



Preparers and the financial reporting system

Sarah McVay & Brandon Szerwo

To cite this article: Sarah McVay & Brandon Szerwo (2021) Preparers and the financial reporting system, *Accounting and Business Research*, 51:5, 484-507, DOI: [10.1080/00014788.2021.1932257](https://doi.org/10.1080/00014788.2021.1932257)

To link to this article: <https://doi.org/10.1080/00014788.2021.1932257>



© 2021 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



Published online: 09 Aug 2021.



[Submit your article to this journal](#)



Article views: 389



[View related articles](#)



[View Crossmark data](#)

Preparers and the financial reporting system

SARAH MCVAY^{a*} and BRANDON SZERWO ^b

^aUniversity of Washington, Seattle, WA, USA; ^bUniversity at Buffalo, The State University of New York, New York, NY, USA

We review the accounting and related literature on the preparation of public company financial reports. We highlight numerous impediments to producing high quality financial reports, focusing on the roles of management, the board of directors, and internal audit. Key incentives of the CEO do not encourage investments in financial reporting quality, despite evidence that these investments provide net benefits to the firm, instead, key incentives appear to elicit myopia. We also demonstrate that although theoretically the board of directors and internal audit are integral components of firms' internal controls, in practice there are numerous obstacles to effective oversight, including a lack of independence from management. Recent regulations have lessened but not fully mitigated these concerns.

Keywords: Financial reporting; management; board of directors; incentives; regulation

1. Introduction

In this paper we summarise research related to how the preparers of financial statements are regulated and incentivised, and what impact this has on financial reporting quality.¹ We concentrate on management, the board of directors, and internal audit. Given the vital role of management and the board in forming financial statements, understanding the motives of – and guardrails around – each should allow both researchers and practitioners to better understand the ultimate strengths and shortcomings of companies' financial reporting processes and deliverables.

We begin the review, in Section 2, with a discussion of the meaning of financial reporting quality, common methods of earnings manipulation, the role of regulation, and how fraud tends to be discovered, including the role of whistle-blowers. For example, in Section 2.3 we describe how the financial reporting process is viewed largely as a compliance activity, lowering the perceived value of 'investing' in the necessary resources to produce high-quality financial reports. We describe important ripple effects whereby these 'compliance' activities improve

*Corresponding author. Email: smcvay@uw.edu

¹Our emphasis tends to be on public U.S. firms, the focus of most studies. This is not an exhaustive review, but instead a summary of representative research intended to succinctly inform the reader. We discuss the construct of financial reporting quality in Section 2.

the internal operating efficiency of the firm.² We also describe how, in the United States, the Sarbanes-Oxley Act of 2002 (SOX) added regulations such as CEO and CFO certifications, which have shifted whether and *how* managers manage earnings. At the same time, internal controls have been systematically strengthened, further mitigating both intentional and unintentional reporting errors. In Section 3, we consider management and how the tone at the top affects the actions of those preparing the financial statements. We describe how managers' incentives to report strong earnings can lead to the misrepresentation of earnings. We discuss the board of directors and, more specifically, the audit committee in Section 4. Both the board and the audit committee have experienced major shifts in regulation, composition, and risk – largely due to SOX and related regulations. We review some broad findings related to the board and then discuss the incentives and expertise of audit committee members. We discuss the role of internal audit in Section 5. Internal auditors are influenced by the incentives and relative influence of managers and the audit committee and have an ever-evolving role in the preparation of financial statements, including testing internal controls. We conclude with areas where additional research might expand our knowledge.

In summary, although there are many regulations and controls in place to facilitate the preparation of high-quality financial reports, research suggests that there are numerous obstacles, including insufficient investments in the accounting function, personal incentives, and proprietary costs, that inhibit the ability of financial reports to fully convey firm performance.

2. Financial reporting background

In this section we first describe, in Section 2.1, 'financial reporting quality.' We then describe, in Section 2.2, common methods of earnings manipulation. In Section 2.3, we describe the role of regulation and discuss some evidence of the net benefits of regulation. Finally, in Section 2.4 we detail how frauds are ultimately uncovered, providing background information on whistleblowers. Each of these sections provide background knowledge to facilitate our discussion of the role of preparers in financial reporting, which begins in Section 3.

2.1. *The construct of financial reporting quality*

We define high quality financial reporting following Dechow and Schrand (2004) as the reporting of earnings that accurately reflect companies' current operating performance.³ We discuss common measures of financial reporting quality in the following paragraphs. It is important to note that our focus is on the controllable aspects of preparation and reporting, whereas financial reporting quality is in a large part – an estimated 50% – driven by underlying features such as industry and macro-economic conditions (Dichev et al. 2013). Dichev et al. (2013) also note that many CFOs feel that standard setting has lowered financial reporting quality, that 'there

²Shakespeare (2020) describes how higher quality financial reporting improves transparency, which 'lowers information asymmetry leading to an improvement in investment decisions.' We extend this discussion to internal reports, in that the same systems that generate external financial reports also generate internal reports that can be used by management to make operating decisions. Low-quality internal reports can lead to low-quality operational decisions.

³From survey evidence, CFOs view high-quality earnings as those that are sustainable and repeatable (Dichev et al. 2013). This requires the separation of transitory items, which reflect operating performance but are not expected to recur, which is often achieved through non-GAAP earnings. Financial reporting quality is broader than *earnings* quality and includes disclosures supplementing the financial statements.

is a dissonance between standard setters' and CFOs' views on the proper determination of earnings, e.g. the roles of matching and fair value accounting.' For example, fair value accounting allows the balance sheet to be more representative of current values but adds volatility to the income statement. Over 65% of respondents want standard setters to issue fewer new rules, and almost 60% would like a convergence between IFRS and U.S. GAAP. Dichev et al. (2013) also conclude, however, that in any given period 20% of firms manage earnings to misrepresent economic performance, representing 10% of earnings per share for these firms.

Prior research employs numerous techniques to measure financial reporting quality. The strongest evidence of low-quality financial reporting is the existence of restatements and regulatory enforcements. Despite their unambiguous nature, they tend to identify egregious cases of firms that are caught and thus are a function of both financial reporting quality and detection risk, and only identify a subset of firms that manipulate earnings. To capture less egregious forms of low-quality financial reporting, researchers often measure the relation between accruals and cash flows. For example, Dechow and Dichev (2002) introduce a measure of accruals quality that captures how well accruals map into prior, contemporaneous, and future cash flows. They note that the failure of accruals to become cash could reflect estimation difficulties stemming from uncertainty and volatile operations but could also reflect earnings manipulation. A related measure is abnormal accruals, which are unusually high or low accruals, and provide red flags for earnings manipulation (see Walker 2013 for a recent paper summarising measurement techniques). Abnormal accruals can be calculated for most firms but have a great deal of measurement error.

Some researchers also view firms that 'just meet' earnings benchmarks to be a suspicious subgroup (Burgstahler and Dichev 1997), although clearly many of these firms met their goals fairly (Allen et al. 2017). There have been several recent innovations in identifying firms that have lower quality financial reporting, such as computational linguistics to form estimates of report readability (the Fog Index; Li 2008), comparing financial and non-financial measures (e.g. differences between revenue growth and employee growth; Brazel et al. 2009), or using machine-learning (Cecchini et al. 2010, Brown et al. 2020), textual analysis (Hoberg and Lewis 2017), or vocal markers (Hobson et al. 2012).⁴

2.2. Mechanisms to manipulate earnings

In this section, we give some context to how managers can manipulate earnings. Like financial reporting, these tools are constantly evolving. As regulators and rule-makers close a particular avenue, creative managers find new ones. Oftentimes these can be incredibly complex. We focus on common techniques used by many firms.

Dechow et al. (2011) compile 2,190 accounting and audit enforcement releases from the SEC, dating from 1982 to 2005. Misstatements of revenues is the most common infraction, occurring in 54% of the firms identified as having manipulated earnings. The next most common infractions are the capitalisation of expenses as assets (27.2%) and misstatements of other expenses (25.1%). Most misstatements result in overstated earnings. By construction, virtually all these manipulations relate to accrual manipulation, through erroneous journal entries or by misstating the amounts. For example, recognising revenue too soon, or not entering a necessary adjusting entry, such as wage expense incurred but not yet paid.

⁴See Dechow et al. (2010) and Walker (2013) for comprehensive reviews on measuring earnings quality and understanding managers' motives, and Amiram et al. (2018) for a more in-depth discussion of recent innovations to identifying manipulation firms.

In practice, the amounts can often be small enough that they are not considered material departures from accounting standards, but still mislead financial statement users. For example, presenting accounts receivable at amounts higher than estimated collections might allow firms to just meet consensus analyst forecasts, which can have significant effects on stock prices (e.g. Skinner and Sloan 2002). A consequence of accrual earnings manipulation is that the earnings that are recognised too soon – by accelerating revenues or delaying expenses – are taken from a future period. In the future period there will be fewer revenues and/or more expenses to recognise. Thus, to meet earnings expectations in the future, the firm must do even better, through improved performance or by again manipulating earnings. Herein lies the slippery slope to fraud (Schrand and Zechman 2012).

A more subtle form of earnings manipulation, classification shifting, relates to the classification of amounts *within* the income statement or cash flow statement. Given analysts' and managers' focus on core earnings for valuation purposes, a common form of classification shifting is to classify ongoing expenses as part of a transitory expense that will be excluded from the core earnings determination (McVay 2006). For example, managers can classify ongoing legal fees as part of a restructuring charge. Prior research has documented shifting profits across segments, recurring expenses to discontinued operations, and operating expenses to income-tax expense, as well as shifting within the cash flow statement to overstate cash from operations. Although technically a violation of accounting standards, the method is lower cost in that it does not change bottom-line earnings (or total change in cash), and thus auditors are less likely to require a correction even if identified. Moreover, classification shifting does not depend on the borrowing of future profits, like accrual manipulation, and thus has less of a ratcheting effect.

Alternatives to manipulating earnings to convey information include manager-provided earnings forecasts or other voluntary disclosure such as describing recent innovations. Managers have concerns however, about setting a precedent or revealing proprietary information to competitors – see Simpson and Tamayo (2020) for a discussion of the trade-offs relating to voluntary disclosure, which reduces information asymmetry and increases proprietary costs. Thus, a common outcome is 'operational' earnings manipulation, where managers make suboptimal operational decisions to improve reported earnings (Graham et al. 2005). Although not a GAAP violation and thus 'safe' from restatements or SEC enforcement actions, operational earnings manipulation can be detrimental to firm value. Examples include cutting or delaying expenses like research and development (R&D), advertising, maintenance, or training. The immediate effects are marginal, but the longer-term effects can be significant. Graham et al. (2005), in their survey, find that 78% of managers are willing to destroy value in these ways to provide the desired financial reporting outcome.

2.3. Regulation and financial reporting

Regulation is one method to combat manipulation and other threats to high-quality financial reporting. Properly functioning financial markets rely on high-quality financial reporting – investors need accurate and sufficient information to make informed decisions about the allocation of scarce resources (Kanodia 1980, Watts and Zimmerman 1986, Kothari et al. 2010). Moreover, investors have diffuse benefits to monitoring and are at an information disadvantage relative to managers. In response, politicians and regulators generally craft financial reporting regulation to facilitate high-quality disclosure from managers to investors (Healy and Palepu 2001). However, disclosure is costly, and politicians and regulators must carefully weigh the costs and benefits of disclosure regulation as they seek to promote efficient capital markets. New realities (e.g. increased complexity of financial contracts, cyber security concerns, globalisation) can change the perceived optimal amount and mix of disclosure regulation. Additionally,

financial turmoil and macroeconomic cycles have been shown to influence disclosure regulation (Bertomeu and Magee 2011). For example, turbulent financial markets are often followed by new regulation whereas periods of calm in financial markets are often met with calls for deregulation to help financial markets grow and reduce costs.

The Sarbanes-Oxley Act of 2002 in the U.S. is a prominent example of such regulation following a series of financial reporting failures (e.g. Enron, Tyco, and more). Among its most noteworthy regulations are the requirement for CEOs and CFOs to certify their company's financial statements, the requirement to disclose the presence or absence of financial expertise on the audit committee, the requirement to disclose the effectiveness of internal controls, and the establishment of the Public Company Accounting Oversight Board (PCAOB), which oversees the audits and auditors of companies listed on U.S. exchanges. Research on these provisions has generally found that they have improved financial reporting quality and trust in capital markets, but at a cost, and with some unintended consequences.

Generally, financial reporting is viewed as a compliance activity and, as a result, the large investments required to respond to regulation are often resented. They are often viewed as providing few real benefits (Alexander et al. 2013). For example, in Table 2 of Alexander et al. (2013), although almost half of managers believed the internal control regulation stemming from SOX (Section 404) would improve financial reporting, only five percent felt it would improve the company's ability to raise capital and only one percent felt it would improve the efficiency of the company's operations. Yet, empirical research finds evidence of such benefits. Shakespeare (2020) discusses the link between financial reporting and investment, demonstrating that higher quality financial reporting facilitates investment through lower cost of capital (e.g. Roychowdhury et al. 2019, Shroff 2020) whereas internal controls over financial reporting rein in empire-building (Cheng et al. 2013). Conversely, research also provides some evidence that firms (especially small firms) opted to go private or be acquired rather than incur the SOX-related costs, which suggests the perceived costs of the regulation outweighed the perceived joint benefit of the regulation and being public (Engel et al. 2007, Kamar et al. 2009).

Although ineffective internal controls are associated with lower quality financial reporting, on average, Doyle et al. (2007) provide evidence that this association is concentrated in company-level weaknesses. In contrast, account-specific weaknesses (e.g. inventory-related weaknesses) appear to be corrected by auditors through substantive testing. Substantive testing does not, however, correct errors in internal management reports, which managers can use to make operational decisions. Feng et al. (2009) provide evidence that ineffective internal controls extend beyond financial reporting quality, leading to more erroneous management guidance.

Consistent with the broader reach of internal controls over financial reporting, there is evidence that improvements to internal controls over financial reporting improve the day-to-day operational efficiency of firms. Again, the same internal controls that shape external financial reports often produce internal reports used by management to make operational decisions such as inventory purchases and pricing. If the internal management reports contain errors because of ineffective internal controls, managers' decisions can be flawed, hurting profitability (Feng et al. 2015). Ge et al. (2017) provide a quantitative assessment of the net benefits of Section 404 for non-accelerated filers – the firms exempted from the auditor's assessment of internal control effectiveness. Ge et al. (2017) first document systematic under-reporting of ineffective internal controls absent auditor oversight. This is important because upon identification and disclosure, it is common for the board to pressure management to remediate ineffective internal controls (Goh 2009). Without identification and disclosure, the weaknesses are unlikely to be remediated. Ge et al. (2017) attempt to measure the 'cost' of this under-reporting, measured using the firm's future stock-returns as well and the firm's future return-on-assets. The authors

conclude that those with unidentified or unreported material weaknesses in internal control experience a net loss – despite the audit fee savings – because of the resulting inefficient operations. This suggests that firms with ineffective internal controls would benefit from identifying and remediating these controls – and that managers do not appear to fully understand the benefits of regulation or are not sufficiently incentivized to establish and maintain effective internal controls.

Regarding the PCAOB, Lamoreaux et al. (2020) find that having an auditor subject to PCAOB inspection can lower the cost of capital by reducing information risk. In section 4.2, as part of our discussion on the audit committee, we address how the provision to disclose the presence or lack of financial expertise on the audit committee affects the financial reporting oversight provided by the audit committee.

SOX was far reaching in its provisions to improve financial reporting quality. It also, however, had unintended consequences. Its many provisions reduced the manipulation of accruals, but these reductions were offset with a costly shift toward operational earnings manipulation (Cohen et al. 2008, deHaan et al. 2013, Bao et al. 2018), illustrating an unintended consequence of regulation. As an example, although deHaan et al. (2013) provide evidence that clawback provisions reduce accrual manipulation and are associated with higher perceptions of financial reporting quality, Bao et al. (2018) provide evidence that managers simply replaced the accrual manipulation with operational earnings manipulation.

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, which followed the financial crisis of 2007 and 2008, is another example of regulation following financial turmoil. Although it primarily affected the financial regulatory system of the U.S., it did contain provisions to require publicly traded companies to adopt clawback provisions related to inaccurate financial reporting and to promote whistleblowing. We discuss the role of whistle-blowers in the following subsection.

As an example of deregulation in the U.S., the Jumpstart Our Business Startups Act (JOBS Act) in 2012, allows for a new category of public issuers, Emerging Growth Companies, with lower reporting requirements. The SEC also eased the requirements to be considered a Smaller Reporting Company in 2018 and exempted these companies from being labelled accelerated filers in 2020, both of which lowered disclosure requirements. Research on the JOBS Act provides evidence that it increased the number of companies participating in initial public offerings, especially among firms with high proprietary disclosure costs (Dambra et al. 2015). The JOBS Act, however, also increased information uncertainty in – and underpricing of – initial public offerings of emerging growth companies (Barth et al. 2017). Another provision of the JOBS Act allows greater analyst involvement in initial public offerings. Dambra et al. (2018) find that affected analysts issue more optimistically biased coverage to the benefit of the issuers, analysts, and investment banks, but to the detriment of investors. Combined, the evidence points to the JOBS Act increasing initial public offerings, as intended, but also increasing information uncertainty and the associated costs of that uncertainty.

2.4. Uncovering fraud – the role of whistle-blowers

Dyck et al. (2010) highlight that fraud is most often uncovered by employees, analysts, and journalists. They describe how these players observe or gather relevant information in their day-to-day work, whereas other players, like the SEC, are essentially looking for a needle in a haystack. They also explain that journalists experience a large reputational benefit from uncovering fraud, whereas employees are often incentivized by reputational concerns and financial rewards from whistleblowing.

Research on whistle-blowing related to financial statement impropriety within the organisation is severely limited because of a lack of data. Thus, most studies examining whistle-blowing typically rely on information from class action lawsuits (Dyck et al. 2010) or data from the press or the U.S. Department of Labor Occupational Safety and Health Administration (OSHA) granted under the Freedom of Information Act (Bowen et al. 2010, Wilde 2017, Call et al. 2018). SOX Section 806 pertains directly to whistle-blowers and provides protection for employees of publicly traded companies who provide evidence of fraud (U.S. House of Representatives 2002).⁵

The process, as outlined in Figure 1 from Bowen et al. (2010), describes a sequence of possible actions and consequences. The employee must first observe a potential impropriety and make an allegation to management or internal audit. In some instances, their concerns are addressed internally, and no further action is taken by the employee. If the employee's concern is not addressed, but they do not experience retaliation, they can choose to do nothing further or approach the media. If they are retaliated against because of their allegation, they can choose to do nothing, go to the press, or file a complaint with OSHA. Bowen et al. (2010) note that '90% of whistle-blowers are subjected to reprisals or threats' per a survey conducted by the Government Accountability Project.

Bowen et al. (2010) compare whistle-blowing firms to other firms experiencing either a shareholder lawsuit or earnings restatement. They find that on average whistle-blowing targets had weaker internal monitoring, such as the CEO serving as the chair of the board, and more inside or busy directors; we discuss these and other board features in Section 4. They also find that whistle-blowing targets exposed by the press are more likely to *change* their governance features – by reducing the size of the board, the proportion of insiders and busy members on the board, or by replacing the CEO, whereas the firms that were not picked up by the press on average did not.⁶ Following these allegations, however, firms experiencing whistle-blowing tend to improve their financial reporting quality (Wilde 2017).

3. Management

3.1. Chief Executive Officers

Chief Executive Officers (CEOs) have broad decision authority. The tone set by the CEO tends to permeate through the company. For example, Biggerstaff et al. (2015) document that an unethical corporate culture leads to numerous actions such as back-dating of options and financial fraud. The authors link this poor behaviour to externally hired CEOs who, they argue, shape firm culture. Thus, as discussed in Section 4, the oversight role of the board of directors is vital.⁷

Understanding CEO incentives relating to financial reporting is challenging. A key role of CEOs is investment. All else equal, higher quality financial reporting leads to a lower cost of capital, thereby facilitating investment (Shakespeare 2020). Also as noted by Shakespeare (2020), many CEOs have an incentive to expand the company through acquisitions (i.e. empire-build). Acquisition activity grows the firm rapidly, resulting, in the short-term, in an

⁵<https://www.sarbanes-oxley-101.com/sarbanes-oxley-whistleblower.htm>

⁶The press sample covers more visible firms with more sensational whistleblowing allegations, whereas the non-press sample may contain more frivolous complaints.

⁷As summarized in Amiram et al. (2018), managers' actions vary with their personal backgrounds, religious beliefs, geographic commonalities, political affiliations, and school or social networks. For example, Davidson et al. (2015) document that managers who misbehave outside of the workplace, based on legal infractions identified through background checks, are more likely to misbehave in the workplace as well.

increase in CEO power, prestige and perquisites (Bebchuk and Fried 2006).⁸ As noted in Section 2.2, however, managers are myopic in that they are willing to forgo profitable investments to meet earnings benchmarks to avoid both compensation and equity market penalties. This is especially salient in innovative firms, where unlike capital expenditures or mergers and acquisitions, R&D investment hurts the bottom line (see Simpson and Tamayo 2020).

Core (2020) discusses at length the role of compensation and equity holding incentives on CEO behaviour, such as the desire to manipulate earnings to meet bonus thresholds or increase stock price.⁹ In essence, financial reporting *leads* to myopic behaviour, and myopic behaviour leads to earnings manipulation and thus both lower quality financial reporting and weaker long-term performance (Asker et al. 2015). Bushee (2001) demonstrates that transient investors prefer short-term earnings over long-term value, exacerbating short-termism. Kraft et al. (2018) examine the U.S. shift from annual to semi-annual, and then to quarterly reporting from 1950 to 1970 and document a decrease in long-term investments. Evidence in the European Union, however, is mixed. Examining the initiation of the quarterly reporting requirement in 2007, and subsequent removal in 2014, Pozen et al. (2017) found ‘no material impact on levels of corporate investment’ whereas Ernstberger et al. (2017) provide evidence of an increase in operational earnings manipulation in the period of increased reporting.

As we will describe in Section 4, intense monitoring by the board can also promote myopia as the CEO may not feel they are supported in undertaking risky but value-enhancing ventures (Faleye et al. 2011). On the flip side, recent evidence suggests bonus compensation contracts are designed to exclude items that may lead to myopic behaviour, especially around restructurings (Curtis et al. 2021). Myopic behaviour is also lessened when more dedicated investors own the firm and when the duration of executive pay is longer (Gopalan et al. 2014). In addition, a recent move by boards to require CEOs to hold a certain level of equity appears to help curb short-termism (Core and Larcker 2002, Quinn 2018). Other proposed solutions include longer-term incentive structures that allow for early failure of high-risk projects (Simpson and Tamayo 2020) such as developing and incentivizing metrics of long-term value creation (Kay 2012), capitalisation of intangibles or the creation of a statement of unrecognised intangibles (Cooper 2020), and increased voting rights for shareholders based on the length of their holding period (Pozen et al. 2017).

Although CEOs do not generate the financials, their influence affects those who do. For example, Feng et al. (2011) document that CFOs of firms found to have manipulated earnings did not manage earnings in response to their own equity incentives, on average, but instead they appeared to succumb to pressure from CEOs with equity incentives to report higher earnings. Importantly they find this evidence is stronger when the CEOs are powerful. Feng et al. (2011) describe more powerful CEOs as those that are more likely to be a founder, the Chairman of the Board, and those with a higher share of the total compensation of the top five executives.¹⁰

⁸At the same time, managers who are effort-averse may prefer ‘the quiet life’ and under-invest (Bertrand and Mullianathan 2003). For example, Biggerstaff et al. (2017) use golf play as a measure of leisure and provide evidence that ‘CEOs shirk their responsibilities to the detriment of firm shareholders.’

⁹He notes that improvements to accounting and internal controls make earnings more difficult to manipulate, which then leads to earnings being used more in incentive contracts (Carter et al. 2009). Clawbacks similarly reduce incentives to manipulate accruals to meet compensation incentives (deHaan et al. 2013). An unintended consequence discussed in Section 2.3 is that managers have shifted toward conducting operational earnings manipulation—such as deferring necessary maintenance costs—when they face strong incentives for higher performance (Bao et al. 2018). Thus, earnings manipulation has shifted from ‘on paper’ accruals manipulation to more costly operational earnings manipulation.

¹⁰Firms with founding or heir CEOs tend to have more opaque financial reporting and often the founder or heir exploits this opacity to extract private rents (Anderson et al. 2009). Founders also tend to exert greater

There are numerous incentives to manipulate earnings, including myopia. Schrand and Zechman (2012) describe the apparent motives for 49 SEC enforcement actions, finding that only 13 were primarily motivated by personal gain (e.g. insider trading or increased compensation). The other cases were predominately motivated to meet targets (either internal or external) or maximise proceeds from external financing – motives meant to primarily benefit the firm rather than the executive (see also Holmes 2020). Schrand and Zechman (2012) document that optimism appears to have led these managers down a ‘slippery slope’ to misreporting in that the executives were initially too optimistic about the future, and when realizations fell short, they made small, within-GAAP adjustments. These misstatements escalated over time.¹¹

At the end of the day, CEOs aspire to maximise their wealth and reputation. Rather than invest in infrastructure to improve financial reporting, they generally prefer to invest in projects that more directly grow the firm. Unfortunately, when faced with a declining firm, CEOs’ incentives to grow can lead them to continue to invest in the declining firm, wasting real resources (Jensen 1993). CEOs may avoid investing in projects with longer-term payoffs because of emphasis on short-term performance by the board and investors (Bushee 1998).

3.2. Chief Financial Officers

Chief Financial Officers (CFOs) oversee the accounting function and thus bear ultimate responsibility for accurate and timely financial reporting. They direct financial planning, budgeting, financial reporting – including the structuring of transactions and accounting method selection – and the documentation and testing of internal controls over financial reporting. The responsibility to produce high-quality financial statements in accordance with applicable accounting standards rests with the CFO (and ultimately the CEO). However, here too, expertise and personal incentives can impact the quality of the financial reports they oversee. With respect to financial reporting incentives, CFOs typically desire to report smooth earnings and meet earnings benchmarks – especially four-quarters-ago earnings and the analyst consensus estimate (Graham et al. 2005). In their survey of 400 CFOs, Graham et al. (2005) state:

Managers describe a trade-off between the short-term need to “deliver earnings” and the long-term objective of making value-maximizing investment decisions. Executives believe that hitting earnings benchmarks builds credibility with the market and helps to maintain or increase their firm’s stock price.

The incentive to ‘deliver earnings’ intertwines with the desire to advance to CEO (Nyberg 2002) as well as maximise their own compensation (Jiang et al. 2010).¹²

CFOs often aspire to move up to CEO, either in the current firm or elsewhere, and the CFO role is often viewed as the training ground for CEOs. As a result, the CFO is juggling not only their financial reporting oversight role, but also strategic decision-making to grow the company. The latter role is increasing in complexity with changes in technology, globalisation, regulation

influence over the board of directors and firms managed by the founder tend to experience more earnings manipulation—which is attributed to founder hubris and overconfidence (Amiram et al. 2018).

¹¹Schrand and Zechman (2012) examine the managerial trait of overconfidence. There are numerous papers documenting that various CEO characteristics impact firm decisions and outcomes (e.g., Bertrand and Schoar 2003).

¹²Jiang et al. (2010) demonstrate that CFOs are willing to adjust accruals to meet earnings benchmarks to maximize their equity incentives; they do not examine ex post restatements or SEC enforcement actions and thus these adjustments could be within-GAAP adjustments; Feng et al. (2011) demonstrate that *fraud* is typically instigated by CEOs.

and competition (Jensen 1993). This offers a clear incentive problem, in that the incentive of upward mobility may outweigh the incentive to achieve excellence in a compliance role. This shift in the role of the CFO led to fewer CFOs with accounting experience heading into the financial scandals of the early 2000s. Aier et al. (2005) document that more experienced CFOs (those with more years of experience as a CFO), as well as CFOs with MBAs or CPAs, are less likely to experience financial restatements from 1997 through 2002. The authors suggest that this association likely stems from the deemphasis of ‘the role of CFOs as a monitor of the integrity of financial reporting.’ Nyberg (2002) notes that ‘accounting skills are back in vogue for CFOs, given the massive amounts of work associated with the new disclosure and governance rules flooding out of the Securities and Exchange Commission and the stock exchanges.’ The role again pivoted to a strategy focus as CFOs helped their companies through the economic downturn related to the financial crisis (Dill 2013). To fill this void, it is increasingly the controller or chief accounting officer who keeps the actual books and reports to the CFO. Rhodes and Russomanno (2021) document that this delegation results in higher quality financial reporting in complex firms, as it essentially allows the CFO role to be partitioned between financial reporting and strategic matters.

High-quality financial reporting demands more, however, than simply financial expertise. Numerous studies demonstrate that various CFO traits affect financial reporting quality (e.g. Ge et al. 2011). For example, Barua et al. (2010) document that women CFOs have higher quality accruals and Demerjian et al. (2013) document that more able managers are associated with more accurate accrual estimations. The mix of the management team also matters. For example, Zhang (2019) provides evidence that homogenous top management teams have lower quality financial reporting; homogeneity can increase acquiescence and active collusion within the team.

The cost of accounting failures is high, both to the firm and manager. Firms tend to experience stock price declines and an increased cost of capital, in a large part stemming from a loss of reputation and thus trust (Amiram et al. 2018). Karpoff et al. (2008) document that more than 90% of culpable managers are replaced, and many face criminal charges and jail sentences. Although less severe, repercussions are also documented when examining the effectiveness of internal controls under the disclosure mandate of SOX (Section 404). Li et al. (2010) document that firms that have less-qualified CFOs are more likely to disclose ineffective internal controls and are more likely to be replaced.¹³

Also, as noted in Section 2.1, CFOs are subordinate to CEOs, which can cause frictions – in addition to having their own incentives, CFOs are at times forced to trade off accuracy to placate CEOs. Feng et al. (2011) provide evidence that many CFOs left the firm prior to the accounting manipulations, suggesting they either left or were fired when they were unwilling to cooperate with CEOs’ demands to distort performance.¹⁴ Governance features that are intended to reduce the willingness of CFOs to manipulate earnings include the required certification of the financial statements as part of SOX as well as lower equity incentives than CEOs given their direct control over the performance metrics (Indjejikian and Matejka 2009). Nonetheless, Bishop et al. (2017) find in an experimental setting using 69 public company CFOs that they continue to succumb to pressure from CEOs when asked to manipulate earnings, even when subject

¹³Li et al. (2010) measure ‘qualified’ as having a CPA or having worked in public accounting and with years of experience holding a CFO position.

¹⁴There is evidence that CFOs are often fired following reporting poor performance (Mian 2001). The author interprets this as disciplinary—in response to the poor performance—but perhaps it is also retaliatory if they refused to manipulate earnings at the behest of the CEO.

to the CFO certification requirement of SOX.¹⁵ Importantly, however, they find that CFOs with greater financial expertise were less likely to acquiesce. Feng et al. (2011) note that the influence of CEOs could be further mitigated by having the board or audit committee be more involved in CFO hiring and performance evaluation decisions. As a word of caution, however, Khanna et al. (2015) document that the risk of corporate fraud is higher when the CEO appointed the CFO or board. Thus, shifting the monitoring of the CFO to the board may only be effective if the board is not captured. We discuss board features further in Section 4.

In sum, CFOs have incentives to report smooth earnings that are increasing over time and meet consensus analyst forecasts, while avoiding restatements or other negative events, for which they bear high costs, such as job loss. The costs are especially high following the required certification stemming from Section 302 of SOX.

4. Board of directors and audit committee

4.1. Board of directors

The board of directors plays an integral role in firm oversight. ‘The board, at the apex of the internal control system, has the final responsibility for the functioning of the firm’ (Jensen 1993). They are meant to represent the shareholders and their charge is to both monitor and advise, including hiring and compensating the CEO. Although the board is meant to contract at arm’s length with the CEO, doing so is extremely challenging. There is a wealth of evidence that the board is often captured by the CEO who unduly influences decisions such as CEO pay (e.g. Bebchuk and Fried 2004; 2006) and director compensation (Ryan and Wiggins 2004).

The challenges are many. Jensen (1993) describes how politeness and courtesy overshadow truth and frankness in the boardroom – in part stemming from human nature, where CEOs have a hard time accepting, let alone seeking out, board monitoring and criticism. When CEOs serve as chairman of the board, they control the board and agenda, which enables them to provide insufficient information for the board to effectively monitor and evaluate the CEO and the company’s strategy.

The directors’ incentives, which can vary based on whether a director is an insider (employee of the firm) or an outsider (nonemployees), play a key role in their behaviour. A common concern relating to inside directors is that they report to the CEO and thus will be unlikely to contradict or question the CEO’s statements or proposed strategies.¹⁶ Outside board members, although more independent, are influenced by other incentives including prestige, reputation, learning opportunities, networking, and career consciousness (Fama and Jensen 1983, Jiang et al. 2016) as well as more direct remuneration in the form of cash and equity, which Yermack (2004) estimates to comprise about half of the benefit of being a board member.¹⁷

¹⁵Moreover, some CFOs instigate misreporting. Using signature size to identify narcissistic CFOs, Ham et al. (2017) document that CFO narcissism is associated with earnings manipulation, weak internal controls, and financial restatements. The authors conclude that although ‘narcissists might be effective leaders in some contexts ... they may not be well-suited to the oversight of financial reporting.’

¹⁶Jensen (1993) argues that insiders are unable ‘to participate openly and critically in effective evaluation and monitoring of the CEO’ and suggests the CEO be the only insider on the board whereas outsiders should be invited in an ex officio capacity to allow for their expertise without their oversight, and that active investors be included as outside members ‘because they have the financial interest and independence to view firm management in an unbiased way.’

¹⁷Yermack (2004) notes the equity component has grown over time. He concludes that financial incentives to serve on boards is non-trivial, and that directors benefit when the stock price of the firm they govern increases. Similarly, Bebchuk and Fried (2006), among others, note that CEOs have influence over director pay.

Compensation is an important means to incentivizing directors. Of particular importance to directors' financial reporting oversight roles, is compensation that encourages monitoring (Bebchuk et al. 2002). In practice, this often takes the form of equity compensation, which is meant to tie directors' compensation to the long-term performance of their firms by giving them an equity interest in their firms (Jensen 1993). As noted by Ryan and Wiggins (2004), board independence 'enhances shareholder welfare since board independence results in compensation contracts that provide directors with stronger incentives to monitor.' Additional empirical research supports the benefits of equity compensation. Fich and Shivdasani (2005) find evidence that the use of stock-option compensation for independent directors aligns their incentives with those of shareholders when examining market-to-book ratios and profitability. Specific to financial reporting, Sengupta and Zhang (2015) identify a positive relation between the ratio of equity compensation to total compensation and disclosure quality, as measured directly by management earnings forecasts and indirectly by analyst earnings forecasts and the cost of equity capital.

A lack of independence is one of the most prominent threats to monitoring by directors. Directors can lose independence through interlocking, CEO involvement in the board-selection process, and other arrangements that cause directors to be beholden to CEOs. Interlocking occurs when the CEO of firm A sits on the board of firm B while the CEO of firm B concurrently sits on the board of firm A (Hallock 1997). Interlocking is typically deliberate, and designed to increase knowledge and practice sharing between those within the network (Hallock 1997, Bloch et al. 2020). Although there can be benefits to such networking, studies have found that interlocking has contributed to the spread of options backdating, aggressive tax reporting, and restatements (Bizjack et al. 2009, Brown 2011, Chiu et al. 2013). The benefits of interlocking appear to be primarily to the CEOs and not shareholders (Fich and White 2005).

Furthering concerns, the CEO is often involved in the board-selection process and this involvement tends to reduce the independence of the board along numerous dimensions (Hermalin and Weisbach 2003). Existing directors worry about re-appointment and new directors often feel beholden to the CEO. Khanna et al. (2015) document that when a greater proportion of the board was appointed during the current CEO's tenure, the CEO has more influence over the board and the risk of fraud is higher.¹⁸ Independence can also vary over time for the same CEO, in that when performance is strong, the perceived value of the CEO is higher and thus their power is heightened. Core et al. (1999) find that 'firms with weaker governance structures have greater agency problems; that CEOs at firms with greater agency problems receive greater compensation; and that firms with greater agency problems perform worse.' CEO compensation is 20–40% higher when the CEO also serves as the board chair and is also higher when boards are larger and have a greater proportion of outside directors serving on multiple boards or appointed by the current CEO.¹⁹

The willingness to fire the CEO is viewed as evidence that the board is effective, however, termination is typically limited to ethics violations or rare instances where investors 'revolt' rather than a response to 'mediocrity' (Bebchuk and Fried 2006). Moreover, firings are often

¹⁸Other connections may also reduce board independence, such as network ties through attending the same universities or sharing prior employers or social networks; Khanna et al. (2015) do not find a strong correlation between these ties and fraud, although Hwang and Kim (2009) conclude these relationships lower the independence of the socially-connected director.

¹⁹Directors are seldom fired in firms experiencing financial misconduct—furthering the seemingly perverse incentive structure. Moreover, independent directors are rarely held financially accountable despite frequently being named in securities-related lawsuits (Black et al. 2006, Brochet and Srinivasan 2014). Audit committee members, however, are more likely to lose their board seats following failures in financial reporting (Srinivasan 2005).

accompanied with extra payments to facilitate the departure and ‘alleviate the directors’ guilt and discomfort’ (Bebchuk and Fried 2006). These are often coined ‘golden handshakes’ and do not support the view that the board is independent (Yermack 2006).

Excess pay is lower and boards are more likely to terminate ineffective CEOs when a non-CEO founder is on the board (Li and Srinivasan 2011) and when a majority of independent directors serve on the principle monitoring committees and, thus, have greater influence (Faleye et al. 2011). Interestingly, founders’ monitoring appears to focus on strategic decisions where their specialised knowledge can aid in decision-making (Li and Srinivasan 2011), whereas influential independent directors appear to curb earnings manipulation but, consistent with exasperating the myopia previously discussed, ‘exhibit worse acquisition performance and diminished corporate innovation. Firm value results suggest that the negative advising effects outweigh the benefits of improved monitoring, especially when acquisitions or corporate innovation are significant value drivers or the firm’s operations are complex’ (Faleye et al. 2011).

More generally, Coles et al. (2008) document that typically, large firms with greater advising requirements have more board members and more outside board members. Firms operating in uncertain environments, such as R&D-intensive firms, in contrast, tend to have more insiders on the board, illustrating the relative importance of firm-specific knowledge. In other words, the optimal board structure will vary with a firm’s needs.

Effective monitoring also requires the attention of directors. When directors serve on too many boards, the monitoring they provide to each firm can decrease. Fich and Shivdasani (2006) find that outside directors serving on three or more boards are ineffective monitors of management, having oversight that is more like inside-dominated boards.

In an effort to improve board monitoring, regulators have passed and implemented regulations to alter the composition and independence of the board. Board independence increased substantially following SOX, which dictated that audit committee must be composed entirely of independent directors. The NYSE further requires the compensation and nominating committees also be fully independent, whereas both the NYSE and NASDAQ now mandate majority-independent boards. The role of Chairman and CEO are now more often separated, and the composition of the board moved towards retired executives, directors with financial expertise, lawyers, and academics (Linck et al. 2009). As the demand for outside directors grew, so did director workload and liability, leading to an undersupply of directors and thus an accompanying increase in pay (Linck et al. 2009), which is even more stark among audit committee members (Engel et al. 2010). Given the evidence in Faleye et al. (2011), these shifts may result in higher quality financial reporting, but lower-quality strategic decisions.

Recent and emerging board regulation is focusing on board diversity. In 2003, Norway passed a law regulating minimum women representation on corporate boards. In 2018, California passed a law requiring representation on the board from underrepresented communities. Other countries and states have since followed these leads. Research is generally finding benefits to these diversity initiatives but that regulated quotas can impose costs on firms. With regard to gender diversity, research has found that female directors contribute functional expertise (Kim and Starks 2016) and that gender diversity is associated with dividend payouts (Ye et al. 2019), stock-price informativeness (Gul et al. 2011), auditor selection and fees (Lai et al. 2017), and earnings quality (Srinidhi et al. 2011). When examining broader definitions of diversity, Bernile et al. (2018) provide evidence that board diversity is associated with lower volatility and higher performance because of the financial policies they adopt. However, Giannetti and Zhao (2019) find that, despite some benefits, board diversity is associated with higher performance volatility and more conflict in the boardroom. Additionally, research has also documented some costs associated with the adoption of diversity quotas. Ahern and Dittmar (2012) document

not only stock price declines in response to the Norwegian gender quotas, but also that boards become younger and less experienced and that operating performance of the firms suffered. Similarly, Greene et al. (2020) find that board gender quotas are associated with negative returns, especially amongst firms that will be more impacted by the quotas.

In sum, despite recent regulations, the CEO continues to have an incentive to control the board to avoid being fired and extract other perquisites, whereas non-executive directors generally wish to establish and maintain reputations as good monitors (e.g. avoid corporate failures) while not standing in the way of stock price increases (Hermalin and Weisbach 2003, Yermack 2004). This sometimes leads, however, to inefficient investment decisions given managers' and investors' myopic behaviour. Compensation can incentivize non-executive directors and regulation has aimed to increase the independence of the board, which has been shown to improve corporate governance, perhaps at the cost, however, of firm value.

4.2. *Audit committee*

The audit committee is typically charged with monitoring the financial reporting process, which includes overseeing the external auditor and the internal audit function. Although the board has a split role between advising and monitoring, the audit committee primarily acts as a monitor. Prior to SOX and other laws and regulations targeting the audit committee, there was less uniformity in the composition and oversight of the audit committee. Research on these less-regulated audit committees found consistent themes and characteristics that were associated with financial reporting quality.

Research examining pre-SOX periods indicates that the independence of the audit committee is positively associated with financial reporting quality. When directly measuring the relation between board independence and financial reporting quality, researchers find that firms with SEC enforcement actions and those charged by the SEC with fraud have less independent boards (Beasley 1996, Dechow et al. 1996, Farber 2005). Other studies have shown that audit committee independence more specifically is associated with higher financial reporting quality (Klein 2002, Abbott et al. 2004). Audit committee independence has also been shown to influence external auditor appointment and termination decisions and resignations by the external auditor, demonstrating that audit committee independence can have an indirect effect on financial reporting quality (Lee et al. 2004, Chen and Zhou 2007, Lennox and Park 2007, Bronson et al. 2009).

More subtle impairments to independence can also affect audit committee monitoring. Carcello et al. (2011) find that CEO involvement in the selection of board members offsets the positive effects of audit committee independence and expertise on financial reporting quality. That is, directors that appear to be independent may not be fully independent when the CEO is involved in their appointment – much like the inferences from the board more generally. Similarly, friendship ties between the CEO and the audit committee can also lower audit committee oversight and impact financial reporting quality (Bruynseels and Cardinaels 2014).

Relevant expertise, often in combination with independence, on the audit committee can also influence financial reporting quality. Financial expertise has been found to be positively associated with financial reporting quality (Abbott et al. 2004, Agrawal and Chadha 2005, Bédard et al. 2004, Keune and Johnstone 2012, and Badolato et al. 2014). Yet more relevant to monitoring financial reporting quality is accounting expertise through, for example, prior experience as a CFO or CPA licensure. Accounting expertise on the audit committee has an incremental association with financial reporting quality (Krishnan and Visvanathan 2008, Schmidt and Wilkins 2013). Additionally, Naiker and Sharma (2009) find that experience as a former audit partner has the strongest association with financial reporting quality. Beyond financial and accounting

expertise, industry experience and expertise are also relevant to monitoring financial reporting (Cohen et al. 2014).

Following SOX, audit committees in the U.S. were newly required to be fully independent and one member must be an ‘audit committee financial expert’ or the company must disclose why it does not have such an expert (Section 407 of SOX). Based on the studies above, independent board members should exhibit more scepticism and less hesitation to question management whereas financial experts should be more able to understand the accounting complexities that their companies face. The workload increased dramatically, with audit committees meeting more than twice as often following SOX (Linck et al. 2009), and, as previously noted, firms compensated audit committee members accordingly (Engel et al. 2010). Engel et al. (2010) suggest this pay differential reflects ‘the differential contributions and outside opportunities of board members.’

Interestingly, however, recent research does not find evidence that changes to the audit committee result in higher quality financial reporting (Szerwo 2020). At least three possibilities might explain this lack of evidence. It is possible that the other governance mechanisms such as disclosing internal control effectiveness and requiring managers to sign certifications raised the overall financial reporting quality for all firms to a sufficiently high level that the oversight benefits from independent financial experts do not have a material effect on the outcome. It is also possible that the newly appointed audit committee members differ systematically from existing members because of a supply and demand imbalance. Finally, it is possible that by relying on research conducted in a voluntary setting, the effect of these features simply differs. The recommendations that the audit committee be independent and consist of at least one financial expert stemmed from prior academic work, culminating in the Blue Ribbon Report (Blue Ribbon Committee 1999). This work, however, was conducted in a period where these features were *voluntary*. Thus, it is possible that the results from a voluntary setting will not generalise to a mandatory setting. If firms for which these committee features add value are the firms that instituted them voluntarily, mandating them for other firms may not produce a similar benefit.

Szerwo (2020) considers these three explanations for the weaker association between financial experts and financial reporting quality in the post-SOX era and concludes the demand/supply trade-off caused this shift. The role of the audit committee has become more demanding and more time consuming, narrowing the pool of qualified candidates, whereas demand has drastically increased (Engel et al. 2010). He demonstrates this by examining one specific type of financial expert: former audit partners. He distinguishes between audit partners that were appointed before and after SOX. He compares their experience, noting that those appointed before SOX had more experience and tended to hold higher-ranking positions. Finally, he demonstrates that there continues to be a positive association between financial reporting quality and financial expertise within audit partners appointed before SOX, *even when serving on a new audit committee*. This collection of findings is consistent with the explanation that the quality of the average financial expert on audit committees has fallen.

Beyond independence and competence, prior research has identified other characteristics of audit committee members that can affect financial reporting quality. Erkens and Bonner (2013) find that a potential audit committee member’s status can affect their appointment to audit committees and that this is particularly applicable to audit committee financial experts because ‘typical’ audit committee financial experts have lower status. Carrera et al. (2017) proxy for social capital by measuring certain network ties. They find that the centrality of financial experts and the connectedness of non-financial experts have a negative relation with financial reporting quality. A director’s prior involvement with corporate bankruptcies, major restatements, and other accounting scandals can also affect the financial reporting oversight provided by that director. Habib and Bhuiyan (2016) find that audit committee members with past

involvement in these situations have a positive association with real earnings manipulation at the firms where they are audit committee members.

The audit committee has often become the de facto risk management committee in recent years. The oversight of growing and emergent risks, such as cyber security, have strained many audit committees, potentially decreasing their focus on financial reporting oversight. Based on a review of proxy statements, The Center for Audit Quality (2020) finds that the audit committee is responsible for cybersecurity risk oversight at 39% of S&P 500 companies in fiscal year 2020, up from 11% in 2016. Also potentially adding to the audit committee's responsibilities is the rise of environmental, social, and governance (ESG) reporting and the related need for assurance of these disclosures. As noted by Deloitte Global's sustainability leader, the audit committee should 'initiate or strongly support efforts to provide high-quality ESG assurance to the board' (Olivier 2020).

In conclusion, the role of the audit committee continues to be extremely important, with committee members having an incentive to diligently assess the validity of the financial reports not only because this is their charge, but also to avoid the damaging effects of restatements and other negative outcomes.

5. Internal audit

As charged by the recently revised Three Lines of Defense Model issued by the Institute of Internal Auditors, 'Internal audit provides independent and objective assurance and advice on the adequacy and effectiveness of governance and risk management' (Institute of Internal Auditors 2020). Although the internal audit function's (IAF) role in a company is typically broader than financial reporting, it can influence financial reporting quality through its governance and risk management (including internal controls) assurance and advisory activities and through its collaboration with parties that have a more direct role in financial reporting. Ideally, the IAF reports to the audit committee and works collaboratively with the audit committee and the entire board. However, it is management who must ultimately issue the financial statements and implement internal controls. For this reason, the IAF needs to work closely and collaboratively with management. Moreover, the IAF may also work collaboratively with the external auditor. The IAF often makes its workpapers and findings available to the external auditor and can, at the request of the external auditor, provide direct assistance to the external audit under the supervision of the external auditor (American Institute of Certified Public Accountants 2020).

The IAF's impact on financial reporting quality is not as fully explored by researchers relative to the impact of management, the board, or the external auditor (Abbott et al. 2016). The indirect nature of the IAF's impact on financial reporting quality and the opacity the IAF's presence, quality, work, and results has contributed to a smaller volume of research (Prawitt et al. 2009). These challenges also potentially contribute to less consistent findings. The difficulty in observing the IAF potentially means that key characteristics of the IAF may not be captured or may be measured with error. The indirect nature of their relation with reporting process quality highlights the need to understand what makes their collaborations with management, the audit committee, and the external auditor successful—or unsuccessful.

The role of the IAF with respect to financial reporting quality is also less established with practitioners and regulators. Regulation requires that annual financial statements of publicly traded companies be audited by an external auditor. Regulation also, at least partially, defines the role of the audit committee in the financial reporting process. There are no similar legal or regulatory requirements for the IAF. The New York Stock Exchange partially fills this void for companies listed on its exchange. It requires that such companies have an IAF, overseen by the audit committee, within one year of first appearing on the exchange (New York Stock

Exchange 2020). In 2013, the NASDAQ Stock Market LLC proposed requiring that all firms traded on the NASDAQ have an IAF (Securities and Exchange Commission 2013a). But the proposed requirement was not pursued because of filer concerns over the cost and benefit of the proposal (Securities and Exchange Commission 2013b). The lack of legal and regulatory mandates contributes to variation in how the IAF affects financial reporting quality.

Despite these challenges, a research review does offer important insights on the association between the IAF and financial reporting quality. Borrowing from research on the external auditor, theory suggests, and empirical research supports, that the IAF's objectivity and competency influence its effect on financial reporting quality (DeAngelo 1981, Abbott et al. 2016). Indeed, as prescribed by external audit standards, these are the two characteristics that the external auditor must use to evaluate the IAF (Public Company Accounting Oversight Board 2020). Moreover, characteristics of the relationships between the IAF and management, the audit committee, and the external auditor also influence the IAF's effects on financial reporting quality.

Empirical research finds that IAF objectivity and independence from management is positively associated with financial reporting quality. The audit committee performs an important role in protecting the independence and objectivity of the IAF. Abbott et al. (2010) find that the degree of audit committee oversight of the IAF relative to management oversight influences the activities that the IAF is budgeted to perform. Moreover, objectivity is threatened when the distinction between IAF and management is blurred by systematically rotating internal auditors out of the IAF and when the IAF is used as a management training ground. Christ et al. (2015) find that systematic rotating is associated with lower financial reporting quality whereas Messier et al. (2011) find that external audit fees are higher when the IAF is used in manager training. Internal auditors also report that the IAF's independence and objectivity are associated with the IAF's overall effectiveness (D'Onza et al. 2015).

Competence is the second characteristic on which external auditors evaluate the IAF function. Research demonstrates that competence in the IAF is associated with higher financial reporting quality. Pizzini et al. (2015) find that increasing IAF competence and fieldwork quality are associated with decreased delays in external audits. Lin et al. (2011) examine education level and the use of quality assurance techniques and find that they help prevent material weaknesses in internal control.

More impactful on financial reporting quality is the interaction of objectivity and competence. Abbott et al. (2016) specifically note that their joint presence is 'a necessary antecedent to effective financial reporting monitoring.' When using a composite measure that captures components of objectivity and competence, Prawitt et al. (2009) find that their measure is associated with lower levels of earnings manipulation as measured by abnormal accruals and the propensity to meet or just beat analyst forecasts. When using a similar composite measure, Ege (2015) finds that IAF quality deters management misconduct. Moreover, Ege (2015) finds that companies improve IAF quality following management misconduct.

As previously noted, the external auditor will often use the work of the IAF or seek its assistance in completing the external audit. Their willingness to rely on the work of the IAF, however, is subject to the external auditor's evaluation of the IAF's objectivity and competence. For example, external auditors decrease their reliance on the IAF when internal auditors receive incentive stock-based compensation (Chen et al. 2017). External auditors also make greater use of the IAF, as measured by audit fees, when internal auditors work in a direct assistance role under the supervision of the external auditor (Prawitt et al. 2011).

In sum, although the IAF can positively affect financial reporting quality, challenges exist. Positioning the IAF between the audit committee and management can be difficult in reality (Lenz and Sarens 2012). This also spills over into claims for IAF resources between management

and the audit committee (Abbott et al. 2010). How the IAF is positioned, the resources devoted to the IAF, and how these claims to the IAF as a resource are settled have important ramifications for the role of the IAF and its ability to impact financial reporting quality.

6. Conclusion

We review accounting and related literature on the preparers of financial reporting: managers, the board, and internal audit. Each facet has their own incentives and regulations. As we detail, the board can be captured by the CEO, and the CEO has minimal incentives to support high-quality financial reporting. Recent regulations and guidance over management, the board, and the internal audit function work to minimise the competing incentives of the CEO and board, but frictions remain. As an example, CEOs are hesitant to invest in internal controls over financial reporting despite some evidence they improve the operating efficiency of the firm. Future research might re-visit the survey conducted by Alexander et al. (2013) to assess whether managers have updated their beliefs about the value of internal controls and financial reporting more generally. Throughout the paper there were certain questions left un-answered. For example, we lack evidence on whether the audit committee has the capacity to safeguard financial statements, such as when whistle-blowers or internal auditors raise concerns. Is it simply not cost-effective to pursue all red flags? Or are audit committee member departures a warning that their concerns are not being addressed? Have audit committees relaxed their oversight in the years since the initial regulation and intense focus on financial reporting quality? Answers to these and other questions will continue to shape our understanding of this complex setting.

Acknowledgment

We appreciate helpful comments from Darren Bernard, Asher Curtis, and Mike Dambra.

Disclosure statement

No potential conflict of interest was reported by the author(s).

ORCID

Brandon Szerwo  <http://orcid.org/0000-0002-8547-551X>

References

- Abbott, L., Daugherty, B., Parker, S., and Peters, G., 2016. Internal audit quality and financial reporting quality: The joint importance of independence and competence. *Journal of Accounting Research*, 54 (1), 3–40.
- Abbott, L., Parker, S., and Peters, G., 2004. Audit committee characteristics and restatements. *Auditing: A Journal of Practice & Theory*, 23 (1), 69–87.
- Abbott, L., Parker, S., and Peters, G., 2010. Serving two masters: The association between audit committee internal audit oversight and internal audit activities. *Accounting Horizons*, 24 (1), 1–24.
- Agrawal, A., and Chadha, S., 2005. Corporate governance and accounting scandals. *Journal of Law and Economics*, 48 (2), 371–406.
- Ahern, K., and Dittmar, A., 2012. The changing of boards: The impact on firm valuation of mandated female board representation. *Quarterly Journal of Economics*, 127 (1), 137–197.
- Aier, J., Comrix, J., Gunlock, M., and Lee, D., 2005. The financial expertise of CFOs and accounting restatements. *Accounting Horizons*, 19 (3), 123–135.

- Alexander, C. R., Bauguess, S. W., Bernile, G., Lee, Y. A., and Marietta-Westberg, J., 2013. Economic effects of SOX Section 404 compliance: A corporate insider perspective. *Journal of Accounting and Economics*, 56 (2–3), 267–290.
- Allen, E., Dechow, P., Pope, D., and Wu, G., 2017. Reference-dependent preferences: Evidence from marathon runners. *Management Science*, 63 (6), 1657–1672.
- American Institute of Certified Public Accountants, 2020. AU-C Section 610, Using the Work of Internal Auditors. Available at: <https://www.aicpa.org/Research/Standards/AuditAttest/DownloadableDocuments/AU-C-00610.pdf>.
- Amiram, D., Bozanic, Z., Cox, J., Dupont, Q., Karpoff, J., and Sloan, R., 2018. Financial reporting fraud and other forms of misconduct: A multidisciplinary review of the literature. *Review of Accounting Studies*, 23, 732–783.
- Anderson, R., Duru, A., and Reeb, D., 2009. Founders, heirs, and corporate opacity in the United States★. *Journal of Financial Economics*, 92 (2), 205–222.
- Asker, J., Farre-Mensa, J., and Ljungqvist, A., 2015. Corporate investment and stock market listing: A puzzle? *Review of Financial Studies*, 28 (2), 342–390.
- Badolato, P., Donelson, D., and Ege, M., 2014. Audit committee financial expertise and earnings management: The role of status. *Journal of Accounting and Economics*, 58 (2-3), 208–230.
- Bao, D., Fung, S., and Su, L., 2018. Can shareholders Be at rest after adopting clawback provisions? Evidence from stock price crash risk *Contemporary Accounting Research*, 35 (3), 1578–1615.
- Barth, M., Landsman, W., and Taylor, D., 2017. The JOBS Act and information uncertainty in IPO firms. *The Accounting Review*, 92 (6), 25–47.
- Barua, A., Davidson, L., Rama, D., and Thiruvadi, S., 2010. CFO gender and accruals quality. *Accounting Horizons*, 24 (1), 25–39.
- Beasley, M., 1996. An empirical analysis of the relation between the board of director composition and financial statement fraud. *The Accounting Review*, 71 (4), 443–465.
- Bebchuk, L., Fried, J., and Walker, D., 2002. Managerial power and rent extraction in the design of executive compensation. *University of Chicago Law Review*, 69 (3), 751–846.
- Bebchuk, L., and Fried, J., 2004. *Pay Without Performance: The Unfulfilled Promise of Executive Compensation*. Cambridge: Harvard University Press.
- Bebchuk, L., and Fried, J., 2006. Pay without performance: Overview of the issues. *Academy of Management*, 20 (1), 5–24.
- Bédard, J., Chtourou, S., and Courteau, L., 2004. The effect of audit committee expertise, independence, and activity on aggressive earnings management. *Auditing: A Journal of Practice & Theory*, 23 (2), 13–35.
- Bernile, G., Bhagwat, V., and Yonker, S., 2018. Board diversity, firm risk, and corporate policies. *Journal of Financial Economics*, 127 (3), 588–612.
- Bertomeu, J., and Magee, R., 2011. From low-quality reporting to financial crises: Politics of disclosure regulation along the economic cycle. *Journal of Accounting and Economics*, 52, 209–227.
- Bertrand, M., and Mullianathan, S., 2003. Enjoying the quiet life? Corporate governance and managerial preferences. *Journal of Political Economy*, 111 (5), 1043–1075.
- Bertrand, M., and Schoar, A., 2003. Managing with style: the effect of managers on corporate policy. *Quarterly Journal of Economics*, 118, 1169–1208.
- Biggerstaff, L., Cicero, D., and Puckett, A., 2015. Suspect CEOs, unethical culture, and corporate misbehavior. *Journal of Financial Economics*, 117, 98–121.
- Biggerstaff, L., Cicero, D., and Puckett, A., 2017. FORE! An analysis of CEO shirking. *Management Science*, 63 (7), 2302–2322.
- Bishop, C., DeZoort, F., and Hermanson, D., 2017. The effect of CEO social influence pressure and CFO accounting experience on CFO financial reporting decisions. *Auditing: A Journal of Practice & Theory*, 36 (1), 21–41.
- Bizjack, J., Lemmon, M., and Whitby, R., 2009. Option backdating and board interlocks. *Review of Financial Studies*, 22 (11), 4821–4847.
- Black, B., Cheffins, B., and Klausner, M., 2006. Outside director liability. *Stanford Law Review*, 58, 1055–1159.
- Bloch, R., Harris, E., and Peterson, A., 2020. Interlocking boards in nonprofit organizations. *Accounting Horizons*, 34 (2), 1–17.
- Blue Ribbon Committee (BRC), 1999. *Report and Recommendations of the Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees*. Stamford, CT: New York Stock Exchange and National Association of Securities Dealers.

- Bowen, R., Call, A., and Rajgopal, S., 2010. Whistle-blowing: Target firm characteristics and economic consequences. *The Accounting Review*, 85 (4), 1239–1271.
- Brazel, J., Jones, K., and Zimbelman, M., 2009. Using nonfinancial measures to assess fraud risk. *Journal of Accounting Research*, 47 (5), 1135–1166.
- Brochet, F., and Srinivasan, S., 2014. Accountability of independent directors: Evidence from firms subject to securities litigation. *Journal of Financial Economics*, 111 (2), 430–449.
- Bronson, S. N., Carcello, J. V., Hollingsworth, C. W., and Neal, T. L., 2009. Are fully independent audit committees really necessary? *Journal of Accounting and Public Policy*, 28 (4), 265–280.
- Brown, J., 2011. The spread of aggressive corporate tax reporting: A detailed examination of the corporate-owned life insurance shelter. *The Accounting Review*, 86 (1), 23–57.
- Brown, N., Crowley, R., and Elliott, W., 2020. What are you saying? Using topic to detect financial misreporting. *Journal of Accounting Research*, 58 (1), 237–291.
- Bruynseels, L., and Cardinaels, E., 2014. The audit committee: Management watchdog or personal friend of the CEO? *The Accounting Review*, 89 (1), 113–145.
- Burgstahler, D., and Dichev, I., 1997. Earnings management to avoid earnings decreases and losses. *Journal of Accounting and Economics*, 24 (1), 99–126.
- Bushee, B., 1998. The influence of institutional investors on myopic R&D investment behavior. *The Accounting Review*, 73, 305–333.
- Bushee, B., 2001. Do institutional investors prefer near-term earnings over long-run value? *Contemporary Accounting Research*, 18, 207–246.
- Call, A., Martin, G., Sharp, N., and Wilde, J., 2018. Whistleblowers and outcomes of financial misrepresentation enforcement actions. *Journal of Accounting Research*, 56 (1), 123–171.
- Carcello, J., Neal, T., Palmrose, Z., and Scholz, S., 2011. CEO involvement in selecting board members, audit committee effectiveness, and restatements. *Contemporary Accounting Research*, 28 (2), 396–430.
- Carrera, N., Sohail, T., and Carmona, S., 2017. Audit committee's social capital and financial reporting quality. *Accounting and Business Research*, 47 (6), 633–672.
- Carter, M.E., Lynch, L., and Zechman, S., 2009. Changes in bonus contracts in the post-sarbanes–Oxley era. *Review of Accounting Studies*, 14 (4), 480–506.
- Cecchini, M., Aytug, H., Koehler, G., and Pathak, P., 2010. Detecting management fraud in public companies. *Management Science*, 56 (7), 1146–1160.
- Center for Audit Quality, 2020. 2020 *Audit Committee Transparency Barometer*. Available at: <https://www.theaca.org/wp-content/uploads/2020/10/caq-audit-committee-transparency-barometer-2020-october.pdf>.
- Chen, K., and Zhou, J., 2007. Audit committee, board characteristics, and auditor switch decisions by andersen's clients. *Contemporary Accounting Research*, 24 (4), 1085–1117.
- Chen, L., Chung, H., Peters, G., and Wynn, J., 2017. Does incentive-based compensation for chief internal auditors impact objectivity? An external audit risk perspective. *Auditing: A Journal of Practice & Theory*, 36 (2), 21–43.
- Cheng, M., Dhaliwal, D., and Zhang, Y., 2013. Does investment efficiency improve after the disclosure of material weaknesses in internal control over financial reporting? *Journal of Accounting and Economics*, 56 (1), 1–18.
- Chiu, P., Teoh, S., and Tian, F., 2013. Board interlocks and earnings management contagion. *The Accounting Review*, 88 (3), 915–944.
- Christ, M., Masli, A., Sharp, N., and Wood, D., 2015. Rotational internal audit programs and financial reporting quality: Do compensating controls help? *Accounting, Organizations and Society*, 44, 37–59.
- Cohen, D., Dey, A., and Lys, T., 2008. Real and accrual-based earnings management in the pre- and post-Sarbanes-Oxley period. *The Accounting Review*, 83 (3), 757–787.
- Cohen, J., Hoitash, U., Krishnamoorthy, G., and Wright, A., 2014. The effect of audit committee industry expertise on monitoring the financial reporting process. *The Accounting Review*, 89 (1), 243–273.
- Coles, J., Daniel, N., and Naveen, L., 2008. Boards: Does one size fit all? *Journal of Financial Economics*, 87 (2), 329–356.
- Cooper, S., 2020. Real effects of financial reporting and disclosure on innovation—a practitioner view. *Accounting and Business Research*, 50 (5), 422–424.
- Core, J., Holthausen, R., and Larcker, D., 1999. Corporate governance, chief executive officer compensation, and firm performance. *Journal of Financial Economics*, 51, 371–406.
- Core, J., and Larcker, D., 2002. Performance consequences of mandatory increases in executive stock ownership. *Journal of Financial Economics*, 64 (3), 317–340.

- Core, J., 2020. The real effects of financial reporting on pay and incentives. *Accounting and Business Research*, 50 (5), 448–469.
- Curtis, A., Li, V., and Patrick, P., 2021. The use of adjusted earnings in performance evaluation. *Review of Accounting Studies*, Forthcoming.
- Dambra, M., Field, L., and Gustafson, M., 2015. The JOBS Act and IPO volume: Evidence that disclosure costs affect the IPO decision. *Journal of Financial Economics*, 116 (1), 121–143.
- Dambra, M., Field, L., Gustafson, M., and Pisciotta, K., 2018. The consequences of analyst involvement in the IPO process: Evidence surrounding the JOBS Act. *Journal of Accounting and Economics*, 65 (2/3), 302–330.
- Davidson, R., Dey, A., and Smith, A., 2015. Executives' "off-the-job" behavior, corporate culture, and financial reporting risk. *Journal of Financial Economics*, 117 (1), 5–28.
- DeAngelo, L., 1981. Auditor size and audit quality. *Journal of Accounting and Economics*, 3, 189–199.
- Dechow, P., and Dichev, I., 2002. The quality of accruals and earnings: The role of accrual estimation errors. *The Accounting Review*, 77 (s-1), 35–59.
- Dechow, P., Ge, W., Larson, C., and Sloan, R., 2011. Predicting material accounting misstatements. *Contemporary Accounting Research*, 28 (1), 17–82.
- Dechow, P., Ge, W., and Schrand, C., 2010. Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics*, 50 (2-3), 344–401.
- Dechow, P., and Schrand, C., 2004. *Earnings Quality*. Charlottesville, VA: The Research Foundation of CFA Institute.
- Dechow, P., Sloan, R., and Sweeney, A., 1996. Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC. *Contemporary Accounting Research*, 13 (1), 1–36.
- deHaan, E., Hodge, F., and Shevlin, T., 2013. Does voluntary adoption of a clawback provision improve financial reporting quality? *Contemporary Accounting Research*, 30 (3), 1027–1062.
- Demerjian, P., Lev, B., Lewis, M., and McVay, S., 2013. Managerial ability and earnings quality. *The Accounting Review*, 88, 463–498.
- Dichev, I., Graham, J., Harvey, C., and Rajgopal, S., 2013. Earnings quality: Evidence from the field. *Journal of Accounting and Economics*, 56 (2-3), 1–33.
- Dill, K., 2013. CFOs have bigger roles than ever before—And they like it that way. *Forbes* (August 2), <https://www.forbes.com/sites/kathryndill/2013/08/02/cfos-have-bigger-roles-than-ever-before-and-they-like-it-that-way/#424ab1913c7c>.
- D'Onza, G., Selim, G., Melville, R., and Allegrini, M., 2015. A study on internal auditor perceptions of the function ability to add value. *International Journal of Auditing*, 19 (3), 182–194.
- Doyle, J., Ge, W., and McVay, S., 2007. Accruals quality and internal control over financial reporting. *The Accounting Review*, 82 (5), 1141–1170.
- Dyck, A., Morse, A., and Zingales, L., 2010. Who blows the whistle on corporate fraud? *Journal of Finance*, 65 (6), 2213–2253.
- Ege, M. S., 2015. Does internal audit function quality deter management misconduct? *The Accounting Review*, 90 (2), 495–527.
- Engel, E., Hayes, R., and Wang, X., 2007. The sarbanes–Oxley Act and firms' going-private decisions. *Journal of Accounting and Economics*, 44, 116–145.
- Engel, E., Hayes, R., and Wang, X., 2010. Audit committee compensation and the demand for monitoring of the financial reporting process. *Journal of Accounting and Economics*, 49, 136–154.
- Erkens, D., and Bonner, S., 2013. The role of firm status in appointments of accounting financial experts to audit committees. *The Accounting Review*, 88 (1), 107–136.
- Ernstberger, J., Link, B., Stich, M., and Vogler, O., 2017. The real effects of mandatory quarterly reporting. *The Accounting Review*, 92 (5), 33–60.
- Faleye, O., Hoitash, R., and Hoitash, U., 2011. The costs of intense board monitoring. *Journal of Financial Economics*, 101, 160–181.
- Fama, E., and Jensen, M., 1983. Separation of ownership and control. *Journal of Law and Economics*, 26, 301–325.
- Farber, D., 2005. Restoring trust after fraud: Does corporate governance matter? *The Accounting Review*, 80 (2), 539–561.
- Feng, M., Li, C., and McVay, S., 2009. Internal control and management guidance. *Journal of Accounting and Economics*, 48, 190–209.
- Feng, M., Ge, W., Luo, S., and Shevlin, T., 2011. Why do CFOs become involved in material accounting manipulations? *Journal of Accounting and Economics*, 51, 21–36.

- Feng, M., Li, C., McVay, S., and Skaife, H., 2015. Does ineffective internal control over financial reporting affect a firm's operations? Evidence from firms' inventory management. *The Accounting Review*, 90 (2), 529–557.
- Fich, E., and Shivdasani, A., 2005. The impact of stock-option compensation for outside directors on firm value. *Journal of Business*, 78 (6), 2229–2254.
- Fich, E., and White, L., 2005. Why do CEOs reciprocally sit on each other's boards? *Journal of Financial Economics*, 11 (1/2), 175–195.
- Fich, E., and Shivdasani, A., 2006. Are busy boards effective monitors? *Journal of Finance*, 61 (2), 689–724.
- Ge, W., Matsumoto, D., and Zhang, J., 2011. Do CFOs have style? An empirical investigation of the effect of individual CFOs on accounting practices. *Contemporary Accounting Research*, 28 (4), 1141–1179.
- Ge, W., Koester, A., and McVay, S., 2017. Costs and benefits of Sarbanes-Oxley Section 404(b) exemption: Evidence from small firms' internal control disclosures. *Journal of Accounting and Economics*, 63 (2–3), 358–384.
- Giannetti, M., and Zhao, M., 2019. Board ancestral diversity and firm-performance volatility. *Journal of Financial and Quantitative Analysis*, 54 (3), 1117–1155.
- Goh, B., 2009. Audit committees, boards of directors, and remediation of material weaknesses in internal control. *Contemporary Accounting Research*, 26 (2), 549–579.
- Gopalan, R., Milbourn, T., Song, F., and Thakor, A., 2014. The optimal duration of executive compensation. *Journal of Finance*, 69 (6), 2777–2817.
- Graham, J., Harvey, C., and Rajgopal, S., 2005. The economic implications of corporate financial reporting. *Journal of Accounting and Economics*, 40 (1-3), 3–73.
- Greene, D., Intintoli, V., and Kahle, K., 2020. Do board gender quotas affect firm value? Evidence from California senate bill No. 826. *Journal of Corporate Finance*, 60, 101526.
- Gul, F., Srinidhi, B., and Ng, A., 2011. Does board gender diversity improve the informativeness of stock prices? *Journal of Accounting and Economics*, 51 (3), 314–338.
- Habib, A., and Bhuiyan, B., 2016. Problem directors on the audit committee and financial reporting quality. *Accounting and Business Research*, 46 (2), 121–144.
- Hallock, K., 1997. Reciprocally Interlocking boards of directors and executive compensation. *The Journal of Financial and Quantitative Analysis*, 32 (3), 331–344.
- Ham, C., Lang, M., Seybert, N., and Wang, S., 2017. CFO narcissism and financial reporting quality. *Journal of Accounting Research*, 55 (5), 1089–1135.
- Healy, P., and Palepu, K., 2001. Information asymmetry, corporate disclosure, and the capital markets: a review of the empirical disclosure literature. *Journal of Accounting & Economics*, 31, 405–440.
- Hermalin, B., and Weisbach, M., 2003. Boards of directors as an endogenously determined institution: A survey of the economic literature. *Federal Reserve Bank of New York Economic Policy Review*, 9, 7–26.
- Hoberg, G., and Lewis, C., 2017. Do fraudulent firms produce abnormal disclosure? *Journal of Corporate Finance*, 43 (2017), 58–85.
- Hobson, J., Mayew, W., and Venkatachalam, M., 2012. Analyzing speech to detect financial misreporting. *Journal of Accounting Research*, 50 (2), 349–392.
- Holmes, K., 2020. Reporting matters: the real effects of financial reporting on investing and financing decisions—a practitioner view. *Accounting and Business Research*, 50 (5), 443–447.
- Hwang, B., and Kim, S., 2009. It pays to have friends. *Journal of Financial Economics*, 93, 138–158.
- Indjejikian, R., and Matejka, M., 2009. CFO fiduciary responsibilities and annual bonus incentives. *Journal of Accounting Research*, 47 (4), 1061–1093.
- Institute of Internal Auditors, 2020. 2020 Audit Committee Transparency Barometer. Available at: <https://global.theiia.org/about/about-internal-auditing/Public%20Documents/Three-Lines-Model-Updated.pdf>.
- Jensen, M., 1993. The modern industrial revolution, exit, and the failure of internal control systems. *The Journal of Finance*, 48 (3), 831–880.
- Jiang, J., Petroni, K., and Wang, I., 2010. CFOs and CEOs: who has the most influence on earnings management? *Journal of Financial Economics*, 96 (3), 513–526.
- Jiang, W., Wan, H., and Zhao, S., 2016. Reputation concerns of independent directors: Evidence from individual director voting. *The Review of Financial Studies*, 29 (3), 655–696.
- Kamar, E., Karaca-Mandic, P., and Talley, E., 2009. Going-private decisions and the Sarbanes-Oxley Act of 2002: A cross-country analysis. *Journal of Law, Economics, and Organization*, 25, 107–133.

- Kanodia, C., 1980. Effects of shareholder information on corporate decisions and capital market equilibrium. *Econometrica*, 48 (4), 923–953.
- Karpoff, J., Lee, S., and Martin, G., 2008. The consequences to managers for financial misrepresentation. *Journal of Financial Economics*, 88 (2), 193–215.
- Kay, J., 2012. The Kay review of UK equity markets and long-term decision making.” Final report (July).
- Keune, M. B., and Johnstone, K. M., 2012. Materiality judgments and the resolution of detected misstatements: The role of managers, auditors, and audit committees. *The Accounting Review*, 87 (5), 1641–1677.
- Kim, D., and Starks, L., 2016. Gender diversity on corporate boards: Do women contribute unique skills? *American Economic Review*, 106 (5), 267–271.
- Khanna, V., Kim, E., and Lu, Y., 2015. CEO connectedness and corporate fraud. *The Journal of Finance*, 70 (3), 1203–1252.
- Klein, A., 2002. Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics*, 33 (3), 375–400.
- Kothari, S.P., Ramanna, K., and Skinner, D., 2010. Implications for GAAP from an analysis of positive research in accounting. *Journal of Accounting and Economics*, 50 (2-3), 246–286.
- Kraft, A., Vashishtha, R., and Venkatachalam, M., 2018. Frequent financial reporting and managerial myopia. *The Accounting Review*, 93 (2), 249–275.
- Krishnan, G., and Visvanathan, G., 2008. Does the SOX definition of an accounting expert matter? The association between audit committee directors’ accounting expertise and accounting conservatism. *Contemporary Accounting Research*, 25 (3), 827–858.
- Lai, K., Gul, F., Srinidhi, B., and Tsui, J., 2017. Board gender diversity, audit fees, and auditor choice. *Contemporary Accounting Research*, 34 (3), 1681–1714.
- Lamoreaux, P., Mauler, L., and Newton, N., 2020. Audit regulation and cost of equity capital: Evidence from the PCAOB’s international inspection regime. *Contemporary Accounting Research*, 37 (4), 2438–2471.
- Lee, H., Mande, V., and Ortman, R., 2004. The effect of audit committee and board of director independence on auditor resignation. *Auditing: A Journal of Practice & Theory*, 23 (2), 131–146.
- Lennox, C., and Park, C., 2007. Audit firm appointments, audit firm alumni, and audit committee independence. *Contemporary Accounting Research*, 24 (1), 235–258.
- Lenz, R., and Sarens, G., 2012. Reflections on the internal auditing profession: What might have gone wrong? *Managerial Auditing Journal*, 27 (6), 532–549.
- Li, C., Sun, L., and Ettredge, M., 2010. Financial executive qualifications, financial executive turnover, and adverse SOX 404 opinions. *Journal of Accounting and Economics*, 50, 93–110.
- Li, F., 2008. Annual report readability, current earnings, and earnings persistence. *Journal of Accounting and Economics*, 45, 221–247.
- Li, F., and Srinivasan, S., 2011. Corporate governance when founders are directors. *Journal of Financial Economics*, 102, 454–469.
- Lin, S., Pizzini, M., Vargus, M., and Bardhan, I., 2011. The role of the internal audit function in the disclosure of material weaknesses. *The Accounting Review*, 86 (1), 287–323.
- Linck, J., Netter, J., and Yang, T., 2009. The effects and unintended consequences of the Sarbanes-Oxley Act on the supply and demand for directors. *Review of Financial Studies*, 22, 3287–3328.
- McVay, S., 2006. Earnings management using classification shifting: An examination of core earnings and special items. *The Accounting Review*, 81, 501–531.
- Messier, W., Jr., Reynolds, J., Simon, C., and Wood, D., 2011. The effect of using the internal audit function as a management training ground on the external auditor’s reliance decision. *The Accounting Review*, 86 (6), 2131–2154.
- Mian, S., 2001. On the choice and replacement of chief financial officers. *Journal of Financial Economics*, 60 (1), 143–175.
- Naiker, V., and Sharma, D., 2009. Former audit partners on the audit committee and internal control deficiencies. *The Accounting Review*, 84 (2), 559–587.
- New York Stock Exchange, 2020. Listed Companies Manual. New York, NY.
- Nyberg, A., 2002. Return of the bean counters: With a welter of new reporting requirements, controller skills suddenly a hot commodity. *CFO* (December 20): 1.
- Olivier, J., 2020. The board and ESG. Harvard Law School Forum on Corporate Governance. Available at: <https://corpgov.law.harvard.edu/2019/02/25/the-board-and-esg/#:~:text=From>.
- Pizzini, M., Lin, S., and Ziegenfuss, D., 2015. The impact of internal audit function quality and contribution on audit delay. *Auditing: A Journal of Practice & Theory*, 34 (1), 25–58.

- Pozen, R., Nallareddy, S., and Rajgopal, S., 2017. Impact of reporting frequency on UK public companies. *Research Foundation Briefs*. Available online at www.cfapubs.org.
- Prawitt, D., Smith, J., and Wood, D., 2009. Internal audit quality and earnings management. *The Accounting Review*, 84 (4), 1255–1280.
- Prawitt, D., Sharp, N., and Wood, D., 2011. Reconciling archival and experimental research: does internal audit contribution affect the external audit fee? *Behavioral Research in Accounting*, 23 (2), 187–206.
- Public Company Accounting Oversight Board, 2020. AS 2605: Consideration of the internal audit function. Washington, D.C.
- Quinn, P., 2018. Shifting corporate culture: executive stock ownership plan adoptions and incentives to meet or just beat analysts' expectations. *Review of Accounting Studies*, 23, 654–685.
- Rhodes, A., and Russomanno, D., 2021. Executive accountants and the reliability of financial reporting. *Management Science*, forthcoming.
- Roychowdhury, S., Shroff, N., and Verdi, R., 2019. The effects of financial reporting and disclosure on corporate investment: A review. *Journal of Accounting and Economics*, 68, 2–3.
- Ryan, H., and Wiggins, R., 2004. Who is in whose pocket? Director compensation, board independence, and barriers to effective monitoring. *Journal of Financial Economics*, 73 (3), 497–524.
- Schrand, C. M., and Zechman, S. L. C., 2012. Executive overconfidence and the slippery slope to financial misreporting. *Journal of Accounting and Economics*, 53 (1-2), 311–329.
- Schmidt, J., and Wilkins, M., 2013. Bringing darkness to light: The influence of auditor quality and audit committee expertise on the timeliness of financial statement restatement disclosures. *Auditing: A Journal of Practice & Theory*, 32 (1), 221–244.
- Securities and Exchange Commission, 2013a. Self-regulatory organizations; The NASDAQ Stock Market LLC; Notice of filing of proposed rule change to require that listed companies have an internal audit function. Release No. 34-69030. Washington, D.C.: SEC.
- Securities and Exchange Commission, 2013b. Self-regulatory organizations; The NASDAQ Stock Market LLC; Notice of withdrawal of proposed rule change to require that listed companies have an internal audit function. Release No. 34-69792. Washington, D.C.: SEC.
- Sengupta, P., and Zhang, S., 2015. Equity-based compensation of outside directors and corporate disclosure quality. *Contemporary Accounting Research*, 32 (3), 1073–1098.
- Shakespeare, C., 2020. Reporting matters: the real effects of financial reporting on investing and financing decisions. *Accounting and Business Research*, 50 (5), 425–442.
- Shroff, N., 2020. Real effects of PCAOB international inspections. *The Accounting Review*, 95 (5), 399–433.
- Simpson, A., and Tamayo, A., 2020. Real effects of financial reporting and disclosure on innovation. *Accounting and Business Research*, 50 (5), 401–421.
- Skinner, D., and Sloan, R., 2002. Earnings surprises, growth expectations, and stock returns or don't let an earnings torpedo sink your portfolio. *Review of Accounting Studies*, 7, 289–312.
- Srinidhi, B., Gul, F., and Tsui, J., 2011. Female directors and earnings quality. *Contemporary Accounting Research*, 28 (5), 1610–1644.
- Srinivasan, S., 2005. Consequences of financial reporting failure for outside directors: evidence from accounting restatements and audit committee members. *Journal of Accounting Research*, 43, 291–334.
- Szerwo, B., 2020. Audit committee Expertise: An examination of the post-SOX era. Working paper. University at Buffalo.
- U.S. House of Representatives, 2002. The Sarbanes-Oxley Act of 2002. Public Law 107-204 [H. R. 3763]. Washington, D.C.: Government Printing Office.
- Walker, M., 2013. How far can we trust earnings numbers? What research tells us about earnings management. *Accounting and Business Research*, 43 (4), 445–481.
- Watts, R., and Zimmerman, J., 1986. *Positive Accounting Theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Wilde, J., 2017. The deterrent effect of employee whistleblowing on firms' financial misreporting and tax aggressiveness. *The Accounting Review*, 92 (5), 247–280.
- Ye, D., Deng, J., Liu, Y., Szweczyk, S., and Chen, X., 2019. Does board gender diversity increase dividend payouts? Analysis of global evidence. *Journal of Corporate Finance*, 58, 1–26.
- Yermack, D., 2004. Remuneration, retention, and reputation incentives for outside directors. *Journal of Finance*, 59, 2281–2308.
- Yermack, D., 2006. Golden handshakes: Separation pay for retired and dismissed CEOs. *Journal of Accounting and Economics*, 41, 237–256.
- Zhang, D., 2019. Top management team characteristics and financial reporting quality. *The Accounting Review*, 94 (5), 349–375.