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Corporate Governance Research in Accounting and Auditing: Insights, Practice Implications, and Future Research Directions

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SUMMARY: Over the past two decades, the corporate governance literature in accounting and auditing has grown rapidly. To better understand this body of work, we discuss 12 recent literature review or meta-analysis papers and summarize selected results (i.e., clusters of papers with new and interesting results) from recent empirical research papers, after reviewing the findings of over 250 studies. Our corporate governance focus is primarily on corporate board and audit committee issues. We discuss the major insights from this literature and the practice implications of these findings. In addition, we identify a number of opportunities for future research. In particular, we make suggestions for: (1) improved research paradigms in corporate governance, (2) extensions of existing research, and (3) new or emerging lines of research.

Keywords: corporate governance; board; audit committee; literature review.

INTRODUCTION

Since the pioneering governance work of Beasley (1996) and Dechow et al. (1996), accounting and auditing researchers have published hundreds of studies examining the relation between corporate governance characteristics and various accounting and auditing outcomes. As governance research in accounting and auditing moves well into its second decade, we believe that it is appropriate to ask, "Where do we go from here?" Specifically, what have we learned so far, what do the findings mean for practice, and what are the most fruitful avenues for future research?

These questions are motivated by three factors. First, there may be an issue of declining marginal utility of certain research findings. That is, some may question how many times and in

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how many settings researchers need to document that characteristics of "good governance" are associated with "good outcomes." Second, regulation is reducing variation in observable governance characteristics, such as board and audit committee independence and financial expertise. Due to changes in stock exchange listing requirements and Sarbanes-Oxley (SOX, U.S. House of Representatives 2002), researchers now see less variation in key governance characteristics (Beasley et al. 2010). Thus, from outside the company (where one cannot observe the true processes being used), public companies' governance mechanisms are becoming more and more similar. Finally, management likely is driving both governance characteristics and the accounting/auditing outcomes being studied, but management is not in the analysis in most cases (Cohen et al. 2004). If management is central to governance and accounting, is it appropriate to relate governance characteristics to accounting/auditing outcomes without considering management?

To provide insight into where to go from here, we have performed a literature review and synthesis to provide a basis for considering practice implications and offering recommendations on future directions for corporate governance research in accounting and auditing. The literature review encompasses (1) major themes from 12 governance-related literature review/meta-analysis articles published in 2002–2010, and (2) selected findings from our review of over 250 empirical research papers from 2003–2010. We primarily focus on corporate board and audit committee issues.

The remainder of the paper is organized as follows. The next section describes our method, followed by key insights from the 12 literature review/meta-analysis papers. We then discuss selected results from the most current empirical research (2003–2010). The following section presents practice implications of the findings to date. We conclude the paper with additional thoughts about the state of the corporate governance literature in accounting and auditing, including ways to meaningfully advance our understanding of the issues in coming years.

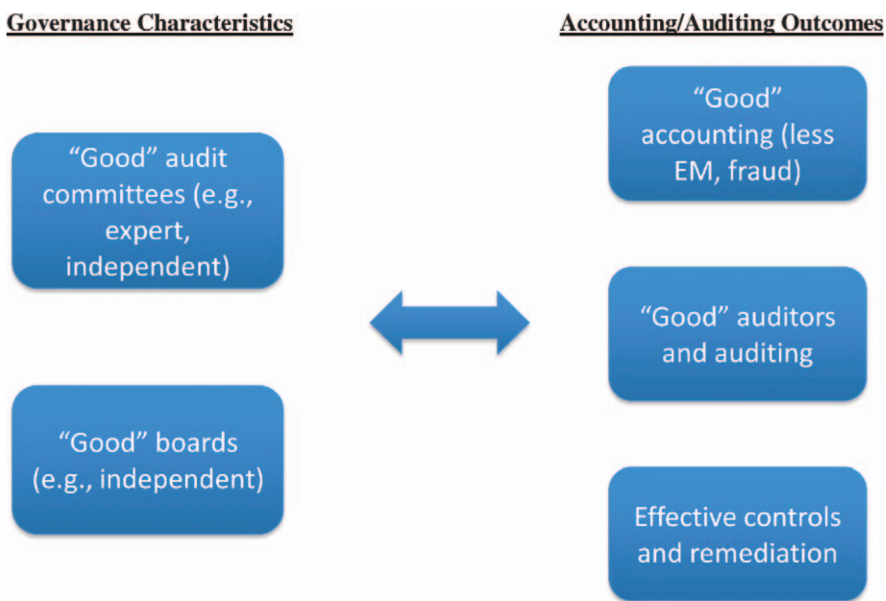
METHOD

Our analysis of the corporate governance literature in accounting and auditing is based on two sources. First, we discuss the insights from 12 recent literature review or meta-analysis papers, focusing on the governance-related findings in these papers. Second, we examine over 250 recent corporate governance research papers related to accounting and/or auditing to identify interesting new research findings. Given the voluminous nature of the recent literature, we had to make many difficult judgments about the specific papers and research insights to include in this article.

To identify recent empirical research papers, in 2010 we searched for published papers and working papers on the EBSCO database, SSRN website, and the websites for the AAA Financial Accounting and Reporting Section Midyear Meeting and AAA Auditing Section Midyear Conference in the most recent two years.[1] Given that Cohen et al. (2004), in particular, perform a very thorough, broad-based review of the papers in these areas, we only searched for published papers and working papers in 2003 or after. We reviewed over 250 papers, but only discuss a small subset of these papers in an effort to focus on clusters of papers addressing what we believe to be some of the most interesting new findings.

[1] The keywords used for searches on the EBSCO database include "audit committee," "director," "board," and "governance," or the combination of these words with "audit," "auditor," "risk assessment," "going concern," "restatement," "restate," "fraud," "fraudulent," "earnings," "conservatism," or "income." The keywords used for searches on the SSRN website include "audit committee," "director," "board," and "governance," since this website does not allow searches with combinations of keywords.

FIGURE 1
Fundamental Governance Findings in Accounting and Auditing Based on Insights from 12 Literature Reviews or Meta-Analyses



FUNDAMENTAL INSIGHTS FROM LITERATURE REVIEWS OR META-ANALYSES

We first examine key insights from 12 previous literature reviews or meta-analyses that address some portion of the corporate governance literature in accounting and auditing.[2] These papers are DeZoort et al. (2002), Cohen et al. (2004), Gramling et al. (2004), Turley and Zaman (2004), DeFond and Francis (2005), Cohen et al. (2007a), Pomeroy and Thornton (2008), García-Meca and Sánchez-Ballesta (2009), He et al. (2009), Schneider et al. (2009), Bédard and Gendron (2010), and Lin and Hwang (2010).

While these 12 papers cover many different aspects of the corporate governance literature in accounting and auditing, some fundamental research findings emerge. At the most basic level, the thrust of the literature to date can be captured in one sentence, "Generally speaking, 'good' audit committee and board characteristics are associated with measures of 'good' accounting and auditing and with more effective internal controls" (see Figure 1). These associations tend to be driven by findings in Anglo-American settings, where most of the research has focused.

What do researchers mean by "good" audit committees, boards, accounting, auditing, and controls? For good audit committees, most of the focus is on audit committee financial expertise

[2] In addition to these 12 articles, we also direct interested readers to a recent book chapter by Sharma and Sharma (2011). Those authors discuss audit committee independence requirements in various countries, audit committee independence research to date, and directions for future research on audit committee independence. The future research directions include audit committee economic incentives, interlocking directors, social ties, former CEOs, and business affiliations.

and independence (e.g., Abbott et al. 2004). For good boards, the main focus has been on board independence (e.g., Beasley 1996; Dechow et al. 1996). Good accounting typically is defined as less earnings management (e.g., Klein 2002), or the absence of fraudulent financial reporting (e.g., Beasley 1996; Beasley et al. 2000) or restatements (e.g., Abbott et al. 2004). Researchers have looked to auditor type (e.g., Beasley and Petroni 2001), auditor fees (audit and nonaudit fees) (e.g., Abbott et al. 2003; Carcello et al. 2002), going concern reporting (e.g., Carcello and Neal 2000, 2003), and likely audit committee-auditor cooperation (e.g., DeZoort and Salterio 2001) to assess good auditing. Finally, stronger internal controls typically have been measured by reference to SOX Section 404 internal control audit opinions or management disclosures of internal control effectiveness under SOX section 302 (e.g., Hoitash et al. 2009; Krishnan and Visvanathan 2007; Zhang et al. 2007).

These 12 papers also identify a host of avenues for future research, largely motivated by limitations of the research to date. Among the notable calls for future research that are still relevant today are the following:

1. Management—Need to incorporate management into the analyses, as most studies associate governance variables with accounting/auditing variables, but with little or no attention paid to management. However, management likely has great influence over governance characteristics and over accounting, auditing, and internal control variables (e.g., Cohen et al. 2004).
2. Processes—Need to address governance processes (what boards and audit committees actually do and how they do it), not just governance characteristics such as independence or financial expertise (e.g., Bédard and Gendron 2010; DeZoort et al. 2002; Schneider et al. 2009).
3. Group issues—Need to examine group issues in governance, as the board and audit committee operate as teams, and team decisions may differ from individual decisions typically examined in research (e.g., Bédard and Gendron 2010; DeZoort et al. 2002).
4. Other countries/settings—Need to further examine the relation between corporate governance and accounting/auditing in other settings, such as in countries that do not follow the Anglo-American governance model or in smaller companies (e.g., Bédard and Gendron 2010; Cohen et al. 2004; DeZoort et al. 2002; García-Meca and Sánchez-Ballesta 2009; He et al. 2009; Lin and Hwang 2010).
5. Governance characteristics—As the examination of governance characteristics deepens, need to develop better measures of board and audit committee characteristics, and need to explore interactions among governance characteristics, as opposed to simply the effect of each individual characteristic (e.g., Cohen et al. 2004; DeFond and Francis 2005; DeZoort et al. 2002; He et al. 2009; Lin and Hwang 2010).[3]
6. Diversity of theories and methods—Need to perform more governance research developing new theories or leveraging theories from psychology or sociology, and need to use diverse research methods (experimental, interview, field study) and approaches (exploratory, critical) (e.g., Bédard and Gendron 2010; DeZoort et al. 2002; Turley and Zaman 2004).
7. Endogeneity—Need to be much more careful in dealing with endogeneity in governance research, as governance characteristics and outcomes of interest (accounting, auditing, and internal control) may be affected by some of the same variables (e.g., Cohen et al. 2004; He et al. 2009).

[3] See Cohen et al. (2004) for discussion of the "corporate governance mosaic," which highlights the role of the key corporate governance participants.

8. Post-SOX—Need to further examine the relation between governance and accounting/auditing in the post-SOX environment, where many governance characteristics are regulated (e.g., Cohen et al. 2007a; García-Meca and Sánchez-Ballesta 2009; Lin and Hwang 2010).

Overall, these 12 papers highlight the fundamental relation between good governance characteristics and good accounting and auditing outcomes. They also provide many compelling avenues for future research.

SELECTED INSIGHTS FROM CURRENT EMPIRICAL RESEARCH PAPERS

The section above summarized the corporate governance literature in accounting and auditing based on a review of 12 literature review or meta-analysis papers published in the past decade. In this section, we analyze recent empirical research for interesting new findings. We used considerable judgment in identifying papers for inclusion in this section. While we searched the literature from 2003–2010, when possible we focus most heavily on very recent papers, clusters of papers, and papers published in leading journals.[4] An overview of this section is presented in Table 1.

Governance and Accounting Outcomes

Many recent studies deepen our understanding of the link between corporate governance characteristics and accounting outcomes, such as fraudulent financial reporting, restatements, earnings management/accruals quality, and accounting conservatism.

Fraudulent Financial Reporting

Three studies provide deeper, more current insights into the relation between governance characteristics and fraudulent financial reporting. Overall, these studies continue to find governance quality and fraud to be negatively related, but there are questions about the magnitude of the effects (Beasley et al. 2010).

Fich and Shivdasani (2007) find several governance variables to be related to the likelihood that a company is sued for financial fraud (i.e., in a shareholder class action lawsuit). Such suits are positively associated with the presence of a tainted director (an outside director also sitting on the board of another company that has been sued); weaker governance (higher governance index); a larger board; a non-independent, busy, or staggered board; less financial expertise on the board; and CEO duality.[5] Zhao and Chen (2008) find SEC allegations of fraudulent financial reporting (in Accounting and Auditing Enforcement Releases) are *negatively* related to having a staggered board, negatively related to board (and audit committee) independence, and positively related to whether the CEO chairs the board.[6] Finally, Beasley et al. (2010) perform univariate tests and find that, compared to no-fraud firms, fraud firms have more inside directors on the board and audit committee and shorter average director tenure on the board, and they are less likely to have an audit committee or an audit committee composed of at least three members. However, the authors question the practical significance of the noted differences.[7]

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[4] Below we do not include a section on internal controls, as Schneider et al. (2009) review this literature through late 2009.

[5] Some results (weaker governance, larger board, and financial expertise) lose significance in the authors' simultaneous equations testing.

[6] The inconsistent results for staggered boards between Fich and Shivdasani (2007) and Zhao and Chen (2008) could be due to differences between shareholder class action suits and SEC enforcement strategies.

[7] In other words, the authors assert that some differences that are statistically significant are not large enough to be considered meaningful. For example, on average fraud companies had 30 percent inside directors, versus 25 percent for no-fraud companies. The magnitude of this difference is quite small, although statistically significant.

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TABLE 1

Summary of Selected Recent Research Streams

Domain	Selected Findings
Accounting	Fraudulent Financial Reporting 1. Financial fraud suits are positively associated with the presence of a tainted director; weaker governance; a larger board; a non-independent, busy, or staggered board; less financial expertise on the board; and CEO duality (Fich and Shivdasani 2007).* 2. SEC allegations of fraudulent financial reporting are *negatively* related to having a staggered board, negatively related to board (and audit committee) independence, and positively related to whether the CEO chairs the board (Zhao and Chen 2008).* 3. Fraud firms have less independent boards and audit committees than no-fraud firms and have shorter average director tenure on the board. However, the magnitude of many noted differences is small (Beasley et al. 2010).* Restatements 1. There is no significant association between restatements and both audit committee independence and financial expertise when the CEO is involved in the director selection process (Carcello et al. 2011).* 2. Restatements are negatively related to audit committee industry expertise. Restatement risk is lower when such expertise is combined with (a) audit committee financial expertise, or (b) auditor industry specialization (Cohen et al. 2010a). 3. There is little relation between accounting restatements and 14 dimensions of corporate governance (Larcker et al. 2007).* Earnings Management/Accruals Quality 1. The relation between abnormal accruals and 14 dimensions of corporate governance is mixed (with some unexpected signs) (Larcker et al. 2007).* 2. Accounting discretion is negatively associated with the quality of corporate governance, and there is some evidence that accounting discretion due to poor corporate governance is *positively* associated with future company performance (Bowen et al. 2008).* 3. Absolute unexpected accruals are negatively related to staggered boards and the presence of a blockholder on the audit committee (Zhao and Chen 2008).* 4. Audit committee member experience as an audit partner (affiliated with the current audit firm) is negatively related to performance-adjusted discretionary accruals (Naiker and Sharma 2009). 5. Accruals quality is positively related to accounting expertise on the audit committee, especially when accounting expertise and finance expertise are both present (Dhaliwal et al. 2010). Accounting Conservatism 1. Accounting conservatism is negatively related to the percentage of insiders on the board and positively related to outside directors' ownership (Ahmed and Duellman 2007).* 2. Greater D&O coverage (protection from liability) is associated with reduced accounting conservatism, especially when litigation risk is higher (Chung and Wynn 2008).*

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TABLE 1 (continued)

Domain	Selected Findings
	3. Accounting expertise on the audit committee (but not non-accounting financial expertise) is associated with greater conservatism, but only when overall corporate governance is strong (Krishnan and Visvanathan 2008).*
Auditing	Auditor Selection, Change, and Ratification
	1. Board and audit committee independence and audit committee financial expertise are negatively associated with auditor resignations. More independent audit committees are more likely to choose higher-quality successor auditors (Lee et al. 2004).*
	2. Companies with more independent and financially expert audit committees and with more independent boards terminated their relationship with Andersen sooner (Chen and Zhou 2007).*
	3. More independent audit committees are less likely to select an audit firm where key company officers are alumni of that firm (Lennox and Park 2007).*
	4. Fully independent audit committees are negatively related to dismissing the auditor after a growing-concern opinion is issued (Bronson et al. 2009).*
	5. Shareholder votes for the auditor are positively related to audit committee financial expertise (Hermanson et al. 2009).
	Auditor Risk Assessment, Audit Planning, and Audit Opinions
	1. Auditors' control risk assessments and audit planning decisions are affected by the board's role (agency and resource dependence) (Cohen et al. 2007b).*
	2. Audit committee existence and meeting frequency are negatively related to auditors' risk assessments (Stewart and Munro 2007).
	3. Stronger client corporate governance results in a greater likelihood of client acceptance, lower assessments of control environment risk, greater reliance on client controls, reduced substantive testing, and increased interim testing (Sharma et al. 2008).
	4. In some cases, internal auditors' fraud risk assessments are influenced by audit committee quality, although audit scope judgments are not affected (Asare et al. 2008).*
	5. Completely independent audit committees are positively related to going-concern opinions issued to financially distressed companies (Bronson et al. 2009).*
	Audit Fees
	1. Audit fees are negatively associated with audit committee accounting expertise, but only if governance is strong. The relation between audit fees and accounting expertise is negative when earnings management risk is low, but positive when the earnings management risk is high (Krishnan and Visvanathan 2009).*
	2. Audit fees are negatively associated with director stock ownership and positively related to less "democratic" boards, board meetings, and audit committee financial expertise (Gul and Goodwin 2010).
	Nonaudit Fees
	1. Audit committee members favor joint provision of audit and nonaudit services when audit quality is increased, but are less likely to favor joint provision if auditor fees are publicly disclosed, even if they believe audit quality will be improved (Gaynor et al. 2006).

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TABLE 1 (continued)

Domain	Selected Findings
	2. Audit committee accounting expertise and number of other boards served are negatively related to the purchase of tax services from the external auditor (Bédard and Paquette 2009). 3. The use of the auditor for tax services is positively related to corporate governance strength (Lassila et al. 2010).*
	Internal Audit Function 1. The overall internal audit budget is higher if the audit committee reviews the budget (Carcello et al. 2005).* Internal audit budgets are positively associated with audit committee meetings, but negatively associated with auditing expertise on the audit committee and audit committee member tenure (Barua et al. 2010).* 2. Internal audit's focus on internal control-related activities increases with audit committee oversight of internal audit (Abbott et al. 2010). 3. "Effective" audit committees (based on independence, meetings, and expertise) are associated with less outsourcing of routine internal audit activities to the external auditor (Abbott et al. 2007).*
Internal controls	NA—See Schneider et al. (2009) for insights up through late 2009.
Audit committee financial expertise	1. Investors value audit committee financial expertise (Davidson et al. 2004),* especially accounting expertise (DeFond et al. 2005).* 2. Companies appear to be able to find audit committee financial experts (Williams 2005). 3. Among companies that disclose having at least one designated expert, the likelihood that a company discloses having at least one designated audit committee financial expert with an accounting background is positively associated with subsequent common stock or debt issuance and institutional ownership, and negatively associated with having a Big 4 auditor (Carcello et al. 2006). 4. Companies with higher litigation risk and stronger governance are more likely to have accounting experts on the audit committee (Krishnan and Lee 2009). 5. Audit committee financial literacy is increasing, and improvements in financial literacy are associated with stronger stock returns (Coates et al. 2007).*
Audit committee compensation	1. Audit committee compensation is positively related to external audit fees, the post-SOX period, and the audit committee chair's expertise. Audit committee compensation is different from typical director pay in the post-SOX period (Engle et al. 2010).* 2. Accounting restatements are positively related to the proportion of current-period audit committee member compensation that is composed of short-term stock options or long-term stock options (Archambeault et al. 2008).* 3. Audit committee members receiving no stock compensation are the most objective (Magilke et al. 2009). 4. Audit committee members provide the greatest support for the auditor when their compensation is primarily long-term stock options and when the failure to record the auditor's adjustment is viewed as unfair to shareholders (Bierstaker et al. 2010).

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TABLE 1 (continued)

Domain	Selected Findings
	5. Audit committee short-term (long-term) stock option compensation is associated with a greater (lower) likelihood of waiving qualitatively material audit adjustments (Keune and Johnstone 2010).
Audit committee processes	1. In their meetings, audit committee members place emphasis on financial statement accuracy, financial report wording, control effectiveness, and audit quality. Audit committee members seek to pose tough questions (Gendron et al. 2004).* 2. Audit committee members develop their sense of audit committee effectiveness by considering member backgrounds, features of audit committee meetings, and informal activities outside of audit committee meetings (Gendron and Bédard 2006).* 3. Within various audit committee process areas, there is evidence of both substantive audit committee monitoring and ceremonial actions. One area of particular concern is the audit committee's oversight of financial statement fraud risk (Beasley et al. 2009). 4. Post-SOX audit committees are perceived to have more knowledge and authority, and to be more diligent and active. Concerns remain regarding the audit committee's role in auditor selection and accounting disputes (Cohen et al. 2010b).
Audit committee judgments	1. Audit committee support for an auditor-proposed adjustment is greater in the post-SOX period than in the pre-SOX period, and this result is driven by audit committee members who are CPAs becoming more conservative post-SOX (DeZoort et al. 2008). 2. Audit committee members prefer adjustments to restatements, and directors with multiple board positions are less likely to support a restatement than are directors with only one board position (Hunton and Rose 2008). 3. Audit committee members investigate accounting issues more deeply when decision outcomes are more aggressive, especially if the members have accounting experience (Pomeroy 2010).
Consequences of bad accounting—Impact on directors	1. Fraud companies improve their governance after the fraud is found, resulting in governance characteristics similar to those of no-fraud companies. In addition, fraud companies improving their governance have higher stock returns (Farber 2005).* 2. Outside director turnover is higher for companies restating earnings downward than for other companies. Director turnover increases for more severe restatements, especially for audit committee members, and such directors also lose other board seats (Srinivasan 2005).* 3. Outside directors of companies sued for financial fraud lose other board seats at substantial rates. These losses are higher for more severe frauds and for audit committee directors (Fich and Shivdasani 2007).* 4. Fraud companies are much more likely to experience turnover of the board chair and of other directors than are no-fraud companies (Beasley et al. 2010).*

* Study uses pre-SOX data (2002 or earlier) for at least part of the primary sample.

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Restatements

Two studies extend our knowledge of governance and restatements by examining the role of the CEO in director nominations and the effect of audit committee industry expertise. While previous research has found that audit committee independence and financial expertise are negatively related to restatements (Abbott et al. 2004; Agrawal and Chadha 2005), Carcello et al. (2011) find no significant association between restatements and both audit committee independence and financial expertise when the CEO is involved in the director selection process (i.e., CEO involvement appears to destroy a benefit of a strong audit committee). In addition, stock market reactions to restatement announcements are less negative if the audit committee is fully independent, but only when the CEO is not involved in the director selection process. Cohen et al. (2010a) find that restatements are negatively related to audit committee industry expertise, and more specific industry knowledge has a stronger effect. Restatement risk is lower when audit committee industry expertise is combined with (1) audit committee financial expertise or (2) auditor industry specialization.[8]

In addition to these studies, Larcker et al. (2007) examine the relation between accounting outcomes and a host of governance characteristics. The authors begin with 39 governance measures (including board, audit committee, and other variables) and reduce them to 14 dimensions using principal component analysis. The authors find that these 14 dimensions have little relation to accounting restatements.

Earnings Management/Accruals Quality

Numerous papers have examined earnings management issues. In this section, we provide a few examples of recent published work that deepens our understanding of the relation between governance quality (including audit committee accounting expertise) and earnings management.[9]

As noted above, Larcker et al. (2007) examine the relation of 14 governance dimensions with various accounting outcomes. The authors find a mixed relation between these 14 dimensions and abnormal accruals (some dimensions have unexpected signs). Bowen et al. (2008) document that accounting discretion (a composite measure) is negatively associated with the quality of corporate governance. Perhaps even more importantly, there is some evidence that accounting discretion (due to poor corporate governance) is *positively* associated with future company performance, possibly because earnings management provides an indicator of the company's future performance. The results suggest that shareholders actually benefit from earnings management attributed to poor corporate governance, rather than being harmed. Zhao and Chen (2008) find that absolute unexpected accruals are negatively related to staggered boards and the presence of a blockholder on the audit committee. The finding of a negative association between a staggered board and earnings management (and fraud, as discussed above) is inconsistent with the predominant result that weak governance is associated with poor financial reporting quality. Naiker and Sharma (2009) find that audit committee member experience as an audit partner (affiliated with the current audit firm) is negatively related to performance-adjusted discretionary accruals. Finally, Dhaliwal et al. (2010) find that accruals quality is positively related to accounting expertise on the audit committee (when the accounting expert is independent, has fewer other board seats, and has lower tenure), especially when accounting expertise and finance expertise are both present.

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[8] See Archambeault et al. (2008) in the section below discussing audit committee compensation. They find a positive relation between restatements and stock option compensation for audit committee members.

[9] Also see Altamuro et al. (2005) for evidence on the link between outside director stock ownership and accelerated revenue recognition.

Accounting Conservatism

Researchers recently have explored the relation between accounting conservatism and corporate governance, building on a U.K. study by Beekes et al. (2004). This literature finds a positive relation between accounting conservatism and governance quality. For example, Ahmed and Duellman (2007) find that various measures of accounting conservatism are negatively related to the percentage of insiders on the board and positively related to outside directors' ownership. Chung and Wynn (2008) examine the relation between directors and officers (D&O) liability coverage (including indemnification) and accounting conservatism. They find that greater coverage (protection from liability) is associated with reduced accounting conservatism, especially when litigation risk is higher. Finally, Krishnan and Visvanathan (2008) find that accounting expertise on the audit committee (but not non-accounting financial expertise) is associated with greater conservatism, but only when overall corporate governance is strong.[10]

Summary of Research on Accounting Outcomes

Recent research has deepened our understanding of the link between governance characteristics and accounting outcomes by considering additional dependent variables (e.g., conservatism) and independent variables (e.g., staggered boards, CEO involvement in director selection, audit committee industry expertise, and audit committee accounting expertise). Overall, most research reveals a positive relation between a variety of "good" governance characteristics (a much more extensive set of characteristics now has been addressed) and a variety of "good" accounting outcomes (which now include additional measures of accounting quality). However, Larcker et al. (2007) address a broad range of governance dimensions using principal component analysis and find little association between dimensions of governance and various accounting outcomes. As discussed later, we encourage additional research using numerous corporate governance attributes, as well as principal component analysis.

Governance and Auditing Outcomes

Auditor Selection, Change, and Ratification

Recent studies reinforce the notion that companies with stronger governance are more likely to select and retain high-quality external auditors. For example, Lee et al. (2004) find that board and audit committee independence and audit committee financial expertise are negatively associated with auditor resignations. More independent audit committees are more likely to choose higher-quality successor auditors. Chen and Zhou (2007) examine auditor changes related to the failure of Andersen. They find that companies with more independent and financially expert audit committees terminated their relationship with Andersen sooner. Companies with larger audit committees, more audit committee meetings, and more independent boards were more likely to select a Big 4 successor auditor. Lennox and Park (2007) find that more independent audit committees appear to promote auditor independence, as they are less likely to select an audit firm where key company officers are alumni of that firm. Bronson et al. (2009) find that 100 percent independent audit committees are negatively related to dismissing the auditor after a going-concern opinion is issued.

Finally, research also has addressed the role of audit committee quality in shareholder ratification of the auditor, once the audit committee has selected the auditor. Hermanson et al. (2009) find that shareholder votes for the auditor are positively related to audit committee financial

[10] Larcker et al. (2007) find no evidence that accounting conservatism is associated with any of the 14 dimensions of governance developed in their study.

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expertise, suggesting that shareholders have more confidence in the auditor being voted on if the audit committee has more financial expertise.

Auditor Risk Assessment, Audit Planning, and Audit Opinions

A few studies have examined the relation between corporate governance and auditor risk assessment, audit planning, and audit opinions. These studies find that governance characteristics affect auditors' risk assessments and planning decisions, and that governance quality is associated with audit opinions. For example, based on an experiment with audit partners and managers, Cohen et al. (2007b) find that control risk assessments and audit planning decisions are affected by the strength of the board's role (agency and resource dependence).[11] Weaker board roles are associated with higher-control risk assessments and higher audit budgets. In addition, an Australian study by Stewart and Munro (2007) finds experimental evidence that audit committee existence and meeting frequency are negatively related to auditors' risk assessments. Also, Sharma et al. (2008) conduct an experiment using Big 4 auditors in Singapore. They find that stronger client corporate governance (based on measures of the board and audit committee) results in a greater likelihood of client acceptance, lower assessments of control environment risk, greater reliance on client controls, reduced substantive testing, and increased interim testing. Research also has examined the relation of governance characteristics with internal auditors' decisions. For example, Asare et al. (2008) find that, in some cases, internal auditors' fraud risk assessments are influenced by audit committee quality, although audit scope judgments are not affected. In terms of audit opinions, Bronson et al. (2009) find that completely independent audit committees, but not audit committees with only one non-independent member, are positively related to going-concern opinions issued to financially distressed companies.[12]

Audit Fees

Researchers have continued to examine the relation between corporate governance characteristics and audit fees, as suggested by Hay et al. (2006). Strong governance could increase the demand for auditing (increasing fees) and/or reduce auditors' assessments of risk (reducing fees) (Carcello et al. 2002). Recent studies find some mixed evidence in this area, especially related to audit committee financial expertise.

Krishnan and Visvanathan (2009) find that audit fees are negatively associated with accounting expertise on the audit committee, but only in companies with strong governance. Audit fees increase with board size, board meetings, audit committee meetings, and CEO duality. Also, the relation between audit fees and audit committee accounting expertise is negative when earnings management risk is low, but positive when the earnings management risk is high. Thus, audit committees with accounting experts appear to demand more extensive auditing when risk is higher. Gul and Goodwin (2010) find that audit fees are negatively associated with director stock ownership and positively related to less "democratic" boards, board meetings, and audit committee financial expertise. The results for board meetings and audit committee financial expertise are consistent with stronger boards and audit committees demanding greater assurance.

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[11] As discussed in Cohen et al. (2007b, 2008), the board's agency role relates to monitoring management, while its resource dependence role relates to assisting management in gaining access to key resources (financial resources, human capital, personal and professional contacts, etc.).

[12] Also, Firth et al. (2007) investigate Chinese firms and find that modified audit opinions are negatively associated with supervisory board size and the percentage of independent directors on the board.

Nonaudit Fees

Recent research provides new insights into how boards and audit committees impact nonaudit fees. Gaynor et al. (2006) conduct an experiment with experienced directors acting as audit committee members or investors and evaluating the use of the external auditor for allowable nonaudit services. They find that audit committee members favor joint provision (using the auditor for nonaudit services) when this will increase audit quality. However, they are less likely to favor joint provision if auditor fees are publicly disclosed, even if they believe that audit quality will be improved by the joint provision.

In archival studies, the results are mixed regarding the association between corporate governance and the purchase of tax services. Bédard and Paquette (2009) find that audit committee accounting expertise and number of other boards served are negatively related to the purchase of tax services from the external auditor. Conversely, Lassila et al. (2010) find that the use of the auditor for tax services is positively related to corporate governance strength (composite of board size, board independence, audit committee size, audit committee independence, shareholders' rights, and institutional ownership).

Internal Audit Function

Several studies examine issues related to the internal audit function, with three studies examining internal audit budgets and finding them to be associated with certain governance characteristics. Carcello et al. (2005) find that the overall internal audit budget is higher if the audit committee reviews the budget, and Barua et al. (2010) find that internal audit budgets are positively associated with audit committee meetings, but negatively associated with auditing expertise on the audit committee and audit committee member tenure. Abbott et al. (2010) find that internal audit's relative focus (percentage of budget) on internal control-related activities increases with audit committee oversight of internal audit (relative to management oversight of internal audit).

Finally, Abbott et al. (2007) examine outsourcing of routine (recurring) and non-routine (unique) internal audit activities in the pre-SOX period. They find that "effective" audit committees (based on independence, meetings, and expertise) are associated with less outsourcing of routine internal audit activities to the external auditor (such routine activities could impair auditor independence). This relation does not hold for non-routine activities or for outsourcing to other audit firms.

Summary of Research on Auditing Outcomes

Researchers recently have deepened the study of governance and auditing outcomes with (1) more recent evidence on auditor selection and retention, (2) findings that governance characteristics influence auditors' risk assessments and planning decisions, (3) some conflicting results related to governance and auditor fees (audit and nonaudit), and (4) evidence that internal audit budgets are associated with governance characteristics.

Other Insights

Audit Committee Financial Expertise

In response to SEC and SOX Section 407 requirements regarding the disclosure of audit committee financial experts, researchers have investigated various issues regarding audit committee financial expertise, including market reactions to audit committee financial expertise, levels of financial expertise and determinants of these levels, and changes in financial literacy.[13] One major

[13] Also see Krishnan and Visvanathan (2008), Naiker and Sharma (2009), and Dhaliwal et al. (2010), discussed in the accounting outcomes section above. These papers point to the importance of accounting or auditing expertise.

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insight is that audit committee *accounting* expertise, rather than *financial* expertise, appears to be valued by investors.[14]

In terms of market reactions, Davidson et al. (2004) document that the stock price reaction to the announcement of appointing directors to audit committees is positively related to the new audit committee member having financial expertise. Further, DeFond et al. (2005) find that positive market reactions to the appointment of a financial expert to the audit committee occur only when the director has accounting-related expertise and only when the appointing firm has relatively strong corporate governance.

Three studies examine levels of audit committee expertise and/or determinants of such levels. Williams (2005) examines characteristics of financial experts designated by companies following the requirement of SOX Section 407 and finds that almost all companies analyzed have been able to find and identify a financial expert, and many companies designate more than one financial expert. Similarly, Carcello et al. (2006) document that the majority of companies comply with the SEC's financial expert disclosure requirement and most have a financial expert on the audit committee, but the quality of the disclosures often is low. The audit committee financial experts designated by companies usually do not have an accounting or finance background. Among companies that disclose having at least one designated expert, the likelihood that a company discloses having at least one designated audit committee financial expert with an accounting background is positively associated with subsequent common stock or debt issuance and institutional ownership, and negatively associated with having a Big 4 auditor. Also, Krishnan and Lee (2009) find that the presence of accounting expertise on the audit committee is positively related to litigation risk, but only in companies with stronger corporate governance.

Finally, Coates et al. (2007) examine changes in audit committee financial literacy and find that financial literacy in certain larger companies did not change between 1996 and 2000, but improved significantly from 2000 to 2004. Companies that improved their apparent audit committee financial literacy had higher stock returns than those that did not.

Audit Committee Compensation

Researchers recently have begun to examine the nature of audit committee member compensation. Research to date suggests the potential for compensation methods to influence audit committee members' judgments. Selected examples are discussed below.[15]

Engel et al. (2010) examine determinants of audit committee compensation and find that audit committee compensation is positively related to external audit fees, the post-SOX period, and the audit committee chair's expertise. Using compensation committee members as a control group, the authors also find that audit committee compensation is becoming different from typical director pay in the post-SOX period, reflecting the unique demands on audit committee members post-SOX (i.e., higher audit committee pay when the demand for monitoring of financial reporting is higher).

Archambeault et al. (2008) focus on audit committee member incentive-based compensation (i.e., short-term and long-term stock options) and their relation to financial reporting problems. They find that accounting restatements are positively related to the proportion of current-period audit committee member compensation that is composed of short-term stock options or long-term stock options.

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[14] Accounting expertise may be indicated by experience as an external auditor, CFO, or controller, while financial expertise may be indicated by experience as a CEO or president (see DeFond et al. 2005).

[15] Also see Cullinan et al. (2008, 2010) for evidence on the relation of audit committee stock option plans with revenue misstatements and internal control weaknesses, respectively.

Two recent experimental studies explore the potential for audit committee member judgments to be influenced by compensation type. Magilke et al. (2009) examine students (acting as audit committee members) in an experimental market setting and conclude that audit committee members receiving no stock compensation are the most objective. When students are compensated with current (long-term) stock-based compensation, they prefer aggressive (ultra-conservative) reporting. Bierstaker et al. (2010) examine public company audit committee members' judgments in a hypothetical case where the description of the members' compensation varies—all cash, mostly short-term stock options, or mostly long-term stock options. They find that audit committee members provide the greatest support for the auditor (greatest conservatism) in an auditor-management accounting dispute when the compensation is primarily long-term stock options and when the failure to record the auditor's adjustment is viewed as unfair to shareholders. In addition, perceived fairness to shareholders fully mediates the relation between long-term compensation and support for the auditor (i.e., long-term compensation influences perceived fairness, which in turn influences support for the auditor).

Finally, Keune and Johnstone (2010) examine the relation between audit committee compensation and the handling of qualitatively material proposed audit adjustments. They find that audit committee short-term stock option compensation is associated with a greater likelihood of waiving such adjustments, while audit committee long-term stock option compensation is associated with a lower likelihood of waiving these adjustments. In addition, audit committee member stock ownership is negatively related to waiving adjustments.

Audit Committee Processes

In response to previous calls for greater understanding of audit committee processes, recent research has examined a variety of process issues using interviews of audit committee members or external auditors. These studies find a mix of substantive, ceremonial, and informal audit committee processes.[16] Selected examples are discussed below.

Gendron et al. (2004) conduct semi-structured interviews with 22 individuals (audit committee members, management, auditors) in three large Canadian public companies to better understand audit committee meeting processes. They find that audit committee members place emphasis on financial statement accuracy, financial report wording, control effectiveness, and audit quality. Audit committee members seek to pose tough questions to management and the auditors.

Gendron and Bédard (2006) further analyze the interviews from Gendron et al. (2004) and conduct a second round of interviews with audit committee chairs to better understand notions of audit committee effectiveness. They find that audit committee members develop their sense of audit committee effectiveness by considering member backgrounds (independence and expertise), substantive and ceremonial features of audit committee meetings, and informal activities outside of audit committee meetings.

Beasley et al. (2009) interview 42 audit committee members of U.S. public companies to provide an in-depth understanding of six audit committee process areas in the post-SOX environment. Within each of the areas, they find evidence of both substantive audit committee monitoring and ceremonial actions. One area of particular concern is the lack of consensus regarding the audit committee's oversight of financial statement fraud risk.

Cohen et al. (2010b) interview 30 audit managers and partners from three of the Big 4 firms to explore a range of governance issues. They find that audit committees in the post-SOX era are perceived to have more knowledge and authority, and to be more diligent and active. However,

[16] Ceremonial (or symbolic) activities may serve primarily to enhance the audit committee's legitimacy in the eyes of others.

management still plays a very significant role in auditor selection and dismissal, and in some companies, audit committees are passive with respect to resolving disagreements between management and the auditor.

Audit Committee Judgments

Researchers have continued to examine audit committee members' judgments using experimental methods. Selected examples are discussed below (also see Magilke et al. [2009] and Bierstaker et al. [2010], discussed above in the section on audit committee compensation), each of which deals with how audit committee members evaluate accounting disagreements or adjustments.

DeZoort et al. (2008) administer the same hypothetical case to audit committee members in the post-SOX period that had been used in a pre-SOX study (DeZoort et al. 2003). They find that audit committee support for an auditor-proposed adjustment is greater in the post-SOX period than in the pre-SOX period, and this result is driven by audit committee members who are CPAs becoming more conservative post-SOX. Hunton and Rose (2008) examine audit committee members' judgments regarding hypothetical restatement versus adjustment recommendations. They find that audit committee members are less likely to accept an auditor's restatement recommendation than an adjustment recommendation. In addition, directors with multiple board positions are less likely to support a restatement than are directors with only one board position, apparently due to reputation capital concerns. Finally, Pomeroy (2010) conducts an experiment with experienced business professionals (most of whom have board experience) to explore the audit committee investigation process. He finds that participants investigate accounting issues more deeply when decision outcomes are more aggressive, especially if the members have accounting experience.

Consequences of Bad Accounting—Impact on Directors

A new line of research is emerging related to the consequences to directors of restatements and fraudulent financial reporting. These studies find that directors face a variety of penalties for being associated with accounting problems. Selected examples are discussed below.

Farber (2005) examines changes in corporate governance after cases of fraudulent financial reporting. He finds that fraud companies improve their governance in the three years after the fraud is found, resulting in governance characteristics similar to those of no-fraud companies. In addition, fraud companies improving their governance have higher stock returns. Srinivasan (2005) finds higher outside director turnover rates for companies restating earnings downward than for other companies. Director turnover is more likely for more severe restatements, especially for audit committee members, and such directors also lose other board seats. Fich and Shivdasani (2007) examine the effects on outside directors of lawsuits alleging financial fraud. Such directors do not face abnormal turnover on the sued company's board, but they lose other board seats at substantial rates. These losses are higher for more severe frauds and for audit committee directors. Finally, Beasley et al. (2010) examine companies allegedly committing fraudulent financial reporting and a control sample. They find that fraud companies are much more likely to experience turnover of the board chair and of other directors.

Summary of Other Recent Insights

Other recent insights include (1) the importance of audit committee accounting expertise over broader financial expertise; (2) the apparent potential for audit committee compensation methods to influence audit committee member judgments; (3) the existence of substantive, ceremonial, and informal audit committee processes; (4) a deeper understanding of audit committee member

evaluation of accounting disagreements and adjustments; and (5) the serious consequences to directors when a company experiences accounting trouble.

PRACTICE IMPLICATIONS OF FINDINGS

We believe that the findings to date have a number of important implications for practice. First, the weight of evidence suggests that weak governance is associated with an increased likelihood of adverse financial reporting outcomes (in particular, fraud and restatements). Thus, perhaps the most fundamental practice implication is that the governance research findings to date are, on an overall basis, consistent with the focus on improved corporate governance (e.g., board independence, audit committee expertise) found in SOX and related regulatory reforms. That is, the governance reforms in SOX have empirical support and are not simply unsupported reactions to a crisis.

Second, since the board and the audit committee are primary mechanisms for the internal monitoring of top management's financial reporting behavior, and given that the CEO and/or CFO is involved in 89 percent of all public company accounting frauds (Beasley et al. 2010), external auditors need to very carefully examine corporate governance characteristics and processes in assessing the control environment. The accounting fraud landscape is, in some ways, simple—the most likely perpetrators are the CEO and CFO; therefore, the quality of oversight provided by the board and audit committee is critical to mitigating this risk.

Third, research finds that auditor changes/dismissals are less problematic in the presence of good governance. That is, in the presence of good governance, the auditor change/dismissal may be justified by poor auditor performance or excessive fees. Since regulators do not have the resources to examine all auditor changes, even if limited to dismissals, regulators might want to consider the client firm's governance characteristics when deciding whether to investigate an auditor dismissal. The risk of a "problem" dismissal is reduced when governance is stronger.

Fourth, research indicates that external auditors assess risk higher and plan more audit hours for firms with weak governance. However, whether auditors *adequately* adjust for weak governance has not been examined. In other words, adjustments of risk assessments and audit hours occur, but is there enough adjustment in light of the higher risk? Using their proprietary, in-house data, auditors might want to reexamine whether their increased risk assessments and additional hours have been sufficient to mitigate the risks associated with weaker corporate governance.

Fifth, strong governance and strong auditing appear to be complements rather than substitutes—stronger boards and audit committees are associated with stronger auditing. Therefore, monitoring (both internal monitoring by the board and audit committee, and external monitoring by the auditor) is likely to be especially weak in firms with weak governance, for the quality of auditing is likely to be lower in the presence of weak governance. As such, shareholders may have little protection when governance is weak. Given the greater risk when governance is weak, the discount rate applied to future income and cash flow streams should be higher and the firm's bid-ask spread should be larger.

Sixth, a number of studies have demonstrated the importance of audit committee accounting expertise, as well as auditing expertise and industry expertise. Firms should strive to appoint audit committee members with specific accounting and auditing expertise given their apparently greater effectiveness and the positive stock market reaction to the appointment of accounting experts. If auditors have a client lacking accounting or auditing expertise on the audit committee, they should challenge the true effectiveness of that audit committee.

Seventh, a growing line of research indicates that audit committee compensation methods can influence audit committee members' judgments, and audit committee compensation methods are associated with the risk of restatement and with the handling of auditor adjustments. We encourage

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auditors, analysts, and shareholders to be cognizant of the potential risks involved if audit committee members are compensated primarily with short-term, incentive-based pay.

Eighth, some audit committees appear to take their monitoring roles seriously, while others appear to be primarily ceremonial in nature. Auditors are in a unique position to evaluate the effectiveness of the audit committee process. Auditors should explicitly evaluate the effectiveness of the audit committee's processes, and adjust their risk assessments, budgeted hours, and the nature, extent, and timing of audit testing, especially if effective audit committee processes seem to be attenuated by the intervention of a dominant CEO. On a related note, it appears that some companies strive to meet the letter of governance regulations, but without achieving truly independent oversight. For example, social or other ties among directors and managers can undermine "independence on paper," or CEO influence over the board can affect governance quality. Auditors and others should be attuned to the level of independent oversight that is actually being achieved.

Finally, given the severe reputational damage experienced by directors, especially audit committee members, in cases of financial reporting failures, and given the difficulty of monitoring a large entity on a part-time basis, audit committees might want to consider retaining permanent staff or consultants to the audit committee. SOX specifically contemplated audit committees seeking outside assistance in discharging their responsibilities, although audit committees seem reluctant to retain staff or consultants on a routine basis.

CRITIQUE AND DIRECTIONS FOR FUTURE RESEARCH

We turn now from describing and synthesizing extant research to making suggestions for improving corporate governance research in the future. We first analyze current research paradigms in governance and suggest a number of improvements. Second, we make a number of recommendations for what we view as fruitful extensions of existing research. Finally, we suggest a number of new or emerging lines of research.[17]

State of Current Research Paradigms in Corporate Governance

Recognizing that there are many exceptions to this generalization, the large majority of the published research in corporate governance is archival and based on agency theory. In addition, most of this research considers a subset of governance characteristics, and how governance characteristics are defined typically varies across studies. Moreover, in many studies, governance characteristics are assumed to be exogenous. Also, a number of governance studies use choice-based samples and/or matched samples without the correct econometric adjustments. In addition, in almost all of the published studies, an outcome state (e.g., restatements, abnormal accruals) is regressed against governance characteristics on a contemporaneous basis (i.e., a levels-based model is used). Although some of these design choices are appropriate in certain cases, as discussed below, they often represent limitations and are potentially threats to a study's internal and external validity. Finally, the majority of the research summarized in Table 1 is based on pre-SOX data, and as discussed below, in cases where there is a reasonable tie between regulatory change and the phenomenon being examined, it may be important to re-examine key pre-SOX findings.

Nature of Research Methods and Theories Used

The majority of published governance research is archival. Archival research is well suited for analyzing the relation between corporate governance inputs (e.g., board and audit committee

[17] Some of our suggestions echo or build on the suggestions presented in the 12 literature review/meta-analysis papers discussed previously.

characteristics) and various outputs. However, archival methods are not well suited for analyzing processes—that is, how does a board and/or board committee discharge its responsibilities? Given the lack of databases that contain measures of board and board committee process variables, studies of the actual functioning of boards and board committees are necessarily reliant on behavioral experiments, field studies (interviews), and surveys. Experimental studies are particularly useful for studying how directors make individual decisions. But since boards and their committees are social groups, the behavioral literature needs to analyze issues of group behavior and decision making.

A key challenge in behavioral experiments is the subject pool. Public company directors tend to be business executives in their mid 50s through early 70s, and audit committee financial experts may have many years of high-level experience as a CFO, VP of Finance, or audit firm partner. As a result, it is very unclear whether students, even M.B.A. students, are reasonable surrogates for the types of individuals who sit on corporate boards.[18] Of particular concern is whether students (younger, less experienced, less expert) would make decisions similar to those of older, experienced, expert public company directors. Field studies are useful for providing very rich descriptive data, but given the labor-intensive nature of the data-collection process, the sample sizes are small. As such, the generalizability of findings is always a potential concern. Surveys are typically viewed as less rigorous than other research designs, but they are useful for gathering preliminary information about an issue, potentially leading to more elegant research designs in the future.

In our view, given the need to focus more on board and board committee processes, future research in governance will need to rely more on experiments, particularly those examining group interactions, and field studies. We encourage interested readers to consult such studies as DeZoort et al. (2008) and Pomeroy (2010) for insights into experimental research in governance, as well as Beasley et al. (2009), Cohen et al. (2010b), and Gendron et al. (2004) for insights into performing interview-based research in governance. Such experimental or interview-based research requires a great deal of legwork and professional contacts to gain access to willing study participants and interviewees. Securing the sponsorship or informal support of a professional organization or professional services firm can be extremely helpful in this regard.

In terms of theory development, most governance research is based on agency theory. However, there are multiple theories of governance—e.g., resource dependence theory (the board's main role is to assist management in securing key organizational resources), institutional theory (governance mechanisms may be somewhat ceremonial, designed to enhance external legitimacy but loosely coupled with actual oversight), and managerial hegemony theory (board members are friends and cronies of management) (Cohen et al. 2008). Cohen et al. (2008) provide a rich description of four major governance theories and their implications for research in auditing. One research area where multiple theoretical perspectives have been used relates to audit committee processes, discussed earlier. Researchers often find that audit committee members interviewed about governance processes provide responses that are consistent with a mix of governance theories (e.g., Beasley et al. 2009), as directors are balancing their monitoring roles under agency theory with other considerations, such as promoting legitimacy under institutional theory or assisting management under resource dependence theory.

Number and Measurement of Governance Characteristics Considered

Much of the extant governance research considers a subset of governance characteristics, and how these characteristics are measured often varies across studies. As discussed previously, much

[18] McDaniel et al. (2002) use E.M.B.A. graduates as surrogates for "financial literates" and audit managers as surrogates for "financial experts." They find important judgment differences between these two groups, highlighting the risk of using even E.M.B.A. students as proxies for financial experts.

of the governance research focuses on only a single variable (e.g., board or committee independence, audit committee financial expertise) or a limited subset of governance characteristics. While this approach was reasonable when governance research was in its infancy, it is often problematic because there are many governance characteristics that may affect the phenomenon being studied, and arbitrarily excluding some of these characteristics can lead to biased statistical coefficients and spurious inferences. Therefore, we expect to see future research including a richer set of governance characteristics and, as a result of the large number of characteristics that may be included, a greater use of principal component analysis in reducing the large number of factors to a more manageable number of dimensions. One notable example of research that uses numerous governance variables is Larcker et al. (2007). The authors begin with 39 governance variables and use principal component analysis to develop 14 dimensions of corporate governance.

A second issue is the variability across studies in how governance characteristics are measured. Studies define independence, financial expertise, diligence, compensation plans, etc. differently. These differences run the gamut from: (1) measuring variables continuously versus dichotomously (e.g., the percentage of independent directors on the audit committee versus a dummy variable as to whether the audit committee is 100 percent independent); (2) measuring the underlying construct differently (e.g., defining an audit committee financial expert based on the SEC's final rule implementing Section 407 of the Sarbanes-Oxley Act, or defining a financial expert based on whether the audit committee member has an accounting background); and (3) measuring governance using an index where the index value is defined as good or bad based on the median value in the sample; therefore, the sample's composition affects the measurement of good or bad governance. The problem with measuring the underlying construct differently is exacerbated by the proliferation of corporate governance databases (e.g., Institutional Shareholder Services, Investor Responsibility Research Center, Board Analyst by The Corporate Library, Audit Analytics, and BoardEx). Different databases include different variables, different companies, and different years, and they may define and/or measure similar-sounding variables in slightly different ways. Given the variability in how governance characteristics are measured, it is increasingly important to test the sensitivity of results to variations in how key variables might be measured.

Finally, we encourage continued efforts to enhance the precision or richness of governance measurements. For example, the measurement of audit committee expertise has progressed steadily over the past several years. Among the measures examined are the SEC's definition of a financial expert (e.g., Abbott et al. 2004), accounting versus financial expertise (e.g., DeFond et al. 2005; Dhaliwal et al. 2010), audit partner experience (Naiker and Sharma 2009), auditing expertise (Barua et al. 2010), and industry expertise (Cohen et al. 2010a). Advances in the precision of audit committee expertise measures have deepened our understanding of audit committee effectiveness.

Endogeneity

Much of the extant research assumes that corporate governance variables are exogenous. However, the same firm and/or management characteristics that may affect the phenomenon being studied (e.g., earnings management) may also affect the characteristics of the board and board committees. Failure to consider the endogenous nature of governance characteristics is often a threat to a study's internal validity. The challenge for researchers is to develop good variables (instruments) that explain board and board committee composition, but that are not correlated with the underlying phenomenon being studied. We encourage readers to consult Larcker and Rusticus (2010) for a discussion of endogeneity in governance (and accounting) research. The authors provide insights into the use of instrumental variable methods. Readers also may refer to Prawitt et al. (2009, 1272–1273) for an example of addressing endogeneity issues in an internal auditing study.

Choice-Based and Matched Samples

A number of governance studies rely on choice-based samples (e.g., all fraud instances and all restatement instances are included in the sample) and/or on matched samples. Choice-based samples typically overweight the phenomenon of interest relative to its incidence in the population. In these instances, the overweighted observation, for example fraud in a study comparing fraud to no-fraud firms, should be reweighted to account for its overrepresentation in the sample (Cram et al. 2009). Some authors believe that this reweighting is not needed when logit is used; however, this exception only applies when the sample is matched and conditional logit analysis is employed (Cram et al. 2009). Finally, in those instances where matched samples are used, a conditional analysis is appropriate, rather than an unconditional analysis (Cram et al. 2009).

Association or Causality (or Levels versus Changes versus Experiments)

The large majority of published governance studies employ a levels model. An outcome state is regressed against governance characteristics on a contemporaneous basis. Significant relations between the governance characteristics and the outcome state indicate an association between the variables and, although some researchers appear to imply causation between the variables, the underlying statistical analysis only reveals an association. In our view, more work should examine whether changes in governance characteristics are accompanied by changes in the outcome state (e.g., does an improvement in governance characteristics precede a decline in earnings management?).[19] Such models are perhaps more consistent with the desire of researchers to demonstrate not just association but also causality.[20] Of course, truly demonstrating causation requires a controlled experiment, which is not possible in all areas of the governance field.

Post-SOX Analyses

The summary of more recent research presented in Table 1 includes information on whether any portion of the main sample was from the pre-SOX period (see * in Table 1). The majority of studies cited in Table 1, especially archival studies examining accounting or auditing outcomes, are based on pre-SOX data. This is not surprising given the significant time lag in academic accounting publishing. However, it does highlight the opportunity to re-examine certain pre-SOX findings in the post-SOX environment. Some studies have explicitly sought to document pre- versus post-SOX differences (e.g., DeZoort et al. 2008; Cohen et al. 2010b), and we encourage additional examination of such differences. However, in pursuing such efforts, it is important for researchers to have a meaningful basis to expect different results post-SOX (and to address variables that still exhibit meaningful variation post-SOX). In other words, there must be a reasonable tie between regulatory change and the phenomenon being examined.

Extensions of Existing Research

We suggest three extensions of existing research. First, the interactions and relations among the board and its committees, and among different board committees, have received scant

[19] We recognize two challenges of using change models. First, such models may have low explanatory power. Second, some governance variables are quite stable, such that the magnitude of any changes is relatively small.

[20] Areas that may be well suited to change models include earnings management or operating performance. Such areas have measures that change from period to period, and the available sample size is quite large. Analysis of changes is problematic in areas such as fraudulent financial reporting or restatements, where the samples are much smaller.

research attention. We believe that this is a fertile area for future inquiry. Second, since the optimum corporate governance state likely varies based on firm characteristics, we believe that future governance research should examine the effects of governance characteristics given different firm conditions. Third, the majority of governance research has examined U.S. firms, and those papers that have examined non-U.S. firms have tended to study other countries that follow the Anglo-American traditions of governance (e.g., Australia, Canada, United Kingdom). More focus on non-U.S. firms, and particularly firms in continental Europe and in emerging markets, is needed.

Interactions Among the Board and its Committees, and Among Committees

Very little of the extant governance literature examines the interactions, including the effects thereof, among the board of directors and its committees, particularly the primary board oversight committees (audit, compensation, and nominating/governance), or the interactions among board committees. As discussed previously, Carcello et al. (2011) find that greater CEO involvement in director selection, including CEO service on the governance/nominating committee, eliminates the beneficial effects of audit committee independence and expertise with respect to reducing the incidence of restatements. Other interactions that are worth exploring relate to those between the compensation committee and the audit committee, given the role that compensation plays in earnings management and fraud, and the resultant implications for audit committee oversight of the financial reporting process (e.g., see Laux and Laux 2009). Specifically, the incentive compensation plans that are developed or approved by the compensation committee may provide powerful pressures or incentives for management to manipulate the financial results, a major concern of the audit committee. If the compensation committee and audit committee are not communicating well, the audit committee may be unaware of important financial reporting risks created by compensation committee decisions.

Another promising area may be to examine the role of the nominating/governance committee, if and when the SEC's shareholder proxy access proposal becomes effective (SEC 2010). For example, researchers might examine if boards with director candidates nominated by shareholders, and subsequently elected, are more effective in monitoring management, or if they pursue policies that favor the constituency that nominated the director rather than those that favor the firm as a whole. Researchers also may examine interactions among board committees and the external auditor, the internal auditor, or management, exploring how such interactions may be associated with audit quality or financial reporting quality. Finally, social ties among managers and directors may affect audit committee independence. We encourage more research to understand the prevalence and effects of such ties.

Different Governance Models for Different Firms

It is unlikely that "one size fits all" when it comes to governance characteristics and processes, but for the most part the extant research does not examine the fit between governance characteristics and firm type. For example, optimum corporate governance characteristics and processes may differ by industry. As it relates to audit committee activity and oversight of financial reporting, the risk of fraudulent financial reporting in the technology industry is different than in a more cash-based industry. Therefore, the optimum background for audit committee members and optimum committee practices may differ between industries. In addition to industry, the stage of the firm in its lifecycle or its strategic focus may also affect optimum governance characteristics and processes. For example, a small, young, rapidly growing firm, with high institutional ownership, may benefit more from directors with industry expertise and from a greater board focus on serving as a resource to management. Conversely, a large, established firm in a declining industry, with a widely

dispersed shareholder base, may benefit more from directors with financial expertise and a greater board focus on its monitoring role. We encourage researchers to examine how optimum corporate governance arrangements vary based on differing firm characteristics, including more research on family businesses and dual-share firms.[21]

Different Governance Models for Different Countries

The majority of the published research in corporate governance examines U.S. firms. Just as differences in firm characteristics may affect the optimum governance arrangements, differences across countries may affect the optimum governance arrangements. For example, given the significant role that dispersed shareholders play in the U.S. system, the primary agency conflict is between owners and managers. Under this system, a significant risk to shareholders is fraudulent financial reporting. A number of existing corporate governance mechanisms exist to mitigate these agency conflicts. However, in some parts of the world, particularly continental Europe, blockholders play a much larger role in corporate governance. In extreme cases, majority ownership of the firm may be concentrated among a small group of individuals and entities. Under these conditions, the most pressing agency conflicts are between majority owners and minority owners. Under this system, a significant risk to minority shareholders is the misappropriation or misuse of corporate assets and/or asset transfers from the corporation to majority shareholders at bargain prices (i.e., tunneling). The corporate governance mechanisms developed in an Anglo-American context may not be as well suited to addressing these types of agency conflicts as other governance mechanisms.[22]

Much of world economic growth is now occurring in developing countries—particularly in the BRIIC nations (i.e., Brazil, Russia, India, Indonesia, and China). Given the importance of these countries to the world economy, and given very different cultural, legal, and regulatory traditions, optimum corporate governance mechanisms in an Anglo-American context may not be effective or at least not as effective. However, substitute governance mechanisms, perhaps yet unexamined or even unexplored, may act as effective substitutes.

New or Emerging Lines of Research

We believe that there are at least four fruitful areas of governance inquiry that have yet to be explored in a substantive way. These are: (1) the expectations of investors with respect to the governance process and investors' role in monitoring the governance process; (2) the specific actions, behaviors, processes, and personality traits that contribute to effective governance; (3) the role of whistleblowers and the whistleblower process in governance; and (4) other governance mechanisms, including: (a) the roles of the Chief Risk Officer (CRO), Chief Compliance Officer (CCO), and Chief Ethics Officer (CEthO) in facilitating effective governance, and (b) the unique role played by the chairman of the board, especially if separate from the CEO, and chairs of the various board committees.[23]

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[21] See, for example, Chen et al. (2008) for recent research examining family business issues from a governance perspective.

[22] Another advantage of performing research in international settings is that it often allows an examination of governance variables in a voluntary environment. By contrast, the U.S. governance environment is more rules based, thus reducing or virtually eliminating variation in some governance attributes.

[23] In addition to these issues, we also encourage research on audit committee oversight of current risk areas (e.g., Foreign Corrupt Practices Act compliance) and emerging disclosures (e.g., corporate social responsibility, carbon emissions).

Investors and Corporate Governance

Extant governance research often considers the direct role that certain investors play in the governance process. For example, some studies consider the role that blockholders[24] play in governance, and other studies consider the role that institutional investors, sometimes measured based on aggregating the ownership positions of each institutional owner, play in governance. Although considering the role of blockholders and institutional investors is appropriate, it is not new. However, blockholders and institutional investors are typically treated as homogeneous by researchers when these groups are anything but homogeneous in practice. For example, a blockholder could be a founder, a wealthy individual investor who otherwise has no ties to the firm, or any of the myriad types of institutional investors. Institutional investors include actively managed mutual funds, index-based mutual funds, endowments, insurance companies, corporate pension funds, public pension funds, private equity funds, hedge funds (which are highly diverse), and venture capital funds, among others. Institutional investors have different objectives, investing styles, and resources, so the role and effectiveness of these different parties in the governance process will likely differ.

Prior research has not explicitly considered the expectations of investors with respect to the governance process, and how investors monitor the governance process in those firms where they have invested.[25] For example, investor voting behavior for individual board members, especially those directors on the audit committee, may provide insight as to the backgrounds, characteristics, and performance expected by investors. An even more fruitful area of inquiry would be to examine board nominations by investors, and the votes received by shareholder nominees whose names appear in corporate proxy statements when, and if, the SEC's proxy access proposal becomes effective. In addition, it would be useful to use field study methodology or surveys to understand what investors expect from the board and audit committee with respect to the monitoring function, preferably by investor type, and how different types of investors seek to influence boards.

Board and Committee Effectiveness

Ultimately, we believe that governance research should contribute to enhancing governance effectiveness or governance quality in practice. In this regard, we believe that there are two important issues to examine. First, how do we define and measure governance quality or effectiveness?[26] Under agency theory, a key role of the board and its committees is to monitor management; however, it is difficult to measure the quality of monitoring. Management may perform well despite a lack of meaningful board oversight, or management may perform poorly even though the board used a rigorous process to oversee management. In many ways, the difficulty of defining governance quality is similar to the difficulty of defining audit quality, as the auditor also is in a monitoring role. We encourage research on both defining governance quality as a construct and measuring governance quality (e.g., do we focus on governance inputs, processes, and/or outcomes?).

Second, we view perhaps the most promising area of future governance research to be the further exploration of what actions, behaviors, processes, and personality traits contribute to board and audit committee effectiveness (or quality), assuming a workable definition(s) is available. This

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[24] A blockholder is generally defined as an individual or entity that owns five percent or more of the firm's common stock.

[25] We note some recent experimental research that examines investors' (non-professional and professional) and lenders' consideration of governance characteristics when making decisions (e.g., Sharma 2006; Holder-Webb and Sharma 2010). Such an approach could be applied to other types of investors as well.

[26] We thank Brian Mayhew for raising this fundamental question at the 2011 Auditing Section Midyear Conference.

type of research, given the lack of publicly available data, by necessity relies on field studies and/or surveys. In addition to talking with directors and examining board and audit committee behavior, a holistic approach to examining effectiveness should include interviews with external audit (see Cohen et al. 2010b), internal audit, and the corporate secretary (who is often the general counsel as well). Including corporate secretaries in field studies may generate unique insights, particularly since these individuals are typically actively involved in overseeing the governance process for the firm. Researchers can examine the determinants of board and audit committee effectiveness (e.g., meeting preparation, meeting performance, actions between meetings). In addition, researchers can examine how the board and audit committee's actions can enhance the effectiveness of the firm's financial reporting function, and the internal and external audit processes. Finally, further research is needed on how the board and audit committee can effectively oversee top management, especially since almost 90 percent of accounting frauds involve the firm's CEO and/or CFO (Beasley et al. 2010).

The Role of Whistleblowers in Governance

Section 301 of SOX (U.S. House of Representatives 2002) requires audit committees to establish procedures relating to: (1) "the receipt, retention, and treatment of complaints received by the issuer regarding accounting, internal accounting controls, or auditing matters," and (2) "the confidential, anonymous submission by employees of the issuer of concerns regarding questionable accounting or auditing matters." To meet this requirement, firms have typically established hotlines to receive these complaints and concerns (i.e., the whistleblower process). Moreover, Section 922 of the Dodd-Frank Act of 2010 (U.S. Congress 2010) has strengthened the protections afforded whistleblowers by SOX. In addition, the Dodd-Frank Act provides that whistleblowers providing original information to the SEC that leads to a successful enforcement action where the monetary sanctions exceed $1 million will be eligible for a reward of between 10 percent and 30 percent of the sanction. Given the additional protections and monetary incentives afforded to whistleblowers by the Dodd-Frank Act, the role of whistleblowers as an important internal mechanism in rooting out corporate fraud is likely to be enhanced. This is an important development because tips from employees are among the most common means of detecting corporate fraud (Dyck et al. 2010).

Notwithstanding the important role that whistleblowers play in uncovering corporate fraud and the audit committee's statutory mandate to oversee the whistleblower process, this area, including the audit committee's role in overseeing the whistleblowing process, is just beginning to be examined by accounting researchers.[27] For example, Kaplan et al. (2009) use an experimental approach to examine characteristics of whistleblower program safeguards and their effect on employees' intention to report fraud. Somewhat surprisingly, the authors find that employees are more likely to report fraud when an internal reporting mechanism is used, as opposed to an external hotline.[28] Hunton and Rose (2011) also use an experimental approach and focus on audit committee members' responses to whistleblower allegations. They find that audit committee members view allegations as less credible and plan to devote fewer resources to the investigation when the allegations are anonymous and when they are *more* serious (pose a greater threat to the director's reputation). The finding related to seriousness was not expected. In both of these studies of whistleblowing, some of the results are opposite of expectations, thus highlighting the need for more study.

[27] According to Hunton and Rose (2011), most research to date examines employees' intention to report fraud (as opposed to examining the whistleblowing issue from the perspective of audit committee members).

[28] Also see, for example, Ayers and Kaplan (2005), Kaplan and Schultz (2007), and Kaplan et al. (2010) for additional insights into influences on intention to report fraud.

Given the relatively early stage of this research area, promising research can be explored. For example, which organizational departments are optimal to oversee an internal reporting process? If an external reporting mechanism is used, what vendor characteristics are most highly correlated with a successful process? We do not know the optimum process for processing, investigating, and resolving concerns and complaints, including the audit committee's role in overseeing this process—or how the optimal process may vary by company type. We also do not know the role of top management in supporting or possibly impeding the effectiveness of whistleblower programs. Again, given the lack of public data, these questions need to be explored via experiments, field studies, or surveys.

Other Governance Mechanisms

We believe that research is needed on governance mechanisms that have largely emerged within the past decade (i.e., the role of the CRO, CCO, and CEthO). Research is also needed on the unique role played by those in board leadership positions (the board chairman, lead director, and committee chairs).

Within the past decade, it has become increasingly common for firms, especially larger firms or those firms that have experienced compliance-related failures, to establish risk, compliance, and ethics functions, or at a minimum a subset of these three functions, overseen by a CRO, CCO, and CEthO.[29] Moreover, it is common for the CRO, CCO, and CEthO to report to the audit committee. Research on the relation between these functions and the audit committee appears to be extremely limited. Given the increasing role played by risk management, compliance, and ethics in the corporate governance process, researchers are encouraged to examine how audit committees can best interact with and oversee these functions.[30]

Extant research frequently considers the role of the board chair in the governance process, including examining when it is optimal to combine the roles of board chair and CEO, as well as examining the relative monitoring effectiveness of separating these positions versus combining them. However, very little research separately examines the role of the audit committee chair in facilitating effective audit committee performance (Bédard and Gendron 2010). This is an unfortunate oversight given the role of the audit committee chair in driving the agenda, the meeting packet, the conduct of the meeting, and interactions between meetings. We believe that examining the role of the audit committee chair, including the chair's behaviors, characteristics, and personality traits, in ensuring audit committee effectiveness is worthy of future study.

CONCLUSION

The corporate governance literature in accounting and auditing has grown rapidly in the last 15 years. In this paper, we summarize and synthesize the findings to date and offer suggestions for future research. Some of the new avenues of research will, given the lack of public data, by necessity have to rely on experiments, field studies, and surveys. The latter two approaches, in particular, are viewed by some as less rigorous than archival, econometric-based research methods. However, as an academic discipline we have a fundamental choice to make. We can continue to rely predominantly on archival research methods, and to improving the rigor and elegance of these

[29] One of the authors has been retained as a corporate governance expert by plaintiffs' counsel in three cases over the past five years where compliance-related failures were alleged. In all three cases, as part of the settlement, risk, compliance, and ethics functions were either established, or the scope and authority of existing functions were significantly expanded.

[30] In addition, we encourage research on the roles of banking regulators and credit rating agencies in corporate governance, especially in the enterprise risk management area.

methods, which we apply to increasingly narrow questions. However, this strategy will cause us to leave some of the most interesting questions unexplored, and it almost guarantees a decline in how the practicing world views the relevance of our research. Alternatively, we can choose to expand the set of acceptable research approaches and, as a result, begin to better understand the issues that matter most to accountants, attorneys, practitioners, regulators, and investors. In our view, the choice is obvious if we wish to continue to contribute to the corporate governance field.

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