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Rule violation and time-to-enforcement in weak institutional environments: A good faith perspective

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Abstract

Previous studies on corporate misconduct have focused mainly on preventing misconduct or remedying it after detection, but it remains unclear how misconduct can be effectively detected in the first place once it occurs. We apply the good faith perspective in the context of China, which represents a weak institutional environment, and argue that the ability of culpable leaders to conceal information may delay misconduct disclosure because such ability helps maintain the good faith of regulators. Moreover, we argue that because the regulators have faith in professionals (external auditors, institutional investors, and securities analysts) whose skills are in fact often underdeveloped in detecting misconduct in weak institutional environments, the impact of managerial concealment on disclosure delay becomes stronger when fraudulent firms are followed by such professionals. Using a sample of Chinese public firms involved in financial misconduct, we find support for these arguments—that is, compartmentalization in governance positions, which enhances culpable leaders' ability to conceal misconduct, delays public disclosure by regulators. Furthermore, the relationship becomes stronger when the misconduct goes undetected by credible professionals.

Keywords: time-to-enforcement, compartmentalization, professional monitoring, good faith perspective, misconduct in a weak institutional environment, China

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Introduction

The past few decades have witnessed a surge in managerial wrongdoing, as shown in the many instances of corporate misconduct, scandal, and fraud disclosed around the world (Hawley, Kamath, & Williams, 2011), not only in developed countries such as the United States (Fich & Shivdasani, 2007), but even more so in less developed countries such as China (Zhou, Zhang, Yang, Su, & An, 2018), India (Thapar & Sharma, 2017), and Nigeria (Ayodele, Aderemi, Obigbemi, & Ojeka, 2016). These countries represent different institutional environments characterized by distinct legal systems and professional monitoring (Covaleski, Dirsmith, & Rittenberg, 2003). A number of studies have drawn on institutional theory to explain how variations in the strength of legal systems can deter firm nonconforming activities (Edelman & Suchman, 1997; Morgan & Quack, 2010), and how external corporate governance (CG) mechanisms can affect firms' legitimacy to either help or deter the sanction of illegitimate activities (Bednar, 2012; for a review, see Aguilera, Desender, Bednar, & Lee, 2015).

Thus, institutional analyses are often context specific, and interpretations of nonconforming activities, such as misconduct, may vary across different institutional environments (Dacin, 1997; Mezias, 1990; Scott, 1987). For this reason, an examination of corporate misconduct and its detection must be grounded in a very specific context with clear relevance to its theoretical applicability. Previous studies have emphasized a gatekeeping perspective with roots in institutional theory, suggesting that professional monitors play the roles of "institutional gatekeepers" (Hirsch, 1972) and "watchdogs" (Alzola, 2017) that can effectively bring illegal and illegitimate corporate practices to light (Miceli & Near, 1995; Miller, 2006). While insightful, this perspective may not be applicable to weak institutional environments such as China, which is characterized by poor regulation and deficient enforcement, pervasive corporate rule violations, and underdeveloped professional inspection (Bao, Zhao, Tian, & Li, 2019; Stuart & Wang, 2016; Wang, Stuart, & Li, 2021).

In this study, we adopt an important but understudied perspective in the corporate misconduct literature—i.e., the good faith perspective rooted in the "logic of confidence and good faith" in institutional theory (Meyer & Rowan, 1977: 357). The theory posits that organizations may adopt standards or practices to gain and maintain legitimacy for resources and survival (DiMaggio & Powell, 1983) as constituents tend to have good faith in legitimate organizations (Meyer & Rowan, 1977). In the CG literature, when rules of good CG in an organization are adopted and instilled to meet institutional standards, the adoption may generate good faith as constituents tend to believe that the organization is behaving in a proper manner (Krenn, 2015). However, these firms may conceal their nonconformity, deviations, or even violations to maintain the legitimate appearance, but external inspection may become ritualistic because substantial inspection violates the good faith

logic (Meyer & Rowan, 1977), and breaking such logic is difficult in weak institutional environments (Walter, 2008).

In the context of corporate misconduct, our argument is twofold. First, organizations may engage in nonconforming activities while attempting to maintain the good faith of constituents by hiding such activities. That is, strategic leaders may take various "calculating, manipulative, or even deceptive actions" that violate rules (Fiss, 2008: 397). Meanwhile, culpable leaders may manipulate information by "concealing their nonconformity" (Oliver, 1991: 154) in order for their firms to appear legitimate to regulators. Second, constituents tend to have good faith in legitimate organizations and thus "ceremonialize inspection" in uncovering nonconformity (Meyer & Rowan, 1977: 359). State regulators often expect professionals (e.g., external auditors, institutional investors, and securities analysts) to play an important role in addressing managerial concealment and helping to detect and disclose misconduct (Aguilera, Filatotchev, Gospel, & Jackson, 2008; Aguilera et al., 2015; Coffee, 2004, 2006). However, the effectiveness of such professionals in weak institutional environments remains largely unknown. As such, we raise the following questions: To what extent can managerial concealment affect the timely disclosure of corporate misconduct, and how is the effect influenced by the presence of professional monitors?

To address these questions, we adopt an endemic approach to argue that the good faith perspective is more applicable to countries with weak institutional environments, such as China. In an underdeveloped regulatory system, regulators may be less effective in detecting misconduct involving strategic leaders who are more capable of hiding the reality. Research has shown that firms engaging in illegitimate activities tend to diligently conceal information in order to appear legitimate (Elsbach & Sutton, 1992; Oliver, 1991). Culpable leaders in misconduct typically tend to create or adopt an elaborate and convincing façade designed to hide illegitimate activities from inspection (Jackall, 1988). We argue that culpable leaders compartmentalized in different governance positions are better able to conceal misconduct to maintain a legitimate appearance, thereby reducing the effectiveness of regulatory enforcement, as indicated by the timely disclosure of misconduct by state regulators.

What remains less clear is whether professional inspection can effectively address managerial concealment when misconduct has occurred, enabling state regulators to disclose rule violations in a timely manner. We argue that although regulators are more likely to have faith in professionals that appear more credible, these professionals may not always be effective in finding managerial concealment in weak institutional environments because of their underdeveloped skills. The good faith perspective posits that professional monitoring can be routinized as a ceremonial inspection. That is, professional monitors may also play the role of "lapdog" (Bednar, 2012). In general, regulators tend to have faith in firms that are followed by more credible professionals—as indicated by high-quality auditing, institutional shareholding, and analyst coverage—and thus pay less attention to such firms. However, while such professionals may appear credible and thus gain good faith from the regulators, they may fail to detect misconduct because of routinized inspection (Fich & Shivdasani, 2007). Therefore, once rule violations occur in these firms—and remain undetected by professionals—the government is less likely to disclose such activities in a timely manner.

Our study makes two primary contributions. First, it contributes to a theoretical understanding of nonconforming activities by providing a more nuanced, endemic view that highlights the applicability of one theoretical perspective over another (e.g., the gatekeeping

perspective) in a weak institutional context. Given that the good faith perspective was developed in a strong institutional context more than four decades ago (Meyer & Rowan, 1977), its contemporary relevance to explain corporate misconduct in weak institutional settings remains unknown. Our study fills this gap to broaden the scope of institutional research by providing additional and novel insights. Second, our study contributes to misconduct research by revealing culpable leaders' capability to hide it as an underlying theoretical rationale behind the delay of misconduct disclosure. Our findings provide profound implications for the necessity of improving the quality of overall professional inspection in weak institutional environments (more details are provided in the discussion section).

Theoretical Background

Rule violations, which refer to deviations in firm practices against a given set of established rules, regulations, standards, codes, and policies (Aguilera et al., 2015; Morgan & Quack, 2010), are widely observed and often lead to detrimental consequences for firms and related stakeholders. As noted by Meyer and Rowan (1977: 343), in many organizations, "rules are often violated . . . and evaluation and inspection systems are subverted." For example, violation of the Sarbanes-Oxley Act by Citigroup resulted in securities fraud charges and substantially damaged investor interests (Wall, Lowry, & Barlow, 2016). However, many fraudulent activities may not be detected in a timely manner or may even go undetected (Liu, 2005; Stuart & Wang, 2016), especially in weak institutional environments. Scholars have paid considerable attention to misconduct by organizations and their strategic leaders, which has incentivized revisiting and evaluating organization theories (Aguilera et al., 2015; Greve, Palmer, & Pozner, 2010). Our study aims to extend this stream of inquiry to understand the detection of misconduct for a better understanding of curbing and preventing it.

Institutional Theory on Corporate Misconduct

From a good faith perspective (Meyer & Rowan, 1977), organizations might conceal information on nonconforming practices or rule violations to maintain established legitimacy or the good faith of regulators, as a violation disclosure can jeopardize firm legitimacy (Elsbach, 1994; Elsbach & Sutton, 1992) and culpable leaders will be penalized. A notorious example of fraudulent accounting practices in China is the case of Kangmei Pharmaceutical. The listed company inflated profits and assets and omitted major information from 2016 to 2018. The case was publicly disclosed and 21 culpable leaders were penalized by the regulator until 2020. To extend the good faith perspective, we integrate the literature on corporate misconduct. Reviews of the literature over the past decades have revealed that collective concealment by culpable leaders is a central element in major misconduct (Free, 2015). In other words, a single leader may not have the ability to engage in major misconduct without the assistance of others in the firm (Free & Murphy, 2015; Marwick, 1993), and the collective concealment of culpable leaders in different positions makes it more difficult to detect (Hemraj, 2004).

As all culpable leaders are in the same situation—i.e., none can escape penalties once a violation is detected—the situation causes a "crab mentality" (Livshiz, 2014) among the

leaders. According to Gibson and Zellmer-Bruhn (2001), crab mentality occurs when a group of individuals in a crisis pulls each other down if one attempts to escape. Thus, the crab mentality facilitates collective concealment, reducing the chance of misconduct revealed by any of the culpable leaders, making it difficult for regulators to detect. Moreover, when compartmentalized culpable leaders work together to conceal misconduct, perceived retaliation can create an atmosphere of fear (Lee & Xiao, 2018; Rothschild & Miethe, 1999), and whistleblowing is less likely to occur (Miceli & Near, 1992; Rehg, Miceli, Near, & Van Scotter, 2008). This fear of retaliation may result in job termination, public confrontation, or threats (Dyck, Morse, & Zingales, 2010; Liyanarachchi & Newdick, 2009).

Institutional theory suggests that regulators, as a coercive force, may penalize organizations that deviate from institutionalized policies and norms (Doidge, Karolyi, & Stulz, 2007; Edelman & Suchman, 1997). Once a governance failure has occurred, regulators are expected to take enforcement actions (Fiss, 2008). However, misconduct is not a predictable event (Nieschwietz, Schultz, & Zimbelman, 2000). Violations by strategic leaders are difficult to detect and investigate because of covert and complex violation methods, improved techniques, wide geographical distribution, block information sharing, and information compartmentalization (Free, 2015; Hemraj, 2004; Wang, Wong, & Xia, 2008). Therefore, although state regulators have the power to impose sanctions on a nonconforming behavior, regulators may be less effective to detect and disclose rule violations in a timely manner due to regulators' limited capacity and collective managerial concealment. As such, government agencies may rely on multiple professional monitors to reveal rule violations.

Professional Inspection as a Contingency Condition: Two Competing Perspectives

When professionals fail to prevent misconduct from initially occurring, it is less understood how effective the professionals are in detecting questionable practices, thereby mitigating the effect of managerial concealment on timely disclosure because of the coexistence of two theoretical perspectives—gatekeeping (Hirsch, 1972) and good faith (Meyer & Rowan, 1977). While both perspectives agree that organizations may hide nonconforming behavior, events, incidents, or activities, they address the issue in different ways. The gatekeeping perspective assumes that professional monitors act as watchdog agencies, thereby emphasizing their substantive influence, whereas the good faith perspective assumes the role of professional monitors as legitimacy endorsers, thus highlighting their symbolic value. As the two perspectives are based on distinct assumptions, they provide contrasting implications.

The gatekeeping perspective posits that professional monitors as gatekeepers may effectively address collective managerial concealment and detect misconduct once it occurs by bringing it to light (Vandekerckhove & Tsahuridu, 2010) in order for regulators to take enforcement action based on speculative allegations. According to Alleyne, Hudaib, and Pike (2013), once a rule violation is detected, professional monitors (e.g., external auditors) have three options: remain silent, leave the organization, or bring the violations to light. Remaining silent (i.e., not disclosing material facts) here is interpreted as being knowingly and purposefully deceitful (Cavico & Mujtaba, 2016). Credible professionals may not remain silent because covering up a wrongdoing, if discovered, may eventually damage their reputation. As professionals are constrained by a moral responsibility (Boatright, 2007), they may choose to abandon a guilty firm to avoid potential future blame. This

action could prompt a negative signal and alert regulators to investigate. In this sense, credible professionals that lend corporate executives their reputational capital may act as effective gatekeepers in addressing collective managerial concealment and detecting misconduct (Lee & Xiao, 2018).

In contrast, the good faith perspective emphasizes the distinction between "appearance" and "reality," in which organizations may attempt to appear legitimate (e.g., by attracting responsible professional monitors) regardless of the fact of conformity (Dowling & Pfeffer, 1975; Scott, 1983). As it is assumed that professional monitors can effectively address collective managerial concealment, regulators may believe that firms behave in accordance with rationalized rules (Krenn, 2015). However, as professional inspection can become ritualized, certain violations may not be discovered by traditional standard investigative techniques. The failure of professionals is then likely, which causes a surge of financial irregularities (Coffee, 2004), as strategic leaders may improve their concealment tactics using legitimate facades to disguise violations (Ashforth & Gibbs, 1990). For example, strategic leaders may choose to implement less-than-effective internal control systems because they personally benefit from undetected violations that do not incur much stakeholder attention (Moberly, 2006). Thus, professional inspection may become symbolic rather than substantive, and strategic leaders under normative pressures may make the outward appearance of action without making actual change (Westphal & Graebner, 2010). As such, professional monitors may not, in reality, be as effective as they are often presumed.

An Endemic Approach: A Focus on Weak Institutional Environments

Our endemic approach is a contextualized approach. When facing the competing theoretical perspectives, it is important to consider the contextualization of institutional arguments (Mezias, 1990; Scott, 1987). Contextualization is vital to theory development by connecting the core argument "to a set of relevant facts, events, or points of view that make possible research and theory that form part of a larger whole" (Rousseau & Fried, 2001: 1). Institutional environments may contextualize the predictions of gatekeeping and good faith perspectives by profoundly enhancing or constraining their respective effects (Dacin, 1997). Given the possible opposite predictions and implications of the two perspectives, existing studies have often adopted one or the other in an appropriate research setting, partly because the applicability of the two perspectives is bound by context.

We argue that the good faith perspective is more applicable to the Chinese institutional context for three reasons. First, China represents a weak institutional environment because the building of regulatory infrastructure has not kept up with the country's rapid economic growth, and thus the problem of financial misconduct has been aggravated (Allen, Qian, & Qian, 2005; Firth, Rui, & Wu, 2011; Wademan, 2012). The establishment of the Shanghai Stock Exchange and the Shenzhen Stock Exchange in 1990 and 1991, respectively, has produced a unique CG structure, and corporate misconduct in China has some unique characteristics (Jiang & Zhao, 2019; Yang, Jiao, & Buckland, 2017). The China Securities Regulatory Commission (CSRC), which was established in 1992 and modeled after the Securities Exchange Commission (SEC) in the United States, serves as the major regulator responsible for investigating misconduct in public firms (Wu, Johan, & Rui, 2016; Zhang, 2018) and publicly discloses rule violations. However, the CSRC's overall effectiveness has been

questioned by critics (Chen, Firth, Gao, & Rui, 2005; Hu & Sun, 2019; Jia, Ding, Li, & Wu, 2009) partly because of its weak ability to discover and disclose misconduct (Liu, 2005; Stuart & Wang, 2016; Wang et al., 2008).

Second, firm strategic leaders are more likely to uncover opportunities to conduct illegitimate activities in China, as the rapid transition into a market-oriented economy has created loopholes in regulations and weak enforcement (Allen et al., 2005; Chen, Cumming, Hou, & Lee, 2016). Strong pressure for financial performance may also result in misconduct because public firms are placed under special treatment status if they experience two consecutive years of losses and are delisted if they have another year of loss (Hung & Chen, 2015). For these reasons, firms in weak institutional settings are more likely to be induced or incentivized to engage in nonconforming activities and collectively conceal information. Given that state supervision is insufficient in surveilling the activities of numerous firms, culpable leaders may be able to hide misconduct to maintain regulators' good faith, manipulate reports to camouflage questionable behavior, and disguise their intentions to the public.

Third, research has indicated that institutional environments can have major implications in the scope of effective CG mechanisms between the West and China (Jiang & Kim, 2020; Mutlu, Van Essen, Peng, Saleh, & Duran, 2018; Shen, Zhou, & Lau, 2016; Yiu, Wan, & Xu, 2019). Compared with those in the West, external CG mechanisms in China are still in an early stage of development and cannot effectively play a monitoring role (Firth, Lin, & Zou, 2010). Studies in this context have shown that professionals may compromise their independence and gatekeeping obligations because of government intervention (Allen et al., 2005; Wu et al., 2016) or management pressure (Chen, 2020; Chen, Peng, Xue, Yang, & Ye, 2016). However, some professional agencies are more credible than others. Given its relatively weak regulatory capacity, the Chinese regulator is thought to have greater reliance on credible professionals to help detect violations (Chen, Peng, et al., 2016; Wu et al., 2016; Yu, 2008).

For these reasons, we develop hypotheses to unpack the applicability of the good faith perspective on the effectiveness of professionals in addressing managerial concealment to detect and disclose rule violations in a timely manner in the Chinese context.

Hypotheses

Compartmentalization in Governance Positions and Regulatory Enforcement

According to the good faith perspective (Meyer & Rowan, 1977), strategic leaders may diligently engage in nonconforming activities, including rule violations, while concealing information on such activities to appear legitimate (Elsbach & Sutton, 1992) and thus maintain the good faith of regulators (Edelman, Petterson, Chambliss, & Erlanger, 1991). We aim to explain variation when rule violations are more or less likely to be found, which has been neglected in previous studies. As regulators' publicizing of corporate misconduct could lead to public scrutiny and prevent violation escalations or damaging scandals, timely violation disclosure is considered crucial (Adobor & McMullen, 2013; Braithwaite, 1989). Regulatory enforcement is thus critical in protecting stakeholders from substantial loss as a result of corporate violations. Moreover, research has shown that shareholders impose

larger penalties (in terms of stock price) on fraudulent Chinese firms when the time lapse between fraud commitment and sanction is shorter (Gul, Lim, Wang, & Xu, 2019).

Public disclosure of rule violations likely jeopardizes an organization's legitimacy, hinders its resource acquisition, and reduces stakeholder confidence (Deephouse, 1999). Several studies have shown that Chinese firms that were punished for illegitimate activities suffer from legitimacy discount in the public (Wang, 2010; Wang, Liu, et al., 2021; Zhang, Xu, Chen, & Jing, 2020), while culpable leaders (executives and directors) can also be stigmatized or dismissed (Conyon & He, 2016; Firth et al., 2011; Firth, Wong, Xin, & Yick, 2016). Therefore, to maintain regulators' good faith, culpable leaders are strongly motivated to conceal information in order to protect their jobs, reputations, or other personal (or small group) interests (Gundeep, 2017). Previous studies have primarily focused on the potential conflict between top managers and shareholders, and how boards of directors can prevent managerial misconduct on behalf of shareholders. Many instances of firm misconduct, however, involve the participation of both top managers and board members (Graziano, 2010), as observed in the Chinese context (e.g., Chen, Firth, Gao, & Rui, 2006; Kong, Xiang, Zhang, & Lu, 2019; Yang et al., 2017).

We argue that the compartmentalization of culpable leaders in their governance positions is likely to enhance their ability to conceal information, thereby reducing the effectiveness of regulatory enforcement, as indicated by timely violation disclosure. Observations have shown that top managers and board directors may collude to conceal firm information (Beetsma, Peters, & Rebers, 2000), leading to an internal CG mechanism failure (Graziano, 2010). Because of the crab mentality effect (Gibson & Zellmer-Bruhn, 2001), culpable leaders in different governance positions may collectively conceal misbehavior by compartmentalizing parts of investigations and manipulating information flow (Free, 2015; Soon & Manning, 2017). Such compartmentalization may hamper investigations by blocking information sharing between departments, steering the investigation with disguised intentions, or distorting statements on siphoning organizational resources through exploiting leaders' different positions (Dyck & Zingales, 2004; La Porta, Lopez-de-Silanes, & Shleifer, 2006).

Given that culpable leaders in different governance positions can more easily evade state scrutiny by taking advantage of their positions and autonomy to hide information from internal and external inspection, detecting rule violations for state regulators is not easy. As state regulators' capacity in overseeing firms' rule violations can be limited (Guillén & Capron, 2016), the intensity of state inspection and scrutiny on nonconforming behavior is unsystematic and selective (Estrin & Prevezer, 2011; Ge & Zhao, 2017). For example, because the state regulator of China has limited resources and attention, it is more likely to pursue cases perceived to have a strong chance of proving guilt (Firth et al., 2011; Liu, 2005). Moreover, with managerial concealment, routine state inspection may not be sufficient to detect certain rule violations. For example, Jiamusi Electric Machine made a fraudulent statement in 2013, but it took 4 years until the Chinese regulator detected and imposed regulatory enforcement (public disclosure) on the company and the 22 leaders who were responsible. Given the theoretical reasoning and anecdotal evidence, as culpable leaders in different governance positions are more capable of concealing information collectively to appear legitimate and maintain regulators' good faith, we propose the baseline hypothesis:

Hypothesis 1: The greater the number of governance positions occupied by culpable leaders in a firm, the more delayed the public disclosure of the firm's rule violation by the state regulator.

Moderating Role of Professional Inspection

Most studies have followed the gatekeeping perspective, suggesting that professional inspection not only imposes well-established governance codes and social norms to reduce nonconforming practices or behavior, but also provides firms with legitimacy (Aguilera et al., 2015; Cohen, Krishnamoorthy, & Wright, 2008; Kubícek, Stamfestová, & Strouhal, 2016). Thus, the importance of professionals (Aguilera et al., 2015; Coffee, 2004, 2006) in preventing misconduct has been widely documented in the corporate misconduct literature (Alzola, 2017; Lee & Xiao, 2018; for a review, see Aguilera et al., 2015). However, according to the notion of the "rationalized rituals of inspection" (Meyer & Rowan, 1977: 359), professional inspection can be ceremonial and thus not effectively address managerial concealment techniques in weak institutional environments. In such cases, culpable leaders may use the endorsement of professionals as a buffer to delay misconduct disclosure.[1] From the good faith perspective, we argue that when misconduct goes undetected by professionals, credible professional inspection—as indicated by high-quality auditing, institutional shareholding, or analyst coverage—may become ceremonial, strengthening the negative effect of managerial compartmentalization on the time-to-disclosure of the violation.

High-quality auditor. We argue that in a weak institutional environment, high-quality auditing that provides legitimacy for client firms may reduce the state regulator's incentive to conduct firm inspections, thereby strengthening the negative effect of collective managerial concealment on timely disclosure. According to the good faith perspective, state regulators tend to have faith in firms endorsed by high-quality auditors and are thus less likely to inspect such firms (Meyer & Rowan, 1977). The accounting literature has documented that well-governed firms are more likely to employ high-quality auditors (Landsman, Nelson, & Rountree, 2009), whereas firms with weak governance are reluctant due to fears of unfavorable information disclosed in the audit opinion (Titman & Trueman, 1986). In addition, fraudulent firms with improved governance tend to hire high-quality auditors to restore legitimacy (Farber, 2005; Schwartz & Menon, 1985). This is also the case observed in the context of China, in which listed firms with an absence of auditing or shorter audit service tenures are expected to engage in more financial fraud, whereas firms with a high-quality auditing service are perceived as more trustworthy and less subject to potential misconduct (Yang et al., 2017). Thus, Chinese state regulators tend to have more faith in high-quality auditors and pay less attention to firms with such auditing services; as such, they investigate firms with low quality or less well-known auditors more frequently (Firth, Fung, & Rui, 2006).

Although regulators often have faith in high-quality auditors, such auditors may not always be effective in their monitoring roles in a weak institutional environment. The existing legal and enforcement systems in China appear to foster "partner-level audit opinion shopping," which occurs when firms, especially listed firms, successfully pressure their auditor to grant a more favorable opinion (Chen, Peng, et al., 2016) to avoid delisting or a share price decline (Aharony, Lee, & Wong, 2000; Chen, Su, & Zhao, 2000; Chen & Yuan, 2004; Wang et al., 2008). Moreover, auditing firms often find it hard to resist client management pressure and compromise because of fierce competition in the audit market (Chen, 2020). As a

result, external auditors are less independent and could choose to compromise their audit quality in exchange for future business (Lee & Xiao, 2018). Consistent with these arguments, Aggarwal, Hu, and Yang (2015) reported that high-quality auditors were in fact found to commit more fraud in Chinese public firms. Taken together, as state regulators have faith in Chinese firms endorsed by high-quality auditors, undetected collective concealment is more likely to delay regulators' disclosure of violations by such firms. We therefore predict:

Hypothesis 2: High-quality auditors strengthen the negative effect of governance positions occupied by culpable leaders on the time-to-disclosure of the violation by the state regulator.

Institutional ownership. Unlike auditors, institutional investors may conduct inspection activities without receiving any compensation (Adams, 2009). They may discover rule violations by closely inspecting strategic leaders' conformity through contact and interaction with strategic leaders and employees based on their own experience, expertise, and procedures (Broadstock & Chen, 2021; Shleifer & Vishny, 1986). From the good faith perspective, institutional shareholdings have symbolic value for regulators, as they indicate endorsement of firm legitimacy, credibility, reputation (Fombrun & Shanley, 1990), and quality (Stuart, Hoang, & Hybels, 1999; Xia, Dawley, Jiang, Ma, & Boal, 2016). When institutional shareholdings are high, the intensity of state inspection on managerial concealment can be reduced for two reasons. First, institutional investors are believed to have the requisite skills for professional inspection (Smith, 1996) and thus expected to enhance firm conformity using rules that reflect public expectations and demands to penalize unjustified nonconformity (Cuervo, 2002; MacNeil & Li, 2006). Second, it is commonly believed that institutional money managers are "prudent investors" and "smart money," as they are constrained by due diligence requirements (Stuart et al., 1999). Such managers also have expertise in choosing firms with strong corporate governance (Badrinath, Gay, & Kale, 1989). As regulators have faith in institutional investors, they are less likely to focus on firms with higher levels of institutional shareholdings. In this situation, state inspections can be ritualized based on firm appearances.

Although regulators often have faith in firms with a high level of institutional shareholdings, institutional investors in China may fail to deal with managerial concealment effectively, which is similar to the case of high-quality auditing. In China, approximately 40% of the shares in the capital market are owned by institutional investors (Ali, Qiang, & Ashraf, 2018), but these investors have a low level of board presence to directly monitor strategic leaders' misconduct (Myers & Steckman, 2014). More importantly, institutional investors in China are still in the early stage of development and thus often ineffective in detecting deceitful, collective, or complex violations that are carefully concealed by corporate leaders (Firth et al., 2010). As noted, strategic leaders may apply "boundary management," which enables the collective concealment of illegitimate practices through compartmentalization or isolation (Hudson & Okhuysen, 2009). From the good faith perspective, it then follows that once a rule violation occurs and goes undetected by institutional investors, it is less likely that the violation is quickly investigated and timely disclosed by regulators. We thus expect:

Hypothesis 3: Institutional ownership strengthens the negative effect of governance positions occupied by culpable leaders on the time-to-disclosure of the violation by the state regulator.

Securities analyst coverage. It is commonly believed that analyst coverage increases corporate transparency through collecting, interpreting, and disseminating information (Chung & Jo, 1996; Sun, 2009). In addition, as sophisticated financial statement readers, analysts have an incentive to scrutinize such statements to avoid mistakes, as their reports and opinions affect their reputations and compensation. For example, analyst coverage may allow less-informed shareholders to impose discipline on value-destroying managers (Knyazeva, 2007) or raise allegations and put questionable activities under heightened regulatory scrutiny in emerging economies (Chen, Peng, et al., 2016). From the good faith perspective, high analyst coverage also has symbolic value regarding firm corporate governance because security analysts tend to follow and endorse high-quality firms (Rao, Greve, & Davis, 2001; Xia et al., 2016). If analysts perceive potential violations, they can abandon the firm to avoid possible reputational damage. Thus, high analyst coverage often sends a positive signal to the public and state regulators that a firm is credible, which enhances its legitimacy.

Thus, procured in good faith, state regulators may rely on analysts' professional judgment and thus pay less attention to firms with high levels of analyst coverage. In the context of China, although some scholars have indicated that analysts may reduce misconduct because of their external monitoring function, observations and empirical evidence show that a high level of analyst coverage in fact increases the likelihood of misconduct. This is because analysts generate pressure on firm leaders to meet short-term performance targets and manipulate statements. For example, Hu and Yang (2014) investigated the impact of analyst coverage on the incidence of financial frauds in China and failed to find significant results. They concluded that analysts have not served as effective external monitors to discourage managerial misconduct. Analysts have also been criticized for their failure to detect accounting and overvaluation problems in public firms (Chen, Peng, et al., 2016; Groysberg & Lee, 2009). Analysts might even shirk their duties at the cost of investors by disseminating misleading information of fraudulent firms in China (Conyon & He, 2016), partly because of collective managerial concealment in cheating, manipulation, and swindling (Alzola, 2017).

Thus, although state regulators generally have faith in securities analysts, these professionals may not always be effective in detecting concealed misconduct in a weak institutional environment. When a firm has a high level of analyst coverage, an undetected collective rule violation due to managerial concealment may further delay state regulators' investigation and violation disclosure. This reasoning leads to the following hypothesis:

Hypothesis 4: Analyst coverage strengthens the negative effect of governance positions occupied by culpable leaders on the time-to-disclosure of the violation by the state regulator.

Method

Sample

To test our hypotheses, we collected a sample of publicly listed Chinese firms that violated rules from the database of China Stock Market and Accounting Research (CSMAR) from 2008 to 2016. CSMAR is a primary source of firms listed in China. We started from 2008 because the year marked a key point for the Chinese political system (Woo, 2009; Yang & Yan, 2018). In 2008, several major laws and regulations related to corporate governance

were promulgated and enforced, including the new accounting standards in 2007 and the 2008–2012 work plan to establish a system for preventing and punishing corruption (Chen, Peng, et al., 2016). Moreover, after the financial crisis struck in 2008, the Chinese government strengthened supervision of corporate finance (Huang, 2010). Since then, the CSRC has strengthened oversight of listed companies and top executives. In addition, the information of some important control variables such as *board political connection* and *CEO political connection* has been available since 2008. Our observation window ended in 2016, as the CSRC no longer publicly reports information on culpable leaders. To account for the lagged effect of the predictor variables, our observation window was from 2009 to 2016.

Initially, we identified 1,355 firms involved in rule violations. After eliminating firms with missing data, our final sample consisted of 1,243 firms with 2,545 violation enforcement announcements by the CSRC from 2009 to 2016. Because some violations had multiple and concurrent incidents of misconduct and penalty (Wu et al., 2016; Zhang, 2018), the 2,545 violation enforcement actions included 4,137 misconduct incidents and 2,947 penalty incidents in the 1,243 firms. Using the categories provided by the CSRC, the largest incidences of misconduct in our sample included postponed financial disclosures (19.07%), illegal share buybacks (14.99%), and major information omissions (14.29%). The most frequently used penalties in our sample included criticism (15.64%), fines (11.37%), and warnings (6.82%).

Following the event-history format, our observation for each violation enforcement action was from the year a firm committed a violation to the year it was disclosed by the CSRC. The 1,243 firms resulted in 4,844 firm-year observations. Appendix A shows the time-duration distribution from the year of rule violation to the year of public disclosure, indicating that some misconduct was revealed in a timelier manner than others.

Dependent Variable

In an event-history format, time is the major concern in addressing why some violations may remain undetected for years (Pickett & Pickett, 2002). We thus tracked each sample firm from the year it committed a rule violation to the year the violation was publicly disclosed (i.e., officially penalized) by the state regulator. Thus, our dependent variable, *time-to-disclosure of rule violation*, was coded as 1 in the year when the firm's violation was announced by the CSRC and 0 otherwise. The time-variant predictor variables were lagged by one year.

Independent and Moderating Variables

Our independent variable was the *number of governance positions occupied by culpable leaders* in each firm for each year. Different from the internal governance structure of U.S. public firms, which consists of a top management team and a board of directors, the internal governance structure of Chinese-listed firms consists of three parties: a top management team, a board of directors, and a supervisory board (Firth, Fung, & Rui, 2007). This structure in China resembles its counterparts in Germany and Japan but presents different features (Jia et al., 2009). Specifically, the Chinese supervisor board, which is composed of individuals elected by firm employees and shareholder representatives at the shareholders' general

meeting, is responsible for supervising firm business activities, including inspecting accounting activities and monitoring whether managers and directors fulfill their duties. For comparison, the board of directors is responsible for protecting shareholder interests, approving investments, and supervising top managers (Chen et al., 2006; Ding, Jia, Li, & Wu, 2010; Firth et al., 2007). Some top managers also serve on the board as inside directors, giving them the ability to conceal information. We thus differentiate four types of governance positions: top managers (not on the board), inside directors, outside directors, and supervisors. The *number of governance positions occupied by culpable leaders* was coded as 4 if the four types of culpable leaders were involved in the misconduct; 3 if any three types of culpable leaders were involved in the misconduct; 2 if any two types of culpable leaders were involved in the misconduct; 1 if one type of culpable leader was involved in the misconduct; and 0 otherwise. As culpable leaders are penalized at the time of enforcement by state regulators, some had left their firms before the enforcement while others remained. As such, we counted culpable leaders who remained in position to capture managerial concealment as they could use positional power to hide information. In robustness tests, we used two alternative measures (i.e., the number of governance positions occupied by culpable leaders excluding supervisory board members and the total number of culpable leaders) and gained consistent results (see Appendix B).

High-quality auditor was coded as 1 if the auditor was a foreign auditing firm and 0 otherwise. Existing studies (e.g., Chen et al., 2006; Firth et al., 2006; Zhang, 2018) have suggested that international auditing firms in China have better auditing quality than domestic auditing firms. We used foreign auditors as a proxy of high-quality auditors because auditors from a developed country often reflect their high quality. With respect to the country of origin, all foreign auditors in our sample were from developed economics and regions, including the United States, the United Kingdom, Singapore, and Hong Kong. This variable may reflect our theorization in the sense that foreign auditors are under home-country pressure to provide high-quality services (Becker, DeFond, Jiambalvo, & Subramanyam, 1998; Fan & Wong, 2005; Yiu et al., 2019).

We measured *institutional ownership* by the stock shares of institutional investors as a percentage of outstanding shares (Shleifer & Vishny, 1997; Xia et al., 2016).

Finally, we measured *analyst coverage* by the number of analyst reports issued for each firm in each year (Chen, Peng, et al., 2016). We also used the number of analysts that followed a firm as an alternative measure to capture analyst coverage. The results are highly consistent.

Control Variables

We included a set of control variables that might also affect a rule violation disclosure. Larger firms usually attract high public attention, and thus it is harder for such firms to hide unfavorable information (Zhang, 2018). Firms with more years in the stock market are more familiar with state policies and more successful at hiding violations. Some studies have shown that financially unhealthy firms have an incentive to commit fraud (Khanna, Kim, & Lu, 2015). Examining reports of low growth, poor stock returns, and losses as cues to discover deviant behavior, the CSRC may launch an investigation; as such, poor financial performance may trigger detection (Firth et al., 2006). Accordingly,

we controlled for *firm size* (logarithm of the number of employees), *years since IPO* (number of years since the firm was listed), and *firm performance* using return on assets (ROA). Firms controlled by or connected with governments can benefit from political protection and thus their misconduct is less likely to be detected (Firth et al., 2011; Park, Li, & David, 2006; Stuart & Wang, 2016). We thus controlled for *state ownership* (percentage of shares owned by the government), *board political connection* (percentage of directors in the board who previously or currently work in the government), *CEO political connection* (1 if the CEO previously or currently work in the government and 0 otherwise), and *government affiliation level* (3 if a firm is affiliated with the central government, 2 if a firm is affiliated with a provincial government, 1 if a firm is affiliated with a prefecture government, and 0 without government affiliation).

Both CEO tenure and duality can enhance a CEO's power in firm control, which might impede effective inspection and detection of fraud behavior (Zahra, Priem, & Rasheed, 2005). We thus controlled for CEO characteristics, including *CEO tenure* (number of months as a CEO) and *CEO duality* (1 if the CEO is also the chair of the board and 0 otherwise). Fraudulent firms usually have larger boards with lower proportions of outside members than nonfraudulent firms (Beasley, 1996). Outside directors have been proven to be major deterrents in detecting misconduct (Firth et al., 2011). We thus controlled for board characteristics including *board size* (the number of directors on the board) and *board independence* (the percentage of independent directors on the board) given the board's monitoring role of corporate misconduct. Nonculpable leaders have the best access to information, and they can help expose fraud behaviors of culpable leaders (Dyck et al., 2010). We thus controlled for *tenure of nonculpable leaders* by the average months of strategic leaders, including top managers, directors, and supervisors who remained in their current positions but did not engage in financial misconduct for each firm in each year.

Because the relational strength among culpable leaders might affect their coordination on collective concealment, we controlled for *tenure overlap of culpable leaders* using TLAP, which calculates the average month of pair-wise overlaps in service among each leader before the violation (Acharya & Pollock, 2021; Barkema & Shvyrkov, 2007). Negative media coverage can lead to sanctions of violations by stakeholders (Kölbel, Busch, & Jancso, 2017), and it may also trigger state inspections. We thus controlled for *negative media coverage* by the logarithm of the number of negative news reports against the firm in each year. We collected the data from the Chinese News Analytics database developed by Datago Technology (Piotroski, Wong, & Zhang, 2017). If, however, professionals are involved in violations, it might be more difficult for state regulators to detect them in a timely manner. We thus controlled for *auditor violation* (1 if a firm's auditor engaged in financial misconduct and 0 otherwise) and *institutional investor violation* (1 if a firm's institutional investor engaged in misconduct or 0 otherwise). No securities analysts were involved in violations in our sample.

Finally, to fix any unobservable year, industry, violation-type, or penalty-type effects, we included their corresponding *dummies*. According to the CSRC classification, we fixed all types of violations in our sample, including inflated profits, asset fabrication, false statements, disclosure postponement or delay, major information omissions, major failure to disclose information, fraudulent listings, unauthorized usage of funds, firm's asset occupation, insider trading, illegal share buybacks, stock price manipulation, illegal loan guarantee,

and mishandling general accounting. We also fixed all types of penalties for violations disclosed and enforced by the CSRC in our sample, including criticism, warnings, condemnations, fines, confiscation of illicit income, and a market entrance ban to rule out different influences of violation severity. The dummy variables are included in all regression models, but they are not reported in order to save space. To address the issue of omitted variables, we estimated the impact threshold for a confounding variable (ITCV) score for our independent variable in Appendix C (Busenbark, Lange, & Certo, 2017; Hubbard, Christensen, & Graffin, 2017).

Method of Analysis

Because our dependent variable is the time to disclose, we used a discrete-time event history analysis to examine how quickly state regulators disclose rule violations (Box-Steffensmeier, Box-Steffensmeier, & Jones, 2004). Accordingly, the data structure consists of yearly spells with both time-invariant and time-variant variables for survival analyses (e.g., Dewan & Jensen, 2020; Joseph, Ocasio, & McDonnell, 2014; Shi, Zhang, & Hoskisson, 2019; Xia, Boal, & Delios, 2009). In our study, the dependent variable is expressed as a violation disclosure likelihood at year t, given that the disclosure did not take place prior to year t:

$$\mathrm{h(t)} = \lim_{\Delta t \to 0} \frac{P(t,\, t + \Delta t)}{\Delta t},$$

where $\mathrm{P}(t, t + \Delta \mathrm{t})$ refers to the probability of a violation disclosure from year t to $t + \Delta$t. A firm enters the risk set when it engages in a rule violation and leaves the risk set when an enforcement action takes place. We used the Cox proportional hazards model (Cleves, Gould, Gould, Gutierrez, & Marchenko, 2008; Cox, 1972) to estimate the hazard rate, which is the propensity that a firm with rule violations will be penalized at time t, given that it has not been penalized before t (Allison, 1984). A key assumption of the Cox regression is that the population hazard functions are proportional (Cox, 1972; Fine & Gray, 1999). Following previous studies, we tested this assumption using Schoenfeld residuals with the *estat phtest* command in *STATA 16* (Jiang, Xia, Devers, & Shen, 2021). We ran this test for all models in our main analyses and found no significant violation of proportionality assumption in any model ($p > 0.1$). In addition, to address the potential problem of unobserved heteroskedasticity, we used the Huber-White heteroskedasticity-consistent standard error estimates in all models of our regression analyses (Wooldridge, 2002). We also clustered observations based on firm, industry, or province, and obtained consistent results (see Appendix D).

Results

Table 1 presents the descriptive statistics and correlations of the variables used in the study. We checked the potential multicollinearity problem for all independent variables using variance inflation factors (VIF). The average VIF for all variables was 1.29, and the largest VIF was 1.94, which is well below the recommended ceiling of 10 (Kleinbaum, Kupper, & Muller, 1988), suggesting that multicollinearity is not a problem in our analyses.

Table 2 presents the Cox regression results. Model 1 includes only control variables while Model 2 adds the main effect and three moderating variables. Models 3–5 add the interaction

Table 1
Descriptive Statistics and Correlations

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. Firm size (logged)	7.32	1.43	1.00																				
2. Year since IPO	10.59	6.40	−0.09	1.00																			
3. Firm performance	−0.01	1.00	0.04	−0.04	1.00																		
4. CEO tenure	33.69	31.96	0.06	0.01	0.03	1.00																	
5. CEO duality	1.74	0.44	0.09	0.18	−0.02	−0.09	1.00																
6. Board size	10.28	2.79	0.15	0.09	−0.04	−0.04	0.12	1.00															
7. Board independence	0.38	0.07	0.03	−0.06	0.00	0.12	−0.04	−0.08	1.00														
8. Tenure of nonculpable leaders	41.51	15.21	0.17	0.08	0.06	0.36	0.01	−0.17	0.03	1.00													
9. Tenure overlap of culpable leaders	8.15	22.46	−0.03	0.07	0.00	0.17	−0.00	−0.04	0.02	0.04	1.00												
10. Negative media coverage	2.98	1.17	0.14	0.01	−0.04	−0.13	0.02	0.14	−0.02	−0.20	−0.03	1.00											
11. State ownership	0.05	0.14	0.15	−0.03	0.01	−0.08	0.11	0.08	−0.02	−0.11	−0.05	0.08	1.00										
12. Board political connection	0.25	0.17	0.13	−0.07	0.04	0.03	0.00	−0.01	0.12	0.08	−0.02	0.11	0.02	1.00									
13. CEO political connection	0.21	0.41	0.04	−0.17	0.01	0.10	−0.24	−0.04	0.09	0.02	0.02	0.07	−0.06	0.39	1.00								
14. Government affiliation level	0.68	1.02	0.26	0.19	0.01	−0.05	0.25	0.17	−0.04	0.04	−0.01	0.02	0.42	0.01	−0.11	1.00							
15. Auditor violation	0.00	0.05	−0.02	0.02	−0.01	−0.01	0.00	0.03	0.00	−0.04	−0.02	0.03	−0.01	−0.01	−0.01	0.02	1.00						
16. Institutional investor violation	0.04	0.18	−0.07	0.05	0.00	0.02	−0.01	0.02	−0.01	−0.01	−0.04	−0.04	−0.04	−0.02	−0.01	−0.05	−0.01	1.00					
17. High-quality auditor	0.01	0.09	0.14	0.02	0.00	−0.01	0.02	0.09	0.02	0.02	−0.02	0.15	0.03	0.05	0.00	0.06	−0.00	−0.02	1.00				
18. Institutional ownership	0.06	0.07	0.19	0.01	0.03	−0.02	0.00	0.03	0.02	0.08	−0.05	0.07	0.01	0.11	0.05	0.01	0.04	−0.02	0.00	1.00			
19. Analyst coverage	10.54	17.11	0.34	−0.22	0.04	0.03	−0.02	0.04	0.03	0.08	−0.07	0.25	0.05	0.12	0.10	−0.02	−0.02	−0.05	0.10	0.45	1.00		
20. Governance positions	0.53	0.98	−0.03	0.03	−0.01	0.05	0.01	−0.00	0.03	−0.16	0.67	0.00	−0.01	−0.01	0.01	−0.02	−0.03	−0.06	−0.03	−0.05	−0.08	1.00	
21. Violation disclosure	0.53	0.50	0.02	−0.00	−0.02	0.08	−0.02	0.08	−0.01	0.05	−0.14	−0.08	−0.07	−0.04	0.00	−0.03	−0.02	0.05	0.01	0.03	0.02	−0.23	1.00

Note: N = 4,844. Coefficients of correlation with absolute values over or equal to 0.03 are significant at the 0.05 level.

Table 2
Cox Proportional Hazard Model Estimations of Violation Disclosure

	Model 1		Model 2		Model 3	
Variables	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)
Firm size (logged)	0.98 (0.01)	−1.43 (0.151)	0.99 (0.01)	−1.04 (0.299)	0.99 (0.01)	−0.99 (0.322)
Year since IPO	0.99 (0.00)	−3.64 (0.000)	0.99 (0.00)	−3.70 (0.000)	0.99 (0.00)	−3.76 (0.000)
Firm performance	0.98 (0.00)	−5.72 (0.000)	0.98 (0.00)	−3.74 (0.000)	0.98 (0.00)	−3.74 (0.000)
CEO tenure	1.00 (0.00)	−0.53 (0.594)	1.00 (0.00)	−0.55 (0.581)	1.00 (0.00)	−0.58 (0.562)
CEO duality	0.97 (0.03)	−0.88 (0.379)	1.00 (0.03)	−0.13 (0.894)	1.00 (0.03)	−0.12 (0.902)
Board size	1.01 (0.00)	2.86 (0.004)	1.01 (0.00)	2.44 (0.015)	1.01 (0.00)	2.49 (0.013)
Board independence	0.67 (0.13)	−2.11 (0.035)	0.76 (0.14)	−1.50 (0.133)	0.76 (0.14)	−1.49 (0.136)
Tenure of nonculpable leaders	1.00 (0.00)	0.60 (0.547)	1.00 (0.00)	−1.52 (0.128)	1.00 (0.00)	−1.51 (0.132)
Tenure overlap of culpable leaders	0.99 (0.00)	−8.92 (0.000)	1.00 (0.00)	2.47 (0.014)	1.00 (0.00)	2.42 (0.015)
Negative media coverage	1.04 (0.01)	2.90 (0.004)	1.03 (0.01)	2.23 (0.026)	1.03 (0.01)	2.28 (0.023)
State ownership	0.81 (0.11)	−1.57 (0.117)	0.82 (0.11)	−1.51 (0.130)	0.81 (0.11)	−1.57 (0.116)
Board political connection	0.93 (0.08)	−0.80 (0.422)	0.98 (0.09)	−0.25 (0.806)	0.98 (0.09)	−0.25 (0.801)
CEO political connection	1.02 (0.04)	0.49 (0.621)	1.02 (0.04)	0.60 (0.549)	1.02 (0.04)	0.60 (0.550)
Government affiliation level	1.01 (0.02)	0.77 (0.444)	1.00 (0.02)	0.51 (0.610)	1.01 (0.02)	0.57 (0.569)
Auditor violation	0.71 (0.17)	−1.42 (0.155)	0.57 (0.14)	−2.35 (0.019)	0.57 (0.14)	−2.34 (0.019)
Institutional investor violation	1.06 (0.07)	0.83 (0.405)	0.97 (0.07)	−0.37 (0.709)	0.97 (0.07)	−0.37 (0.714)
High-quality auditor	0.98 (0.13)	−0.17 (0.866)	1.00 (0.13)	0.00 (0.997)	0.97 (0.02)	−1.51 (0.131)
Institutional ownership	0.84 (0.18)	−0.78 (0.433)	0.89 (0.18)	−0.56 (0.578)	0.89 (0.18)	−0.55 (0.583)
Analyst coverage	1.00 (0.00)	0.24 (0.807)	1.00 (0.00)	0.17 (0.864)	1.00 (0.00)	0.14 (0.886)
Governance positions (GP)			0.69 (0.02)	−14.24 (0.000)	0.70 (0.02)	−14.39 (0.000)
GP × High-quality auditors					0.94 (0.03)	−2.00 (0.045)
GP × Institutional ownership						
GP × Analyst coverage						
Wald chi2	8592.05		7381.81		7426.76	
Log pseudolikelihood	−17961.51		−17918.94		−17918.35	

(continued)

Table 2 (continued)

Variables	Model 4		Model 5		Model 6	
	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)
Firm size (logged)	0.99 (0.01)	−1.07 (0.284)	0.99 (0.01)	−0.88 (0.380)	0.99 (0.01)	−0.86 (0.391)
Year since IPO	0.99 (0.00)	−3.73 (0.000)	0.99 (0.00)	−3.91 (0.000)	0.99 (0.00)	−3.94 (0.000)
Firm performance	0.98 (0.00)	−3.95 (0.000)	0.98 (0.00)	−4.08 (0.000)	0.98 (0.00)	−4.11 (0.000)
CEO tenure	1.00 (0.00)	−0.48 (0.628)	1.00 (0.00)	−0.51 (0.608)	1.00 (0.00)	−0.52 (0.603)
CEO duality	1.00 (0.03)	−0.14 (0.886)	0.99 (0.03)	−0.26 (0.791)	0.99 (0.03)	−0.25 (0.803)
Board size	1.01 (0.00)	2.40 (0.016)	1.01 (0.00)	2.46 (0.014)	1.01 (0.00)	2.49 (0.013)
Board independence	0.76 (0.14)	−1.49 (0.137)	0.77 (0.14)	−1.40 (0.163)	0.77 (0.14)	−1.39 (0.166)
Tenure of nonculpable leaders	1.00 (0.00)	−1.64 (0.102)	1.00 (0.00)	−1.62 (0.105)	1.00 (0.00)	−1.63 (0.103)
Tenure overlap of culpable leaders	1.00 (0.00)	2.35 (0.019)	1.00 (0.00)	2.21 (0.027)	1.00 (0.00)	2.16 (0.031)
Negative media coverage	1.03 (0.01)	2.21 (0.027)	1.03 (0.01)	2.22 (0.026)	1.03 (0.01)	2.25 (0.024)
State ownership	0.82 (0.11)	−1.53 (0.127)	0.82 (0.11)	−1.54 (0.124)	0.81 (0.11)	−1.59 (0.112)
Board political connection	0.99 (0.09)	−0.17 (0.868)	1.00 (0.09)	−0.04 (0.970)	1.00 (0.09)	−0.05 (0.960)
CEO political connection	1.02 (0.04)	0.65 (0.513)	1.02 (0.04)	0.66 (0.510)	1.02 (0.04)	0.66 (0.506)
Government affiliation level	1.01 (0.02)	0.46 (0.642)	1.01 (0.02)	0.53 (0.597)	1.01 (0.02)	0.56 (0.573)
Auditor violation	0.56 (0.14)	−2.36 (0.019)	0.58 (0.14)	−2.28 (0.023)	0.57 (0.14)	−2.29 (0.022)
Institutional investor violation	0.97 (0.07)	−0.39 (0.700)	0.97 (0.07)	−0.38 (0.708)	0.97 (0.07)	−0.37 (0.710)
High-quality auditor	1.01 (0.13)	0.06 (0.949)	1.01 (0.13)	0.05 (0.957)	0.98 (0.02)	−1.23 (0.217)
Institutional ownership	0.98 (0.02)	−1.39 (0.164)	0.96 (0.19)	−0.21 (0.831)	0.99 (0.02)	−0.52 (0.606)
Analyst coverage	1.00 (0.00)	0.13 (0.894)	0.95 (0.02)	−1.91 (0.056)	0.96 (0.02)	−1.68 (0.092)
Governance positions (GP)	0.69 (0.02)	−14.18 (0.000)	0.68 (0.02)	−13.72 (0.000)	0.68 (0.02)	−13.82 (0.000)
GP × High-quality auditors					0.95 (0.03)	−1.65 (0.099)
GP × Institutional ownership	0.94 (0.02)	−2.62 (0.009)			0.98 (0.02)	−0.86 (0.391)
GP × Analyst coverage			0.88 (0.03)	−3.32 (0.001)	0.89 (0.04)	−2.80 (0.005)
Wald chi2	7398.27		7235.89		7287.85	
Log pseudolikelihood	−17916.87		−17913.37		−17912.81	

Note: N = 4,844. Year, industry, violation type- and penalty-type fixed effects are included.

terms, respectively. Model 6 is the full model that includes all variables and interaction terms. The odds ratio reflects the proportional change in hazard rate associated with a one-unit increase in each explanatory variable (Allison, 1999). Odds ratios higher (lower) than 1 indicate that increases in explanatory variables increase (decrease) the hazard rate. Among the significant control variables, firms with more years in the stock market, better performance, higher board independence, and higher tenure overlap of culpable leaders are more likely to delay violation disclosure. Moreover, larger board size and negative media coverage facilitate disclosure, as expected.

Hypothesis 1 predicts that more governance positions occupied by culpable leaders delay the public disclosure of a violation event. The odds ratio of culpable leaders in Model 2 is 0.69 and significant ($z = -14.24$, $p = 0.000$). A one-unit increase in the number of governance positions is associated with a 31% reduction in the hazard rate of disclosure ($1 - 0.69$). Hypothesis 1 is thus supported.

Hypothesis 2a posits that high-quality auditors weaken the negative effect of governance positions occupied by culpable leaders on the public disclosure of a violation event. In contrast, Hypotheses 2b posits that institutional auditors strengthen the negative effect. In Model 3, the odds ratio for the interaction between high-quality auditor and governance position is 0.94 ($z = -2.00$, $p = 0.045$), which marginally supports Hypothesis 2b. Figure 1 shows that firms with a high-quality auditor are less likely to be detected (the solid line with a steeper slope) than firms without a high-quality auditor (the dashed line with a flatter slope).

Hypothesis 3a suggests that institutional ownership weakens the negative effect of governance positions occupied by culpable leaders on the disclosure of a violation, whereas Hypotheses 3b suggests that institutional ownership strengthens the negative effect. The odds ratio for the interaction of institutional ownership and governance position is 0.94 and significant ($z = -2.62$, $p = 0.009$) in Model 4, thus supporting Hypothesis 3b, as shown in Figure 2. We note that the moderating effect becomes insignificant in the full model (Model 6) when other interactions are included, suggesting that the role of institutional ownership might be dependent on or accounted for by the interaction of governance position with other moderators.

Hypothesis 4a suggests that analyst coverage weakens the negative effect of governance positions occupied by culpable leaders on public disclosure, whereas Hypothesis 4b suggests that analyst coverage strengthens the negative effect. The odds ratio for the interaction between analyst coverage and governance position in Model 5 is 0.88 and significant ($z = -3.32$, $p = 0.001$), which supports Hypothesis 4b as shown in Figure 3.

Robustness Check

Alternative measure of governance positions by excluding the supervisory board members. The effective role of the supervisory board, which mainly consists of employees and shareholder representatives, is largely marginalized and neglected in Chinese firms. For example, Xia and Zhao (2009) show that supervisory boards have little impact on firm earnings quality, suggesting that such boards have not played their due role in practice. Thus, we recalculated the *number of governance positions occupied by culpable leaders,* excluding the supervisory board. The results are consistent (see Appendix B).

A subsample test by removing observations with professionals involved in violations. Among the 2,545 violation enforcement cases in our sample, there are 4 cases (0.16%) in which auditors were penalized, 113 cases (4.44%) in which institutional investors were penalized, and no cases in which securities analysts were penalized. After removing these observations, we obtained 4,662 firm-year observations. The results are consistent (see Appendix E).

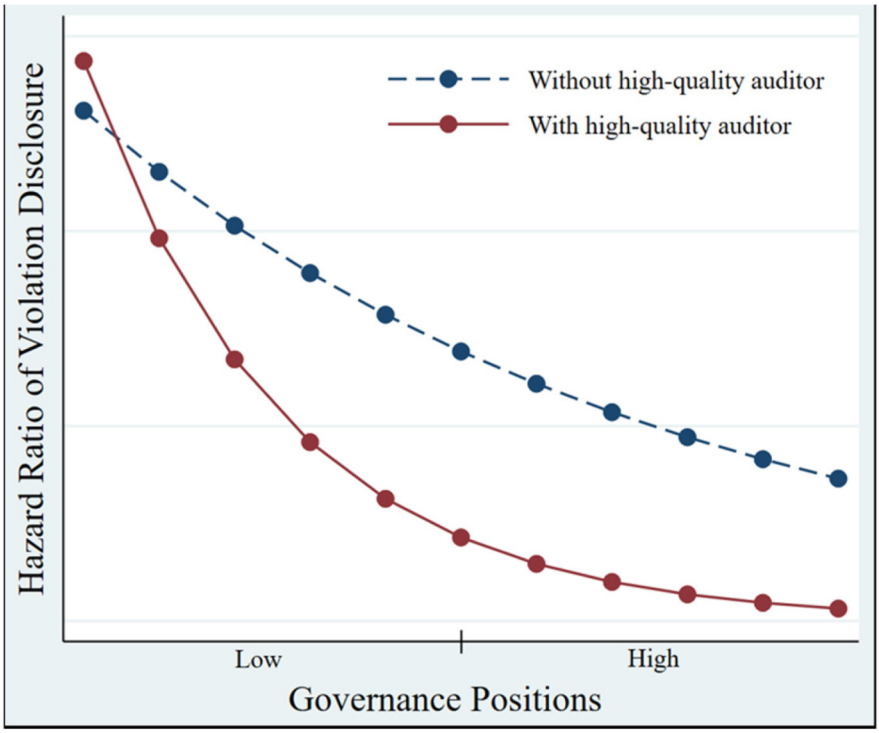
Possible learning of state regulators. It is reasonable to expect that the negative moderating effects of professional agents may eventually weaken, as state regulators may learn about their ineffectiveness over time and thus rely less on their credibility. To examine such dynamics of the good faith perspective, we considered the role of time in influencing the moderating effects of professional monitors. We captured the role of time using two approaches. First, we used a count measure of years since the first year of our observation window. Second, we created a time dummy variable, coded as 0 for the earlier period of our observation window (i.e., 2009–2012) and 1 otherwise. We chose 2012 as the time point since the anti-corruption campaign was initiated at the end of 2012 by the Chinese government to improve CG and lower corporate fraud (Zhang, 2018). We then tested six three-way interactions by using these two variables as second-order moderators in the three two-way interactions of culpable leaders and each type of professional. However, none of the three-way interaction results were significant, suggesting that state regulators may continue to rely on professionals for misconduct disclosure without learning from experience. In some sense, this seems to be more in line with a "social constructionist view" of market behavior (Zajac & Westphal, 2004) and the role of professionals becoming "institutionalized" over time. Another possible reason is that state regulators may have learned about the ineffectiveness of professional monitors, but due to limited resources and lack of information, the regulators have few available options and continue to rely on professionals.

Discussion

Using an endemic approach that focuses on a weak institutional environment, we address the extent to which the ability of culpable leaders to conceal information can effectively or timely disclose misconduct once it occurs under conditions of professional inspection. The results show that culpable leaders' compartmentalization in a misconduct violation enhances their ability to hide information and thus reduces the propensity of discovery and disclosure. Moreover, we reveal the contemporary relevance of the good faith perspective in the Chinese institutional context—that is, if rule violations occur but go unnoticed by professional inspection, as indicated by high-quality auditing, institutional shareholding, and analyst coverage, the state regulator is less likely to be aware of and disclose the violations.

Our study contributes to the institutional theory literature by using an endemic approach and providing fresh insight into the relevance and explanatory power of the good faith perspective to explain the timely disclosure of corporate misconduct in a weak institutional environment. In the literature, the gatekeeping and good faith perspectives have offered different predictions. Whereas the gatekeeping perspective highlights the substantive value of professional inspection, the good faith perspective recognizes that professional inspection may be ceremonial and insufficient against the sophisticated techniques of collective managerial concealment. Our findings support the idea that the good faith perspective is applicable to weak

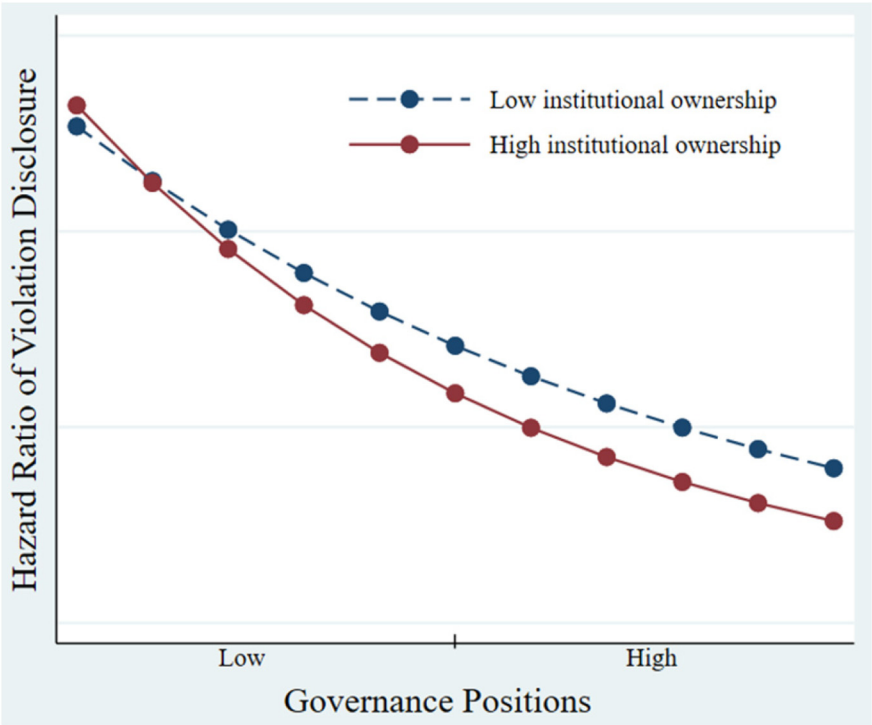
Figure 1
Moderating Effect of High-Quality Auditors



institutional environments. Regulative forces in institutional analyses are expected to help improve corporate governance by setting rules, inspecting nonconformity, and manipulating enforcement (Scott, 1995). Because of limited resources, however, state regulators in a weak institutional environment may not be able to address pervasive misconduct (Bao et al., 2019). Instead, they may selectively focus on certain firms with questionable practices or allegations of wrongdoing and thus cannot always effectively identify violation events and take timely enforcement actions (Baer, 2008; Mutlu et al., 2018).

Our results also add to the misconduct literature by drawing attention to the ability of culpable leaders to engage in high misconduct. Rule violation presents a case of nonconformity involving activities beyond the acceptable range (Miceli & Near, 1985). However, the regulative force, which places constraints and demands inspections on organizational conformity by virtue of power and authority (Scott, 1995), has rarely been studied in the institutional literature to address the managerial concealment issue (Peton & Pezé, 2014). While "visible" consistency with regulations confers legitimacy, rule violations are difficult to observe because managers tend to hide negative information to make the firm to appear legitimate (Oliver, 1991). For example, managers may use new techniques to manipulate accounting methods, counterfeit financial records, or prematurely record expenses to violate rules and

Figure 2
Moderating Effect of Institutional Ownership

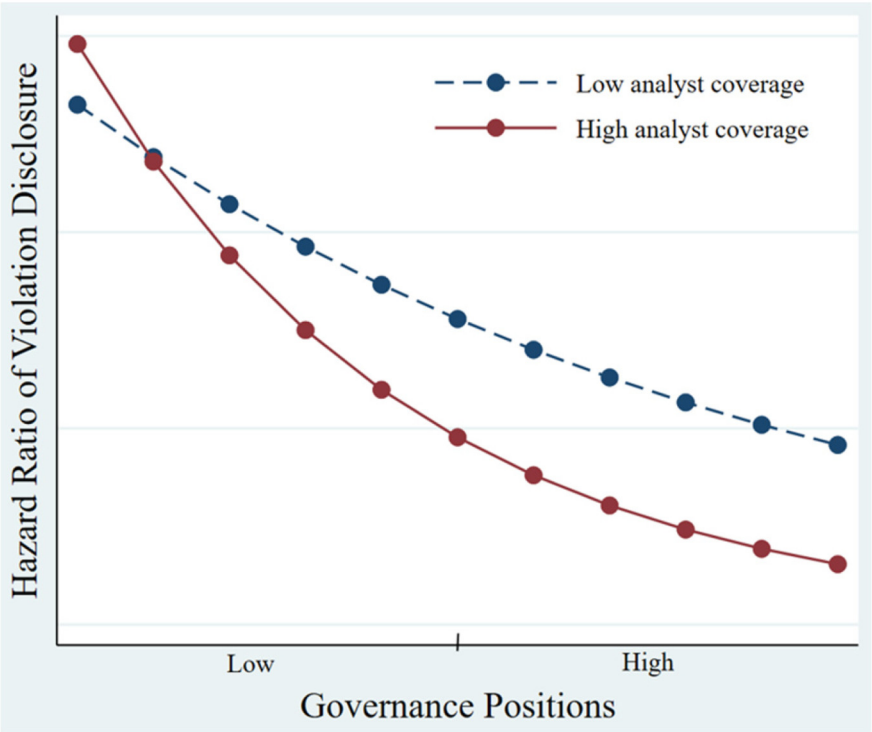


standards (Beneish, 1999). Our results indicate that culpable leaders' compartmentalization make it difficult for state regulators to quickly disclose violations.

Our study also contributes to the corporate misconduct literature (Bradley, Gokkaya, Liu, & Xie, 2017) by extending the good faith perspective to examine the effectiveness of professionals in the presence of misconduct. Regulators, as part of the legal system, often use formal rules to sanction nonconforming behavior (DiMaggio & Powell, 1983; Scott, 1995). Professionals often monitor firm practices on normative grounds (DiMaggio & Powell, 1983) and have a greater concern for the maintenance of integrity (Kaplan & Whitecotton, 2001), reputation, and moral responsibility (Boatright, 2007). Previous studies have focused mainly on the effectiveness of CG mechanisms in preventing opportunistic behavior (Aguilera et al., 2015). As CG mechanisms may fail to govern effectively, our study complements the literature by showing professional inspection can be ceremonial or routinized.

Our findings have profound practical implications. Although the good faith perspective was developed in the 1970s in strong institutional contexts such as the United States (Meyer & Rowan, 1977), we find its contemporary relevance in weak institutional contexts such as China. Our findings imply that the good faith perspective may apply to both strong and weak institutional contexts but predict distinct outcomes between the two contexts. In

Figure 3
Moderating Effect of Analyst Coverage



strong institutional contexts where organizational success relies on legitimacy achieved through conformity with institutional rules, the good faith logic is based on established regulations and professional monitoring that can be effective in reducing the widespread rule violations (Fogarty & Rigsby, 2010). In such contexts, constituents have good faith in professional agencies that are able to play the role of gatekeeper and enhance CG (Aggarwal et al., 2015), effectively governing firm behavior by providing authentication and credible opinions (Piotroski & Wong, 2012).

In contrast, according to our endemic approach in weak institutional environments where the professional evaluation of violation is more likely to be compromised based on routinized inspection by ignoring information for business changes, the good faith perspective is likely to predict negative consequences, because professional monitoring is underdeveloped (Wang, Stuart, et al., 2021). We further compare the moderating effects of the three professionals (external auditors, institutional investors, and securities analysts) in pairs, but the results do not show differences among them at the 0.05 level. The practical implication is that in weak institutional environments, regulators need to further press professionals to constantly improve their inspecting techniques in addressing managerial concealment.

Given that the good faith perspective is contemporarily relevant in weak institutional settings as shown in our study, our findings should be a serious warning of the critical need to improve the norms of professional liability, which has broader implications. CG failures are widespread. A few examples in the wake of some large CG failures include Enron, Global Crossing, Rank Xerox, and Lehman brothers in the United States; Parmalat in Italy; the Maxwell saga in the United Kingdom; Asea Brown Boveri in Sweden; Daewoo in Korea; Satyam Computer Services in India; Leisurenet and Regal Bank in South Africa; and Cadbury Nigeria in Nigeria. The CG paradigm has increasingly emphasized professionals to play the role of inspector (Aguilera et al., 2015). Professionals in weak institutional environments are even under greater pressure to increase their search scope and take strong action to improve evaluative techniques on a timely basis to determine whether corporate controls are appropriately designed to be as effective as possible to help expose undetected violations or illegitimate activities.

Furthermore, our findings suggest that policymakers in weak institutional environments should pay more attention to previously unnoticed corporate shenanigans (Schilit, 2002) and respond with greater regulatory efforts. The support found for the good faith perspective suggests that external inspection may become a "rationalized ritual" based on routine processes and procedures in inspecting organizations (Meyer & Rowan, 1977: 359) when misconduct occurs. Timely public disclosure may mitigate bigger scandals, as the potential for significant damage increases the longer a violation goes undiscovered. Infamous large corporate scandals might have been prevented if rule violations had been discovered in earlier stages and, as such, stakeholders and the public would have suffered less from financial losses. External legitimacy might be enhanced by some ceremonial, professional inspections, but they will not take the place of actual oversight (Cohen et al., 2008). Governments need to promote a more transparent environment and more efficient rules and regulations to detect violations.

Finally, the managerial implication of our findings is that although strategic leaders with strong capacities to hide their misconduct can delay penalties, once the misconduct is detected, they will face negative consequences. These strategic leaders are less likely to escape penalties with the help of improved CG mechanisms, professional inspection, state regulations, and enforcement actions in weak institutional environments.

Some limitations of our findings should be kept in mind. First, our sample is based on disclosed and penalized violations and traces backwards to identify the year of violation. Although this sampling strategy is consistent with our theorization, it also leaves out undisclosed violations, which go undetected. Thus, we must interpret our findings with caution because they are based only on disclosed misconduct, which is the typical challenge in studying misconduct. Future research may develop better sampling strategies to deal with this challenge. In addition, we used a discrete-time event history methodology with a year-based estimation instead of looking at the number of days or months—an approach that might lose variance to some extent. Because of data unavailability, the time of violation can only be dated to years from our data sources. Although the coarse measurement of time makes a discrete-time event history analysis suitable to test our hypotheses (Allison, 1984), future research may conduct more detailed analyses when such data are available.

Second, we tested our study based on a single-country setting. As China is an emerging economy in which the institutional environment is relatively weak, the applicability of our

findings to other countries—especially developed countries in which inspecting systems are better established and the gatekeeping perspective is more appliable—may raise questions of the generalizability of our findings. Given that institutional environments vary across countries, we encourage future research to examine the question of whether our research framework and findings may apply to other economies, especially emerging economies.

Third, our study only focused on three types of professionals. However, there are other professionals, such as lawyers, standards-setting institutions, rating agencies, the market, and the media (Aguilera et al., 2015). Moreover, researchers have emphasized the importance of organizational professionals such as managers, accountants, and directors in inspecting corporate misconduct (e.g., Mesmer-Magnus & Viswesvaran, 2005; Miceli & Near, 1995; Near & Miceli, 1996). Professionals both inside and outside an organization may jointly affect CG mechanisms to address managerial concealment of various types and stop rule violations. Future research could further explore the applicability of gatekeeping and good faith perspectives to understand the extent to which various types of professionals are more effective in helping regulators disclose rule violations in different contexts.

Fourth, we used foreign auditors as a proxy of high-quality auditors. We also tested the moderating effect of the Big Four auditors (Deloitte, Ernst & Young, PricewaterhouseCoopers, and KPMG), but the results were not significant. One possible reason is that many auditing agencies of the Big Four in China are not coded as foreign auditors in the CSMAR database, because in China, they are managed by the Chinese partners (i.e., not directly by the Big Four). Thus, these Chinese agents may not necessarily provide more legitimacy to local firms than other foreign auditing firms. Future research could further explore the various influences of different types of auditors in timely rule violation disclosure.

In conclusion, we have extended an institutional (good faith) perspective that provides an endemically Chinese theoretical explanation of how collective managerial concealment delays state disclosure of violation events under conditions of professional inspection. Given that timely disclosed violations are important in preventing violation escalations or damaging scandals, our study may inspire future research to extend this stream of inquiry.

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Note

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Appendix A: Distribution of Time Length Between Rule Violation and State Enforcement

Table D shows the time-duration distribution from the year of rule violation to the year of public disclosure for the 2,545 violation enforcement cases in our sample. About 46.33% of the violations occurred and were penalized in the same year, and 78.82% occurred and were penalized within 2 years, suggesting that violators were penalized relatively in a timely manner. For the rest of the firms (21.18%), the time of the violation to the enforcement action ranged from 3 years to 8 years, suggesting that some misconduct was not revealed in a timely manner (Table A).

Table A
Descriptive Statistics of Time Length Between Rule Violation and State Enforcement

Time Length by Year	Number of Misconduct Violations Detected	Percentage of Misconduct Violations Detected (%)
1	1,179	46.33
2	827	32.50
3	291	11.43
4	152	5.97
5	56	2.20
6	32	1.26
7	6	0.24
8	2	0.08
Total	2,545	100

Appendix B: Using Alternative Measures of the Independent Variable

We used two alternative measures of the independent variable to test Hypothesis 1. First, we recalculated the *number of governance positions occupied by culpable leaders*, excluding the supervisory board members. The effective role of the supervisory board, which mainly consists of employees and shareholder representatives, is largely marginalized and neglected in Chinese firms. For example, Xia and Zhao (2009) show that the supervisory board has little impaction on firm earnings quality, suggesting that such board has not played its due role in practice. Thus, we recalculated our independent variable excluding the supervisory board. As shown in Table B1, the results remain consistent.

Second, because more culpable leaders stay in a firm might be more capable of concealing misconduct, we used the *total number of culpable leaders* including top managers, directors, and supervisors remained in the governance positions as another alternative measure of the independent variable. Table B2 shows consistent results.

Appendix C: Addressing the Omitted Variable Issue

Although our primary models included a set of relevant control variables and fixed effects of year, industry, violation type, and penalty type, it is still possible that some unknown omitted variable could influence timely violation disclosure. To address the potential endogeneity, we computed the impact threshold for a confounding variable (ITCV) by following previous studies (Busenbark, Lange, & Certo, 2017; Busenbark, Yoon, Gamache, & Withers, 2022; Frank, 2000; Hill, Recendes, & Ridge, 2018). This approach was developed to assess the degree to which confounding variables "would be great enough to alter an inference with regard to a regression coefficient" (Frank, 2000: 150). In our study, the results of ITCV indicate that if the omitted variable bias exists, an omitted variable will need to overturn the relationship between culpable leaders and violation disclosure in 57.35% of estimates. Thus, in our sample, 2,778 cases would have to be replaced with cases for which there is an effect of 0. Because estimate contexts vary, it is difficult to establish absolute standards for impact thresholds (Larcker & Rusticus, 2010: 203). It is unlikely that more than half of estimates in our sample can substitute cases with effects of 0 to invalidate the estimates (cf. Hill et al., 2018).

Table B1

Cox Proportional Hazard Model Estimations of Violation Disclosure (Supervisory Board Members Were Excluded)

Variables	Model 1		Model 2		Model 3	
	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)
Firm size (logged)	0.98 (0.01)	−1.43 (0.151)	0.99 (0.01)	−1.13 (0.257)	0.99 (0.01)	−1.09 (0.278)
Year since IPO	0.99 (0.00)	−3.64 (0.000)	0.99 (0.00)	−3.81 (0.000)	0.99 (0.00)	−3.87 (0.000)
Firm performance	0.98 (0.00)	−5.72 (0.000)	0.98 (0.00)	−3.62 (0.000)	0.98 (0.00)	−3.62 (0.000)
CEO tenure	1.00 (0.00)	−0.53 (0.594)	1.00 (0.00)	−0.49 (0.621)	1.00 (0.00)	−0.52 (0.602)
CEO duality	0.97 (0.03)	−0.88 (0.379)	0.99 (0.03)	−0.17 (0.868)	0.99 (0.03)	−0.16 (0.875)
Board size	1.01 (0.00)	2.86 (0.004)	1.01 (0.00)	2.58 (0.010)	1.01 (0.00)	2.63 (0.008)
Board independence	0.67 (0.13)	−2.11 (0.035)	0.76 (0.14)	−1.48 (0.140)	0.76 (0.14)	−1.47 (0.143)
Tenure of nonculpable leaders	1.00 (0.00)	0.60 (0.547)	1.00 (0.00)	−1.51 (0.131)	1.00 (0.00)	−1.49 (0.135)
Tenure overlap of culpable leaders	0.99 (0.00)	−8.92 (0.000)	1.00 (0.00)	2.50 (0.012)	1.00 (0.00)	2.45 (0.014)
Negative media coverage	1.04 (0.01)	2.90 (0.004)	1.03 (0.01)	2.39 (0.017)	1.03 (0.01)	2.44 (0.015)
State ownership	0.81 (0.11)	−1.57 (0.117)	0.82 (0.11)	−1.50 (0.135)	0.82 (0.11)	−1.55 (0.120)
Board political connection	0.93 (0.08)	−0.80 (0.422)	0.99 (0.09)	−0.14 (0.891)	0.99 (0.09)	−0.14 (0.885)
CEO political connection	1.02 (0.04)	0.49 (0.621)	1.02 (0.04)	0.59 (0.556)	1.02 (0.04)	0.59 (0.556)
Government affiliation level	1.01 (0.02)	0.77 (0.444)	1.01 (0.02)	0.60 (0.548)	1.01 (0.02)	0.66 (0.510)
Auditor violation	0.71 (0.17)	−1.42 (0.155)	0.57 (0.14)	−2.30 (0.022)	0.57 (0.14)	−2.29 (0.022)
Institutional investor violation	1.06 (0.07)	0.83 (0.405)	0.98 (0.07)	−0.27 (0.791)	0.98 (0.07)	−0.26 (0.796)
High-quality auditor	0.98 (0.13)	−0.17 (0.866)	1.00 (0.13)	0.03 (0.977)	0.98 (0.02)	−1.40 (0.163)
Institutional ownership	0.84 (0.18)	−0.78 (0.433)	0.89 (0.18)	−0.56 (0.577)	0.89 (0.18)	−0.55 (0.582)
Analyst coverage	1.00 (0.00)	0.24 (0.807)	1.00 (0.00)	0.16 (0.876)	1.00 (0.00)	0.13 (0.898)
Governance positions (GP)			0.68 (0.02)	−14.31 (0.000)	0.70 (0.02)	−14.43 (0.000)
GP × high-quality auditors					0.94 (0.03)	−1.95 (0.051)
GP × institutional ownership						
GP × analyst coverage						
Wald chi2	8592.05		7475.81		7524.61	
Log pseudolikelihood	−17961.51		−17920.38		−17919.82	
Firm size (logged)	0.99 (0.01)	−1.17 (0.243)	0.99 (0.01)	−1.01 (0.314)	0.99 (0.01)	−0.99 (0.325)

(continued)

Table B1 (continued)

Variables	Model 4		Model 5		Model 6	
	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)
Year since IPO	0.99 (0.00)	−3.85 (0.000)	0.99 (0.00)	−4.01 (0.000)	0.99 (0.00)	−4.05 (0.000)
Firm performance	0.98 (0.00)	−3.81 (0.000)	0.98 (0.00)	−3.92 (0.000)	0.98 (0.00)	−3.95 (0.000)
CEO tenure	1.00 (0.00)	−0.44 (0.658)	1.00 (0.00)	−0.50 (0.614)	1.00 (0.00)	−0.51 (0.610)
CEO duality	0.99 (0.03)	−0.17 (0.862)	0.99 (0.03)	−0.27 (0.783)	0.99 (0.03)	−0.26 (0.795)
Board size	1.01 (0.00)	2.55 (0.011)	1.01 (0.00)	2.59 (0.010)	1.01 (0.00)	2.62 (0.009)
Board independence	0.77 (0.14)	−1.44 (0.150)	0.78 (0.14)	−1.36 (0.173)	0.78 (0.14)	−1.35 (0.177)
Tenure of nonculpable leaders	1.00 (0.00)	−1.61 (0.107)	1.00 (0.00)	−1.58 (0.115)	1.00 (0.00)	−1.59 (0.112)
Tenure overlap of culpable leaders	1.00 (0.00)	2.39 (0.017)	1.00 (0.00)	2.27 (0.023)	1.00 (0.00)	2.21 (0.027)
Negative media coverage	1.03 (0.01)	2.38 (0.017)	1.03 (0.01)	2.40 (0.016)	1.03 (0.01)	2.43 (0.015)
State ownership	0.82 (0.11)	−1.51 (0.131)	0.82 (0.11)	−1.52 (0.130)	0.81 (0.11)	−1.57 (0.117)
Board political connection	0.99 (0.09)	−0.07 (0.944)	1.00 (0.09)	0.03 (0.978)	1.00 (0.09)	0.02 (0.986)
CEO political connection	1.02 (0.04)	0.64 (0.524)	1.02 (0.04)	0.65 (0.518)	1.02 (0.04)	0.65 (0.514)
Government affiliation level	1.01 (0.02)	0.57 (0.566)	1.01 (0.02)	0.63 (0.529)	1.01 (0.02)	0.67 (0.504)
Auditor violation	0.56 (0.14)	−2.31 (0.021)	0.58 (0.14)	−2.24 (0.025)	0.58 (0.14)	−2.25 (0.024)
Institutional investor violation	0.98 (0.07)	−0.27 (0.785)	0.98 (0.07)	−0.26 (0.796)	0.98 (0.07)	−0.26 (0.798)
High-quality auditor	1.01 (0.13)	0.09 (0.932)	1.01 (0.13)	0.07 (0.942)	0.98 (0.02)	−1.17 (0.243)
Institutional ownership	0.98 (0.02)	−1.32 (0.186)	0.95 (0.19)	−0.27 (0.791)	0.99 (0.02)	−0.54 (0.587)
Analyst coverage	1.00 (0.00)	0.12 (0.907)	0.96 (0.02)	−1.64 (0.102)	0.97 (0.02)	−1.42 (0.156)
Governance positions (GP)	0.70 (0.02)	−14.36 (0.000)	0.69 (0.02)	−13.97 (0.000)	0.69 (0.02)	−14.08 (0.000)
GP × high-quality auditors					0.95 (0.03)	−1.65 (0.100)
GP × institutional ownership	0.95 (0.02)	−2.62 (0.009)			0.98 (0.02)	−0.85 (0.396)
GP × analyst coverage			0.90 (0.03)	−3.03 (0.002)	0.91 (0.03)	−2.48 (0.013)
Wald chi2	7534.26		7333.72		7403.42	
Log pseudolikelihood	−17918.73		−17916.16		−17915.63	

Note: N = 4,844. Year, industry, violation-type, and penalty-type fixed effects are included.

Table B2

Cox Proportional Hazard Model Estimations on Violation Disclosure (Total Number of Culpable Leaders)

Variables	Model 1		Model 2		Model 3	
	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)
Firm size (logged)	0.98 (0.01)	−1.43 (0.151)	0.99 (0.01)	−0.95 (0.340)	0.99 (0.01)	−0.89 (0.373)
Year since IPO	0.99 (0.00)	−3.64 (0.000)	0.99 (0.00)	−3.81 (0.000)	0.99 (0.00)	−3.90 (0.000)
Firm performance	0.98 (0.00)	−5.72 (0.000)	0.99 (0.00)	−4.92 (0.000)	0.99 (0.00)	−4.92 (0.000)
CEO tenure	1.00 (0.00)	−0.53 (0.594)	1.00 (0.00)	−0.35 (0.725)	1.00 (0.00)	−0.39 (0.696)
CEO duality	0.97 (0.03)	−0.88 (0.379)	0.99 (0.03)	−0.38 (0.704)	0.99 (0.03)	−0.36 (0.716)
Board size	1.01 (0.00)	2.86 (0.004)	1.01 (0.00)	2.53 (0.011)	1.01 (0.00)	2.60 (0.009)
Board independence	0.67 (0.13)	−2.11 (0.035)	0.70 (0.13)	−1.89 (0.059)	0.70 (0.13)	−1.87 (0.061)
Tenure of nonculpable leaders	1.00 (0.00)	0.60 (0.547)	1.00 (0.00)	−0.73 (0.464)	1.00 (0.00)	−0.72 (0.471)
Tenure overlap of culpable leaders	0.99 (0.00)	−8.92 (0.000)	1.00 (0.00)	−2.66 (0.008)	1.00 (0.00)	−2.69 (0.007)
Negative media coverage	1.04 (0.01)	2.90 (0.004)	1.03 (0.01)	2.43 (0.015)	1.03 (0.01)	2.50 (0.013)
State ownership	0.81 (0.11)	−1.57 (0.117)	0.81 (0.11)	−1.62 (0.106)	0.80 (0.11)	−1.70 (0.090)
Board political connection	0.93 (0.08)	−0.80 (0.422)	0.95 (0.08)	−0.61 (0.541)	0.95 (0.08)	−0.62 (0.536)
CEO political connection	1.02 (0.04)	0.49 (0.621)	1.02 (0.04)	0.63 (0.526)	1.02 (0.04)	0.63 (0.528)
Government affiliation level	1.01 (0.02)	0.77 (0.444)	1.01 (0.02)	0.49 (0.624)	1.01 (0.02)	0.57 (0.569)
Auditor violation	0.71 (0.17)	−1.42 (0.155)	0.60 (0.15)	−2.07 (0.039)	0.60 (0.15)	−2.06 (0.039)
Institutional investor violation	1.06 (0.07)	0.83 (0.405)	1.01 (0.07)	0.16 (0.873)	1.01 (0.07)	0.17 (0.867)
High-quality auditor	0.98 (0.13)	−0.17 (0.866)	0.99 (0.13)	−0.08 (0.938)	0.93 (0.02)	−2.60 (0.009)
Institutional ownership	0.84 (0.18)	−0.78 (0.433)	0.87 (0.18)	−0.66 (0.508)	0.87 (0.19)	−0.65 (0.516)
Analyst coverage	1.00 (0.00)	0.24 (0.807)	1.00 (0.00)	0.24 (0.810)	1.00 (0.00)	0.20 (0.840)
Number of culpable leaders (NCL)			0.90 (0.01)	−6.93 (0.000)	0.75 (0.03)	−7.33 (0.000)
NCL × high-quality auditors					0.82 (0.06)	−2.73 (0.006)
NCL × institutional ownership						
NCL × analyst coverage						
Wald chi2	8592.05		11636.21		11757.91	
Log pseudolikelihood	−17961.51		−17943.22		−17942.15	

(continued)

Table B2 (continued)

Variables	Model 4		Model 5		Model 6	
	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)
Firm size (logged)	0.99 (0.01)	−0.99 (0.322)	0.99 (0.01)	−0.79 (0.429)	0.99 (0.01)	−0.76 (0.445)
Year since IPO	0.99 (0.00)	−3.86 (0.000)	0.99 (0.00)	−4.07 (0.000)	0.99 (0.00)	−4.13 (0.000)
Firm performance	0.99 (0.00)	−4.97 (0.000)	0.98 (0.00)	−5.11 (0.000)	0.98 (0.00)	−5.10 (0.000)
CEO tenure	1.00 (0.00)	−0.29 (0.768)	1.00 (0.00)	−0.34 (0.732)	1.00 (0.00)	−0.36 (0.718)
CEO duality	0.99 (0.03)	−0.39 (0.700)	0.98 (0.03)	−0.52 (0.606)	0.98 (0.03)	−0.49 (0.621)
Board size	1.01 (0.00)	2.47 (0.014)	1.01 (0.00)	2.50 (0.012)	1.01 (0.00)	2.55 (0.011)
Board independence	0.70 (0.13)	−1.87 (0.062)	0.71 (0.13)	−1.80 (0.072)	0.72 (0.13)	−1.78 (0.074)
Tenure of nonculpable leaders	1.00 (0.00)	−0.88 (0.378)	1.00 (0.00)	−0.87 (0.383)	1.00 (0.00)	−0.89 (0.371)
Tenure overlap of culpable leaders	1.00 (0.00)	−2.50 (0.013)	1.00 (0.00)	−2.59 (0.010)	1.00 (0.00)	−2.56 (0.010)
Negative media coverage	1.03 (0.01)	2.43 (0.015)	1.03 (0.01)	2.45 (0.014)	1.03 (0.01)	2.50 (0.013)
State ownership	0.81 (0.11)	−1.63 (0.104)	0.81 (0.11)	−1.63 (0.102)	0.80 (0.11)	−1.71 (0.087)
Board political connection	0.95 (0.08)	−0.53 (0.598)	0.97 (0.09)	−0.38 (0.705)	0.97 (0.09)	−0.40 (0.693)
CEO political connection	1.03 (0.04)	0.68 (0.498)	1.03 (0.04)	0.72 (0.475)	1.03 (0.04)	0.71 (0.478)
Government affiliation level	1.01 (0.02)	0.46 (0.644)	1.01 (0.02)	0.55 (0.579)	1.01 (0.02)	0.61 (0.543)
Auditor violation	0.58 (0.15)	−2.11 (0.035)	0.61 (0.15)	−2.01 (0.044)	0.60 (0.15)	−2.05 (0.040)
Institutional investor violation	1.01 (0.07)	0.15 (0.883)	1.01 (0.07)	0.19 (0.853)	1.01 (0.07)	0.18 (0.854)
High-quality auditor	1.00 (0.13)	−0.02 (0.988)	1.00 (0.13)	−0.02 (0.984)	0.94 (0.03)	−2.31 (0.021)
Institutional ownership	0.97 (0.02)	−1.69 (0.091)	0.93 (0.19)	−0.35 (0.728)	0.98 (0.02)	−0.84 (0.400)
Analyst coverage	1.00 (0.00)	0.20 (0.844)	0.94 (0.03)	−2.02 (0.043)	0.95 (0.03)	−1.73 (0.083)
Number of culpable leaders (NCL)	0.74 (0.03)	−7.22 (0.000)	0.72 (0.03)	−6.93 (0.000)	0.71 (0.03)	−7.22 (0.000)
NCL × high-quality auditors					0.83 (0.06)	−2.45 (0.014)
NCL × institutional ownership	0.90 (0.04)	−2.58 (0.010)			0.96 (0.03)	−1.25 (0.212)
NCL × analyst coverage			0.81 (0.06)	−2.98 (0.003)	0.83 (0.06)	−2.48 (0.013)
Wald chi2	12037.20		10191.53		10462.11	
Log pseudolikelihood	−17940.56		−17936.85		−17935.66	

Note: N = 4,844. Year, industry, violation-type, and penalty-type dummies are included.

Appendix D: Clustering Robust Standard Errors at Different Levels to Estimate our Results

We reran our main analyses with clustered robust standard errors at three different levels including the firm level, industry level, and province level. The results remain consistent (Tables D1–D3).

Table D1

Cox Proportional Hazard Model Estimations on Violation Disclosure (Clustered Robust Standard Errors at the Firm Level)

	Model 1		Model 2		Model 3	
Variables	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)
Firm size (logged)	0.98 (0.01)	−1.16 (0.246)	0.99 (0.01)	−0.86 (0.390)	0.99 (0.01)	−0.82 (0.413)
Year since IPO	0.99 (0.00)	−3.24 (0.001)	0.99 (0.00)	−3.36 (0.001)	0.99 (0.00)	−3.40 (0.001)
Firm performance	0.98 (0.00)	−5.25 (0.000)	0.98 (0.00)	−4.97 (0.000)	0.98 (0.00)	−4.98 (0.000)
CEO tenure	1.00 (0.00)	−0.45 (0.650)	1.00 (0.00)	−0.49 (0.627)	1.00 (0.00)	−0.51 (0.609)
CEO duality	0.97 (0.03)	−0.83 (0.407)	1.00 (0.03)	−0.13 (0.900)	1.00 (0.03)	−0.12 (.908)
Board size	1.01 (0.01)	2.44 (0.015)	1.01 (0.01)	2.13 (0.033)	1.01 (0.01)	2.18 (0.030)
Board independence	0.67 (0.15)	−1.82 (0.069)	0.76 (0.16)	−1.30 (0.192)	0.76 (0.16)	−1.30 (0.195)
Tenure of nonculpable leaders	1.00 (0.00)	0.55 (0.582)	1.00 (0.00)	−1.41 (0.160)	1.00 (0.00)	−1.39 (0.165)
Tenure overlap of culpable leaders	0.99 (0.00)	−9.02 (0.000)	1.00 (0.00)	2.35 (0.019)	1.00 (0.00)	2.31 (0.021)
Negative media coverage	1.04 (0.01)	2.60 (0.009)	1.03 (0.01)	2.00 (0.045)	1.03 (0.01)	2.04 (0.041)
State ownership	0.81 (0.12)	−1.45 (0.146)	0.82 (0.11)	−1.44 (0.150)	0.81 (0.11)	−1.50 (0.134)
Board political connection	0.93 (0.09)	−0.74 (0.457)	0.98 (0.09)	−0.22 (0.823)	0.98 (0.09)	−0.23 (0.818)
CEO political connection	1.02 (0.04)	0.47 (0.641)	1.02 (0.04)	0.57 (0.570)	1.02 (0.04)	0.57 (0.570)
Government affiliation level	1.01 (0.02)	0.68 (0.494)	1.01 (0.02)	0.46 (0.644)	1.01 (0.02)	0.52 (0.604)
Auditor violation	0.71 (0.17)	−1.45 (0.147)	0.57 (0.13)	−2.40 (0.016)	0.57 (0.13)	−2.40 (0.017)
Institutional investor violation	1.06 (0.07)	0.84 (0.403)	0.97 (0.07)	−0.37 (0.708)	0.97 (0.07)	−0.37 (0.713)
High-quality auditor	0.98 (0.10)	−0.22 (0.823)	1.00 (0.09)	0.00 (0.997)	0.97 (0.02)	−1.47 (0.142)
Institutional ownership	0.84 (0.20)	−0.72 (0.471)	0.89 (0.20)	−0.52 (0.605)	0.89 (0.20)	−0.51 (0.610)
Analyst coverage	1.00 (0.00)	0.23 (0.819)	1.00 (0.00)	0.16 (0.872)	1.00 (0.00)	0.13 (0.893)
Governance positions (GP)			0.69 (0.02)	−13.86 (0.000)	0.70 (0.02)	−14.02 (0.000)
GP × high-quality auditors					0.94 (0.03)	−1.85 (0.064)
GP × institutional ownership						
GP × analyst coverage						
Wald chi2	8503.98		8953.71		9046.15	
Log pseudolikelihood	−17961.51		−17918.94		−17918.35	

(continued)

Table D1 (continued)

Variables	Model 4		Model 5		Model 6	
	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)
Firm size (logged)	0.99 (0.01)	−0.88 (0.376)	0.99 (0.01)	−0.72 (0.470)	0.99 (0.01)	−0.71 (0.480)
Year since IPO	0.99 (0.00)	−3.38 (0.001)	0.99 (0.00)	−3.53 (0.000)	0.99 (0.00)	−3.55 (0.000)
Firm performance	0.98 (0.00)	−4.96 (0.000)	0.98 (0.00)	−5.06 (0.000)	0.98 (0.00)	−5.06 (0.000)
CEO tenure	1.00 (0.00)	−0.43 (0.670)	1.00 (0.00)	−0.46 (0.649)	1.00 (0.00)	−0.46 (0.645)
CEO duality	1.00 (0.03)	−0.13 (0.893)	0.99 (0.03)	−0.25 (0.803)	0.99 (0.03)	−0.24 (0.814)
Board size	1.01 (0.01)	2.09 (0.037)	1.01 (0.01)	2.14 (0.032)	1.01 (0.01)	2.17 (0.030)
Board independence	0.76 (0.16)	−1.29 (0.197)	0.77 (0.16)	−1.22 (0.224)	0.77 (0.16)	−1.21 (0.227)
Tenure of nonculpable leaders	1.00 (0.00)	−1.51 (0.130)	1.00 (0.00)	−1.50 (0.133)	1.00 (0.00)	−1.51 (0.131)
Tenure overlap of culpable leaders	1.00 (0.00)	2.24 (0.025)	1.00 (0.00)	2.10 (0.036)	1.00 (0.00)	2.05 (0.040)
Negative media coverage	1.03 (0.01)	1.98 (0.048)	1.03 (0.01)	1.99 (0.046)	1.03 (0.01)	2.02 (0.044)
State ownership	0.82 (0.11)	−1.45 (0.147)	0.82 (0.11)	−1.46 (0.145)	0.81 (0.11)	−1.51 (0.130)
Board political connection	0.99 (0.09)	−0.15 (0.879)	1.00 (0.10)	−0.03 (0.973)	1.00 (0.10)	−0.05 (0.964)
CEO political connection	1.02 (0.04)	0.62 (0.535)	1.02 (0.04)	0.62 (0.533)	1.02 (0.04)	0.63 (0.529)
Government affiliation level	1.01 (0.02)	0.42 (0.673)	1.01 (0.02)	0.48 (0.633)	1.01 (0.02)	0.51 (0.609)
Auditor violation	0.56 (0.14)	−2.35 (0.019)	0.58 (0.14)	−2.33 (0.020)	0.57 (0.14)	−2.32 (0.020)
Institutional investor violation	0.97 (0.07)	−0.39 (0.699)	0.97 (0.07)	−0.38 (0.707)	0.97 (0.07)	−0.37 (0.709)
High-quality auditor	1.01 (0.09)	0.09 (0.929)	1.01 (0.09)	0.07 (0.941)	0.98 (0.02)	−1.17 (0.242)
Institutional ownership	0.98 (0.02)	−1.30 (0.194)	0.96 (0.21)	−0.19 (0.846)	0.99 (0.02)	−0.47 (0.639)
Analyst coverage	1.00 (0.00)	0.13 (0.900)	0.95 (0.03)	−1.80 (0.072)	0.96 (0.03)	−1.58 (0.114)
Governance positions (GP)	0.69 (0.02)	−14.11 (0.000)	0.68 (0.02)	−13.76 (0.000)	0.68 (0.02)	−13.91 (0.000)
GP × high-quality auditors					0.95 (0.03)	−1.51 (0.130)
GP × institutional ownership	0.94 (0.02)	−2.63 (0.009)			0.98 (0.02)	−0.83 (0.404)
GP × analyst coverage			0.88 (0.03)	−3.37 (0.001)	0.89 (0.04)	−2.82 (0.005)
Wald chi2	7465.50		7540.92		7898.12	
Log pseudolikelihood	−17916.87		−17913.37		−17912.81	

Note: N = 4,844. Year, industry, violation type and penalty type dummies are included.

Table D2

Cox Proportional Hazard Model Estimations on Violation Disclosure (Clustered Robust Standard Errors at the Industry Level).

	Model 1		Model 2		Model 3	
Variables	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)
Firm size (logged)	0.98 (0.02)	−1.10 (0.270)	0.99 (0.01)	−0.88 (0.381)	0.99 (0.01)	−0.83 (0.405)
Year since IPO	0.99 (0.00)	−3.16 (0.002)	0.99 (0.00)	−3.39 (0.001)	0.99 (0.00)	−3.47 (0.001)
Firm performance	0.98 (0.00)	−7.53 (0.000)	0.98 (0.00)	−7.31 (0.000)	0.98 (0.00)	−7.31 (0.000)
CEO tenure	1.00 (0.00)	−0.46 (0.648)	1.00 (0.00)	−0.52 (0.603)	1.00 (0.00)	−0.55 (0.584)
CEO duality	0.97 (0.03)	−0.90 (0.366)	1.00 (0.03)	−0.13 (0.896)	1.00 (0.03)	−0.12 (0.903)
Board size	1.01 (0.01)	2.68 (0.007)	1.01 (0.00)	2.43 (0.015)	1.01 (0.00)	2.49 (0.013)
Board independence	0.67 (0.14)	−1.87 (0.062)	0.76 (0.16)	−1.29 (0.195)	0.76 (0.16)	−1.28 (0.201)
Tenure of nonculpable leaders	1.00 (0.01)	0.56 (0.578)	1.00 (0.00)	−1.44 (0.149)	1.00 (0.00)	−1.43 (0.153)
Tenure overlap of culpable leaders	0.99 (0.00)	−8.93 (0.000)	1.00 (0.00)	2.30 (0.021)	1.00 (0.00)	2.26 (0.024)
Negative media coverage	1.04 (0.02)	2.28 (0.022)	1.03 (0.02)	1.75 (0.081)	1.03 (0.02)	1.78 (0.075)
State ownership	0.81 (0.09)	−1.87 (0.061)	0.82 (0.09)	−1.79 (0.073)	0.81 (0.09)	−1.85 (0.064)
Board political connection	0.93 (0.11)	−0.64 (0.523)	0.98 (0.11)	−0.20 (0.845)	0.98 (0.11)	−0.20 (0.840)
CEO political connection	1.02 (0.04)	0.50 (0.619)	1.02 (0.04)	0.57 (0.567)	1.02 (0.04)	0.57 (0.568)
Government affiliation level	1.01 (0.02)	0.73 (0.465)	1.01 (0.02)	0.50 (0.617)	1.01 (0.02)	0.55 (0.582)
Auditor violation	0.71 (0.16)	−1.49 (0.138)	0.57 (0.13)	−2.45 (0.014)	0.57 (0.13)	−2.45 (0.014)
Institutional investor violation	1.06 (0.05)	1.12 (0.264)	0.97 (0.05)	−0.46 (0.642)	0.97 (0.05)	−0.46 (0.649)
High-quality auditor	0.98 (0.12)	−0.19 (0.850)	1.00 (0.11)	0.00 (0.997)	0.97 (0.02)	−1.38 (0.167)
Institutional ownership	0.84 (0.21)	−0.68 (0.500)	0.89 (0.21)	−0.48 (0.634)	0.89 (0.22)	−0.47 (0.641)
Analyst coverage	1.00 (0.00)	0.23 (0.816)	1.00 (0.00)	0.16 (0.871)	1.00 (0.00)	0.14 (0.892)
Governance positions (GP)			0.69 (0.02)	−13.47 (0.000)	0.70 (0.02)	−13.58 (0.000)
GP × high-quality auditors					0.94 (0.03)	−1.85 (0.064)
GP × Institutional ownership						
GP × Analyst coverage						
Wald chi2	150726.41		87786.17		290853.84	
Log pseudolikelihood	−17961.51		−17918.94		−17918.35	

(continued)

Table D2 (continued)

Variables	Model 4		Model 5		Model 6	
	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)
Firm size (logged)	0.99 (0.01)	−0.90 (0.368)	0.99 (0.01)	−0.74 (0.459)	0.99 (0.01)	−0.72 (0.470)
Year since IPO	0.99 (0.00)	−3.36 (0.001)	0.99 (0.00)	−3.58 (0.000)	0.99 (0.00)	−3.64 (0.000)
Firm performance	0.98 (0.00)	−7.30 (0.000)	0.98 (0.00)	−7.54 (0.000)	0.98 (0.00)	−7.50 (0.000)
CEO tenure	1.00 (0.00)	−0.46 (0.643)	1.00 (0.00)	−0.50 (0.614)	1.00 (0.00)	−0.51 (0.610)
CEO duality	1.00 (0.03)	−0.14 (0.888)	0.99 (0.03)	−0.26 (0.797)	0.99 (0.03)	−0.24 (0.808)
Board size	1.01 (0.00)	2.34 (0.019)	1.01 (0.00)	2.42 (0.016)	1.01 (0.00)	2.45 (0.014)
Board independence	0.76 (0.16)	−1.29 (0.196)	0.77 (0.16)	−1.23 (0.220)	0.77 (0.16)	−1.21 (0.225)
Tenure of nonculpable leaders	1.00 (0.00)	−1.56 (0.119)	1.00 (0.00)	−1.58 (0.114)	1.00 (0.00)	−1.58 (0.113)
Tenure overlap of culpable leaders	1.00 (0.00)	2.14 (0.032)	1.00 (0.00)	1.99 (0.047)	1.00 (0.00)	1.94 (0.052)
Negative media coverage	1.03 (0.02)	1.73 (0.084)	1.03 (0.02)	1.75 (0.080)	1.03 (0.02)	1.77 (0.077)
State ownership	0.82 (0.09)	−1.79 (0.074)	0.82 (0.09)	−1.80 (0.072)	0.81 (0.09)	−1.84 (0.065)
Board political connection	0.99 (0.11)	−0.13 (0.893)	1.00 (0.11)	−0.03 (0.976)	1.00 (0.11)	−0.04 (0.968)
CEO political connection	1.02 (0.04)	0.63 (0.531)	1.02 (0.04)	0.62 (0.537)	1.02 (0.04)	0.62 (0.532)
Government affiliation level	1.01 (0.02)	0.45 (0.653)	1.01 (0.02)	0.51 (0.607)	1.01 (0.02)	0.54 (0.590)
Auditor violation	0.56 (0.14)	−2.41 (0.016)	0.58 (0.13)	−2.39 (0.017)	0.57 (0.13)	−2.38 (0.017)
Institutional investor violation	0.97 (0.05)	−0.48 (0.632)	0.97 (0.06)	−0.46 (0.644)	0.97 (0.06)	−0.46 (0.647)
High-quality auditor	1.01 (0.11)	0.08 (0.940)	1.01 (0.11)	0.06 (0.950)	0.98 (0.02)	−1.11 (0.267)
Institutional ownership	0.98 (0.02)	−1.19 (0.233)	0.96 (0.23)	−0.18 (0.858)	0.99 (0.02)	−0.39 (0.695)
Analyst coverage	1.00 (0.00)	0.13 (0.899)	0.95 (0.02)	−2.15 (0.032)	0.96 (0.02)	−1.80 (0.071)
Governance positions (GP)	0.69 (0.02)	−14.00 (0.000)	0.68 (0.02)	−12.08 (0.000)	0.68 (0.02)	−12.24 (0.000)
GP × high-quality auditors					0.95 (0.03)	−1.52 (0.128)
GP × institutional ownership	0.94 (0.02)	−2.68 (0.007)			0.98 (0.03)	−0.73 (0.467)
GP × analyst coverage			0.88 (0.02)	−4.70 (0.000)	0.89 (0.03)	−3.20 (0.001)
Wald chi2	299923.95		515984.42		196372.21	
Log pseudolikelihood	−17916.87		−17913.37		−17912.81	

Table D3

Cox Proportional Hazard Model Estimations on Violation Disclosure (Clustered Robust Standard Errors at the Province Level)

	Model 1		Model 2		Model 3	
Variables	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)
Firm size (logged)	0.98 (0.01)	−1.18 (0.236)	0.99 (0.01)	−0.91 (0.361)	0.99 (0.01)	−0.87 (0.386)
Year since IPO	0.99 (0.00)	−3.67 (0.000)	0.99 (0.00)	−3.99 (0.000)	0.99 (0.00)	−4.11 (0.000)
Firm performance	0.98 (0.00)	−5.18 (0.000)	0.98 (0.00)	−4.84 (0.000)	0.98 (0.00)	−4.87 (0.000)
CEO tenure	1.00 (0.00)	−0.45 (0.651)	1.00 (0.00)	−0.45 (0.654)	1.00 (0.00)	−0.47 (0.638)
CEO duality	0.97 (0.03)	−0.97 (0.334)	1.00 (0.03)	−0.16 (0.871)	1.00 (0.03)	−0.15 (0.881)
Board size	1.01 (0.00)	3.20 (0.001)	1.01 (0.00)	2.81 (0.005)	1.01 (0.00)	2.84 (0.005)
Board independence	0.67 (0.15)	−1.79 (0.073)	0.76 (0.16)	−1.33 (0.185)	0.76 (0.16)	−1.31 (0.189)
Tenure of nonculpable leaders	1.00 (0.00)	0.59 (0.555)	1.00 (0.00)	−1.34 (0.181)	1.00 (0.00)	−1.31 (0.190)
Tenure overlap of culpable leaders	0.99 (0.00)	−9.74 (0.000)	1.00 (0.00)	2.84 (0.005)	1.00 (0.00)	2.81 (0.005)
Negative media coverage	1.04 (0.01)	4.00 (0.000)	1.03 (0.01)	2.99 (0.003)	1.03 (0.01)	3.04 (0.002)
State ownership	0.81 (0.10)	−1.60 (0.109)	0.82 (0.10)	−1.59 (0.112)	0.81 (0.10)	−1.65 (0.098)
Board political connection	0.93 (0.10)	−0.67 (0.503)	0.98 (0.10)	−0.21 (0.833)	0.98 (0.10)	−0.22 (0.830)
CEO political connection	1.02 (0.04)	0.47 (0.636)	1.02 (0.04)	0.54 (0.588)	1.02 (0.04)	0.54 (0.588)
Government affiliation level	1.01 (0.02)	0.64 (0.523)	1.01 (0.02)	0.46 (0.649)	1.01 (0.02)	0.51 (0.613)
Auditor violation	0.71 (0.18)	−1.34 (0.180)	0.57 (0.15)	−2.11 (0.035)	0.57 (0.15)	−2.12 (0.034)
Institutional investor violation	1.06 (0.05)	1.13 (0.259)	0.97 (0.05)	−0.47 (0.638)	0.97 (0.05)	−0.46 (0.645)
High-quality auditor	0.98 (0.13)	−0.16 (0.869)	1.00 (0.13)	0.00 (0.997)	0.97 (0.02)	−1.34 (0.179)
Institutional ownership	0.84 (0.20)	−0.72 (0.471)	0.89 (0.21)	−0.48 (0.629)	0.89 (0.21)	−0.48 (0.634)
Analyst coverage	1.00 (0.00)	0.19 (0.846)	1.00 (0.00)	0.14 (0.892)	1.00 (0.00)	0.11 (0.910)
Governance positions (GP)			0.69 (0.03)	−9.80 (0.000)	0.70 (0.02)	−10.24 (0.000)
GP × high-quality auditors					0.94 (0.03)	−2.20 (0.027)
GP × institutional ownership						
GP × analyst coverage						
Wald chi2	5336.25		13981.72		13656.50	
Log pseudolikelihood	−17961.51		−17918.94		−17918.35	

(continued)

Table D3 (continued)

Variables	Model 4		Model 5		Model 6	
	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)
Firm size (logged)	0.99 (0.01)	−0.94 (0.348)	0.99 (0.01)	−0.77 (0.441)	0.99 (0.01)	−0.75 (0.452)
Year since IPO	0.99 (0.00)	−3.98 (0.000)	0.99 (0.00)	−4.08 (0.000)	0.99 (0.00)	−4.13 (0.000)
Firm performance	0.98 (0.00)	−4.83 (0.000)	0.98 (0.00)	−5.03 (0.000)	0.98 (0.00)	−5.03 (0.000)
CEO tenure	1.00 (0.00)	−0.40 (0.693)	1.00 (0.00)	−0.42 (0.677)	1.00 (0.00)	−0.42 (0.672)
CEO duality	1.00 (0.03)	−0.18 (0.860)	0.99 (0.03)	−0.34 (0.737)	0.99 (0.03)	−0.32 (0.751)
Board size	1.01 (0.00)	2.77 (0.006)	1.01 (0.00)	2.85 (0.004)	1.01 (0.00)	2.87 (0.004)
Board independence	0.76 (0.16)	−1.29 (0.196)	0.77 (0.17)	−1.19 (0.235)	0.77 (0.17)	−1.18 (0.239)
Tenure of nonculpable leaders	1.00 (0.00)	−1.45 (0.147)	1.00 (0.00)	−1.40 (0.162)	1.00 (0.00)	−1.42 (0.157)
Tenure overlap of culpable leaders	1.00 (0.00)	2.66 (0.008)	1.00 (0.00)	2.87 (0.004)	1.00 (0.00)	2.75 (0.006)
Negative media coverage	1.03 (0.01)	2.98 (0.003)	1.03 (0.01)	2.90 (0.004)	1.03 (0.01)	2.95 (0.003)
State ownership	0.82 (0.10)	−1.60 (0.110)	0.82 (0.10)	−1.66 (0.096)	0.81 (0.10)	−1.72 (0.086)
Board political connection	0.99 (0.10)	−0.14 (0.886)	1.00 (0.10)	−0.03 (0.974)	1.00 (0.10)	−0.04 (0.966)
CEO political connection	1.02 (0.04)	0.59 (0.553)	1.02 (0.04)	0.58 (0.562)	1.02 (0.04)	0.59 (0.554)
Government affiliation level	1.01 (0.02)	0.42 (0.675)	1.01 (0.02)	0.47 (0.637)	1.01 (0.02)	0.50 (0.617)
Auditor violation	0.56 (0.16)	−2.10 (0.036)	0.58 (0.15)	−2.04 (0.041)	0.57 (0.15)	−2.06 (0.039)
Institutional investor violation	0.97 (0.05)	−0.49 (0.626)	0.97 (0.06)	−0.46 (0.646)	0.97 (0.06)	−0.46 (0.646)
High-quality auditor	1.01 (0.13)	0.07 (0.948)	1.01 (0.13)	0.05 (0.957)	0.98 (0.02)	−1.10 (0.273)
Institutional ownership	0.98 (0.02)	−1.25 (0.210)	0.96 (0.22)	−0.18 (0.855)	0.99 (0.02)	−0.42 (0.672)
Analyst coverage	1.00 (0.00)	0.10 (0.916)	0.95 (0.03)	−1.31 (0.191)	0.96 (0.04)	−1.11 (0.265)
Governance positions (GP)	0.69 (0.02)	−10.67 (0.000)	0.68 (0.03)	−10.02 (0.000)	0.68 (0.03)	−10.53 (0.000)
GP × high-quality auditors					0.95 (0.03)	−1.85 (0.064)
GP × institutional ownership	0.94 (0.02)	−3.19 (0.001)			0.98 (0.02)	−0.81 (0.415)
GP × analyst coverage			0.88 (0.04)	−2.97 (0.003)	0.89 (0.04)	−2.35 (0.019)
Wald chi2	1271.06		14353.14		2108.30	
Log pseudolikelihood	−17916.87		−17913.37		−17912.81	

Note: N = 4,844. Year, industry, violation-type, and penalty-type dummies are included.

Appendix E: Subsample Removing Observations with Professionals Involved in Violations

To rule out the alternative explanation that professionals may engage in corporate scandals, we removed the observations that professionals engaged in violations in our sample. Among the 2,545 violation enforcement cases in our sample, there are 4 cases (0.16%) in which auditors were penalized, 113 cases (4.44%) in which institutional investors were penalized, and no case in which financial analysts were penalized. After removing these observations, we obtained 4,662 firm-year observations. We reran our analyses with the subsample and obtained consistent results (Table E).

Table E

Cox Proportional Hazard Model Estimations on Violation Disclosure. (Based on the Subsample That Removed the Observations That Professionals Involved in Violations)

Variables	Model 1		Model 2		Model 3	
	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)
Firm size (logged)	0.99 (0.01)	−1.15 (0.249)	0.99 (0.01)	−0.69 (0.491)	0.99 (0.01)	−0.64 (0.521)
Year since IPO	0.99 (0.00)	−3.62 (0.000)	0.99 (0.00)	−3.63 (0.000)	0.99 (0.00)	−3.68 (0.000)
Firm performance	0.98 (0.00)	−5.83 (0.000)	0.99 (0.00)	−3.55 (0.000)	0.99 (0.00)	−3.55 (0.000)
CEO tenure	1.00 (0.00)	−0.37 (0.713)	1.00 (0.00)	−0.47 (0.642)	1.00 (0.00)	−0.49 (0.622)
CEO duality	0.97 (0.03)	−0.76 (0.446)	1.00 (0.03)	0.13 (0.896)	1.00 (0.03)	0.14 (0.890)
Board size	1.01 (0.00)	2.69 (0.007)	1.01 (0.00)	2.25 (0.025)	1.01 (0.00)	2.30 (0.022)
Board independence	0.63 (0.12)	−2.35 (0.019)	0.72 (0.14)	−1.69 (0.092)	0.72 (0.14)	−1.68 (0.094)
Tenure of nonculpable leaders	1.00 (0.00)	0.53 (0.594)	1.00 (0.00)	−1.55 (0.122)	1.00 (0.00)	−1.53 (0.126)
Tenure overlap of culpable leaders	0.99 (0.00)	−8.88 (0.000)	1.00 (0.00)	2.56 (0.011)	1.00 (0.00)	2.51 (0.012)
Negative media coverage	1.05 (0.01)	3.41 (0.001)	1.04 (0.01)	2.72 (0.006)	1.04 (0.01)	2.77 (0.006)
State ownership	0.81 (0.11)	−1.53 (0.126)	0.83 (0.11)	−1.43 (0.153)	0.82 (0.11)	−1.49 (0.137)
Board political connection	0.93 (0.09)	−0.82 (0.414)	0.97 (0.09)	−0.29 (0.774)	0.97 (0.09)	−0.29 (0.771)
CEO political connection	1.01 (0.04)	0.33 (0.740)	1.02 (0.04)	0.43 (0.668)	1.02 (0.04)	0.43 (0.668)
Government affiliation level	1.00 (0.02)	0.35 (0.724)	1.00 (0.02)	0.00 (0.998)	1.00 (0.02)	0.06 (0.949)
High-quality auditor	0.97 (0.13)	−0.20 (0.843)	1.00 (0.13)	−0.03 (0.979)	0.97 (0.02)	−1.51 (0.132)
Institutional ownership	0.80 (0.18)	−1.00 (0.316)	0.84 (0.18)	−0.81 (0.420)	0.84 (0.18)	−0.80 (0.425)
Analyst coverage	1.00 (0.00)	−0.01 (0.990)	1.00 (0.00)	−0.07 (0.945)	1.00 (0.00)	−0.10 (0.922)

(continued)

Table E (continued)

Variables	Model 1		Model 2		Model 3	
	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)
Governance positions (GP)			0.69 (0.02)	−14.33 (0.000)	0.69 (0.02)	−14.47 (0.000)
GP × high-quality auditors					0.94 (0.03)	−1.98 (0.048)
GP × institutional ownership						
GP × analyst coverage						
Wald chi2	5328.02		5297.37		5310.38	
Log pseudolikelihood	−17017.33		−16974.17		−16973.60	

Variables	Model 4		Model 5		Model 6	
	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)
Firm size (logged)	0.99 (0.01)	−0.72 (0.471)	0.99 (0.01)	−0.52 (0.603)	0.99 (0.01)	−0.50 (0.614)
Year since IPO	0.99 (0.00)	−3.66 (0.000)	0.99 (0.00)	−3.83 (0.000)	0.99 (0.00)	−3.87 (0.000)
Firm performance	0.99 (0.00)	−3.78 (0.000)	0.99 (0.00)	−3.92 (0.000)	0.99 (0.00)	−3.96 (0.000)
CEO tenure	1.00 (0.00)	−0.38 (0.704)	1.00 (0.00)	−0.41 (0.684)	1.00 (0.00)	−0.41 (0.683)
CEO duality	1.00 (0.03)	0.13 (0.894)	1.00 (0.03)	0.00 (0.999)	1.00 (0.03)	0.02 (0.986)
Board size	1.01 (0.00)	2.20 (0.028)	1.01 (0.00)	2.27 (0.023)	1.01 (0.00)	2.29 (0.022)
Board independence	0.73 (0.14)	−1.67 (0.095)	0.74 (0.14)	−1.58 (0.114)	0.74 (0.14)	−1.57 (0.116)
Tenure of nonculpable leaders	1.00 (0.00)	−1.67 (0.096)	1.00 (0.00)	−1.66 (0.098)	1.00 (0.00)	−1.67 (0.095)
Tenure overlap of culpable leaders	1.00 (0.00)	2.44 (0.015)	1.00 (0.00)	2.30 (0.021)	1.00 (0.00)	2.25 (0.024)
Negative media coverage	1.04 (0.01)	2.69 (0.007)	1.04 (0.01)	2.71 (0.007)	1.04 (0.01)	2.73 (0.006)
State ownership	0.82 (0.11)	−1.44 (0.151)	0.82 (0.11)	−1.45 (0.146)	0.82 (0.11)	−1.50 (0.133)
Board political connection	0.98 (0.09)	−0.21 (0.831)	0.99 (0.09)	−0.09 (0.930)	0.99 (0.09)	−0.10 (0.920)
CEO political connection	1.02 (0.04)	0.50 (0.620)	1.02 (0.04)	0.49 (0.623)	1.02 (0.04)	0.50 (0.615)
Government affiliation level	1.00 (0.02)	−0.04 (0.967)	1.00 (0.02)	0.02 (0.983)	1.00 (0.02)	0.06 (0.954)

(continued)

Table E (continued)

Variables	Model 1		Model 2		Model 3	
	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)	Odds Ratio (Robust sd.)	Z (*p*-value)
High-quality auditor	1.01 (0.13)	0.04 (0.968)	1.00 (0.13)	0.03 (0.980)	0.98 (0.02)	−1.23 (0.217)
Institutional ownership	0.97 (0.02)	−1.57 (0.117)	0.91 (0.19)	−0.46 (0.645)	0.99 (0.02)	−0.74 (0.457)
Analyst coverage	1.00 (0.00)	−0.11 (0.910)	0.95 (0.02)	−2.01 (0.044)	0.96 (0.02)	−1.77 (0.076)
Governance positions (GP)	0.69 (0.02)	−14.26 (0.000)	0.68 (0.02)	−13.82 (0.000)	0.67 (0.02)	−13.91 (0.000)
GP × high-quality auditors					0.95 (0.03)	−1.63 (0.103)
GP × institutional ownership	0.94 (0.02)	−2.64 (0.008)			0.98 (0.02)	−0.92 (0.360)
GP × analyst coverage			0.88 (0.03)	−3.28 (0.001)	0.89 (0.04)	−2.73 (0.006)
Wald chi2	5193.20		5255.51		5228.31	
Log pseudolikelihood	−16972.06		−16968.78		−16968.21	

Note: N = 4,662. Year, industry, violation-type, and penalty-type dummies are included.