

The Interplay of Management Incentives and Audit Committee Communication on Auditor Judgment

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ABSTRACT: This study investigates the interplay of management and the audit committee on auditor judgments and evidence documentation. In a 2×2 between-subjects experiment, 58 experienced auditors were tasked with evaluating an inventory obsolescence issue when management's incentives to influence the auditor were either higher or lower. The auditors were also either provided or not provided with additional communicated expectations from the audit committee that opposed management's aggressive reporting preference. Drawing on research on competing preferences and source credibility theory, we predict and find that when management's incentives are higher, additional audit committee communication has a significant and positive impact on auditors' evidence evaluation and related judgments. However, we find no effect of added audit committee influence when management incentives are lower. These findings highlight the importance of examining the interrelationships among the various actors contributing to corporate governance and also inform standard setters about the benefits of increased communication between audit committees and auditors.

Keywords: audit committee communication; management incentives; competing preferences; source credibility; auditor judgment.

INTRODUCTION

The landscape of corporate governance has undergone significant change over the past two decades. Most notably, the role of the audit committee has evolved from a passive observer to a critical player in ensuring quality financial reporting, culminating with the passage of the Sarbanes-Oxley Act of 2002 (SOX), which raised membership requirements and made the audit committee a key element of corporate governance. More recently, the Public Company Accounting Oversight Board (PCAOB) approved Auditing Standard (AS) No. 16, *Communications with Audit Committees* (PCAOB 2012a), to enhance communication between the external auditor and the audit committee in order to better facilitate the audit committee's oversight role and improve financial reporting quality. However, despite this regulatory reform, auditors continue to cite the importance of management's role in corporate governance and its ability to exhibit significant influence during the audit (Cohen, Krishnamoorthy, and Wright 2002, 2010). Prior research also recognizes the need to examine the interrelationships required between the various actors within the corporate governance mosaic (e.g., management, the audit committee, and the external auditor) for achieving high quality financial reporting (Cohen, Krishnamoorthy, and Wright 2004; Carcello, Hermanson, and Ye 2011). Thus, the purpose of this study is to examine the interplay of management and the audit committee on auditor judgment, and whether auditors' sensitivity to a characteristic of management, its incentives to influence the auditor, moderates the effectiveness of additional oversight by the audit committee.

As part of monitoring the financial reporting process, audit committees are charged with setting clear expectations for the external auditor. For example, KPMG's Audit Committee Institute identified the reinforcement of audit quality by setting clear

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expectations for the external auditor as one of the five “core” audit committee responsibilities for 2013 (KPMG 2012). Prior research also indicates that corporate governance information is used in all phases of an audit, and its role and importance has increased since the passage of SOX (Cohen et al. 2010). In light of the recent passage of AS No. 16, it is important to examine whether auditors are effectively integrating expressed expectations voiced by the audit committee.

We administered a 2×2 between-subjects experiment that required audit seniors to evaluate management’s estimate for obsolete inventory. The auditors either were or were not provided additional communication from the audit committee expressing its expectations for conservative financial reporting. Management’s incentives to influence the auditor were also manipulated at two levels (higher or lower) by varying the perceived propensity to manage earnings (a corporate incentive), while keeping constant personal compensation incentives. This setting was chosen because inventory estimates are evaluated by audit seniors and also commonly include management bias (Griffith, Hammersley, and Kadous 2015). Further, while audit seniors have a minor role in evaluating corporate governance, they are primarily responsible for planning the audit and the execution of day-to-day audit procedures. And as Cohen et al. (2002, 589) note, “[I]f they (audit seniors) do not have a comprehensive understanding of governance factors, they may be insufficiently impounding information on governance.” The ability (or inability) of audit seniors to appropriately integrate such information can have significant consequences on both audit and financial reporting quality.

Our theoretical predictions are motivated in part by audit theory on client identification (Bamber and Iyer 2007) and related auditing research on competing preferences, which finds that when auditors are confronted with multiple preferences, they tend to be influenced more by a client management preference than a known preference from an audit supervisor. We also draw on source credibility theory (Birnbaum and Stegner 1979; Chaiken and Maheswaran 1994), which proposes that information received from management that favors its preferred accounting treatment will be more persuasive when management’s incentives and motivation to influence the auditor are lower than when its incentives are higher. Since auditors tend to identify with client management (Bamber and Iyer 2007), the effectiveness of additional audit committee communication may also be sensitive to variations in management incentives to influence the auditor. That is, when faced with both management’s reporting preference and a competing expectation communicated from the audit committee, the ability to appropriately integrate the audit committee’s expressed expectations may be dependent on the auditor’s ability to discount information consistent with management’s preference.¹

Our findings indicate that management’s incentives to influence the auditor not only affect the persuasiveness of management-provided information, but also spill over to impact the potential benefit of additional audit committee communication on auditor judgments. Specifically, when management’s incentives were lower, additional audit committee communication had no effect on auditor judgments, and auditors documented more items consistent with management’s aggressive reporting preference. However, when management’s incentives were higher, the additional communication had a significant and positive impact on auditors’ evidence evaluation and judgments, as auditors were less supportive of management’s aggressive estimate and also documented a greater proportion of evidence items consistent with the audit committee’s expressed expectations for conservative reporting. Given that auditors were also less likely to recommend an audit adjustment when management’s incentives were lower than when higher, our results suggest that auditors’ failure to carefully consider an expressed audit committee preference can significantly impact audit quality.

The results of this study have implications for audit research and practice. First, the corporate governance literature has relied primarily on archival methods and structured interviews to glean insights into the audit process. In an experimental setting, we provide important evidence regarding how auditors integrate the views of multiple members (management and the audit committee) included in corporate governance. Further, by holding the characteristics of the audit committee constant, we are the first, to our knowledge, to examine how an expressed audit committee preference is integrated into auditor judgment. Given the recent approval by the PCAOB of AS No. 16, *Communications with Audit Committees*, our research is timely and indicates that increasing the frequency of informal communication between the audit committee and the audit team can positively impact reporting quality. However, to have a broader impact, auditors need to be sensitized to how management may exhibit undue influence and its potential to undermine audit committee effectiveness.

Second, despite the critical role that audit seniors play throughout the audit process, we are unaware of research that directly investigates their ability to integrate critical governance information. Our study indicates that while under certain conditions audit seniors were able to sufficiently integrate the communicated expectations of the audit committee when executing the audit, additional training on remaining professionally skeptical and on the audit committee’s important oversight role may be warranted. From a practical standpoint, failing to carefully consider specific expectations communicated by the audit committee can have severe consequences, including a potential lack of trust or, in more extreme cases, even dismissal from the client. Finally, we

¹ Bamber and Iyer (2007) also find that auditor tenure and client importance are positively associated with heightened client identification. We hold constant the length of the audit relationship, as well as the client’s background information, across all experimental conditions.

contribute to the literature on audit engagement pressure by examining how auditors contend with multiple influences. While prior literature has investigated the adverse effects of various audit engagement pressures, there is a limited body of research investigating the effects of multiple, competing pressures. Investigating competing preferences recognizes that in the complex audit environment, auditors will have to contend with the views of multiple parties that may not always be congruent.

The remainder of the paper is organized as follows. The next section provides a description of the theory and hypothesis development. The third section outlines our methodology and the design of our experiment, and the fourth section presents the results. We conclude with a brief discussion of the implications of our results, limitations to our study, and opportunities for future research.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Financial reporting quality is influenced by interactions among management, the external auditor, and the audit committee. Indeed, the Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees ([BRC]1999) describes these corporate governance members as forming a “three-legged stool” supporting responsible financial reporting, with the audit committee being “first among equals in this process” (BRC 1999, 7). More recently, the voice of the audit committee has been enhanced by the PCAOB’s approval of AS No. 16. The new standard encourages effective two-way communication between the auditor and audit committee that is both informative and flexible based on the needs and circumstances of each company, as opposed to “boilerplate” requirements included in prior standards. As PCAOB Chairman James R. Doty noted in a public address, the new standard “supports the critical role of auditors and audit committees in financial reporting . . . [and] moves the auditor’s communication with the audit committee away from compliance checklists, and decisively in the direction of meaningful, effective interchange” (PCAOB 2012b). This communication is thus likely to be less formal and rigid than in the past, which is an important outcome because interviews with audit committee members suggest that these informal channels allow the audit committee to have a greater influence over governance outcomes (Turley and Zaman 2007; Beasley, Carcello, Hermanson, and Neal 2009).

Despite strong empirical evidence that audit committees can and do positively influence the quality of financial reporting (e.g., Klein 2002; Abbott, Parker, and Peters 2004; Bedard, Chtourou, and Courteau 2004; Dhaliwal, Naiker, and Navissi 2010; Keune and Johnstone 2012), there are several practical and theoretical reasons for examining *how* audit committees exert their influence and *when* such influence is most likely to be effective. Both Hermalin and Weisbach (2003) and DeFond and Francis (2005) point out, for example, that endogeneity is a significant concern in archival research examining audit committee composition because the variables of interest are potentially jointly determined. That is, audit committees may improve firm performance and financial reporting quality (as suggested in the literature), or it could be that better performing companies choose more independent and better qualified audit committee members. Prior governance research also recognizes that the interrelationships between various actors in the corporate governance mosaic are crucial to achieving high quality financial reporting (Cohen et al. 2004). It is therefore important to understand how the effectiveness of certain governance mechanisms (e.g., additional audit committee communication) can be impacted by the characteristics of other actors (e.g., management and the external auditor).²

The audit committee’s responsibility to shareholders in overseeing the financial reporting process makes it exceedingly unlikely that it will be in favor of overly aggressive accounting method choices. For example, both audit partners and managers, as well as audit committee members, report that current audit committees are more concerned with reporting accuracy and a need for conservative financial reporting than those in the pre-SOX period (DeZoort, Hermanson, and Houston 2008; Cohen et al. 2010). Audit research also finds that internal and external corporate governance mechanisms play an important role in the implementation of accounting conservatism by reducing agency costs and litigation risk (Ahmed and Duellman 2007; García Lara, Osma, and Penalva 2007). In such cases, the increased timing and interaction between the auditor and audit committee, as recommended by AS No. 16, is likely to create situations when the auditor has to grapple with competing motivations to satisfy both management and the audit committee.

² Ng and Tan (2003) provide some insight into how audit committees can influence auditor judgments in an auditor-client negotiation context using an experimental approach. The authors find that auditors’ perceived negotiation outcome is jointly influenced by the effectiveness of the audit committee and the availability of precise authoritative guidance. We differ from both Ng and Tan (2003) and the prior archival literature in that we keep the attributes of the audit committee constant across all of our experimental conditions and instead manipulate the presence of additional communication between the audit committee and the auditor. In doing so, we extend the governance literature by investigating the interplay of management and the audit committee on the judgments of auditors, and provide valuable insight on when additional oversight by the audit committee is likely to be most effective.

Competing Preferences for Auditor Performance

A common finding documented in the auditing literature is auditors' overwhelming tendency to adopt the known preferences of a performance evaluator. This result holds for the known preferences of an audit superior (Peecher 1996; Turner 2001; Wilks 2002; Carpenter and Reimers 2013), as well as an expressed preference from client management (Hackenbrack and Nelson 1996; Salterio and Koonce 1997; Kadous, Kennedy, and Peecher 2003). However, little research has examined how audit performance is impacted when auditors are confronted with multiple, competing preferences, which is likely to persist in the audit environment. Indeed, Gibbins and Newton (1994) characterize public accounting as a system of "complex accountability" in which auditors may feel pressure from multiple sources (e.g., a person within the audit firm, the client, regulatory agencies), whose views and preferences may not be congruent. Bagley (2010) adopts this complex accountability perspective and finds that the multiple accountabilities inherent in the audit environment can have adverse consequences. She documents that auditors experience heightened levels of negative affect as the level of accountability increases, and this increase in negative affect can harm audit task performance.

In two related studies, Gramling (1999) and Bierstaker and Wright (2001) explore the competing effects of a client audit fee preference and a partner preference for either greater efficiency or greater audit quality and professional skepticism. Importantly, both of these studies find that when auditors were confronted with these competing preferences, their judgments and performance on audit planning tasks were influenced more by a client management preference than an expressed preference from their audit superior. These studies also call for additional research investigating the impact of competitive pressures on audit performance and auditor independence in order to provide further insight into this perceived client bias.

More recent research by Bamber and Iyer (2007) and Stefaniak, Houston, and Cornell (2012), while not directly examining the effects of competing preferences, provide a cognitive-based explanation for why auditors may favor a client management preference over the preference expressed by an audit superior. Drawing on social identity theory (Tajfel and Turner 1985; Turner, Hogg, Oakes, Reicher, and Wetherell 1987), Bamber and Iyer (2007) document that through frequent interaction and familiarity with an audit client, auditors begin to identify with client management. In turn, this client identification leads auditors to acquiesce to a client-preferred position. That is, auditors' increased identification with client management, which manifests through the necessary interactions and familiarity with the client, can cause auditors to bias their judgments in favor of management's preference.

Importantly, this auditor bias toward the known preference of a more familiar and identifiable information source has also been documented in a multiple-preferences study by Pickerd, Summers, and Wood (2015). Investigating how ethical tone is communicated within an audit team, the authors find that the judgments of staff auditors are more heavily influenced by an audit senior associate than by their engagement partner. The authors attribute this bias favoring an audit senior's expressed preference over an information source with greater authority to the increased interaction frequency and familiarity between the staff and senior auditors compared to the engagement partner. Thus, when auditors are confronted with competing preferences from client management and the audit committee, the auditors' familiarity and frequent interaction with management is likely to impact which preference is more influential to their performance.

We expect audit seniors, who regularly serve as the primary preparers of every major step in the process of auditing management estimates (Griffith et al. 2015) but who have a more limited exposure to corporate governance (Cohen et al. 2010), to naturally be more influenced by management than the audit committee when evaluating evidence and forming their initial audit judgments. Although prior research has shown that audit committees are more supportive of proposed audit adjustments in the post-SOX period (DeZoort et al. 2008) and investigate accounting issues more deeply when decision outcomes are more aggressive (Pomeroy 2010), such investigations typically occur *after* the issue has already been resolved by the auditors and management (Gibbins, McCracken, and Salterio 2005; Pomeroy 2010), thus allowing for management's influence to persist. We contend that the influence of an audit committee preference for more conservative reporting may ultimately depend on the auditor's ability to discount information that is congruent with management's reporting incentives.³

Interplay of Management Incentives and Audit Committee Communication

Even in situations when only management's preference is known, the effectiveness of management's influence on the auditor will largely depend on the perceived credibility of its persuasive arguments. Source credibility theory identifies source expertise and source bias as elements affecting the persuasiveness of an information source (Birnbaum and Stegner 1979; Chaiken and Maheswaran 1994). In a similar fashion, audit research discusses source competence (possessing the ability to provide accurate and reliable information) and source objectivity (maintaining an impartial, unbiased attitude) as determinants

³ The extent to which auditors at the senior rank naturally integrate an expectation for conservative financial reporting from the audit committee would bias against us finding results for additional audit committee communication.

of source reliability (Reimers and Fennema 1999). Prior auditing literature has identified a significant relationship between source credibility and auditors' assessment of a client's risk of material misstatement (Beaulieu 2001), as well as investors' use of management forecasts (Hirst, Koonce, and Miller 1999). In general, as incentives to influence the message recipient increase, the persuasiveness and value of information the source provides decreases (Bimbaum and Stegner 1979; O'Keefe 2002). For example, auditors are less affected by management persuasion tactics, such as ingratiation, when incentives for managing earnings are high (Robertson 2010).

Consistent with source credibility theory and prior auditing research on management incentives, we expect auditors to discount arguments supporting management's preference to account for the expected bias when its incentives to influence the auditor are higher (Beaulieu 2001; Beach, Mitchell, Deaton, and Prothero 1978; Kelley 1973), thus diminishing management's influence. In such situations when management persuasiveness is weakened, additional oversight and guidance communicated by the audit committee should be more effective at influencing auditor judgment and behavior. That is, by discounting information congruent with management's incentives, management's diminished persuasiveness should also bolster the effectiveness of additional, more credible audit committee communication.

On the other hand, when management's incentives to influence the auditor are lower, we expect audit seniors to be more influenced by management's reporting preferences than a competing preference communicated by the audit committee. This expectation is consistent with audit theory and related research on client identification (e.g., Bamber and Iyer 2007; Stefaniak et al. 2012), as well as the prior studies examining auditor performance when faced with competing preferences of client management and an audit superior (Gramling 1999; Bierstaker and Wright 2001). Thus, even though following audit committee communication should be easier when management's incentives are lower because pressure to acquiesce to management's preference is diminished, both audit theory and prior audit research suggest that, under such conditions, auditors will tend to follow management's requests over the preferences expressed by the audit committee. Formally, we propose the following interaction hypothesis to offer a prediction of when additional communicated expectations from the audit committee will have the greatest impact on auditor judgment and performance:

H: The extent to which auditors are influenced by the presence (versus absence) of additional audit committee communication is greater when management's reporting incentives are higher than when management's incentives are lower.

METHODOLOGY

Participants

Seventy-one auditors from large public accounting firms were recruited for this study. Reported results are based on 58 participants with an average of 4.12 years of experience (standard deviation of 1.67 years) who correctly responded to the manipulation check questions (described below). The participants were recruited via contact partners at the respective firms. Through the contact person, participants were randomly assigned and emailed a link to one of the four versions of our instrument corresponding to our 2×2 design. Debriefing questions indicate that the participants found the task to be both interesting (mean = 7.72, standard deviation = 2.41, with 1 = "Not Very" and 11 = "Very") and realistic (mean = 8.40, standard deviation = 2.06). Both means are significantly greater than the scale mid-point (p -values < 0.001),⁴ indicating that the task was appropriate and realistic for the rank of our participants.

Overview of the Experiment and Independent Variables

The participants were asked to review a case about a hypothetical audit client and make preliminary recommendations to the audit team on an issue related to potential inventory obsolescence. Participants received company background information as well as a summary of non-audited financial information for the current year and information about the composition of the audit committee. In addition, the case indicated that the audit firm rarely had disagreements with the client over financial disclosures or the application of accounting principles and the firm had issued clean audit opinions in prior periods. Overall, the background information indicated the client was successful and that the auditors have had no problems in prior audits.

After reviewing the non-audited financial information, the auditors were given facts related to the potential inventory obsolescence issue compiled by the audit team. The inventory obsolescence information indicated that the client's competition had recently designed a technologically superior product, which potentially could make the client's product obsolete.⁵ The

⁴ All p -values are two-tailed unless otherwise noted. We use one-tailed p -values for directional predictions only.

⁵ The case materials related to the inventory obsolescence have been used in prior research and were modified for the current study (see Anderson, Jennings, Lowe, and Reckers [1997] and, more recently, Robertson [2010]).

information then included a balanced set of items indicative of higher and lower risk of obsolescence that both supported and refuted management's position that the inventory balance is fairly presented "as is." The auditors were also informed that the full amount of the potential adjustment is beneath the firm's calculated materiality benchmarks for the client. However, if the inventory is found to be obsolete and an adjusting entry is recorded, then the result of the adjustment will lead to a debt covenant violation by reducing one of the covenant ratios below an acceptable threshold.⁶ We intentionally chose a subjective scenario with qualitative considerations because it allows for the audit committee's communication to be influential in the auditors' decision-making process. Otherwise, had the amount been clearly quantitatively material, it is unlikely that the audit committee's preference would have a meaningful influence on auditors' decision-making process because the resolution of such outcomes is more easily determined.

Our primary manipulations involved two between-subject experimental treatments: *Audit Committee Communication* and *Management Incentives*. Across all conditions the auditors are informed as part of the company background information that the audit committee meets regularly and that all members are independent and financially literate with one member designated as a financial expert. The *Audit Committee Communication* condition manipulated the presence (or absence) of communication with the audit committee indicating its expectations for the audit. In the presence of additional audit committee communication, participants were given a description of an audit team meeting with the audit partner in which the following expectations communicated by the audit committee were provided:

OpticMed's⁷ strong, independent audit committee focuses on high quality financial reporting, such that the committee values accurate financial statements, even at the detriment to financial ratios or analyst forecasts. The audit committee expects that any audit difference discovered will be booked by OpticMed's management and not waived by the audit team.

This manipulation is consistent with how corporate governance information is typically communicated through the various levels of the engagement team (Cohen et al. 2002). Importantly, the composition of the audit committee was held constant across all conditions; only additional communication from the audit committee was manipulated (present or absent).⁸

The *Management Incentives* manipulation was structured after the personal and corporate financial incentives that management often has to influence auditors. The corporate incentive centers on the company's proximity to a debt covenant restriction. Prior financial archival research indicates that management is more likely to engage in income-increasing earnings management in response to approaching a covenant violation (DeFond and Jiambalvo 1994; Sweeney 1994; Dichev and Skinner 2002; Dyreng 2009). Accordingly, if a client is approaching a covenant violation, then auditors should recognize management's strong incentives to remain compliant, and should be more skeptical of evidence provided that is congruent with its expressed reporting preference (Anderson, Kadous, and Koonce 2004).

In the higher incentives condition, in addition to the corporate incentive made present with the potential debt covenant violation if inventory is written down, participants were also told that management has incentive compensation tied to receiving a clean audit report without booking any adjusting entries (a personal incentive). The auditors in the lower incentives condition were provided with information that the company had obtained a debt covenant waiver for the period under audit, which substantially reduces the client's corporate incentives. Auditors in the higher incentives condition were not given any indication that the client had secured a debt waiver. In summary, the higher incentives condition included both corporate and personal incentives to influence the auditors, while the lower incentives condition included primarily the personal incentive only. Our intent was to create a scenario where management incentives exist in some form across all experimental treatments. Crossing both between-subjects manipulations yielded the following four treatment groups: *Audit Committee Communication—High*

⁶ To minimize the potential liquidity risk associated with failing a debt covenant, participants in all conditions are told that failing the debt covenant would result in the company paying back "as much as 10-percent of the outstanding balance of the line of credit and any accrued interest."

⁷ OpticMed is the name of the fictional audit firm client in the case.

⁸ We gathered additional data from 26 audit seniors to verify that the participants in our study interpreted the preference for conservative reporting as coming from the audit committee and not the engagement partner. The auditors were first presented with the client background information. They then read the description of the audit committee that included the *Audit Committee Communication* manipulation. Thereafter, they were asked to identify whom they attributed the financial reporting preference to on an 11-point scale ranging from -5 (labeled "Audit Committee") to +5 (labeled "The partner"). Thus, a significant negative number would indicate that participants identified the preference as directed from the audit committee. As intended, the auditors identified the preference as being communicated by the audit committee (mean = -2.13), which is significantly less than 0 ($t = -4.32, p < 0.001$). Further, 22 of 26 auditors identified the preference as coming from the audit committee (i.e., provided a response less than 0), and a Chi-square test confirms this result is statistically significant ($\chi^2 = 12.46, p < 0.001$). Finally, we asked the auditors, based on their own personal experience, how frequently the engagement partner or manager communicates corporate governance matters (e.g., communications with the audit committee) and how often they themselves directly participate in meetings with a client's audit committee. Results indicate that the engagement partner regularly communicates this type of information and that auditors at this rank and experience very rarely communicate directly with the audit committee. Taken all together, these results provide support for the nature and validity of our *Audit Committee Communication* manipulation.

*Incentives; No Audit Committee Communication—High Incentives; Audit Committee Communication—Low Incentives; No Audit Committee Communication—Low Incentives.*⁹

Dependent Variables

After participants read the case materials, they first indicated their likelihood of recommending an adjustment to management's inventory obsolescence estimate on an 11-point scale with endpoints labeled "very unlikely" and "very likely," which is our primary dependent variable. Recall that management prefers that the auditor not propose an adjusting entry, while the *Audit Committee Communication* manipulation stated that the committee members value more conservative financial reporting and expect that all audit differences will be recorded and not waived. Therefore, a lower likelihood of proposing an adjustment indicates greater compliance with management's request. In the presence of the *Audit Committee Communication* manipulation, a higher likelihood of recommending an adjustment indicates greater influence from the committee. Participants were then given an opportunity to record less than the total amount of the potential obsolete inventory by proposing an adjustment amount between \$0 and \$1,050,000 (\$1,050,000 is the total amount of inventory that was potentially obsolete). Participants were also asked to compose a brief audit memo documenting the evidence they considered when forming their judgments based on their recall of the pertinent case facts.

Finally, the auditors responded to manipulation check questions and completed a debriefing questionnaire capturing both demographic information and process measures related to our theoretical predictions. In order to determine whether participants in the *Audit Committee Communication* condition picked up on the tone of the audit committee's communicated expectations above and beyond the facts describing the audit committee's composition that were provided to all participants, we asked all participants the level of pressure they felt from the audit committee to require the client to write down its inventory account. Responses were recorded on an 11-point scale with endpoints labeled "Low" and "High." For the *Management Incentives* manipulation check, the auditors were asked to identify whether the client obtained a debt covenant waiver for the period under audit because only auditors in the lower incentives condition were provided with this case fact. Because we expect that management incentives persist across all treatment groups, auditors were also asked to indicate on an 11-point scale with endpoints labeled "Not likely at all" and "Extremely likely" their belief that management's reservations about an inventory write-down are due to their desire to meet the debt covenant requirements. Thus, higher scores are indicative of perceptions of higher management incentives. Similarly, auditors were asked to rate the integrity of management on an 11-point scale with endpoints labeled "Very low" and "Very high." The remaining demographic questions addressed the auditors' professional experience and familiarity with inventory accounting issues.

RESULTS

Manipulation Checks and Descriptive Statistics

Completed cases were received from 71 professional auditors. Of these participants, seven failed to correctly identify whether the client obtained a debt covenant waiver for the period under audit and were excluded from further analyses. Recall that the auditors were also asked the level of pressure they felt from the audit committee to record a write-down of the client's inventory account. We eliminated participants who were in the *Audit Committee Communication* condition but did not feel any additional influence from the audit committee (i.e., auditors who responded 1 or 2 on the 11-point response scale), as well as those who were in the *No Audit Committee Communication* additional audit committee communication group but felt a strong pressure from the audit committee (i.e., those who responded 10 or 11 on the 11-point response scale), as these responses indicate a failure to appropriately tend to the case materials and are more than two standard deviations from the sample mean. Six participants were deemed to have failed this manipulation check and were excluded from further analyses. Therefore, the hypothesis testing is conducted with the remaining 58 participants.¹⁰ Participants in the *Audit Committee Communication* condition report feeling significantly more pressure to recommend an inventory write-down than those only privy to information on the audit committee's composition (mean = 7.36 versus mean = 4.33, $t = 4.73$, $p < 0.001$, untabulated), suggesting our manipulation was successful. Both means are significantly different from the scale

⁹ The case materials were reviewed by several accounting Ph.D. students with prior Big 4 auditing experience ranging from four to eight years and were pretested for clarity and to determine whether the manipulations were operating as intended with two sections of auditing students at a major state university. The final case was also reviewed by an audit partner for one of the participating firms.

¹⁰ We contend that these participants did not pay careful attention to the experimental materials and thus internalized a different level of audit committee influence than was manipulated. The results of our contrast testing for the interaction hypothesis remain significant at the $p = 0.05$ level if we include all 71 participants. Also, reassigning the auditors who failed manipulation checks into their perceived experimental group yields results that mirror those presented in the paper.

TABLE 1
Participants' Demographic Information
(n = 58)

	<u>Frequency</u>	<u>Percent</u>
Audit Staff Level		
Staff	2	3%
Seniors	52	90%
Managers	4	7%
	58	100%
Firm Size		
Big 4	13	22%
National Firms	28	48%
Regional Firms	9	16%
Not Indicated	8	14%
	58	100%
Audit Experience		
18–27 months	8	14%
28–60 months	42	72%
61–96 months	6	10%
More than 96 months	2	4%
	58	100%
Public Client Audit Experience		
Yes	27	47%
No	31	53%
	58	100%

midpoint in the expected direction (both p-values < 0.01). Table 1 presents categorical demographics for the 58 auditor participants.¹¹

Interplay of Management and Audit Committee on Auditor Judgment

As an overall test of our theoretical development, we expect that auditors will be more (less) skeptical of management when its incentives to influence the auditor are higher (lower). Recall that the auditors provided two separate ratings, each on 11-point scales, of management at the end of the experimental case: (1) a direct rating of management's financial reporting incentives, and (2) a rating of the overall integrity of management. The results (untabulated) are consistent with our theoretical development. When the client is able to obtain a debt waiver, auditors report lower management incentives (mean = 6.75) and higher management integrity (mean = 8.04) than when information concerning a debt waiver is absent (*incentives* mean = 8.90, $t = -3.76$, $p < 0.001$; *integrity* mean = 7.30, $t = 1.80$, $p = 0.078$). Importantly, the auditors' communication with client management was held constant across all of the experimental conditions. These results also indicate that, as intended, a moderate level of management incentives persists even when the client is able to obtain a waiver.

After reading the case information, each auditor provided an assessment of the likelihood of recommending an adjustment to management's inventory obsolescence estimate (1 = Very Unlikely to 11 = Very Likely). Panel A of Table 2 reports a 2×2 ANOVA model with *Audit Committee Communication* (present or absent) and *Management Incentives* (higher or lower) as the factors. Panel B contains the cell means and variance of auditors' inventory assessments. Consistent with prior research (Anderson et al. 2004; Robertson 2010), we find a significant main effect of *Management Incentives* on auditor judgment. Auditors were more likely to propose an inventory write-down when management's incentives were higher (mean = 7.63) than lower (mean = 5.89, $F = 4.94$, $p = 0.030$).

¹¹ Analyses of participant characteristics indicates that there are no significant differences across the four experimental treatment groups for the number of public audit clients, the number of book/waive decisions made, the level of inventory familiarity, or overall audit experience (all p-values > 0.10). Further, none of the variables are significant as covariates or change the significance of the reported results.

TABLE 2
Auditors' Inventory Write-Down Judgments
Overall ANOVA, Descriptive Statistics, and Contrast Results

Panel A: Overall ANOVA for the Likelihood of Proposing an Adjustment^a

Source	DF	Sum of Squares	F-ratio	p-value
<i>Audit Committee Communication</i> ^b	1	7.44	0.83	0.365
<i>Management Incentives</i> ^c	1	44.17	4.94	0.030
<i>AC Communication</i> × <i>Management Incentives</i>	1	13.00	1.46	0.233

Panel B: Cell Means (SD) [n] for the Likelihood of Proposing an Adjustment

<i>Audit Committee Communication</i>	<i>Management Incentives</i>		
	Low	High	Overall
Yes	5.77 (3.49) [13]	8.47 (3.04) [15]	7.21 (3.40) [28]
No	6.00 (2.90) [15]	6.80 (2.51) [15]	6.40 (2.70) [30]
Overall	5.89 (3.13) [28]	7.63 (2.87) [30]	6.79 (3.10) [58]

Panel C: Contrast Test for Hypothesized Interaction^d

	Mean	DF	Sum of Squares	F-ratio	p-value
<i>AC Comm.—High Management Incentives</i>	8.47	1	60.45	6.77	0.006*

Panel D: Relevant t-test comparisons of Audit Committee Communication Groups

	t-stat	p-value
<i>AC Comm.—High Incentives</i> versus <i>AC Comm.—Low Incentives</i>	2.19	0.019*
<i>AC Comm.—High Incentives</i> versus <i>No AC Comm.—High Incentives</i>	1.64	0.057*
<i>AC Comm.—Low Incentives</i> versus <i>No AC Comm.—Low Incentives</i>	-0.19	0.850

* Denotes a one-tail p-value for directional predictions based on the interaction hypothesis.

^a The dependent variable is the likelihood that auditors will recommend to their supervisor an adjustment for the client's inventory account. Participants recorded their responses on an 11-point Likert-type scale with endpoints of "very unlikely" (1) and "very likely" (11).

^b *Audit Committee Communication* refers to whether additional communication from the audit committee regarding their expectations for the audit was provided to the auditors.

^c *Management Incentives* is based on whether the client was able to obtain a debt waiver (lower incentives) or not (higher incentives) for the period under audit.

^d The contrast coding utilized for the ordinal interaction is +3 for the *Audit Committee Communication—High Incentives* group, +1 for the *No Audit Committee Communication—High Incentives* group, and -2 for each *Low Incentives* group.

We hypothesize that management's incentives will moderate the influence of additional audit committee communication on auditor judgment. The hypothesized interaction is ordinal, such that auditors will be more influenced by the audit committee's preference for conservative reporting (and thus more likely to propose an adjustment) when management's incentives are higher (i.e., absent a debt waiver) than when its incentives are lower. As indicated in Table 2, Panel A the interaction effect is not significant in the traditional ANOVA model. However, the method that is most appropriate for analyzing such an *a priori* expectation is contrast coding (Buckless and Ravenscroft 1990; Rosnow and Rosenthal 1995). A conventional ANOVA model is inappropriate in this case because it spreads the variance due to the ordinal interaction effects to both main effects and the interaction term (Buckless and Ravenscroft 1990). Accordingly, we follow Rosnow and Rosenthal (1995) and use contrast weights of +3 for the *Audit Committee Communication—High Incentives* group, +1 for the *No Audit*

Committee Communication—High Incentives group, and -2 for each *Low Incentives* group.¹² This contrast captures our expectations for management incentives on auditor judgments, as well as the predicted incremental effect of audit committee communication when management incentives are higher. The resulting contrast test is presented in Panel C of Table 2 and is significant ($F = 6.77$, $p = 0.006$, one-tailed), providing strong support for our predicted interaction hypothesis.

In addition to the overall comparison, we also analyze simple comparisons for the effect of *Audit Committee Communication* within the *Management Incentives* condition. Table 2, Panel D reports the results of these analyses. As predicted, auditor judgments were more aligned with the audit committee's expectations when management incentives were higher (mean = 8.47) than when management's incentives were lower (mean = 5.77, $t = 2.12$, $p = 0.019$, one-tailed). The results further indicate an incremental benefit of additional audit committee oversight when management's incentives are higher, as auditors in the higher *Management Incentives* condition were more likely to recommend an adjusting entry in the presence of additional audit committee communication (mean = 8.47) than in its absence (mean = 6.80, $t = 1.64$, $p = 0.057$, one-tailed).

However, as also shown in Panel D of Table 2, we observe no statistically significant difference between the judgments of auditors with and without additional audit committee communication when management's incentives are lower (mean = 5.77 versus mean = 6.00, $t = -0.19$, $p = 0.850$).¹³ Collectively, these results indicate that management incentives not only significantly impact auditor judgment, but also spill over to impact the effectiveness of additional audit committee communication. In the higher incentives condition, auditors integrated the additional expectations expressed by the audit committee into their judgments; when management's incentives were perceived to be lower, however, auditors were more persuaded by evidence consistent with management's preference regardless of the presence of additional audit committee communication.¹⁴

Auditors' Evidence Documentation

The proposed audit adjustment results are further supported by an examination of the evidence items documented by the auditors when arriving at their inventory write-down recommendations. One of the authors and a research assistant, both blind to the experimental conditions, independently reviewed each evidence item listed by the auditors and coded each documented item as either indicating a decreased risk of inventory obsolescence (positive item) or supporting an inventory write-down for inventory obsolescence (negative item). The agreement level between the two coders was 83 percent ($Kappa = 0.759$, $p < 0.001$), which indicates a high level of non-chance agreement between the coders (Cohen 1960; Landis and Koch 1977). All differences were discussed and reconciled by the second author. The coded scores for the listed evidence items were summed to arrive at a net score for each auditor. A significant negative number would indicate that, in net, a greater number of items supporting an inventory write-down adjustment were documented than positive evidence items indicating a decreased risk of obsolescence. Table 3, Panel A reports the results of an ANOVA with *Audit Committee Communication* and *Management Incentives* as the factors and auditors' net evidence documented as the dependent measure. Panel B provides the cell means for the auditors' net evidence documented.

We find that when management had higher incentives to manage earnings, auditors documented, in net, more negative items supporting an inventory write-down assessment (mean = -0.83) than when management had lower incentives (mean = 0.39, $F = 5.17$, $p = 0.027$). In fact, the net items documented in the higher incentives condition is significantly less than 0 ($t = -2.05$, $p = 0.050$), indicating that auditors in the higher incentives condition were more persuaded by evidence contradictory with management's reporting preference than evidence consistent with management's incentives.¹⁵

¹² In addition to our hypothesized expectation for the incremental influence of audit committee communication when management's incentives were higher, we also expected auditors to be less persuaded by and complicit to management requests when its incentives were higher than when management's incentives were lower (Hirst 1994; Anderson et al. 2004; Robertson 2010). However, our results are not sensitive to the contrast weights assigned. Using contrast weights of +3 for the *Audit Committee Communication—High Incentives* group and -1 for the other three experimental groups results in similar inferences (contrast test p -value < 0.01).

¹³ Nonparametric Mann-Whitney tests yield similar results to the reported simple effect comparisons. In fact, the result of the incremental audit committee oversight within the higher incentives condition is even stronger ($p = 0.017$, one-tailed) than the reported t -test comparison ($p = 0.057$, one-tailed).

¹⁴ The auditors were also asked to provide the amount of inventory they would recommend to be written-down, in addition to providing their likelihood ratings for recommending an adjustment. To further examine the interplay of client management and the audit committee on auditor judgment, we ran a regression with the amount of the write-down recommended as the dependent measure and *Audit Committee Communication*, *Management Incentives*, the interaction of these two terms, and the likelihood of recommending a write-down (*Book Likelihood*) as independent measures. We expect that our main manipulated variables will have an indirect effect on the amount of the recommended adjusting through the assessment of auditors' likelihood of recommendations because the auditors are not provided with direct evidence supporting differing write-down amounts. Our overall model is significant ($F = 19.85$, $p < 0.001$, Adj. $R^2 = 0.498$, untabulated). In addition, only the coefficient on *Book Likelihood* is significant ($t = 7.41$, $p < 0.001$) with a positive coefficient. This result confirms that the impact of *Audit Committee Communication* and *Management Incentives* on the amount of the write-down recommendation is indirect through *Book Likelihood*.

¹⁵ We also find that auditors documented more total positive items supporting management's preference when management's incentives were lower than when its incentives were higher ($t = 2.01$, $p = 0.049$).

TABLE 3
Auditors' Memo Documentation of Inventory Obsolescence Risk Factors
Overall ANOVA, Descriptive Statistics, and Contrast Results

Panel A: Overall ANOVA for Net Evidence Documented^a

<u>Source</u>	<u>DF</u>	<u>Sum of Squares</u>	<u>F-ratio</u>	<u>p-value</u>
<i>Audit Committee Communication</i>	1	2.88	0.69	0.409
<i>Management Incentives</i>	1	21.52	5.17	0.027
<i>AC Communication</i> × <i>Management Incentives</i>	1	1.19	0.29	0.595

Panel B: Cell Means (SD) for Net Evidence Documented

<u>Audit Committee Communication</u>	<u>Management Incentives</u>		
	<u>Low</u>	<u>High</u>	<u>Overall</u>
Yes	0.31 (1.97)	-1.20 (2.34)	-0.50 (2.27)
No	0.47 (1.64)	-0.47 (2.13)	0.00 (1.93)
Overall	0.39 (1.77)	-0.83 (2.23)	-0.24 (2.10)

Panel C: Contrast Test for Hypothesized Interaction^b

	<u>Mean</u>	<u>DF</u>	<u>Sum of Squares</u>	<u>F-ratio</u>	<u>p-value</u>
<i>AC Comm.—High Management Incentives</i>	-1.20	1	25.41	6.11	0.009*

Panel D: Relevant t-test Comparisons of Audit Committee Communication Groups

	<u>t-stat</u>	<u>p-value</u>
<i>AC Comm.—High Incentives</i> versus <i>AC Comm.—Low Incentives</i>	-1.83	0.039*
<i>AC Comm.—High Incentives</i> versus <i>No AC Comm.—High Incentives</i>	-0.90	0.188*
<i>AC Comm.—Low Incentives</i> versus <i>No AC Comm.—Low Incentives</i>	-0.23	0.818

* Denotes a one-tail p-value for directional predictions based on the interaction hypothesis.

^a The dependent variable is auditors' net evidence documented in their work paper memo, calculated as the number of items indicative of a decreased risk of inventory obsolescence minus the number of items indicative of an increased risk of inventory obsolescence.

^b The contrast coding utilized for the ordinal interaction is +3 for the *Audit Committee Communication—High Incentives* group, +1 for the *No Audit Committee Communication—High Incentives* group, and -2 for each *Low Incentives* group.

To provide further insight to our finding that management's incentives moderate the influence of additional audit committee communication, we use the identical contrast weights from our hypothesis testing of +3 for the *Audit Committee Communication—High Incentives* group, +1 for the *No Audit Committee Communication—High Incentives* group, and -2 for each *Low Incentives* group. The resulting contrast presented in Table 3, Panel C is significant ($F = 6.11$, $p = 0.009$, one-tailed) and is consistent with our hypothesized interaction. The t-test comparisons presented in Panel D indicate that, as expected, auditors in the *Audit Committee Communication—High Incentives* group (mean = -1.20) documented more net negative items supporting a more conservative inventory obsolescence estimate than auditors in the *Audit Committee Communication—Low Incentives* group (mean = 0.31, $t = -1.83$, $p = 0.039$, one-tailed). The net items documented by the *Audit Committee Communication—High Incentives* group is also significantly less than 0 ($t = -1.99$, $p = 0.034$, one-tailed), which is also indicative of enhanced audit committee influence. Turning to a comparison within the higher incentives condition, we find that auditors in the *Audit Committee Communication—High Incentives* group (mean = -1.20) documented more negative items, in net, than auditors in the *No Audit Committee Communication—High Incentives* group (mean = -0.47), although this difference does not reach standard levels of significance ($t = -0.90$, $p = 0.188$, one-tailed). Consistent with the inventory assessment

results, we find no differences in the net documentation of auditors with and without additional audit committee communication when management's incentives are lower (mean = 0.31 versus mean = 0.47, $t = -0.23$, $p = 0.818$).¹⁶

Our examination of auditors' evidence documentation indicates that the interplay of management incentives and audit committee communication also shapes the decision information integrated by the auditors to arrive at their inventory judgments. Consistent with our main hypothesis tests surrounding auditor decision making reported in Table 2, we find that the audit committee has the greatest influence on auditor performance when management's incentives to influence the auditor are higher. When management's incentives are lower, the results again support the notion that auditors evaluate and recall information more consistent with management's preference, even in the presence of expressed guidance from the audit committee for more conservative reporting. Overall, the results of auditors' evidence documentation indicate that management incentives and audit committee communication influence not only the conclusions auditors reach but also the path auditors use (i.e., the information processed) to reach those conclusions.

CONCLUSION

This study examines the interplay of management and the audit committee on the inventory judgments of senior-level auditors. Results indicate that audit seniors can effectively integrate expressed preferences from the audit committee into their audit judgments, but that the benefit of this additional oversight can be mitigated, at times, by management. Specifically, we find that when management's incentives to influence the auditor are higher, auditors provided judgments consistent with audit committee guidance that were more conservative and documented evidence that was more critical of management's expressed reporting preference than when such guidance from the audit committee was absent. However, when management had lower incentives to influence the auditor, additional communication from the audit committee had no effect on the judgments of senior-level auditors, and the auditors documented more positive evidence items consistent with management's aggressive preference. These findings highlight the importance of examining the interrelationships between the various actors within the corporate governance mosaic (Cohen et al. 2004), and also extend our understanding of management's ability to exhibit significant influence during the audit.

Our findings have important implications for practice and theory. Since the goal of AS No. 16 is to improve the communication auditors have with the audit committee and the audit committee's role in the audit process, it is important to understand when such communication is most likely to be successful in improving audit quality. Our results are thus timely and indicate that informal communication between audit committees and auditors can positively impact reporting quality, especially when management's incentives to influence the auditor are elevated.

We also provide new insight into the moderating effect of management incentives on the influence of other corporate governance players, such as the audit committee. The results of this study indicate that not only do management incentives influence its persuasive power, but they also impact the potential influence of the audit committee on auditor judgments. One specific cost is that auditors may fail to incorporate important expectations contained in the audit committee's communication when management's incentives are lower. Finally, we add to the limited body of audit research on multiple and competing preferences by documenting conditions when auditor performance is influenced more by a superior's preference (e.g., the audit committee) than by the preferences expressed by client management.

The results of this study should be considered in light of its limitations. Our audit committee communication manipulation is presented within an audit planning meeting rather than as a narrative directly with the audit committee. This design choice was made to be consistent with how governance information is typically communicated through an audit engagement team. Future research can investigate whether higher ranking auditors who are more likely to have direct interaction with the audit committee would react similarly to our manipulations when reviewing the work papers prepared by audit seniors. Second, we present the audit committee manipulation prior to introducing the potential inventory misstatement, as AS No. 16 encourages communication with the audit committee throughout the audit. Future research can investigate the differential effects of communicating with the audit committee at other stages of the audit. Finally, our case facts describe an audit client at risk of defaulting on a debt covenant, a qualitative issue specifically addressed in auditing standards as an important consideration when evaluating a potential misstatement. Future research could examine whether these findings are robust in other situations when management's incentives may vary.

Overall, this study provides important insights into how auditors integrate expectations communicated by the audit committee into their judgments. By recognizing the role that management can play in influencing auditors, audit firms and regulators can better address how to increase the audit committee's role in improving financial reporting quality.

¹⁶ Nonparametric Mann-Whitney tests yield identical results as those reported using parametric analyses.

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