Quad-Qualified Audit Committee Director: Implications for Monitoring and Reducing Financial Corruption

Mikhail A. Gorshunov[a*], Achilles A. Armenakis[b], Stanley G. Harris[c], H. Jack Walker[d]

[a] Assistant Professor, Western Illinois University, 1 University Cir, 414 ST, Macomb, IL 61455 USA. E-mail: ma-gorshunov@wiu.edu

[b] J. T. Pursell Eminent Scholar in Ethics (Emeritus), Auburn University, 415 W. Magnolia Avenue, 401, Auburn, AL 36849 USA. E-mail: armenac@auburn.edu

[c] Associate Dean & Luck Professor, Auburn University, 415 W. Magnolia Avenue, 401, Auburn, AL 36849 USA. E-mail: harris4@auburn.edu

[d] C&E Smith Associate Professor, Auburn University, 415 W. Magnolia Avenue, 401, Auburn, AL 36849 USA. E-mail: walkeh1@auburn.edu

[*] Corresponding author: Mikhail A. Gorshunov

Declarations of interest: none
Funding: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Abstract
Financial corruption has an extensive adverse impact on corporate stakeholders. Over the last two decades, numerous prescriptions have been offered to improve the governance of US public firms, yet financial corruption is still prevalent. Board of directors' audit committees are typically charged with the responsibility of assuring that the corporation's financial reports satisfy the criterion of accuracy. We propose that a quad-qualified audit committee director can serve as an exemplar corporate overseer of financial reporting and minimize the likelihood of corruption. We predict that by having the qualifications of independence, directorship experience and financial expertise, bandwidth, and stock ownership, the effectiveness of monitoring financial reporting by such a director will be considerably enhanced, thus complementing the benefits of the US Sarbanes-Oxley Act (SOX) enacted in 2002. To test our predictions, we employed a time-lagged, matched-pairs sample of 328 large US corporations (164 financially corrupt firms plus a comparison group of 164 compliant firms). Controlling for covariates, we found that the presence of a quad-qualified audit committee director reduced the likelihood of financial corruption in a public firm by 72%. Combined with the benefits from SOX, having at least one quad-qualified audit committee director decreased the probability of financial corruption by 92%. Our results also show that having just *one* quad-qualified audit committee director is more effective than the combination of the individual qualifications dispersed among the committee members.

Keywords: quad-qualified audit committee director; financial corruption
JEL classification codes: G380; K22; K42

1. Introduction

The intense focus on financial corruption in publicly traded corporations started with high-profile publicized companies including Enron, HealthSouth, WorldCom, Tyco, Xerox, Waste Management, Adelphia, Rite Aid, and Qwest, which preceded the enactment in 2002 of the US Sarbanes-Oxley Act (SOX). Unfortunately, the list of corrupt corporations has continued to accumulate with a series of more recent exposures in other multi-billion-dollar corporations: AIG, Countrywide Financial, Collins & Aikman, Delphi, Computer Sciences, Dell, Toshiba, Monsanto, and Nissan. Indeed, corruption has been far more widespread than these notorious scandals and is on the rise (Alexander and Cumming, 2020; Healy and Serafeim, 2019). A notable nature of these crimes is that they were often systemic, pervasive, and led to substantial stakeholder damages.

Top managers were the primary culprits who—working in concert with 30-50 other perpetrators—orchestrated elaborate conspiracies to defraud stakeholders by falsely inflating reported earnings of their firms (Sweeney, 2003). An equally noteworthy and disturbing quality of these crimes is that they extended for many years under the collective noses of boards of directors' audit committee members—whose responsibility by law is to monitor and deter such practices (Gandossy and Sonnenfeld, 2005). In the aftermath of vanished life savings, bankrupt corporations, imprisoned executives, and turmoil in financial markets, stakeholders have wondered why then these watchdogs remained blind to such massive corruption that was kept secret for so long (Sweeney, 2003).

Recognizing the large stakes involved, investigators across multiple disciplines and governance consultants proposed no shortage of remedies for failures in governance. The most prominent prescriptions included splitting the CEO and Chair of the board of directors roles, increasing boards of directors' meeting frequency, reducing boards' size, and age of its members (Sonnenfeld, 2004). Even though many of these prescriptions were adopted by public corporations (both compliant and corrupt), continued corruption demonstrates that these proposed solutions have not been as effective in the past and may not be solutions at all in the current era (Gandossy and Sonnenfeld, 2005).

Such prescriptive shortcomings likely have four possible explanations. First, different types of misconduct were typically mixed into one group (Karpoff et al., 2017). Such practice was shown to generate conflicting conclusions (Hennes et al., 2008). Another explanation is a relative neglect of the role of time that creates the crucible for corrupt practices; corruption is an emergent phenomenon whose origin and evolution are very difficult to predict a priori (Ashforth et al., 2008). Audit committee members are more likely to prevent initial instances of misconduct than later instances (Ashforth et al., 2008). However, once deceptive practices become systematic and normalized into the culture, the task of correcting the practices is likely to be overwhelming (Sweeney, 2003). Third, the qualifications of audit committee directors have been typically addressed cumulatively in the aggregate as a *group* requirement rather than at the *individual* member basis, thus discounting the possibility that committees generally suffer from group dysfunctions, such as groupthink, bystander apathy, and diffusion of responsibility (Gandossy and Sonnenfeld, 2005). Reliance on group-level measures tends to inflate the appearance that directors are effective monitors (Hambrick et al., 2015). Finally, extant empirical evidence exclusively pertains to crimes committed in the era before SOX (Kolev et al., 2019): this makes common prescriptions likely out-of-date because of extensive governance developments enacted by SOX. With these shortcomings in mind, the question of why audit committees fail to monitor and prevent corrupt practices has not been addressed appropriately.

Recognizing that corrupt behaviors personified by corporations like Enron and HealthSouth were systemic, we suggest a fresh consideration of premises. An extensive line of research refers to the temporal nature of misconduct such that corruption snowballs from a single misdeed to shape corporate culture. Corrupt firms do not begin as deceitful. Rather dishonest practices creep in at some point and with time normalize into a culture (Fleming and Zyglidopoulos, 2008; Sweeney, 2003). Time has to pass for routinized violations to become normalized and a taken-for-granted logic (Ashforth and Anand, 2003). Corrupt cultures unfold gradually—over time increasing in severity and pervasiveness (Zyglidopoulos et al., 2009). Given that enough time has passed, an initial unchecked deception can begin the self-reinforcing sequence of ongoing offenses that over time evolves into an organization-level phenomenon (Ashforth et al., 2008; Fleming and Zyglidopoulos, 2008). After a couple of years of condoning such behaviors—corrupt practices become systematic, ingrained, and intractable (Ashforth et al., 2008; Sweeney, 2003). HealthSouth's culture, for example, had been corrupted over about two years beginning with the initial incident of fraud in 1996. By 1998, "family" and other euphemisms came into common use to reinforce the sense of the group and emphasize implied obligations to other conspirators (Armenakis and Lang, 2014). Accordingly, a pattern of continuous deceptive practices for two years or longer is likely to reflect a culture normalizing corruption in a corporation. Therefore, our research focus in this study is on *financial corruption* defined as continuous deceptive practices in financial reports for two or more years (cf. Gorshunov et al., 2020, 2019).

Given that typical ways of studying audit committee directors in the aggregate are problematic, we adopt the novel perspective of an ideal individual corporate monitor. Our proposal requires that a single director can be an ideal monitor in avoiding governance failures (Sonnenfeld, 2002), if he or she has four requisite qualifications, namely, independence, competence, bandwidth, and motivation (Hambrick et al., 2015). Furthermore, we assert that such a quad-qualified audit committee director would be even more effective in monitoring since the passage of SOX. Finally, and most importantly, we test these predictions using a large sample of financially corrupt firms compared with an equally large sample of compliant firms. Our firm samples were constructed in line with up-to-date approaches that compensate for known methodological deficiencies.

We used a time-lagged, matched-pairs sample study design of companies involved in financial corruption and a comparison group of compliant companies. Controlling for 11 covariates that were shown to associate with misconduct, we found that the presence of a quad-qualified audit committee director reduced the likelihood of financial corruption in a public firm by 72%. Combined with the benefits from SOX, having at least one quad-qualified audit committee director decreased the probability of financial corruption by 92%. Our results also show that having just *one* quad-qualified audit committee director is more effective than the combination of the individual qualifications dispersed among the committee members. Our study demonstrates a superior potential of a quad-qualified audit committee director (relative to customary approaches) in explaining and predicting financial corruption. Our research provides improved insights about effective monitoring, as evidenced by the reduced likelihood of financial corruption.

2. Hypotheses

Effective corporate oversight is a very difficult task. Based on the proposition that individual task performance is the joint function of abilities and motivation, Hambrick et al.

(2015) suggested that effective monitoring might be achieved only when a director had both ability and motivation above a threshold level. Namely, if either ability or motivation is below a minimum level, the level of monitoring may also be low. Directors may have three qualities that bestow unique oversight abilities: (a) independence that allows rational and dispassionate decision making, (b) directorship experience and financial expertise that facilitates recognizing and understanding financial matters, and (c) bandwidth that provides the ability to devote time and attention. We propose that to be most effective in monitoring, an audit committee director needs to have these three qualities plus motivation (in the form of stock ownership) above some threshold levels. Put differently, if a director lacks *any* of these qualifications, the individual is unlikely to be an effective corporate overseer. Each qualification is explored in more detail below.

2.1. Independence: Ability to be objective

Directors who (a) are employees of the corporation or (b) have family or professional contract ties (e.g., bankers, lawyers, consultants) with corporations or their managers are *dependent* on the corporate leadership and more likely to be susceptible to influence from CEOs (Brief et al., 2001). Dependent directors are typically concerned about maintaining harmonious relationships with senior managers, most likely limiting their oversight function (Shivdasani and Yermack, 1999). In contrast, independent directors do not feel these compliance pressures as directly. As a result, independent directors have more freedom to evaluate executives and their policies objectively and to genuinely question or dissent from CEO initiatives (Hambrick et al., 2015).

Top managers can more easily neutralize oversight by dependent directors than independent directors. Formal authority is the essential mechanism through which managers influence subordinates to engage in corruption (Brief et al., 2001). Formal authority allows managers to initiate actions by giving them the right to expect compliance from subordinates (Simon, 1997). Managers can use legitimating influence tactics (i.e., establishing the legitimacy of requests by referring to rules or formal policies) to convert their formal authority into behaviors. For instance, managers can issue directives to subordinates to engage in corrupt practices by framing situations in ways such that subordinates focus on the fulfillment of role requirements without reasoning about the moral nature of these directives (Brief et al., 2001). Accordingly, CEOs can use their legitimate position-based formal authority as a mechanism to influence dependent audit committee members to support or overlook financial corruption. In contrast, such compliance pressure based on legitimate authority is minimized for independent relationships.

Empirical evidence on whether the independence of audit committee members alone leads to effective oversight of misconduct is inconclusive (Amiram et al., 2018). Although it may not be sufficient, independence is a necessary qualification to make a director effective in monitoring (Hambrick et al., 2015). Independence contributes to the audit committee director's ability to be objective.

2.2. Directorship experience and financial expertise: Ability to recognize and comprehend financial corruption

Directors require competence to fulfill their oversight tasks effectively (Hambrick et al., 2015). Directors are more likely to recognize and comprehend the issues that may arise if they

have relevant knowledge in a given problem area. For members of a board of directors, such knowledge can be cultivated by lessons learned and experience on other boards.

Experienced directors tend to be more cognizant and on the lookout for problematic practices. Indeed, directors' knowledge obtained through prior directorships has been shown to increase the effectiveness of monitoring executives' initiatives (Hillman and Dalziel, 2003). Furthermore, this directorship experience was found to be valuable in identifying specific problem areas facing corporations (Carpenter and Westphal, 2001), decreasing the likelihood of corporations being prosecuted for violating environmental laws (Kassinis and Vafeas, 2002) and reducing earnings management (i.e., legally compliant accounting practices that obscure economic substance; Bedard et al., 2004).

Directors are better able to catch falsification of financial reports if they are also financially competent. Such directors have a more thorough understanding of financial statements and can independently scrutinize the adequacy of financial reports (*Sarbanes-Oxley Act*, 2002). Financial literacy enables them to spot problems in financial reports and skillfully confront executives (Hambrick et al., 2015). Financially savvy directors are also better positioned to make sense of whistleblower complaints and warning signals produced by external auditors. In effect, their oversight role in financial matters has been found to reduce restatements of financial reports (Abbott et al., 2004; Agrawal and Chadha, 2005) and earnings management practices (Lo et al., 2010; Xie et al., 2003).

Correspondingly, we anticipate that having prior directorship experience and financial expertise will give independent directors even more freedom and perspective to look for and detect financially corrupt practices. In sum, if an audit committee director is equipped with the needed knowledge *and* also independent, he or she has two requisite qualifications of an ideal overseer of financial corruption. But two more are still required.

2.3. Bandwidth: Ability to devote needed time and attention

Nominating committees and search consultants strongly favor nominees with notable credentials and accomplishments (Gandossy and Sonnenfeld, 2005). Consequently, a typical director is very busy—with outside obligations requiring substantial time and attention. Most are employed full-time elsewhere in demanding positions, such as CEOs, university presidents, and law firm partners (Hambrick et al., 2015). Moreover, they usually serve on multiple directorships—each requiring about 200 hours a year of preparation and formal meetings (Gandossy and Sonnenfeld, 2005). For a director to have a thorough understanding of the corporation's financial condition, a significant amount of time is required to gather relevant information and interact with finance staff, external auditors, and other board members (Pozen, 2010). Accordingly, it is sensible to ask if a given director has sufficient *bandwidth* (i.e., the ability to devote the requisite time, attention, and energy; Hambrick et al., 2015) to govern vigilantly.

Independence and excellent credentials make little difference if directors are too busy to "roll up their sleeves" and ask tough questions (Gandossy and Sonnenfeld, 2005). Time is a major constraint for them to accomplish their monitoring responsibilities. Even when directors have the needed independence and knowledge, they still may not have enough time and energy to explore, discuss, and challenge suspect practices. Because of their other commitments, busy directors hardly show up for meetings; when they show up, they are not prepared (Sonnenfeld, 2002). These directors may have partial knowledge, vague understanding, or suspicions about criminal activities that are taking place around them (Gandossy and Sonnenfeld, 2005). But

follow-up analyses, inquiries, and meetings are typically required to ask the right questions and see criminal behaviors for what they are (Hambrick et al., 2015). The prospect of being drawn into a potentially draining investigation may avert already a busy director from looking into the matter further. Indeed, experimental research provided evidence that people who had insufficient bandwidth were ineffective overseers of fraudulent behaviors (Zhang et al. 2015) but having sufficient bandwidth enhanced moral decision-making (Shalvi et al., 2012). Field research also found that independent directors' bandwidth (typically labeled as its inverse, *busyness*) was valuable in strengthening corporate governance practices (Fich and Shivdasani, 2006) and reducing dishonest financial reporting (Beasley, 1996). In sum, independence combined with directorship experience and financial expertise enables an audit committee director to be effective in monitoring financial corruption only if he or she also has sufficient bandwidth. Even so, one more qualification that stimulates the director in applying his or her abilities is still necessary.

2.4. Stock ownership: Motivation to exert effort

Directors should be sufficiently motivated to undertake careful oversight on behalf of corporations' owners. Stock ownership motivates directors to take their duties seriously and be more attentive to shareholders' interests (Hambrick et al., 2015). Significant financial involvement in companies is a strong incentive for directors to spend more time on reviewing the adequacy of financial reporting and be more on the lookout for dubious managerial decisions (Barton and Wiseman, 2015). This is because directors may psychologically identify with shareholders, leading to effective oversight (Hillman et al., 2008). Also, stock ownership makes directors owners of the company and motivates them to be more fully involved in corporate governance (Barton and Wiseman, 2015). Prior research provided evidence that independent directors' stock ownership improved long-term firm performance (Bhagat and Tookes, 2012), enhanced outcomes of corporate acquisitions (Kroll et al., 2008), increased terminations of underperforming CEOs (Hoskisson et al., 1994), and reduced deceptive financial reporting (Beasley, 1996). Thus, stock ownership should motivate audit committee members to engage in the difficult task of monitoring financially corrupt practices.

2.5. Quad-qualification: Composite of (a) independence, (b) directorship experience and financial expertise, (c) bandwidth, and (d) stock ownership

As described earlier, monitoring effectiveness is contingent on the combined presence of three aspects of ability plus motivation. These four requisite qualifications collectively enhance the likelihood that a given audit committee director will be a superior monitor. Such a person is able to monitor vigilantly on behalf of shareholders and also be willing to do so.

These qualifications equip an audit committee director to withstand the prevalent social influence that suppresses effective monitoring. Prior research has demonstrated that over time CEOs attempt to persuade, ingratiate, threaten, and socialize independent directors to enlist into corrupt cultures (Khanna et al., 2015; Westphal and Khanna, 2003; Zyglidopoulos and Fleming, 2008). Such influence is essential to sustaining corrupt practices (Ashforth and Anand, 2003). By virtue of the ability to (a) be dispassionate, (b) be cognizant of such influence and stand up to executives in financial matters, (c) devote the requisite time and energy to keep a close watch, together with the drive to govern vigilantly, the quad-qualified audit committee director can effectively nullify such corrupting influence. If this director identifies a problem, he or she is likely to raise the alarm when others would not be able or willing to do so (Hambrick et al.,

2015). Correspondingly, the quad-qualified audit committee director is effective in deterring financial corruption. Thus, we posited the following hypothesis:

> ***Hypothesis 1:*** The presence of a quad-qualified audit committee director will reduce the likelihood of financial corruption.

2.6. SOX: Impact on monitoring effectiveness

Waves of financial corruption penetrating governance shields in major corporations revealed serious flaws in the US system of securities regulation. Significant deficiencies included complacent and apathetic audit committees, compromised public accountants, ineffective whistleblower programs, and inadequate practices for addressing allegations of criminal activities (Gandossy and Sonnenfeld, 2005). The US Congress responded with SOX—a federal law that aimed to address these problems (Gorshunov et al., 2020).

SOX focused on increasing the effectiveness of monitoring by audit committees in at least four ways. First, audit committees were granted full control of the appointment, termination, compensation, and oversight of external auditors; in response, the auditors substantially increased their role in coming forward with information about misconduct (Dyck et al., 2010). Second, the committees were assigned confidential complaint systems: these channels allow employees to report misconduct directly to the committees, bypassing executives who tend to be hostile to whistleblowers (Dyck et al., 2010). On top of that, whistleblowers are protected against retaliation (*Sarbanes-Oxley Act*, 2002). Third, the Act lowered the burden of proof required to establish fault, eliminated the defenses of lack of knowledge, and inflicts more severe penalties for deficient monitoring (Johnson and Sides, 2004; Moohr, 2003). Directors are typically held personally liable if they fail to (a) examine diligently indications of misconduct, (b) deliberate for insufficient time to decide on further actions, or (c) consult independent counsels (Pozen, 2010). On those grounds, audit committee members were sued more often after SOX (Brochet and Srinivasan, 2014; Crutchley et al., 2015). Finally, following SOX, national securities exchanges reinforced directors' independence by requiring only independent members on nominating committees. Directors appointed through such processes are even more impartial (Hambrick et al., 2015). In effect, audit committee directors reported that their overall monitoring effectiveness increased after SOX (Cohen et al., 2013).

Given the above, a quad-qualified audit committee director should be even more (a) dispassionate by virtue of being appointed by an independent nominating committee, (b) able to detect misconduct through the use of more effective external auditors and whistleblower programs, and, (c) motivated to address allegations of wrongdoing to avoid liability. Given his or her sufficient bandwidth to take on added work in terms of more meetings and reports, the quad-qualified audit committee director is in an even better position to monitor financial corruption after SOX. Thus, we posited the following hypothesis:

> ***Hypothesis 2:*** The relationship between the presence of a quad-qualified audit committee director and the likelihood of reduced financial corruption will be stronger after versus before SOX.

3. Research Methodology

3.1. Sample selection

We identified companies engaged in financial corruption through three selection criteria. First, non-US-based corporations were omitted to avoid confounding effects because of differences in financial reporting practices across countries (Bushman and Piotroski, 2006). Second, we only regarded financial reporting in violation of Section 13(b)(2)(a), Section 13(b)(2)(b), or Section 13(b)(5) of the 1934 US Securities Exchange Act as potentially deceptive if the US Securities and Exchange Commission (SEC) or the US Department of Justice (DOJ) also alleged the violation of Section 10(b)-5 of the 1934 US Securities and Exchange Act or Section 17(a) of the 1933 Securities Act (see Table 1; see Karpoff et al., 2017). To sue under these regulations, the SEC and the DOJ must determine *scienter* (i.e., intent to deceive, manipulate, or defraud) on behalf of the defendants (Buell, 2011). Finally, to ensure our sample included only financial corruption, we used only cases that involved corporations or top managers found guilty of continuously violating Section 10(b)-5 or Section 17(a) for two or more fiscal years. An example of financial corruption is the criminal behavior of 16 top managers who deceived US-based HealthSouth's stakeholders by falsifying the firm's financial reports over seven years (Armenakis and Lang, 2014).

Insert Table 1 about here

3.2. Data collection procedures

To identify financial corruption, we collected data from the series of *Accounting and Auditing Enforcement Releases* (AAERs). The SEC issues AAERs during or after enforcement actions against a public company, an auditor, or an officer for alleged violations in financial reporting. These releases contain rich descriptions of the period of the violation, the nature of the violation, the effect of violations on firms' financial reports, perpetrators and corporations perpetrating white-collar crimes, and outcomes of court proceedings. We focused on using the series of AAERs as a source for identifying financial corruption because the database allowed us to (a) avoid type one error, i.e., classifying compliant corporations as financially corrupt, (b) investigate cases covering an extended period, and (c) increase the statistical power of our research design by conservatively classifying the violations (see Karpoff et al., 2017).

We retrieved all 2,585 AAERs from the SEC Website (sec.gov/divisions/enforce/friactions.shtml) that were issued in the period between October 18, 1999 and January 5, 2017 (the earliest AAER available was issued on October 18, 1999). We reviewed AAERs to identify the name of the corporation, the nature of the violation, the period of the violation, and penalties and sanctions assigned. We searched for information on independent and control variables in the firms' reports filed with the SEC using the Electronic Data Gathering, Analysis, and Retrieval system (EDGAR). We manually collected original information contained in annual proxy statements (i.e., DEF 14A forms) that were statements filed with the SEC in the event firms solicited shareholder votes. Proxy statements contained information about audit committee members' characteristics.[1] We used only those proxy statements that were prepared in the year before financial corruption began.

[1] Among 328 firms in our final sample, 11 (3.4%; six corrupt and five compliant firms) did not have formal audit committees. In these firms, we considered characteristics of all directors serving on boards of directors because all directors fulfilled the function of audit committees in such cases (*Sarbanes-Oxley Act*, 2002).

Insert Table 2 about here

Following Karpoff et al.'s (2017) recommendations, our data collection procedure involved systematic and substantial culling of irrelevant violations to identify financially corrupt firms. To avoid confounding effects because of mixing different types of misconduct (Hennes et al., 2008), we investigated only financial corruption. Particularly, we reviewed 2,585 AAERs and found 823 distinct cases that involved financial corruption, a single instance of misconduct, accounting error, and violations unrelated to financial reports (see Table 2). Among the 823 violations, 530 did not meet our criteria for sample inclusion for the following reasons: (a) unrelated to financial reports; (b) accounting error; (c) non-US-based corporations; (d) dismissed SEC's charges; or (e) single instance of misconduct. Thus, we identified 293 cases of financial corruption that met our selection criteria. We excluded 122 corporations because we could not find proxy statements issued before criminal activities began. In many such firms, proxy statements were not available because the crimes occurred before May 6, 1996 when the SEC required public companies to make their filings available on EDGAR. Additionally, we excluded seven corporations because we could not locate matched firms. Some corrupt firms differed substantially in organizational size from compliant firms in a given industry or many firms in a given industry have engaged in misconduct (e.g., telecommunications, energy, financial, and healthcare services; Ashforth et al., 2008). Therefore, we retained a final sample of 164 financially corrupt firms.

The average size of these 164 financially corrupt firms was $5.5 billion in total assets (*SD*=24.0). The average net income was $203.8 million (*SD*=729.5). The average duration of financial corruption was 3.5 fiscal years (*SD*=1.6). Periods of criminal behaviors for these 164 corporations ranged from 1994 through 2014: 115 began committing the crime before SOX and 49 after.

In the164 financially corrupt firms, the average number of guilty perpetrators identified by the SEC was 4.2 (*SD*=3.2). These perpetrators are usually just the tip of the iceberg; the guilty perpetrators are typically ringleaders of much larger groups of individuals with varying levels of guilt (Zyglidopoulos and Fleming, 2008). Typically, it takes a group of about 30-50 people from various business functions who toil together for several years to pull off financially corrupt schemes (Sweeney, 2003). Altogether, we identified 685 people (across the 164 firms) who pleaded or were found guilty of the crime or agreed to SEC's sanctions and penalties to settle charges against them. Among these 685 perpetrators, because of charges brought by the DOJ, 152 also pleaded or were found guilty of orchestrating a conspiracy to defraud shareholders (i.e., a secret plan by a group to commit the crime; Baker and Faulkner, 1993). The titles of these 685 perpetrators were CFO/CAO (*n*=173), CEO/President (*n*=137), COO (*n*=18), Vice President (*n*=130), Controller/Treasurer (*n*=67), other managerial (*n*=58), and non-managerial personnel (*n*=23). Among these 685 perpetrators, 100 served on boards of directors and audit committees (23 of these 100 were external). Exactly, 51 of these 685 perpetrators were external auditors and five were stockbrokers.

3.3. Time-lagged, matched-pairs sample study design

Following recommendations by Aguinis and Edwards (2014) for strengthening causal inferences, we used a matched-pairs sample study design of companies involved in financial

corruption and a comparison group of compliant companies. The matched-pairs sample study design functions as a quasi-experiment that (a) strengthens causal inference, (b) maintains good internal validity, and (c) achieves high external validity (Grant and Wall, 2009). Additionally, to control for potential confounding effects by statistical analysis, we controlled for 11 covariates that were shown to associate with misconduct. Furthermore, to ensure the cause precedes the effect in time, all independent and control variables were measured in the year before financial corruption began.

Following prior research (Gomulya and Boeker, 2016; He et al., 2018), we employed nearest-neighbor matching to match companies based on (a) the same industry according to their four-digit Standard Industrial Classification code, (b) similar organizational size, measured by total assets, (c) the same financial reporting practices, limiting our sample to firms incorporated in the US, and (d) the same time, measured by fiscal year. Nearest-neighbor matching is a common matching method and particularly effective in estimating causal inferences in the research of infrequent phenomena, such as financial corruption (Stuart, 2010). Furthermore, nearest-neighbor matching is customary in research of audit committees' characteristics and misconduct (e.g., Abbott et al., 2004; Agrawal and Chadha, 2005; Gomulya and Boeker, 2016; He et al., 2018). To ensure equivalency in organizational size, we chose matching corporations with total assets closest to that of paired financially corrupt firms. Among 164 matched pairs in our final sample, 141 (86%) did not exceed a difference of 50% in total assets between financially corrupt and compliant firms. The other 11 (7%) pairs differed somewhere between 50% and 100%, while 10 (6%) pairs varied somewhere between 100% and 200% in total assets. The remaining two (1%) pairs slightly surpassed a five-fold difference in total assets. Following prior research (Gomulya and Boeker, 2016; Gorshunov et al., 2019), we also ensured the equivalency of the matched pairs by examining the two groups in terms of total assets, revenue, net income, number of shares outstanding, and stock price. We found no statistically significant difference between the groups on any of these dimensions. We also ensured that each matched company was itself not the subject of an AAER or otherwise accused of financial misconduct (Karpoff et al., 2017).

Corporations within their industries may develop and share procedures for avoiding the detection of financial corruption; besides, industries vary on the level of monitoring by regulatory agencies (Ashforth et al., 2008). Organizational size positively associates with the SEC's scrutiny (Beneish, 1999). Thus, matching companies on industry and organizational size was our attempt to control against classifying financially corrupt firms as compliant because of the shortcomings of the SEC to identify financial corruption (Snyder and McKnight, 2004). No corporations outside the US were considered for matching to avoid confounding effects because of differences in financial reporting practices (Bushman and Piotroski, 2006). Because changes in macroeconomic conditions have been shown to relate to CEOs' misconduct in financial reporting (Bianchi and Mohliver, 2016), we matched firms on the same period.

3.4. Measures

As described earlier, all independent and control variables were measured using legally compliant reports that were prepared in the year *before* financial corruption began. For example, because Dell's financial reports were falsified during the period starting in 2002 and ending in 2007, we measured independent and control variables in 2001.

3.4.1. Control variables. To control for potential confounding effects by statistical analysis, we employed 11 control variables shown to be associated with misconduct.

Organizational performance, measured as the return on assets, was found to positively relate to misconduct (Mishina et al., 2010). The remaining 10 variables were found to reduce misconduct; the measurement of each variable is explained below.

External audit firms' size was coded 1=Big N auditor and 0=otherwise (Lennox and Pittman, 2010). During our final sample period (from 1994 through 2014), the Big N auditors were Deloitte & Touche, Arthur Andersen, Ernst & Young, KPMG, Price Waterhouse, PricewaterhouseCoopers, and Coopers & Lybrand (Myers et al., 2014). PricewaterhouseCoopers was created in 1998 because of the merger of Price Waterhouse and Coopers & Lybrand.

Audit committees' size was assessed as the number of audit committee members (Lin et al., 2006). *Audit committee meeting frequency* was operationalized as the number of audit committee meetings in a given fiscal year (Xie et al., 2003). *Independent audit committee directors' tenure* was gauged as the average number of years that independent audit committee directors served as directors in focal corporations (Bedard et al., 2004; He et al., 2018). *Independent audit committee directors' gender diversity* was determined as the percentage of independent audit committee members who were female (Thiruvadi and Huang, 2011).

The proportion of independent audit committee directors was measured as the percentage of audit committee members who were independent (Agrawal and Chadha, 2005; Bedard et al., 2004). Directors were classified as independent if they did not have (a) employment with the focal corporation or its affiliates; (b) family relationship by blood or marriage with executive leaders; (c) affiliation with customers, suppliers, bankers, or creditors who had business relationships with the corporations; or (d) affiliation with investment banks or law firms that provided services to focal corporations (Agrawal and Chadha, 2005; Bedard et al., 2004; *Sarbanes-Oxley Act*, 2002).

Independent audit committee directors' directorship experience was operationalized as the average count of prior directorships held by independent audit committee members (Bedard et al., 2004). Only prior directorships at private and public corporations were included; universities, charitable organizations, and trusts were excluded in calculating the number of directorships held by directors (Field et al., 2013). As advocated by Hambrick et al. (2015), we considered only directorships that were held before the service in a focal corporation in a focal fiscal year and excluded all current directorships at that time. Proxy statements typically described such directorships in past tense or noted a year when service for a given directorship ended.

Independent audit committee directors' financial expertise was coded 1=at least one independent audit committee member had financial expertise and 0=otherwise (Agrawal and Chadha, 2005; Bedard et al., 2004; Lo et al., 2010). Directors were classified as having financial expertise if they had professional experience as auditors, accountants, financial managers (e.g., CFOs, treasurers, controllers), investment bankers, financiers, venture capitalists, investors, or otherwise were disclosed in proxy statements as financial experts in accordance to the SOX's definition (Agrawal and Chadha, 2005; *Sarbanes-Oxley Act*, 2002).

Independent audit committee directors' bandwidth was coded 1=more than 50% of independent audit committee directors had bandwidth and 0=otherwise (Fich and Shivdasani, 2006; Field et al., 2013). Bandwidth is a function of two factors: (a) the number of concurrent directorships and (b) full-time employment (Hambrick et al., 2015). To determine the number of concurrent directorships, we followed the approach described by Field et al. Particularly, we included current directorships at private and public corporations and excluded universities, charitable organizations, and trusts to arrive at the number of concurrent directorships. In some

cases, proxy statements did not provide specific numbers of directorships, noting that directors had multiple directorships. We counted multiple directorships as two in such cases (Field et al., 2013). We calculated the total number of directorships as a sum of the number of concurrent directorships specifically listed (including the directorship at the focal corporation) plus two if directors were listed as having additional multiple directorships. We considered directors not to have full-time employment if they were retired, independent consultants, and investors (Field et al., 2013). We considered directors having bandwidth if they had no more than two concurrent directorships and full-time employment or no more than five concurrent directorships and no full-time employment (Field et al., 2013).

Independent audit committee directors' stock ownership was determined as the average number of shares of stock in a focal corporation owned by independent audit committee members.

3.4.2. Independent variable: The presence of a quad-qualified audit committee director. We coded *the presence of a quad-qualified audit committee director* 1=at least one audit committee member was quad-qualified and 0=otherwise (Hambrick et al., 2015). Audit committee members were classified as quad-qualified if they (a) were independent, (b) had directorship experience and financial expertise, (c) had the bandwidth, and (d) owned a meaningful number of shares of stocks in a focal corporation (Hambrick et al., 2015). Because directorship experience and stock ownership are continuous variables, we followed Fich and Shivdasani's (2006) approach to convert continuous variables into binary ones. Particularly, we computed medians of the continuous variables and split observations of each variable into two groups (i.e., one group with values lower than the median and another group with values higher than the median). For 826 independent audit committee directors in our sample, the median number of directorships served before service in given corporations was zero (mean equaled .42) and the median number of stocks owned was 21,233. Thus, we considered directors having at least one prior directorship as having directorship experience and owning at least 21,233 stocks as owning a meaningful number of shares of stocks in focal corporations.

3.4.3. Moderating variable: SOX. We operationalized *SOX* coding financially corrupt firms and their matched pairs 0=financial corruption began in the fiscal year ending before July 30, 2002 and 1=financial corruption began in the fiscal year ending after July 30, 2002 (Gorshunov et al., 2020).

3.4.4. Dependent variable: Financial corruption. We coded *financial corruption* as 1=corporations that engaged in financial corruption (see above) and 0=corporations that were compliant (Gorshunov et al., 2019).

3.5. Analyses

Given our use of a binary dependent variable and a series of control and independent variables, logistic regression analysis was appropriate for hypothesis testing (Menard, 1995). We examined the logistic regression model to ensure (a) no influential outliers, using Studentized residuals, (b) no multicollinearity, using variance inflation factors, (c) the correct specification of the model, using the Hosmer-Lemenshow goodness-of-fit test (Menard, 1995).

The final sample of 328 firms had one missing value for *independent audit committee directors' tenure* (.3%) and *independent audit committee directors' stock ownership* (.3%), as well as seven missing values for *audit committees' meeting frequency* (2.1%). Following Graham's (2009) recommendations, we used the normal model multiple imputation to estimate these missing values.

For testing *Hypothesis 1*, we employed a hierarchical approach because it allowed us to assess the importance of our independent variable after all covariates had been controlled (Cohen et al., 2003). To examine *Hypothesis 2*, we compared the pattern of statistical significance of coefficients across subgroups—this analytical approach is appropriate for the assessment of the effects of categorical moderators (such as *SOX*) in logistic regression models (Hoetker, 2007) and was recently used to examine effects of audit committee attributes on misconduct (He et al., 2018). Accordingly, to assess the effects of *SOX*, we estimated the relationship between *the presence of a quad-qualified audit committee director* and *financial corruption* separately for the groups before and after SOX; then, we compared the statistical significance of coefficients across the groups.

4. Results

In Table 3, we provide descriptive statistics and correlations among all variables. For 328 corporations in our final sample, the size of audit committees was 3.2 members on average (*SD*=1.2). Among the 328 corporations, 17 (5.2%) had no independent members serving on audit committees. Our full sample contained 230 corporations before and 98 after SOX was enacted. The mean percentage of audit committee members who were independent was 77.8 (*SD*=28.2) before and 81.3 (*SD*=30.6) after SOX (the SEC may exempt public firms from the requirement of establishing fully independent audit committees; *Sarbanes-Oxley Act*, 2002).

Hambrick et al. (2015) have articulated that quad-qualified directors are rare as corporate overseers, but SOX's requirements for greater expertise and time commitments from directors likely expanded the presence of such directors. Among the 328 corporations in our sample, 31 (9.5%) had one quad-qualified audit committee director; one corporation (.3%) had two quad-qualified audit committee directors. The percentage of corporations that had quad-qualified audit committee directors was 7.4 (*SD*=26.2) before and 15.3 (*SD*=39.2) after SOX.

Insert Tables 3 and 4 about here

In Table 4, we present the results of the hierarchical logistic regression analysis for financial corruption. To assess the effects of covariates, we entered our 11 control variables in Model 1. The model shows the effects of the control variables on the prediction of *financial corruption* ($\chi^2(11)=41.89$, $p<.01$; Nagelkerke $R^2=.16$). Nagelkerke R^2 is a modified version of the coefficient of determination R^2 used for binary response models (Nagelkerke, 1991). In Model 2, we added *the presence of a quad-qualified audit committee director* to assess the variable's effect after controlling for the effects of covariates (see Table 4). Model 2 shows the effects of the variables on the prediction of *financial corruption* ($\chi^2(12)=49.55$, $p<.01$; Nagelkerke $R^2=.19$). The addition of *the presence of a quad-qualified audit committee director* to the prediction of *financial corruption* led to a statistically significant increase in Nagelkerke R^2 of .03, $F(1,316)=11.70$, $p<.01$.

Hypothesis 1 predicted that *the presence of a quad-qualified audit committee director* would reduce the likelihood of *financial corruption*. Table 4 shows that *the presence of a quad-qualified audit committee director* ($b=-1.26$, $SE=.49$, $p<.01$, $exp[b]=.28$) is negatively related to *financial corruption*. Accordingly, the presence of a quad-qualified audit committee director was significantly higher in compliant versus financially corrupt firms. The results showed that (while holding covariates constant) the presence of at least one quad-qualified audit committee director

in a corporation decreased the likelihood of financial corruption by 72%. Thus, *Hypothesis 1* was supported.

In Table 4, we present the results of the logistic regression that was performed to ascertain the moderating effect of *SOX* on the relationship between *the presence of a quad-qualified audit committee director* and *financial corruption*. Model 3 (before SOX subgroup) shows the effect of the control and independent variables on the prediction of *financial corruption* ($\chi^2(12)=56.00$, $p<.01$; Nagelkerke $R^2=.29$). Model 4 (after SOX subgroup) also shows the effect of the control and independent variables on the prediction of *financial corruption* ($\chi^2(12)=22.56$, $p<.05$; Nagelkerke $R^2=.27$).

Hypothesis 2 predicted that *SOX* would strengthen the relationship between *the presence of a quad-qualified audit committee director* and the likelihood of reduced *financial corruption*. Table 4 shows that *the presence of a quad-qualified audit committee director* (*b*=-.81, *SE*=.64, *p*>.05, *exp[b]*=.44) did not relate to *financial corruption* before SOX (Model 3). But *the presence of a quad-qualified audit committee director* (*b*=-2.50, *SE*=.98, *p*<.01, *exp[b]*=.08) negatively related to *financial corruption* after SOX (Model 4). Accordingly, the presence of a quad-qualified audit committee director was not different in compliant versus financially corrupt firms before SOX. After SOX, the presence of a quad-qualified audit committee director was significantly lower in financially corrupt firms compared to compliant firms. The results showed that after SOX (while holding covariates constant) the presence of at least one quad-qualified audit committee director in a corporation decreased the likelihood of financial corruption by 92%. Following Hoetker's (2007) recommendations, we interpret the pattern of the statistical significance of the coefficients across the groups as evidence that the presence of a quad-qualified audit committee director had a stronger effect on the likelihood of reduced financial corruption after compared to before SOX. Thus, *Hypothesis 2* was supported.

5. Supplementary Analyses

For the most rigorous test, Hambrick et al. (2015) recommended placing a quad-qualified director in competition with the typical approach of examining the monitoring effectiveness of audit committee directors in the aggregate at the group level of analysis. As discussed above, this approach may inflate the appearance that a given audit committee is effective, while masking the possibility that none of its members are fully capable and motivated to monitor. Accordingly, we sought to determine if our composite of qualifications in a single director is a stronger predictor than aggregated measures of audit committees' monitoring.

To carry out the test, Hambrick et al. (2015) proposed specific steps for conducting analyses. Following these recommendations, we undertook a series of logistic regression analyses to compare levels of explained variance in financial corruption in the following two steps. In Step 1, we used two separate regression models and compared their levels of explained variance. One regression model included five separate qualifications that were measured at the committee level. The other model included our director-level composite of qualifications. The composite predictor would be considered superior if it explained more variance in financial corruption versus the competing model. We used Nagelkerke R^2 to measure explained variance (see Nagelkerke, 1991) and also focused on financial corruption that occurred after SOX. In Step 2, we repeated the analyses controlling for six covariates.

Insert Table 5 about here

In Table 5, we present the results of the logistic regression analysis for financial corruption after SOX. In Step 1, we entered the five committee-level qualifications in Model 5 to determine their explained variance in *financial corruption*. Table 5 shows that the model explained 12% of the variance in *financial corruption* (Nagelkerke R^2=.12). In Model 6, we entered our director-level composite of qualifications. Table 5 shows that the model explained 14% of the variance in *financial corruption* (Nagelkerke R^2=.14). Accordingly, the model with the binary composite variable explained more variance in financial corruption compared to the competing five-variable model. Thus, the presence of a quad-qualified audit committee director was a superior predictor.

In Step 2, we repeated the analyses controlling for six covariates (see Table 5). In Model 7, we entered six covariates plus the five committee-level qualifications to determine their explained variance in *financial corruption*. Table 5 shows that the model explained 17% of the variance in *financial corruption* (Nagelkerke R^2=.17). In Model 8, we also entered the six covariates and our composite of qualifications. Table 5 shows that the model explained 23% of the variance in *financial corruption* (Nagelkerke R^2=.23). Correspondingly, after controlling for the covariates, the model with the binary composite variable explained more variance in financial corruption versus the competing model. Again, the presence of a quad-qualified audit committee director emerged as a stronger predictor.

6. Discussion

Financial corruption has an extensive adverse impact on corporate stakeholders. Over the last two decades, numerous prescriptions have been offered to improve the governance of US public corporations, yet financial corruption is still prevalent and audit committee failures abound. Our study recognizes that there are multiple challenges in the research of financial corruption and audit committees that, in turn, call for action. We introduce a quad-qualified audit committee director as an ideal monitor of financial corruption. By having four qualifications (independence, directorship experience and financial expertise, bandwidth, and stock ownership), the likelihood that a quad-qualified audit committee director effectively monitors financial corruption is considerably enhanced. A corporate overseer of such caliber is even better positioned to monitor financial corruption effectively after SOX was enacted. By adhering to recent best-practice recommendations for overcoming known methodological inadequacies, we constructed a higher quality sample of 168 financially corrupt firms and a comparison group of 164 compliant firms. Controlling for covariates, we found that the presence of a quad-qualified audit committee director in a corporation reduced the likelihood of financial corruption by 72%. After SOX, having at least one quad-qualified audit committee director decreased the probability of financial corruption in a public corporation by 92%. Our results also indicate that the presence of a single quad-qualified audit committee director is a superior predictor compared to the combination of the individual qualifications dispersed among the committee members.

6.1. Boundary conditions, limitations, and future research

This study has three boundary conditions. First, the investigated cases of financial corruption are within the context of US companies. Because of distinctions in financial reporting practices, the implications of this study may not apply to firms incorporated in other countries. Second, the focus of this study was on investigating financial corruption. It is unclear how our hypotheses apply to corruption conceptualized in other settings (e.g., violations of the US Clean Air Act by Volkswagen Group; Clemente and Gabbioneta, 2017). Finally, we investigated all

cases of financial corruption that were exposed and reported by the SEC in the period between October 18, 1999 and January 5, 2017. The findings of our study may not generalize to financial corruption that falls outside these selection criteria. Suggestions for future research are to identify alternative contexts (e.g., non-US-based companies, environmental compliance) and use alternative selection criteria to investigate the boundary conditions of this study.

This study has a limitation. The possibility for alternative explanations for the presumed causal effect remains. Future research may address this limitation using a research methodology equipped for such a purpose (i.e., randomized experiment).

6.2. Implications

The merit of extant conjectures that a single director with four requisite qualifications can make a substantial difference in avoiding governance failures (Hambrick et al., 2015; Sonnenfeld, 2002) hinged on empirical testing. Indeed, our study demonstrates a superior potential of a quad-qualified audit committee director (relative to customary approaches) in explaining and predicting financial corruption. Our research provides improved insights about effective monitoring, as evidenced by the reduced likelihood of financial corruption.

This study has valuable and relevant insights for practice. As this study demonstrates, quad-qualified audit committee directors are far from universal in the corporate setting; in fact, they are more notable for their relative rarity as audit committee members. Still, findings of our study have shown a caliber of corporate overseer whom stakeholders, policy-makers, and regulators should strive to have as a corporate watchdog.

References

Abbott, L.J., Parker, S., Peters, G.F., 2004. Audit committee characteristics and restatements. Audit. J. Pract. Theory 23, 69–87. https://doi.org/doi.org/10.2308/aud.2004.23.1.69

Agrawal, A., Chadha, S., 2005. Corporate governance and accounting scandals. J. Law Econ. 48, 371–406. https://doi.org/doi.org/10.1086/430808

Aguinis, H., Edwards, J.R., 2014. Methodological wishes for the next decade and how to make wishes come true. J. Manag. Stud. 51, 143–174. https://doi.org/10.1111/joms.12058

Alexander, C., Cumming, D., 2020. Corruption and Fraud in Financial Markets: Malpractice, Misconduct and Manipulation. John Wiley & Sons.

Amiram, D., Bozanic, Z., Cox, J.D., Dupont, Q., Karpoff, J.M., Sloan, R., 2018. Financial reporting fraud and other forms of misconduct: A multidisciplinary review of the literature. Rev. Account. Stud. 23, 732–783. https://doi.org/doi.org/10.1007/s11142-017-9435-x

Armenakis, A., Lang, I., 2014. Forensic diagnosis and transformation of an organizational culture. J. Change Manag. 14, 149–170. https://doi.org/dx.doi.org/10.1080/14697017.2013.843577

Ashforth, B.E., Anand, V., 2003. The normalization of corruption in organizations. Res. Organ. Behav. 25, 1–52. https://doi.org/10.1016/S0191-3085(03)25001-2

Ashforth, B.E., Gioia, D.A., Robinson, S.L., Treviño, L.K., 2008. Reviewing organizational corruption. Acad. Manage. Rev. 33, 670–684. https://doi.org/10.5465/AMR.2008.32465714

Baker, W.E., Faulkner, R.R., 1993. The social organization of conspiracy: Illegal networks in the heavy electrical equipment industry. Am. Sociol. Rev. 58, 837–860. https://doi.org/10.2307/2095954

Barton, D., Wiseman, M., 2015. Where boards fall short. Harv. Bus. Rev. 93, 98–104.

Beasley, M.S., 1996. An empirical analysis of the relation between the board of director composition and financial statement fraud. Account. Rev. 71, 443–465.

Bedard, J., Chtourou, S.M., Courteau, L., 2004. The effect of audit committee expertise, independence, and activity on aggressive earnings management. Audit. J. Pract. Theory 23, 13–35. https://doi.org/doi.org/10.2308/aud.2004.23.2.13

Beneish, M.D., 1999. Incentives and penalties related to earnings overstatements that violate GAAP. Account. Rev. 74, 425–457. https://doi.org/10.2308/accr.1999.74.4.425

Bhagat, S., Tookes, H., 2012. Voluntary and mandatory skin in the game: Understanding outside directors' stock holdings. Eur. J. Finance 18, 191–207.

Bianchi, E.C., Mohliver, A., 2016. Do good times breed cheats? Prosperous times have immediate and lasting implications for CEO misconduct. Organ. Sci. 27, 1488–1503. https://doi.org/doi.org/10.1287/orsc.2016.1101

Brief, A.P., Buttram, R.T., Dukerich, J.M., 2001. Collective corruption in the corporate world: Toward a process model, in: Turner, M.E. (Ed.), Groups at Work: Theory and Research. Psychology Press, pp. 471–499.

Brochet, F., Srinivasan, S., 2014. Accountability of independent directors: Evidence from firms subject to securities litigation. J. Financ. Econ. 111, 430–449. https://doi.org/doi.org/10.1016/j.jfineco.2013.10.013

Buell, S.W., 2011. What is securities fraud? Duke Law J. 61, 511–581.

Bushman, R.M., Piotroski, J.D., 2006. Financial reporting incentives for conservative accounting: The influence of legal and political institutions. J. Account. Econ. 42, 107–148. https://doi.org/10.1016/j.jacceco.2005.10.005

Carpenter, M.A., Westphal, J.D., 2001. The strategic context of external network ties: Examining the impact of director appointments on board involvement in strategic decision making. Acad. Manage. J. 44, 639–660. https://doi.org/10.5465/3069408

Clemente, M., Gabbioneta, C., 2017. How does the media frame corporate scandals? The case of German newspapers and the Volkswagen diesel scandal. J. Manag. Inq. 26, 287–302. https://doi.org/10.1177/1056492616689304

Cohen, J., Cohen, P., West, S.G., Aiken, L.S., 2003. Applied multiple regression/correlation analysis for the behavioral sciences, 3rd ed. Erlbaum Associates, Mahwah, NJ.

Cohen, J.R., Hayes, C., Krishnamoorthy, G., Monroe, G.S., Wright, A.M., 2013. The effectiveness of SOX regulation: An interview study of corporate directors. Behav. Res. Account. 25, 61–87. https://doi.org/10.2308/bria-50245

Crutchley, C.E., Minnick, K., Schorno, P.J., 2015. When governance fails: Naming directors in class action lawsuits. J. Corp. Finance 35, 81–96. https://doi.org/10.1016/j.jcorpfin.2015.08.008

Dyck, A., Morse, A., Zingales, L., 2010. Who blows the whistle on corporate fraud? J. Finance 65, 2213–2253. https://doi.org/10.1111/j.1540-6261.2010.01614.x

Fich, E.M., Shivdasani, A., 2006. Are busy boards effective monitors? J. Finance 61, 689–724. https://doi.org/doi.org/10.1111/j.1540-6261.2006.00852.x

Field, L., Lowry, M., Mkrtchyan, A., 2013. Are busy boards detrimental? J. Financ. Econ. 109, 63–82. https://doi.org/dx.doi.org/10.1016/j.jfineco.2013.02.004

Fleming, P., Zyglidopoulos, S.C., 2008. The escalation of deception in organizations. J. Bus. Ethics 81, 837–850. https://doi.org/10.1007/s10551-007-9551-9

Gandossy, R., Sonnenfeld, J., 2005. 'I see nothing, I hear nothing': Culture, corruption and apathy. Int. J. Discl. Gov. 2, 228–243. https://doi.org/10.1057/palgrave.jdg.2040055

Gomulya, D., Boeker, W., 2016. Reassessing board member allegiance: CEO replacement following financial misconduct. Strateg. Manag. J. 37, 1898–1918. https://doi.org/10.1002/smj.2427

Gorshunov, M.A., Armenakis, A.A., Feild, H.S., 2019. Deception in financially corrupt organizations. J. Bus. Behav. Sci. 31, 4–25.

Gorshunov, M.A., Armenakis, A.A., Feild, H.S., Vansant, B., 2020. The Sarbanes-Oxley Act of 2002: Relationship to magnitude of financial corruption and corrupt organizational cultures. J. Manag. Policy Pract. 21, 72–86. https://doi.org/doi.org/10.33423/jmpp.v21i2.2929

Graham, J.W., 2009. Missing data analysis: Making it work in the real world. Annu. Rev. Psychol. 60, 549–576. https://doi.org/doi.org/10.1146/annurev.psych.58.110405.085530

Grant, A.M., Wall, T.D., 2009. The neglected science and art of quasi-experimentation: Why-to, when-to, and how-to advice for organizational researchers. Organ. Res. Methods 12, 653–686. https://doi.org/10.1177/1094428108320737

Hambrick, D.C., Misangyi, V.F., Park, C.A., 2015. The quad model for identifying a corporate director's potential for effective monitoring: Toward a new theory of board sufficiency. Acad. Manage. Rev. 40, 323–344. https://doi.org/doi.org/10.5465/amr.2014.0066

He, L., Yang, R., He, Y., 2018. Does social exchange relationship impair audit committee effectiveness? J. Manag. Gov. 22, 219–249. https://doi.org/10.1007/s10997-017-9385-5

Healy, P.M., Serafeim, G., 2019. How to scandal-proof your company. Harv. Bus. Rev. 97, 42–50.

Hennes, K.M., Leone, A.J., Miller, B.P., 2008. The importance of distinguishing errors from irregularities in restatement research: The case of restatements and CEO/CFO turnover. Account. Rev. 83, 1487–1519. https://doi.org/I0.2308/accr.2008.83.6.l487

Hillman, A.J., Dalziel, T., 2003. Boards of directors and firm performance: Integrating agency and resource dependence perspectives. Acad. Manage. Rev. 28, 383–396. https://doi.org/doi.org/10.5465/amr.2003.10196729

Hillman, A.J., Nicholson, G., Shropshire, C., 2008. Directors' multiple identities, identification, and board monitoring and resource provision. Organ. Sci. 19, 441–456. https://doi.org/doi.org/10.1287/orsc.1080.0355

Hoetker, G., 2007. The use of logit and probit models in strategic management research: Critical issues. Strateg. Manag. J. 28, 331–343. https://doi.org/10.1002/smj.582

Hoskisson, R.E., Johnson, R.A., Moesel, D.D., 1994. Corporate divestiture intensity in restructuring firms: Effects of governance, strategy, and performance. Acad. Manage. J. 37, 1207. https://doi.org/doi.org/10.5465/256671

Johnson, L.P.Q., Sides, M.A., 2004. The Sarbanes-Oxley Act and fiduciary duties. William Mitchell Law Rev. 30, 1149–1226.

Karpoff, J.M., Koester, A., Lee, D.S., Martin, G.S., 2017. Proxies and databases in financial misconduct research. Account. Rev. 92, 129–163. https://doi.org/10.2308/accr-51766

Kassinis, G., Vafeas, N., 2002. Corporate boards and outside stakeholders as determinants of environmental litigation. Strateg. Manag. J. 23, 399–415. https://doi.org/doi.org/10.1002/smj.230

Khanna, V., Kim, E.H., Lu, Y., 2015. CEO connectedness and corporate fraud. J. Finance 70, 1203–1252. https://doi.org/10.1111/jofi.12243

Kolev, K.D., Wangrow, D.B., Barker, V.L., Schepker, D.J., 2019. Board committees in corporate governance: A cross-disciplinary review and agenda for the future. J. Manag. Stud. 56, 1138–1193. https://doi.org/10.1111/joms.12444

Kroll, M., Walters, B.A., Wright, P., 2008. Board vigilance, director experience, and corporate outcomes. Strateg. Manag. J. 29, 363–382. https://doi.org/doi.org/10.1002/smj.649

Lennox, C., Pittman, J.A., 2010. Big five audits and accounting fraud. Contemp. Account. Res. 27, 209–247. https://doi.org/10.1111/j.1911-3846.2010.01007.x

Lin, J.W., Li, J.F., Yang, J.S., 2006. The effect of audit committee performance on earnings quality. Manag. Audit. J. 21, 921–933. https://doi.org/10.1108/02686900610705019

Lo, A.W.Y., Wong, R.M.K., Firth, M., 2010. Can corporate governance deter management from manipulating earnings? Evidence from related-party sales transactions in China. J. Corp. Finance 16, 225–235. https://doi.org/10.1016/j.jcorpfin.2009.11.002

Menard, S.W., 1995. Applied logistic regression analysis. Sage Publications, Thousand Oaks, CA.

Mishina, Y., Dykes, B.J., Block, E.S., Pollock, T.G., 2010. Why "good" firms do bad things: The effects of high aspirations, high expectations, and prominence on the incidence of corporate illegality. Acad. Manage. J. 53, 701–722. https://doi.org/10.5465/amj.2010.52814578

Moohr, G.S., 2003. An Enron lesson: The modest role of criminal law in preventing corporate crime. Fla. Law Rev. 55, 937–957.

Myers, L.A., Schmidt, J., Wilkins, M., 2014. An investigation of recent changes in going concern reporting decisions among Big N and non-Big N auditors. Rev. Quant. Finance Account. 43, 155–172. https://doi.org/10.1007/s11156-013-0368-6

Nagelkerke, N.J.D., 1991. A note on a general definition of the coefficient of determination. Biometrika 78, 691–692. https://doi.org/10.2307/2337038

Pozen, R.C., 2010. The case for professional boards. Harv. Bus. Rev. 88, 50–58.

Sarbanes-Oxley Act, 2002.

Shalvi, S., Eldar, O., Bereby-Meyer, Y., 2012. Honesty requires time (and lack of justifications). Psychol. Sci. 23, 1264–1270. https://doi.org/10.1177/0956797612443835

Shivdasani, A., Yermack, D., 1999. CEO Involvement in the selection of new board members: An empirical analysis. J. Finance 54, 1829–1853. https://doi.org/10.1111/0022-1082.00168

Simon, H.A., 1997. Administrative Behavior, 4th ed. Free Press, New York.

Snyder, H., McKnight, R., 2004. Client confidentiality and fraud: Does Sarbanes-Oxley deal with the issue? Bus. Prof. Ethics J. 23, 245–257.

Sonnenfeld, J., 2004. Good governance and the misleading myths of bad metrics. Acad. Manag. Exec. 18, 108–113. https://doi.org/10.5465/ame.2004.12689497

Sonnenfeld, J., 2002. What makes great boards great. Harv. Bus. Rev. 80, 106–113.

Stuart, E.A., 2010. Matching methods for causal inference: A review and a look forward. Stat. Sci. 25, 1–21. https://doi.org/10.1214/09-STS313

Sweeney, P., 2003. Fraud: What starts small can snowball. Financ. Exec. 19, 18–21.

Thiruvadi, S., Huang, H., 2011. Audit committee gender differences and earnings management. Gend. Manag. Int. J. 26, 483–498. https://doi.org/10.1108/17542411111175469

Westphal, J.D., Khanna, P., 2003. Keeping directors in line: Social distancing as a control mechanism in the corporate elite. Adm. Sci. Q. 48, 361–398. https://doi.org/10.2307/3556678

Xie, B., Davidson, W.N., DaDalt, P.J., 2003. Earnings management and corporate governance: The role of the board and the audit committee. J. Corp. Finance 9, 295–316. https://doi.org/doi.org/10.1016/S0929-1199(02)00006-8

Zhang, T., Fletcher, P.O., Gino, F., Bazerman, M.H., 2015. Reducing bounded ethicality: How to help individuals notice and avoid unethical behavior. Organ. Dyn. 44, 310–317. https://doi.org/dx.doi.org/10.1016/j.orgdyn.2015.09.009

Zyglidopoulos, S.C., Fleming, P.J., 2008. Ethical distance in corrupt firms: How do innocent bystanders become guilty perpetrators? J. Bus. Ethics 78, 265–274. https://doi.org/10.1007/s10551-007-9378-4

Zyglidopoulos, S.C., Fleming, P.J., Rothenberg, S., 2009. Rationalization, overcompensation and the escalation of corruption in organizations. J. Bus. Ethics 84, 65–73. https://doi.org/10.1007/s10551-008-9685-4

TABLE 1

US Legislation Prohibiting Deception in Financial Reports

Legislation	Section	Content
1934 US Securities Exchange Act	10(b)-5	It shall be unlawful for any person, directly or indirectly, by the use of any means or instrumentality of interstate commerce, or of the mails or of any facility of any national securities exchange, (a) to employ any device, scheme, or artifice to defraud, (b) to make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading, or (c) to engage in any act, practice, or course of business which operates or would operate as a fraud or deceit upon any person, in connection with the purchase or sale of any security.
1933 US Securities Act	17(a)	It shall be unlawful for any person in the offer or sale of any securities (including security-based swaps) or any security-based swap agreement by the use of any means or instruments of transportation or communication in interstate commerce or by use of the mails, directly or indirectly(a) to employ any device, scheme, or artifice to defraud, or (b) to obtain money or property by means of any untrue statement of a material fact or any omission to state a material fact necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading; or (c) to engage in any transaction, practice, or course of business which operates or would operate as a fraud or deceit upon the purchaser.
1934 US Securities Exchange Act	13(b)(2)(a)	Every issuer which has a class of securities registered and every issuer which is required to file reports shall make and keep books, records, and accounts, which, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the issuer.
1934 US Securities Exchange Act	13(b)(2)(b)	Every issuer which has a class of securities registered and every issuer which is required to file reports shall devise and maintain a system of internal accounting controls sufficient to provide reasonable assurances that (a) transactions are executed in accordance with management's general or specific authorization; (b) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles or any other criteria applicable to such statements, and to maintain accountability for assets; (c) access to assets is permitted only in accordance with management's general or specific authorization; and (d) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences.
1934 US Securities Exchange Act	13(b)(5)	No person shall knowingly circumvent or knowingly fail to implement a system of internal accounting controls or knowingly falsify any book, record, or account described in Section 13(b)(2)(a) and Section 13(b)(2)(b) of the 1934 US Securities Exchange Act.

TABLE 2

Number of Distinct Cases of Financial Corruption in US Corporations[a]

Distinct cases of violations observed in the AAERs[b]	**Number**
Violations identified in AAERs	823
Less: Violations unrelated to financial reports (e.g., illegal insider trading)	124
Violations in financial reports	699
Less: Accounting errors	114
Deception in financial reports	585
Less: Deception in non-US-based corporations	55
Deception in US corporations	530
Less: Cases with dismissed SEC's charges	5
Deception in US firms with assigned penalties or sanctions	525
Less: Single instances of misconduct	232
Financial corruption in US corporations	293
Less: Corporations without proxy statements	122
US financially corrupt corporations with proxy statements	171
Less: Corporations without matched compliant corporations	7
US financially corrupt firms with proxy statements and matched compliant firms	**164**

[a] 823 cases of violations were reported in 2,585 AAERs.

[b] AAER = Accounting and Auditing Enforcement Releases.

TABLE 3

Means, Standard Deviations, and Inter-correlations Among Study Variables[a]

Variables	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13
Control variables:															
1. Organizational performance	-.08	.70													
2. External audit firms' size	.84	.37	.16**												
3. Audit committees' size	3.16	1.15	.05	.06											
4. Audit committees' meeting frequency	3.61	2.78	-.05	.08	.20**										
5. Independent audit committee directors' tenure	5.09	4.79	.13*	.05	.13*	.09									
6. Independent audit committee directors' gender diversity	8.05	17.90	-.08	-.01	.09	.06	.08								
7. The proportion of independent audit committee directors	78.89	28.90	.17**	.22**	.07	.19**	.20**	.13*							
8. Independent audit committee directors' directorship experience	.40	.60	.08	.06	.02	.06	-.06	.00	.11						
9. Independent audit committee directors' financial expertise	.67	.47	.06	.01	.16**	.18**	.02	.05	.37**	.02					
10. Independent audit committee directors' bandwidth	.60	.49	.04	-.06	.14**	.08	.20**	.09	.15**	-.02	.09				
11. Independent audit committee directors' stock ownership	.21	.85	.00	-.10	-.09	.01	-.04	.01	.06	.00	.12*	.00			
Independent variable:															
12. The presence of a quad-qualified audit committee director	.10	.30	.03	.00	.04	.22**	.01	.07	.12*	.22**	.23**	.14**	.23**		
Moderating variable:															
13. SOX	.30	.46	-.17**	-.33**	.06	.47**	-.03	.02	.06	.03	.21**	.13*	-.01	.12*	
Dependent variable:															
14. Financial corruption	.50	.50	.02	-.09	-.04	-.06	-.14*	-.06	-.16**	-.13*	.10	-.06	.14**	-.12*	.00

[a] $N = 328$. Inter-correlations among the variables were computed using the Pearson rank correlation coefficient. Tests are two-tailed. The values of *independent audit committee directors' stock ownership* are in millions.

*$p < 0.05$.

**$p < 0.01$.

TABLE 4

Hierarchical Logistic Regression Analyses for Financial Corruption[a]

	Full Sample *N*=328		**Before SOX *N*=230**	**After SOX *N*=98**
Variables	**Model 1**	**Model 2**	**Model 3**	**Model 4**
Control variables:				
1. Organizational performance	.28 (.23)	.27 (.22)	2.96** (1.23)	.01 (.19)
2. External audit firms' size	-.24 (.34)	-.23 (.35)	-.10 (.60)	-1.01* (.54)
3. Audit committees' size	-.02 (.11)	-.04 (.11)	-.07 (.14)	.03 (.22)
4. Audit committees' meeting frequency	-.01 (.04)	.01 (.05)	-.05 (.10)	.13 (.08)
5. Independent audit committee directors' tenure	-.05* (.03)	-.05* (.03)	-.09** (.04)	-.01 (.06)
6. Independent audit committee directors' gender diversity	.00 (.01)	.00 (.01)	.00 (.01)	-.01 (.01)
7. The proportion of independent audit committee directors	-.01** (.00)	-.02** (.00)	-.02** (.01)	.00 (.01)
8. Independent audit committee directors' directorship experience	-.46* (.21)	-.32 (.21)	-.36 (.27)	-.50 (.51)
9. Independent audit committee directors' financial expertise	.68** (.28)	.82** (.29)	.67* (.33)	1.26 (.89)
10. Independent audit committee directors' bandwidth	-.07 (.25)	.02 (.26)	.24 (.31)	-.41 (.57)
11. Independent audit committee directors' stock ownership	1.13** (.45)	1.27** (.47)	3.43** (1.35)	.26 (.62)
Independent variable:				
12. The presence of a quad-qualified audit committee director		-1.26** (.49)	-.81 (.64)	-2.50** (.98)
χ^2	41.89**	49.55**	56.00**	22.56*
Nagelkerke R^2	.16	.19	.29	.27

[a] Tests are one-tailed. Standard errors are in parentheses. The values of *independent audit committee directors' stock ownership* are in millions.

*p<0.05.

**p<0.01.

TABLE 5

Hierarchical Logistic Regression Analyses for Financial Corruption after SOX[a]

	Step 1		Step 2	
Variables	**Model 5**	**Model 6**	**Model 7**	**Model 8**
Control variables:				
1. Organizational performance			.02 (.19)	.03 (.18)
2. External audit firms' size			-.92* (.53)	-1.03* (.50)
3. Audit committees' size			.09 (.22)	.08 (.21)
4. Audit committees' meeting frequency			.05 (.07)	.15* (.08)
5. Independent audit committee directors' tenure			-.02 (.05)	-.01 (.05)
6. Independent audit committee directors' gender diversity			-.01 (.01)	-.01 (.01)
7. The proportion of independent audit committee directors	-.01 (.01)		.00 (.01)	
8. Independent audit committee directors' directorship experience	-.82* (.45)		-.92* (.48)	
9. Independent audit committee directors' financial expertise	1.36 (.84)		1.18 (.90)	
10. Independent audit committee directors' bandwidth	-.82 (.52)		-.83 (.55)	
11. Independent audit committee directors' stock ownership	.12 (.55)		.13 (.57)	
Independent variable:				
12. The presence of a quad-qualified audit committee director		-2.14** (.79)		-2.76** (.94)
χ^2	9.15	10.48**	13.32	18.18**
Nagelkerke R^2	.12	.14	.17	.23

[a] N=98. Tests are one-tailed. Standard errors are in parentheses. The values of *independent audit committee directors' stock ownership* are in millions.

*p<0.05.

**p<0.01.