	[0.200]	[0.199]	[0.218]
Institutional ownership	0.159	-0.190	-0.289	0.214	-0.277	0.201
1	[0.526]	[0.324]	[0.599]	[0.626]	[0.635]	[0.666]
Board political connections	2.980*	-1.645	-4.457***	4.462***	-4.465***	4.483***
Intangible asset ratio	[1.701] 0.460	[1.001] 0.319	[1.343] -1.478	[1.043] 1.831	[1.469] -1.415	[1.055] 1.781
intangible asset ratio	[2.751]	[1.461]	[4.131]	[3.937]	[4.469]	[4.235]
Capital investment ratio	-1.120	0.863	-2.079	2.177	-2.073	2.177
	[1.856]	[1.098]	[2.256]	[2.065]	[2.398]	[2.153]
M&A ratio	-1.798	1.341	3.190	-2.647	3.232	-2.699
	[1.649]	[1.049]	[2.086]	[2.388]	[2.137]	[2.552]
GDP growth rate	-0.256	-5.094**	-0.900	-3.561	-1.088	-3.479
CEO duality	[3.627]	[2.333] 0.146***	[6.941]	[6.721] 0.096***	[7.306]	[7.084] 0.088**
ceo duality		[0.048]		[0.037]		[0.038]
Board independence		-0.098		0.007		0.009
		[0.275]		[0.214]		[0.218]
Marketization index		-0.027***		-0.023***		-0.023***
		[0.008]		[0.008]		[0.009]
Discretionary accruals		-0.259** [0.123]		-0.224* [0.117]		-0.228* [0.127]
Stock return volatility		0.111		0.098		0.101
Stock return volutiney		[0.275]		[0.238]		[0.245]
Abnormal stock turnover (Log)		0.053***		0.034**		0.033**
		[0.018]		[0.015]		[0.015]
Adjusted industry fraud detection		0.008***		0.007***		0.007***
		[0.002]		[0.002]		[0.002]
Employee ownership		0.034		-0.604 [1.216]		-0.558 [1.251]
Constant	6.596***	[1.682] -2.952	-4.766	[1.216] 5.524	-4.897	[1.251] 5.679
_	[2.243]	[1.972]	[4.738]	[5.469]	[4.980]	[5.910]
Observations		14598		4598		4598
Chi-squared		204.9		24.9		21.2
Log-likelihood		-5140	-!	5118	-5	5114

Note: Standard errors clustered by firms reported in brackets. Two-tailed tests. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

TABLE 3, Firm Fixed-Effects Logistic Regressions

	Model 1	Model 2	Model 3
Variable	Fraud commission	Fraud commission	Fraud commission
State ownership	-0.634**	-0.652**	-0.566**
	[0.274]	[0.275]	[0.279]
State ownership			-1.193*
× CEO political background			[0.680]
CEO political background		-0.248	-0.079
		[0.152]	[0.178]
Industry adjusted ROA	-1.164**	-1.155**	-1.176**
	[0.567]	[0.568]	[0.568]
Debt ratio	-0.622***	-0.634***	-0.628***
	[0.237]	[0.237]	[0.237]
Cash holding ratio	0.325	0.320	0.310
edsh holding lucio	[0.384]	[0.385]	[0.385]
Ton manager ownership	0.301	0.340	0.308
Top manager ownership			
	[0.870]	[0.871]	[0.871]
CEO tenure	-0.027	-0.027	-0.028
	[0.025]	[0.025]	[0.025]
Foreign auditor	0.396	0.373	0.371
	[0.301]	[0.301]	[0.302]
oreign ownership	-0.796	-0.815	-0.823
	[1.250]	[1.251]	[1.251]
Herfindahl_5	0.770	0.699	0.719
'	[0.708]	[0.710]	[0.710]
Board meeting	0.384***	0.391***	0.389***
	[0.138]	[0.138]	[0.138]
external financial needs	0.538	0.533	0.522
and the control of th	[0.342]	[0.343]	[0.342]
Annual stock returns	-0.090	-0.089	-0.091
A A	[0.087]	[0.087]	[0.087]
Financial crisis	0.046	0.052	0.056
-IIIaliciai Crisis			
ora filiativa di catta	[0.128]	[0.128]	[0.128]
CEO foreign education	-0.171	-0.190	-0.189
	[0.438]	[0.438]	[0.439]
Firm size	0.531***	0.535***	0.532***
	[0.078]	[0.078]	[0.078]
Firm age	0.034	0.037	0.039
	[0.025]	[0.025]	[0.025]
Analyst coverage	-0.129**	-0.128**	-0.127**
	[0.052]	[0.052]	[0.052]
nstitutional ownership	-1.251***	-1.248***	-1.265***
	[0.311]	[0.311]	[0.311]
Board political connections	-0.406	-0.388	-0.412
	[0.769]	[0.769]	[0.769]
ntangible asset ratio	2.807***	2.788***	2.785***
intaligible asset ratio	[0.939]	[0.940]	[0.941]
Capital investment ratio			
Capital investment ratio	-0.929	-0.949	-0.934
	[0.785]	[0.786]	[0.786]
M&A ratio	-1.132	-1.135	-1.140
	[1.084]	[1.085]	[1.086]
GDP growth rate	3.635	4.012	3.924
	[8.566]	[8.570]	[8.571]
Observations	5438	5438	5438
Firm FE	YES	YES	YES
Year FE	YES	YES	YES
Chi-squared	228.7	231.4	234.6
Log-likelihood	-2012	-2010	-2009

Note: Standard errors reported in brackets. Two-tailed tests. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. We include all the control variables used in P(F) in Table 2.

TABLE 4,
CEO Dismissal upon Securities Fraud Detection

CLO DISIIII	Model 1	Model 2
Variable	Probit	Probit
State ownership	TTOSIC	0.590**
State ownership		[0.278]
Firm size	-0.124**	-0.148**
11111 3120	[0.061]	[0.061]
ROA	-1.808***	-1.747***
NOA	[0.593]	[0.591]
Annual stock returns	0.189**	0.197***
Annual Stock returns	[0.073]	[0.073]
Debt ratio	-0.258	-0.242
Destratio	[0.190]	[0.191]
Cashing holding ratio	0.012	0.027
Cashing nording ratio	[0.479]	[0.484]
Davanua grauth		-0.021
Revenue growth	-0.003	
Analyst soverage	[0.093] -0.055	[0.091] -0.039
Analyst coverage		
In this stimule are made in	[0.061]	[0.061]
Institutional ownership	-0.189	-0.174
Hauffindal E	[0.396]	[0.385]
Herfindal_5	-0.912	-0.303
Facility and the	[1.110]	[1.087]
Foreign ownership	-0.740	-0.531
050	[1.204]	[1.224]
CEO ownership	-0.015	0.181
650.4	[0.838]	[0.831]
CEO tenure	-0.138***	-0.135***
	[0.050]	[0.050]
CEO duality	-0.235	-0.216
	[0.148]	[0.149]
Board independence	0.014	0.141
	[0.855]	[0.856]
Board meeting	0.435**	0.460***
	[0.173]	[0.173]
Board size	0.015	0.010
	[0.033]	[0.033]
Constant	0.613	0.893
	[1.353]	[1.328]
Observations	1,130	1,130
Industry FE	YES	YES
Pseudo R-squared	0.137	0.143
Log-likelihood	-358.5	-356.2

Note: Standard errors clustered by firms reported in brackets. Two-tailed tests. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Acc

FIGURE 1,
The Moderating Effect of CEO Political Background

