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## **The surprising role of audit committee financial experts and the need for more of them to combat financial corruption**

**Purpose:** The purpose of this research is to examine the impact of audit committee financial experts on the risk of financial corruption in public companies.

**Design/methodology/approach:** A time-lagged, matched-pairs sample of 352 corporations was utilized to test the study's hypotheses (176 financially corrupt firms plus 176 compliant firms). To uncover financially corrupt firms, 2,895 Accounting and Auditing Enforcement Releases from the SEC were thoroughly evaluated.

**Findings:** The results show that financial experts on audit committees generally increased financial corruption. However, the impact was reversed when audit committees had three or more financial experts, showing that having at least three financial experts reduced financial corruption.

**Originality:** The study's findings call into question the long-held practice of appointing at least one financial expert to audit committees. This study offers a novel approach to improve corporate oversight and reduce financial corruption by having at least three financial experts on audit committees.

**Keywords:** audit committee financial expert, financial expert

## Introduction

Corruption is prevalent and is increasing in companies (Alexander and Cumming, 2020). The U.S. Department of Justice (DOJ) recently intensified efforts to pursue corporate misconduct and prosecute senior managers, taking a firmer stance on repeat offenders (Banham, 2022). The U.S. Securities and Exchange Commission (SEC) recently obtained \$4.68 billion in fines for corporate misconduct—the highest on record (SEC, 2020). Juicy stories of financial corruption in major corporations continue to hit the headlines on a global scale. Once a standard-bearer for Germany's technology sector, Wirecard revealed colossal corruption involving fabricating most of its profits for years and missing €1.9 billion on its books (Eckler, 2020). Kraft Heinz and former executives paid at least \$62 million in fines for fraudulent financial reporting over four years (Heller, 2021). General Electric was fined \$200 million for accounting shenanigans over three years (Michaels and Gryta, 2020). Nissan's former executives and directors were charged with conspiring and concealing \$85 million in compensation over eight years (Kageyama, 2020). Ironically, even NS8, a Las Vegas-based firm that provides fraud detection and prevention solutions, was charged with falsifying over \$60 million in its books over three years (Heller, 2020).

Top managers were the primary culprits who orchestrated elaborate conspiracies to falsely boost their firms' earnings. A disturbing aspect of these crimes is that they prevailed for many years. It is equally unsettling that boards of directors' audit committees—legally responsible for monitoring and deterring such practices—made little difference. In the aftermath of lost life savings, insolvent companies, arrested management, and financial market volatility, stakeholders wondered why these watchdogs were oblivious to such vast wrongdoing that was kept hidden for so long.

Following a succession of high-profile exposures in U.S. public businesses (e.g., Enron, WorldCom), the United States Congress approved the Sarbanes-Oxley Act of 2002 (SOX), with the goal of reducing such misconduct (Gorshunov *et al.*, 2020). Legislators believed that financial expertise would strengthen the effectiveness of audit committees in performing oversight of financial reporting practices in public corporations. The requirement that audit committees appoint at least one financial expert was adopted by major stock exchanges and endorsed by the SEC. Public firms responded by appointing typically one financial expert to their audit committees (Carcello *et al.*, 2006). Prior research found that such practice reduced inaccurate financial reporting in general (Agrawal and Chadha, 2005; Inaam and Khamoussi, 2016). Nevertheless, in cases of extensively corrupt firms, such as WorldCom, HealthSouth, Computer Sciences, and Countrywide Financial, audit committees also passed the tests usually applied to ensure their financial competence. Yet, all audit committee members declared ignorance as a badge of honor and pointed fingers of blame at others (Lublin, 2003).

The possible explanation for such a paradox is that prior research typically focused on minor and isolated episodes of misconduct that were one-time events (Karpoff *et al.*, 2017). This approach ignores the significance of time in creating the crucible for corrupt activities (Ashforth *et al.*, 2008). Financial professionals on audit committees are more likely to deter first-time misconduct than subsequent incidents (Moore *et al.*, 2006). However, if dishonest acts become systemic and established in the culture, it is probable that altering the habits would be difficult (Sweeney, 2003). Some may go along with deception to avoid admitting their flawed decisions in the past; others may suspect illegal activity but have strong incentives to look the other way (Gandossy and Sonnenfeld, 2005). As such, it remains unclear if financial experts on audit committees help curb massive corrupt practices, exemplified by Enron. Continued financial

corruption demonstrates that these experts have been ineffective. Given this constraint, the topic of why financial specialists on audit committees fail to dissuade financial wrongdoing has not been well addressed.

Recognizing that unethical activities like Enron's were systematic and accepted, I evaluate new assumptions regarding traditional audit committee protections. A significant study line suggests that, over time, corruption develops from a single infraction to influencing company culture. Fraudulent firms do not begin as deceptive. Instead, unethical activities sneak in at some point and, through time, become acceptable (Fleming and Zyglidopoulos, 2008). Given enough time, early misconduct can start off a chain reaction of ongoing violations that eventually leads to an organizational-level issue (Ashforth *et al.*, 2008). Corrupt practices become ingrained and intractable after two years of being overlooked and condoned (Sweeney, 2003). For example, HealthSouth's culture has been corrupted over about two years, commencing with early fraudulent activities in 1996. By 1998, "family" and other euphemisms had become commonplace to strengthen the group's sense and emphasize tacit responsibility to other schemers (Armenakis and Lang, 2014). Therefore, a two-year or longer history of ongoing dishonest practices suggests a culture that normalizes corruption. My research focuses on *financial corruption*, which is defined as continuous deceptive practices in financial reports for two or more years (cf. Gorshunov *et al.*, 2021).

This study calls into question the traditional practice of selecting at least one financial expert for audit committees. My proposal requires audit committees to include at least three financial experts to increase corporate supervision and decrease financial corruption. I created a higher-quality sample of 176 financially corrupt firms and a control group of 176 complying firms by following recent best-practice guidelines for addressing recognized methodological inadequacies. I found that financial experts on audit committees generally increased the likelihood of financial corruption. When audit committees included three or more financial experts, the impact was reversed, demonstrating that having at least three financial experts on hand reduced financial corruption.

### **Hypotheses**

Bias in decision-making flourishes anywhere alternative interpretations of information are possible. Bazerman *et al.* (2002) have explained that financial specialists have substantial leeway in responding to some of the most important financial questions: What is an investment? What is an expense? When is it appropriate to recognize revenue? The interpretation and weighting of various types of data is rarely straightforward. Judgment calls are part of auditing financial reports. Myriad ambiguous accounting questions open the door for interpretations, such as when revenue should be recognized and which items should be expensed. When executives decide how to report financial results, variances in methodology can have a substantial impact on the bottom-line reporting to the public.

Financial experts on audit committees rely on senior managers to get information about financial practices and tend to have close personal ties to executives (Beasley *et al.*, 2009). Unfortunately, executives can exploit the imperfections in auditing decision-making to influence audit committee financial experts to support unethical practices (Tosi *et al.*, 2003). Research exploring the socialization and enlistment of individuals into corrupt organizational cultures suggests that people can be transformed into criminal wrongdoers given the proper institutional pressures, rewards, and sanctions (Zyglidopoulos and Fleming, 2008). Recent empirical research shows that socialization is pivotal in inducing naïve newcomers, who may be socially responsible, to view corruption as permissible and even desirable (Ashforth and Anand, 2003;

Lian *et al.*, 2022). Ashforth and Anand (2003) have identified a specific socialization process to corruption, namely, *incrementalism*, whereby managers subtly motivate their recruits to engage in corruption by inducing them to escalate corrupt behaviors gradually. Relying on the incremental shaping of deviant behaviors, repetition helps normalize corrupt practices in organizations (Zyglidopoulos and Fleming, 2008), especially by exploiting financial imperfections (Bazerman *et al.*, 2002). Recent empirical research has demonstrated that organizational leaders take advantage of these processes to promote unethical behaviors among their followers and pave the way for the creation of corrupt organizational cultures (Mesdaghinia *et al.*, 2022).

These corrupting influence processes were also suggested to be at play between CEOs and audit committees, specifically (Tosi *et al.*, 2003). Moore *et al.* (2006) have illustrated the process of how incremental adaptation to minor imperfections in financial practices can escalate into knowing perpetration of corruption over four years. In the first year, managers can induce financial experts to engage in behaviors that appear harmless and volitional (e.g., approving minor distortions in financial reporting practices). This behavior may cause the financial experts to rationalize, such as engaging in *self-serving altruism* (i.e., concluding that no one in particular was really harmed but particular others benefited; Shalvi *et al.*, 2015) that realign attitudes with the behavior. Rationalizations are highly seductive and can be conveniently provided by managers who may frame corruption as something necessary and desirable (Ashforth and Anand, 2003). Because of the tendency for people to escalate their commitment to misconduct incrementally (Welsh *et al.*, 2015), in the second year, the financial experts may feel they need to go along with the first year's distortion rather than admit to any violation. In the third year, the financial experts may approve material violations of U.S. Generally Accepted Accounting Principles (GAAP) to avoid admitting prior errors of the past two years in the hope that the problem will be resolved before the end of next year. During the fourth year, financial experts will actively aid managers in concealing their violations in financial reports.

Empirical evidence in laboratory settings corroborates the claims that financial experts are vulnerable to corrupting social influence (Zhang *et al.*, 2015); their behaviors can be incrementally shaped to support financial corruption (Welsh *et al.*, 2015). Therefore, I expect audit committee financial experts to contribute positively to financial corruption.

***Hypothesis 1:*** The number of audit committee financial experts will positively relate to the likelihood of financial corruption.

Given the vulnerability of audit committee financial experts to biases in resolving unethical issues in financial reporting, the relevant question to ask is: How can such effects be mitigated? Decision-making research has documented that one of the best ways to catch blind spots and errors is to work with others who are also focused on the task (Hill, 1982). Recent qualitative research also has emphasized the importance of healthy debate and suggested that it is not enough to have a single financial expert on the committee (Free *et al.*, 2021). After all, everyone has blind spots. Considerable leeway in answering basic financial questions suggests a need for another financial expert to counter one's opinion. It is vital to have people around who can point out mistakes and adjust one's moral compass. By working with someone with a measure of the same experience, financial experts can more easily catch where their thinking has gone astray and correct each other's errors. Decision-making in a group brings alternative

viewpoints and encourages piggybacking on others' ideas (Hill, 1982). Working in a group can highlight blind spots that a single financial expert might be missing or just cannot see.

The evidence strongly supports the conclusion that groups produce more and better solutions to problems than individuals do in general (Hill, 1982). However, at least two critical nuances of group composition should be considered to achieve the full benefits of group decision-making. First, the number of individuals in a group has been found to have nonlinear effects on decision-making and problem-solving (Wheelan, 2009). When there are only two members in a group, there may not be a sufficient variety of potential perspectives brought to bear on a problem to correct errors in inference and analysis (Oakley *et al.*, 2004). Furthermore, dispute resolution is difficult in a pair: whether right or wrong, the dominant partner will win the majority of debates (Hill, 1982). To achieve the advantages of group work, the group should consist of at least three members (Oakley *et al.*, 2004). Second, it has been shown that it is not the size of the group that was important but the size of its subgroups (Hare, 1981). Namely, if the goal is to influence a specific task, the subgroup that focuses on this task should be considered instead of the characteristic of the whole group. Because audit committees delegate the task of assessing the risk of fraud and resolving financial reporting issues to financial experts (Beasley *et al.*, 2009), the number of financial experts within the audit committee should have a more potent role in addressing financial corruption.

Given that audit committees generally suffer from dysfunctional group dynamics that suppress problem-solving (Gandossy and Sonnenfeld, 2005), it is essential to compose a group with characteristics that minimize the effects of such pathologies on decision-making and problem-solving. Thus, I expect the presence of at least three audit committee financial experts to be more effective in addressing financial corruption by virtue of the superior potential to minimize biases and justifications favoring unethical practices.

**Hypothesis 2:** The number of audit committee financial experts will have a reversing effect on the likelihood of financial corruption, such that the presence of at least three financial experts will negatively relate to the likelihood of financial corruption.

### **Research Methodology**

I thoroughly evaluated 2,895 Accounting and Auditing Enforcement Releases (AAERs) from the SEC in order to uncover financially corrupt firms. I utilized a time-lagged, matched-pairs sample of 352 corporations to test my hypotheses (176 financially corrupt firms plus 176 compliant firms).

#### **Sample selection**

Following prior research (Gorshunov *et al.*, 2021), I used three criteria to identify companies that were implicated in financial corruption. First, to prevent confounding effects caused by changes in financial reporting methods across countries, non-US-based firms were excluded (Bushman and Piotroski, 2006). Second, I only treated accounting practices in violation of Section 13(b)(2)(a), Section 13(b)(2)(b), or Section 13(b)(5) of the 1934 U.S. Securities Exchange Act as potentially fraudulent if the SEC or the DOJ additionally alleged the violation of Section 10(b)-5 of the 1934 U.S. Securities and Exchange Act or Section 17(a) of the 1933 Securities Act (see Table 1; see Karpoff *et al.*, 2017). To litigate under these laws, the DOJ must provide evidence that the defendants had an intention to deceive (Buell, 2011). Finally, to ensure my sample only comprised instances of financial corruption, I only utilized cases in which

companies or executives were found guilty of repeatedly breaching Section 10(b)-5 or Section 17(a) for two or more fiscal years. An example of financial corruption is the unlawful behavior of 16 top managers who defrauded US-based HealthSouth's stockholders by falsifying the firm's financial records over a seven-year period (Armenakis and Lang, 2014).

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 Insert Table 1 about here  
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### **Data collection procedures**

The SEC issues AAERs during or after enforcement actions against a public corporation, an auditor, or an executive for suspected financial reporting breaches. These releases provide full explanations of the violation's duration, type, the impact of violations on businesses' financial reports, offenders and corporations committing white-collar crimes, and legal proceedings outcomes. Following prior research (Gorshunov *et al.*, 2021), I used the series of AAERs as a source for identifying financial corruption because it allowed me to (a) avoid type one error, i.e., labeling conforming firms as financially corrupt, (b) research cases covering an extended period, and (c) boost the statistical power of my study design by conservatively categorizing the infractions (see Karpoff *et al.*, 2017).

Similar to Gorshunov *et al.* (2021), I obtained all 2,895 AAERs from the SEC Website ([sec.gov/divisions/enforce/friactions.shtml](http://sec.gov/divisions/enforce/friactions.shtml)) that were released between October 18, 1999 and July 1, 2020 (the earliest AAER available was issued on October 18, 1999). I evaluated AAERs to determine the firm's name, the nature of the infraction, the time of the violation, and the penalties and sanctions imposed. I looked 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). I manually gathered original data from annual proxy statements (i.e., DEF 14A forms). Proxy statements are reports filed with the SEC in the event firms sought shareholder votes. The characteristics of audit committee members were disclosed in proxy statements.<sup>1</sup> I utilized only those proxy statements prepared in the year *before* financial corruption occurred.

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 Insert Table 2 about here  
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In the same vein as Gorshunov *et al.* (2021), my data gathering approach included methodically and significantly eliminating extraneous offenses in order to determine financially corrupt firms, as suggested by Karpoff *et al.* (2017). I analyzed only financial corruption to prevent confounding effects from combining other forms of wrongdoing (Hennes *et al.*, 2008). I examined 2,895 AAERs and discovered 964 distinct cases involving financial corruption, a single instance of misbehavior, accounting error, and infractions unrelated to financial reporting (see Table 2). Among the 964 violations, 662 did not fulfill my sample inclusion requirements for the following reasons: (a) unconnected to financial reporting; (b) accounting mistakes; (c) non-US-based companies; (d) dropped charges by the SEC; or (e) single incidents of wrongdoing. As a result, I found 302 cases of financial corruption that fulfilled my selection criteria. I removed 126 firms because I could not identify proxy statements issued prior to the start of illegal activity. Proxy statements were unavailable in many of these organizations

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<sup>1</sup> Among 352 firms in my final sample, 12 (3.4%; six corrupt and six compliant firms) did not have formal audit committees. In these firms, I 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).

because the offenses happened before to May 6, 1996, when the SEC obliged public companies to make their filings available on EDGAR. As a result, I kept a final sample of 176 financially corrupt firms.

The total assets of these 176 financially corrupt firms averaged \$7.9 billion ( $SD=40.4$ ). The average net income was \$275.7 million ( $SD=1,182.6$ ). Financial corruption lasted an average of 3.5 fiscal years ( $SD=1.7$ ). These 176 firms engaged in illegal activity from 1994 to 2017: 120 began committing the crime before and 56 after SOX.

The average number of guilty culprits discovered by the SEC in the 176 financially corrupt businesses was 4.3 ( $SD=4.1$ ). These criminals are typically just the tip of the iceberg; the guilty abusers are typically ringleaders of much larger groups of people with varying degrees of responsibility (Zyglidopoulos and Fleming, 2008). To carry off financially corrupt schemes, it usually needs 30-50 employees from several corporate departments working together for several years (Sweeney, 2003). Overall, I identified 758 people (across the 176 firms) who pled or were found guilty of the offense or agreed to SEC's fines and penalties to resolve claims against them. Because of allegations brought by the DOJ, 160 of these 758 criminals also pled or were convicted guilty of arranging a conspiracy to deceive shareholders (i.e., a secret plan by a group to commit a crime; Baker and Faulkner, 1993). The titles of these 758 culprits were CFO/CAO ( $n=188$ ), CEO/President ( $n=148$ ), COO ( $n=20$ ), Vice President ( $n=142$ ), Controller/Treasurer ( $n=75$ ), other management ( $n=62$ ), and non-managerial staff ( $n=25$ ). Among these 758 offenders, 104 served on boards of directors and audit committees (24 of these 104 were external). Exactly, 61 of these 758 criminals were external auditors, and 13 were external financiers.

#### **Time-lagged, matched-pairs sample study design**

In a manner akin to the approach adopted by Gorshunov et al. (2021), I employed a matched-pairs sample research design of firms engaging in financial corruption and a comparison group of complying firms to improve causal conclusions, as recommended by Aguinis and Edwards (2014). The matched-pairs sample study design is a quasi-experiment that (a) improves causal inference, (b) has strong internal validity, and (c) maintains high external validity (Grant and Wall, 2009). In addition, to compensate for potential confounding effects, I used statistical analysis to control for 11 factors linked to misbehavior. Additionally, to ensure the cause precedes the effect in time, all independent and control variables were measured in the year *preceding* the onset of financial corruption.

Nearest-neighbor matching is a common matching approach that is useful in deriving causal conclusions in the study of rare events, such as financial corruption (Stuart, 2010). I used nearest-neighbor matching to match companies based on (a) the same industry, as indicated by their four-digit Standard Industrial Classification code, (b) comparable organizational size in terms of total assets, (c) the same financial reporting methods, with my sample confined to U.S.-incorporated enterprises, and (d) the same period, according to the fiscal year (Gorshunov *et al.*, 2021). To assure organizational size equivalence, I identified matching organizations with total assets that are most similar to those of the matched financially corrupt firms. I also verified that each matched firm had not been accused of financial violations (Karpoff *et al.*, 2017). I further verified the equivalence of the matched pairings by comparing total assets, revenue, and net income. On these dimensions, I discovered no statistically significant difference between the groups.

Corporations within their industries may create and share strategies for avoiding the identification of misconduct; also, industries differ in the extent of regulatory agency surveillance (Ashforth *et al.*, 2008). The size of an organization is related to SEC scrutiny

(Beneish, 1999). As a result of the SEC's limitations in detecting misconduct, I attempted to regulate against labeling financially corrupt corporations as compliant by matching organizations based on industry and organizational size (Snyder and McKnight, 2004). Because changes in macroeconomic conditions have been linked to CEO financial reporting dishonesty (Bianchi and Mohliver, 2016), I matched businesses across the same time period. To prevent confounding effects due to variations in financial reporting methods, no corporations from outside the United States were considered for matching (Bushman and Piotroski, 2006).

### Measures

As previously stated, all independent and control variables were assessed using legally valid reports made in the year *preceding* the onset of financial corruption. For example, because Enron's financial reports were manipulated between 1997 and 2000, I measured independent and control variables in 1996.

**Control variables.** To control potential confounding effects by statistical analysis, I employed eight audit committee characteristics that were shown to reduce misconduct in financial reporting, two CEO characteristics, and one characteristic of external auditor.

*Audit committee size* was measured as the number of audit committee members (Inaam and Khamoussi, 2016). *Audit committee meeting frequency* was operationalized as the number of audit committee meetings in a given fiscal year (Inaam and Khamoussi, 2016).

*Audit committee independence* was determined as the proportion of audit committee members who were independent (Gorshunov *et al.*, 2021). Directors were considered as independent if they did not have (a) employment with the focus company or its affiliates; (b) family relationship by blood or marriage with senior managers; (c) association with customers, suppliers, bankers, or creditors with whom the firm did business; or (d) affiliation with investment banks or legal firms that supplied services to focus firms (Gorshunov *et al.*, 2021; *Sarbanes-Oxley Act*, 2002).

*Audit committee tenure* was gauged as the average number of years that audit committee directors served as directors in focal corporations (He *et al.*, 2018). *Audit committee gender diversity* was determined as the percentage of female audit committee members (Thiruvadi and Huang, 2011). *Audit committee legal expertise* was measured as the proportion of audit committee members with legal expertise (Krishnan *et al.*, 2011). Directors were classified as having legal expertise if they had professional experience as lawyers or a law school degree (Krishnan *et al.*, 2011).

*Audit committee directorship experience* was measured as the average number of past directorships held by audit committee members (Bedard *et al.*, 2004). Only preceding directorships at private and public enterprises were counted; colleges, charity organizations, and trusts were omitted from the count of directorships held by directors. (Field *et al.*, 2013). According to Hambrick *et al.* (2015), I evaluated only directorships that were held prior to the service in a focal corporation during a focal fiscal year and eliminated all current directorships at that time. Proxy statements typically referred to such directorships in the past tense or specified the year when service for a given directorship terminated.

*Audit committee bandwidth* was measured as the proportion of audit committee members who had bandwidth (Fich and Shivdasani, 2006). 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, I followed the approach described by Field *et al.* (2013). Particularly, I 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. I counted multiple directorships as two in such cases (Field *et al.*, 2013). I 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. I considered directors not to have full-time employment if they were retired, independent consultants, and investors (Field *et al.*, 2013). I 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).

*CEO duality* was coded 1=a firm's CEO also served as the chair of its board of directors and 0=otherwise (O'Connor *et al.*, 2006). *CEO tenure* was measured as the number of years that individuals served as CEOs in focal firms (Zhang *et al.*, 2008).

*External audit firm size* was coded 1=Big N auditor and 0=otherwise (Lennox and Pittman, 2010). Deloitte & Touche, Arthur Andersen, Ernst & Young, KPMG, Price Waterhouse, PricewaterhouseCoopers, and Coopers & Lybrand were the Big N auditors throughout my final sample period (Myers *et al.*, 2014).

**Independent variable: The number of audit committee financial experts.** *The number of audit committee financial experts* was measured as the number of audit committee members having financial expertise. I considered directors to have financial expertise if they worked as investment bankers, financiers, auditors, accountants, financial managers, venture capitalists, investors, or otherwise were declared as financial experts in proxy filings in compliance with the SOX definition (Agrawal and Chadha, 2005; *Sarbanes-Oxley Act*, 2002).

**Dependent variable: Financial corruption.** *Financial corruption* was coded as 1=firms that engaged in financial corruption (see above) and 0=firms that were compliant (Gorshunov *et al.*, 2021).

### Analyses

Given that I was using a binary dependent variable as well as a number of control and independent variables, logistic regression analysis was a good choice for hypothesis testing (Menard, 1995). I assessed the logistic regression model to confirm (a) that there were no significant outliers, using Studentized residuals, (b) that there was no multicollinearity, using variance inflation factors, and (c) that the model was correctly specified, using the Hosmer-Lemeshow goodness-of-fit test (Menard, 1995). I used a hierarchical strategy to testing my hypotheses since it allowed me to assess the significance of main effects after controlling for all factors (Murphy and Aguinis, 2022). I excluded the intercept term in logistic regression because this term interfered with the case-based estimates of other parameters (Agresti, 2012).

The final sample of 352 companies contained one missing value for *audit committee tenure* (.3%), seven missing values for *audit committee meeting frequency* (2.0%), and one missing value for *CEO tenure* (.3%). Following Graham's (2009) guidelines, I estimated these missing values using the normal model multiple imputation.

### Results

In Table 3, I present descriptive statistics as well as correlations among all variables. Audit committees were 3.2 members on average ( $SD=1.2$ ) for the 352 firms in my final sample. The average number of audit committee financial experts was 1.4 ( $SD=1.0$ ). The mean number of financial experts was 1.2 ( $SD=1.0$ ) before and 1.8 ( $SD=1.0$ ) after SOX. My overall sample included 240 firms before SOX and 112 after SOX.

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The findings of the hierarchical logistic regression analysis are shown in Table 4. In Model 1, I inserted my 11 control variables to investigate the effects of covariates. The model did not predict *financial corruption* ( $\chi^2(11)=12.93, p>.05$ ; Nagelkerke  $R^2=.05$ ). Nagelkerke  $R^2$  is a variant of the coefficient of determination  $R^2$  that is utilized in binary response models. (Nagelkerke, 1991).

In Model 2, I added *the number of audit committee financial experts* to assess the variable's effect after controlling for the effects of covariates (see Table 4). Model 2 demonstrates the effects of the variables on the prediction of *financial corruption* ( $\chi^2(12)=20.60, p<.05$ ; Nagelkerke  $R^2=.08$ ). *Hypothesis 1* predicted that *the number of audit committee financial experts* would increase the likelihood of *financial corruption*. According to Table 4, *the number of audit committee financial experts* is positively related to the likelihood of *financial corruption* ( $b=.33, SE=.12, p<.01, exp[b]=1.39$ ). Accordingly, the count of audit committee financial experts was significantly higher in financially corrupt versus compliant firms. The results showed that (while holding covariates constant) the presence of each additional audit committee financial expert in a corporation increased the likelihood of financial corruption by 39%. Thus, *Hypothesis 1* was supported.

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 Insert Figure 1 about here  
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Following the guidelines of Gardner et al.'s (2017), I used the quadratic term to assess reversing effects. In Model 3, I added *the number of audit committee financial experts<sup>2</sup>* (see Table 4). Model 3 demonstrates the effects of the variables on the prediction of financial corruption ( $\chi^2(13)=25.34, p<.05$ ; Nagelkerke  $R^2=.09$ ). *Hypothesis 2* predicted that the number of audit committee financial experts would have a reversing effect on the likelihood of financial corruption, such that the presence of at least three financial experts would negatively relate to the likelihood of financial corruption. According to Table 4, *the number of audit committee financial experts<sup>2</sup>* is negatively related to the likelihood of *financial corruption* ( $b=-.15, SE=.07, p<.05$ ). The negative coefficient indicates that a nonlinear association is best represented by an inverted U-shaped form (Gardner et al., 2017). In Figure 1, I present a scatter plot with a fit line that illustrates reversing quadratic effects of *the number of audit committee financial experts* on the likelihood of *financial corruption*. Specifically, the effect of *the number of audit committee financial experts* and the likelihood of *financial corruption* reversed when there was the presence of at least three financial experts. Thus, *Hypothesis 2* was supported.

### Discussion

Recent fraudulent behaviors at firms like Wirecard and Nikola underscore glaring deficiencies in oversight that enable persistent misconduct by executives. The implosion of crypto firms FTX, Celsius, and BlockFi revealed a complete lack of financial controls. These scandals mirror the audit committee failures that enabled earlier corruption at companies like Enron and WorldCom.

Financial corruption has a serious negative impact on company stakeholders yet remains pervasive despite decades of governance reforms aimed at enhancing oversight. This study identifies persistent challenges in investigating financial corruption and audit committee failures that, in turn, call for action. Following current best practices, I constructed a higher-quality

sample and discovered that lone financial experts might help normalize corruption over time, while three or more experts can curb misconduct.

These findings have theoretical and practical implications, challenging assumptions that one expert sufficiently strengthens monitoring. Instead, results reveal a complex relationship whereby single experts provide limited benefits and may enable unethical practices through rationalization and social dynamics. In contrast, requiring a critical mass of at least three financial experts on audit committees enhances effectiveness and integrity.

Practically, these insights suggest that current audit committee requirements are inadequate, needing revision to mandate more expertise. Policies ensuring three or more financial experts could strengthen oversight and reduce financial corruption. This study demonstrates the need for higher competence standards, informed by ballooning scandals at firms like Wirecard, where oversight lapses enabled brazen, persistent fraud.

From Enron to Nikola, scandals reveal glaring deficiencies, catalyzing reforms that demand more expertise and accountability. However, this research provides sober evidence that meeting basic requirements may be insufficient to curb financial corruption. By linking reduced risk to multiple experts, findings underline the need for more stringent competence standards. Overall, this study identifies enduring challenges but contributes timely, actionable insights to strengthen integrity and oversight.

#### **Boundary conditions, limitations, and future research**

There are three boundary conditions in this study. First, the studied incidents of financial corruption take place in the framework of American corporations. The implications of this study may not apply to organizations established in other countries due to differences in financial reporting methods. Second, the purpose of this research was to look into financial corruption. It is unclear how my theory relate to corruption as it is understood in other contexts. (e.g., infractions of the US Clean Air Act by Volkswagen Group; Clemente and Gabbioneta, 2017). Finally, I examined all incidents of financial corruption that were discovered and reported by the SEC between October 18, 1999 and July 1, 2020. My study's conclusions may not apply to financial misconduct that does not meet these selection criteria. Future study should look at other settings (e.g., non-US-based companies, environmental compliance) and investigate the study's boundary conditions using other selection criteria.

This is one limitation in this study. Alternative explanations for the claimed causal impact are still possible. Future study may solve this limitation by employing a research approach more suited to the task (i.e., a randomized experiment).

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**Table 1**  
U.S. Legislation Prohibiting Deception in Financial Reports<sup>1</sup>

Legislation	Section	Content
1934 U.S. 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 U.S. 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 U.S. 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 U.S. 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 U.S. 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 U.S. Securities Exchange Act.

<sup>1</sup> Source: Created by author.

**Table 2**  
Number of Distinct Cases of Financial Corruption in U.S. Corporations<sup>1</sup>

Distinct cases of violations observed in the AAERs <sup>2</sup>	Number
Violations identified in AAERs	964
Less: Violations unrelated to financial statements (e.g., illegal insider trading)	<u>210</u>
Violations in financial statements	754
Less: Accounting errors	<u>133</u>
Deception in financial statements	621
Less: Deception in non-US-based corporations	<u>64</u>
Deception in U.S. corporations	557
Less: Cases with dismissed SEC charges	<u>5</u>
Deception in U.S. firms with assigned penalties or sanctions	552
Less: Single instances of misconduct	<u>250</u>
Financial corruption in U.S. corporations	302
Less: Corporations without proxy statements	<u>126</u>
<b>US financially corrupt corporations with proxy statements</b>	<b><u>176</u></b>

<sup>1</sup> 964 cases of violations were reported in 2,895 AAERs. Source: Created by author.

<sup>2</sup> AAER = Accounting and Auditing Enforcement Releases.

**Table 3**  
Means, Standard Deviations, and Inter-correlations Among Study Variables<sup>1</sup>

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12
<i>Control variables:</i>														
1. Audit committee size	3.24	1.16												
2. Audit committee meeting frequency	3.71	2.87	.24**											
3. Audit committee independence	.81	.27	.08	.19**										
4. Audit committee tenure	5.86	4.57	.10	.06	-.07									
5. Audit committee gender diversity	.08	.16	.12*	.06	.14**	.09								
6. Audit committee legal expertise	.07	.15	.02	.03	-.21**	.09	-.07							
7. Audit committee directorship experience	.42	.55	.00	.09	.03	-.14**	-.05	-.07						
8. Audit committee bandwidth	.71	.29	-.04	.02	-.10	.05	.04	.01	.00					
9. CEO duality	.61	.49	.05	-.02	-.06	.03	.01	.01	.00	-.03				
10. CEO tenure	7.19	7.94	.01	-.02	-.04	.34**	.04	.16**	-.09	.01	.34**			
11. External audit firm size	.83	.38	.03	.00	.18**	.05	.02	-.12**	.03	-.26**	.12*	-.05		
<i>Independent variable:</i>														
12. The number of audit committee financial experts	1.42	1.03	.33**	.26**	-.02	-.12*	-.03	-.12*	.04	-.01	-.05	.00	-.10	
<i>Dependent variable:</i>														
13. Financial corruption	.50	.50	-.07	-.04	-.13*	-.08	-.05	.00	-.07	.00	.04	.10	-.11*	.12*

<sup>1</sup>  $N = 352$ . Inter-correlations among the variables were computed using the Pearson rank correlation coefficient. Tests are two-tailed.

Source: Created by author.

\* $p < 0.05$

\*\* $p < 0.01$

**Table 4**  
Hierarchical Logistic Regression Analyses<sup>1</sup>

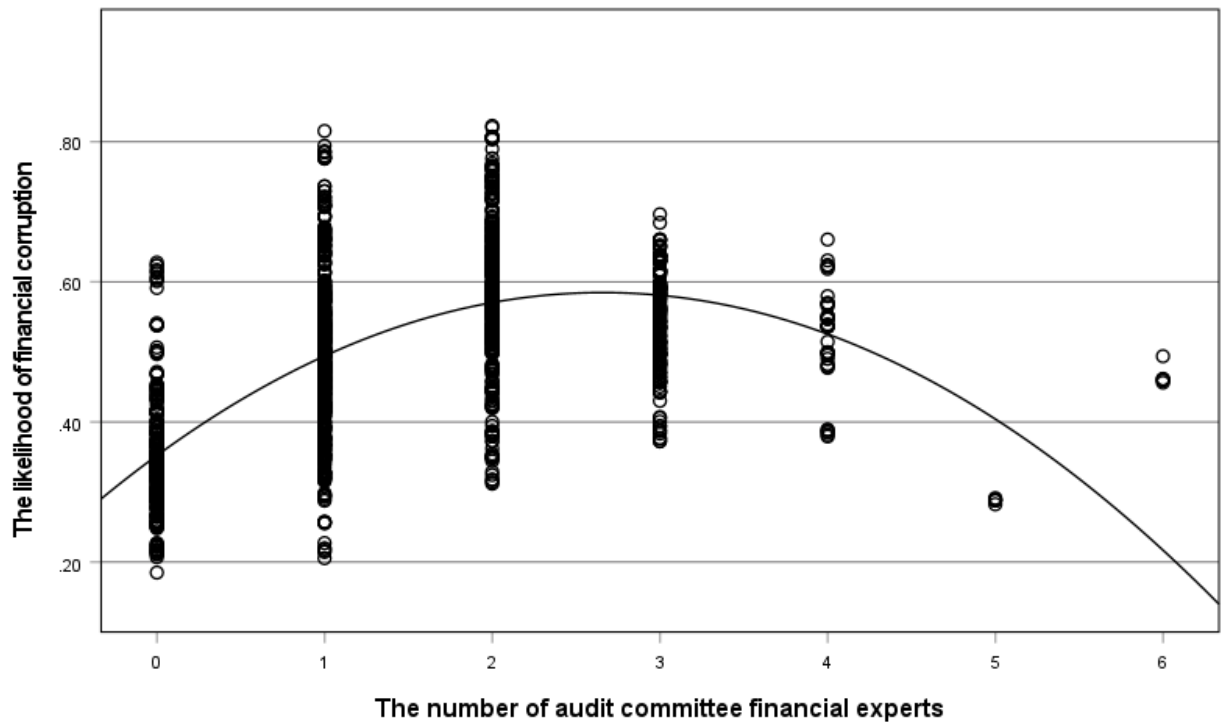
Variables	Model 1	Model 2	Model 3
<i>Control variables:</i>			
1. Audit committee size	.04 (.09)	-.08 (.10)	-.05 (.10)
2. Audit committee meeting frequency	.01 (.04)	-.01 (.04)	-.02 (.04)
3. Audit committee independence	-.39 (.37)	-.39 (.38)	-.54 (.39)
4. Audit committee tenure	-.05* (.03)	-.04 (.03)	-.05* (.03)
5. Audit committee gender diversity	-.40 (.71)	-.27 (.72)	-.25 (.72)
6. Audit committee legal expertise	-.25 (.74)	.04 (.75)	.03 (.76)
7. Audit committee directorship experience	-.22 (.20)	-.24 (.21)	-.23 (.21)
8. Audit committee bandwidth	.40 (.32)	.31 (.33)	.23 (.33)
9. CEO duality	.12 (.24)	.16 (.24)	.12 (.24)
10. CEO tenure	.04** (.02)	.03* (.02)	.03* (.02)
11. External audit firm size	-.09 (.29)	-.09 (.29)	-.19 (.29)
<i>Independent variables:</i>			
12. The number of audit committee financial experts		.33** (.12)	.83** (.27)
13. The number of audit committee financial experts <sup>2</sup>			-.15* (.07)
$\chi^2$	12.93	20.60*	25.34*
Nagelkerke $R^2$	.05	.08	.09

<sup>1</sup>  $N = 352$  firms. Tests are one-tailed. Standard errors are in parentheses. Source: Created by author.

\* $p < 0.05$

\*\* $p < 0.01$

**Figure 1**  
Reversing Effects of The Number of Audit Committee Financial Experts on The Likelihood of Financial Corruption<sup>1</sup>



<sup>1</sup> Source: Created by author.