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Do Critical Audit Matter Paragraphs in the Audit Report Change Nonprofessional Investors’ Decision to Invest?

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ABSTRACT

Both U.S. and international standard setters have recently proposed changes to the standard audit report, including a requirement to include a critical audit matter (CAM) paragraph. We examine how nonprofessional investors react to an audit report’s CAM paragraph that is centered on the audit of fair value estimates. We perform an experiment with nonprofessional investors who are business school graduates who invest in individual stocks and analyze company financial data. We find that investors who receive a CAM paragraph are more likely to change their investment decision than are investors who receive a standard audit report (an information effect) or investors who receive the same CAM paragraph information in management’s footnotes (a source credibility effect). We also find that the effect of a CAM paragraph is reduced when it is followed by a paragraph offering resolution of the critical audit matter. Our findings should be of interest to regulators and standard setters as they consider the feasibility of CAM paragraphs and whether and how to convey the resolution of critical audit matters.

Keywords: Audit report, critical audit matter, nonprofessional investors, estimation uncertainty, audit assurance
I. INTRODUCTION

Regulators and standard setters have recently focused substantial attention on auditor communications to financial statement users (CAQ 2013; PCAOB 2012, 2013a). As part of this discussion, both the Public Company Accounting Oversight Board (PCAOB) and the International Auditing and Assurance Standards Board (IAASB) released proposed changes to auditing standards for audit reports (IAASB 2013; PCAOB 2013b). These proposals retain the existing pass/fail model, but they add a requirement that auditors communicate critical audit matters in a separate section of the audit report. To inform the efficacy of a critical audit matter paragraph (hereafter CAM paragraph) in the audit report, we examine how nonprofessional investors react to CAM paragraphs.¹

According to the PCAOB’s proposed standard (PCAOB 2013b), critical audit matters are those matters addressed during the audit that (1) involve the most difficult, subjective, or complex auditor judgments; and/or (2) pose the most difficulty to the auditor in obtaining sufficient appropriate audit evidence; and/or (3) pose the most difficulty to the auditor in forming an opinion on the financial statements. The purpose of including a CAM paragraph in the audit report is to communicate auditor insights to investors about difficult audit issues. While the PCAOB originally considered more expansive options, such as a separate auditor’s discussion and analysis report, a CAM paragraph responds to investor requests for more decision-relevant information while keeping management as the originator of company-specific information.

¹ The IAASB refers to critical audit matters as “key audit matters.” The proposed content of key audit matter paragraphs is similar to that of the critical audit matters proposed by the PCAOB. For U.S. private companies, the AICPA has stated their intention of closely following the IAASB’s standard (AICPA 2013). For simplicity, we will refer to these paragraphs throughout the paper with terminology consistent with the PCAOB standard (i.e., CAM paragraphs). However, due to the similarities between the PCAOB and IAASB proposals, inferences from our study should inform both proposals.
Consistent with examples of critical audit matters provided by both the PCAOB (2013b) and the IAASB (2013), we first analyze how investors react to a CAM paragraph centered on the audit of fair value estimates, as compared to how investors react to fair value footnote disclosures. The Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) have mandated fair value footnote disclosures to aid investor understanding of the inherent uncertainty in fair value estimates (FASB 2011; IASB 2011a). Such disclosures have the propensity to indirectly signal auditor difficulty in applying and evaluating audit procedures for fair value estimates, thereby conveying a similar message as the CAM paragraph in the audit report. As such, it is unclear ex-ante whether a CAM paragraph in the audit report will influence investors more than information found in footnote disclosures.

We use information processing theory and findings, as well as source credibility research, to make predictions about the influence of a CAM paragraph. Prior research indicates that individuals are cognitive misers and unlikely to encode information that does not draw their attention or that requires significant processing (Hirshleifer and Teoh 2003; Payne et al. 1993). While footnotes are often long and analytical, CAM paragraphs are necessarily more concise and straightforward. Further, the source credibility associated with an independent auditor’s CAM paragraph is higher than that of management’s footnote disclosures. We expect that this higher source credibility will draw more investor attention to CAM paragraphs than to footnote disclosures. As such, we expect that adding a CAM paragraph to the audit report influences investor decisions more than footnote disclosures alone.

We test our expectations with an experiment. Our participants consist of nonprofessional investors who are business school alumni of a large, public university. Further, each participant indicates that they invest in individual stock and that they evaluate firm financial data. We find
that participants receiving an audit report with a CAM paragraph are more likely to stop considering the firm as an investment than are participants receiving a traditional audit report without a CAM paragraph. This finding represents an information effect, because footnote disclosure combined with the CAM paragraph influences investment decisions more than footnote disclosure alone. We also find that participants receiving the CAM paragraph in the audit report are more likely to stop considering the firm as an investment than are those receiving the same information from the CAM paragraph in the footnotes. This finding represents a source credibility effect, because the source of the CAM paragraph information outweighs the paragraph’s information effect. Our results indicate that a CAM paragraph in the audit report can create an actionable effect distinct from that of footnote disclosure.

To extend these findings, we also examine the effect of offering investors a resolution paragraph following the CAM paragraph. The PCAOB seeks feedback on whether “including the audit procedures performed, including resolution of the critical audit matter, in the communication of critical audit matters in the auditor’s report [would] be informative and useful” (PCAOB 2013b, pp. A5-45). We address the PCAOB’s question by adding a paragraph following the CAM paragraph that indicates the audit procedures performed and provides specific assurance for the critical audit matter. Prior auditing research indicates that auditor assurances are influential even when such assurances are limited (Bandyopadhyay and Francis 1995; Nair and Rittenberg 1987; Yardley 1989). Based on these findings, we expect that a CAM paragraph followed by a resolution paragraph influences investor decisions differently than a standalone CAM paragraph.

To examine these expectations, participants in two of our experimental treatments receive an audit report with a CAM paragraph and a resolution paragraph. The resolution paragraph
provides the general procedures used to audit the fair value estimates, a statement indicating “that we are not aware of any material modifications that should be made to the reported estimate for investment income,” and either positive or negative assurance related to the critical audit matter. We find that a resolution paragraph specifically addressing the critical audit matter in the CAM paragraph decreases the desire to stop considering the firm as an investment, regardless of whether positive or negative assurance is offered. Our results suggest that a clear resolution to the critical audit matter reduces investor concerns that are engendered by the CAM paragraph, thereby reducing the effects of a CAM paragraph.

The PCAOB anticipates that most audits will have critical audit matter paragraphs under the proposed standard (PCAOB 2013b). We focus on how a CAM paragraph in the audit report influences nonprofessional investors. We find that the presence of a CAM paragraph changes nonprofessional investors’ decision to invest, lending credence to investor surveys indicating the desire for the inclusion of CAM paragraphs in the audit report (PCAOB 2011). However, we also find that nonprofessional investors are less likely to react to a CAM paragraph if it is followed by a paragraph offering clear resolution to the critical audit matter. These findings should be of interest to regulators and standard setters as they consider the effectiveness of CAM paragraphs and conveyance of critical audit matter resolution.

II. BACKGROUND AND HYPOTHESIS DEVELOPMENT

The audit report has long been criticized for its form, content, and value to investors (Carson et al. 2013; Church et al. 2008; Cohen Commission 1978; Geiger 1993; Mock et al. 2013; Smieliauskas et al. 2008). Currently, standard setters are addressing criticisms about the audit report’s value proposition, as evidenced by the audit report revisions suggested by the PCAOB (2011, 2013b) and the IAASB (2011b, 2012, 2013). The standard setters’ final proposals focus
on the disclosure of critical audit matters in the audit report. Both the PCAOB and IAASB proposals use fair value estimates as an example of a critical audit matter, due to the difficulty of auditing these estimates (IAASB 2013; PCAOB 2013b).

While the audit report proposals appear to suggest that a CAM paragraph centered on the audit of fair value estimates would offer value to investors, such a CAM paragraph would coexist with management’s fair value estimate footnote disclosures. Although these footnote disclosures do not directly address problems encountered during the audit, they do inform investors about the uncertainty and reliability of fair value estimates (FASB 2011), areas that would ostensibly cause auditors difficulty. Archival research indicates that fair value footnote disclosures are value relevant, meaning that at a minimum ‘market-maker’ investors use fair value footnote disclosures (Song et al. 2010; Goh et al. 2011; Kolev 2009; Riedl and Serafeim 2011). As such, professional investors, whose occupation involves trading large blocks of stock, appear to effectively use fair value footnote disclosures. However, it is unclear whether such disclosures inform individual investors whose primary occupation does not involve investing in stock (i.e., nonprofessional investors). Indeed, research indicates that nonprofessional investors have difficulty integrating footnote disclosure information into their decision models (Dietrich et al. 2001; Harper et al. 1987; Hodge et al. 2004).

The PCAOB, the SEC, and the IAASB appear concerned about whether nonprofessional investors can effectively use accounting and auditing information (Cox 2006; IAASB 2012; Pitt 2001). Further, a number of studies focus on how the presentation of financial information influences nonprofessional investors (Bloomfield et al. 2012; Christensen et al. 2014; Clor-Proell et al. 2013; Hodge et al. 2004; Hopkins 1996; Maines and McDaniel 2000). Consistent with the importance of nonprofessional investors, we examine whether the inclusion of a CAM paragraph
centered on fair value estimates influences nonprofessional investors beyond the effect of fair value footnote disclosures.2

CAM paragraphs versus footnote disclosures

Comments on the PCAOB’s proposed audit report standard emphasize that management, not the auditor, provides company-specific information to investors (PCAOB 2013b). Such comments appear to have resonated with the PCAOB as the extent of the information in the proposed CAM paragraph is somewhat limited. A CAM paragraph identifies the critical audit matter, describes audit considerations that led to its classification as a critical audit matter, and refers to the relevant accounts and disclosures (PCAOB 2013b). In contrast, footnote disclosures relating to fair value estimates usually contain broader, more technical analyses that highlight the uncertainty associated with such estimates (FASB 2011; IASB 2011a). A CAM paragraph outlining the difficulty of auditing significant accounting estimates potentially provides information that could be derived from the details already communicated in footnote disclosures. As such, we expect that the value of a CAM paragraph resides primarily in the auditor choosing to highlight a particular matter in the audit report.

In a survey performed by the PCAOB’s Investor Advisory Group (IAG), investors describe scanning the audit report looking for departures from a standard unqualified report (Carcello et al. 2011). Similarly, we expect that a CAM paragraph highlighting the audit of significant fair value estimates draws investor attention to itself and subsequently to the related financial statement accounts (Hirshleifer and Teoh 2003; Nisbett and Ross 1980; PCAOB 2013b, pp. 16). Because prior literature shows that more credible sources are more persuasive (Pornpitakpan 2004), we expect that the auditor’s higher source credibility draws attention to the CAM

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2 Our focus on nonprofessional investors represents a boundary condition of this research.
paragraph. Once attention is drawn, the relative simplicity of the CAM paragraph should facilitate encoding the information into the investor’s cognitive process (Fiske and Taylor 1991). Conversely, footnote disclosures emanate from a less credible source, management, and footnote complexity often taxes investors’ limited information processing capacity (Kahneman and Tversky 1973; Nisbett and Ross 1980; Payne et al. 1993). As such, we expect that nonprofessional investors are unlikely to fully cognitively encode information contained in fair value estimate footnote disclosures.

In sum, we expect that a CAM paragraph highlighting the audit of significant fair value estimates draws more attention, due to its higher source credibility, than do fair value estimate footnote disclosures. Once attention is drawn, we expect that investors can more easily digest the message in a CAM paragraph. Because fair value estimates often pose unique difficulties to auditors, drawing investor attention to such difficulties should make investors more wary of investing, as compared to investors receiving only fair value estimate footnote disclosures (Bell and Griffin 2012; Christensen et al. 2012). Accordingly, we hypothesize the following:

H1: Investors who receive the standard fair value footnote and a CAM paragraph in the audit report, which discusses the audit of uncertain fair value estimates, are more likely to stop considering a firm as an investment than are investors who only receive the fair value footnote and a standard audit report.

Our first hypothesis proposes an information effect, as footnote disclosure combined with a CAM paragraph in the audit report is compared to footnote disclosure alone. This information effect is predicated on the CAM paragraph’s straightforward message and the higher credibility of its source. However, we expect that a CAM paragraph’s influence stems primarily from a source credibility effect. The auditor’s task is to independently opine on the financial statements, whereas management is incentivized to cast themselves in a positive light. Since the CAM
paragraph is in the auditor’s report, source credibility for the CAM paragraph is higher than that of management-generated footnote disclosures.

Findings in psychology research indicate that source credibility influences message persuasiveness (see Pornpitakpan 2004 for a review of this literature). Further, psychology research indicates that a credible source’s message is enhanced when the message contains negative information (Czapinski and Lewicka 1979). As such, an audit report’s CAM paragraph centered on the difficulty of auditing fair value estimates should be perceived as more credible than identical information included in management’s footnote disclosures. Accordingly, we hypothesize that investors who receive a CAM paragraph discussing the audit of significant, uncertain fair value estimates in the audit report are more likely to stop considering a firm as an investment than are investors who receive that same information in management’s fair value footnote disclosures.3

H2: Investors who receive a CAM paragraph discussing the audit of significant, uncertain fair value estimates in the audit report are more likely to stop considering a firm as an investment than are investors who receive that same information in management’s fair value footnote disclosures.

Resolution of the critical audit matter

The PCAOB has issued a request for feedback on whether “including the audit procedures performed, including resolution of the critical audit matter, in the communication of critical audit matters in the auditor's report [would] be informative and useful” (PCAOB 2013b, pp. A5-45). Auditors could indicate resolution of the critical audit matter by providing explicit assurance over the matter raised in the CAM paragraph. Current standards do not allow for such piecemeal

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3 Information from a CAM paragraph would not normally be placed in footnote disclosures. However, by analyzing such a case, we can hold CAM paragraph information constant and observe source credibility effects associated with a CAM paragraph in the audit report.
assurance, nor do the current PCAOB or IAASB audit report proposals call for assurance over the matter raised in the CAM paragraph (PCAOB 2013b; IAASB 2013). However, such assurance would address the PCAOB’s query with a critical audit matter resolution that is clear, strong, and unequivocal. 4

Research indicates that auditor assurance influences investors. One line of research contrasts financial statement reviews with financial statement audits. Due to the limited nature of the procedures performed by the assurance provider during a review, review reports are necessarily limited in the assurance provided. Pany and Smith (1982) generally find no significant differences in users’ perceived financial statement reliability between review and audit reports. However, several studies using bankers find that review reports are less influential than audit reports, but that the review reports are still influential (Bandyopadhyay and Francis 1995; Nair and Rittenberg 1987; Yardley 1989). Taken together, research suggests that users are influenced by auditor assurance, regardless of its level.

Based on prior research, we expect that nonprofessional investors will be influenced by a resolution paragraph that discusses audit procedures performed, indicates the auditor is not aware of any material modifications that should be made to the reported estimate, and offers explicit assurance on the fairness of the accounts. Since the resolution paragraph explicitly addresses the matter discussed in the CAM paragraph, we expect that a resolution paragraph reduces the effect of the CAM paragraph. Accordingly, we hypothesize the following:

H3: Investors who receive a CAM paragraph discussing the audit of significant, uncertain fair value estimates in the audit report followed by a resolution paragraph are less likely to stop considering a firm as an investment than are investors who only receive a CAM paragraph.

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4 Regardless of the political likelihood of specific assurance for critical audit matters, analyzing specific assurance indicates how investors behave when resolution for a critical audit matter is clear, strong, and unequivocal.
III. RESEARCH DESIGN

Participants

Alumni from a large, public university’s business school populate our experimental treatments. In total, 3,869 business school graduates were solicited via email by the university’s alumni office. Respondents were entered into a drawing for a one-time $1,000 scholarship, given in their name to a student selected by the business school. From those solicited, 228 responded yielding a response rate of approximately 6 percent. Of the 228 respondents, 141 indicated that they invest in individual stocks and that they analyze firm financial data. We test our hypotheses with these 141 respondents to ensure that our respondents have familiarity analyzing financial information and a history of making firm-specific investment decisions.

Experimental Task and Materials

Each participant was given a link to a web-based case study hosted by Qualtrics.com. Prior to beginning the case, participants took a three-question quiz that evaluated their understanding of audit reports and financial statements. After completing the quiz, the case began with general instructions, noting that the case contained financial information about a fictitious company. In the instructions, participants were told to base their judgments on only the information provided. Further, they were told to assume that information in the case was prepared following prevailing accounting and auditing standards, which may differ from current standards. Two terms were defined explicitly in the instructions: materiality and risk of material misstatement. To avoid the need for memorization, participants were given access to the instructions throughout their analysis and evaluation of the case.

5 Quiz results are reported in Section IV.
All participants receive a short company description, a portion of the auditor’s report, an income statement, and the fair value footnote associated with investment income. The fair value footnote follows current disclosure requirements, and it is the most complete description of fair value estimation uncertainty of any information in our experimental materials. It explains the basis of fair value accounting and defines levels 1, 2, and 3 fair values, noting that levels 2 and 3 contain “moderate or high estimation uncertainty.” Estimation uncertainty is defined in the footnote as “susceptibility … to an inherent lack of precision in its measurement.” Quantitatively, the footnote breaks down security asset values by level and reconciles the beginning and ending security balances by level. In the reconciliation, unrealized level 3 gains are referenced to the current income statement and the level 3 gain effect on earnings per share (EPS) is shown (EPS from level 3 gains is $0.60 of the $1.82 total EPS).

**Treatments**

The audit report in the traditional audit report treatment contains the final (opinion) paragraph from the current audit report. The audit report in the CAM paragraph treatments includes the same final paragraph from the traditional audit report treatment as well as a CAM paragraph. The footnote treatment is identical to the traditional audit report treatment with the exception that the same information included in the CAM paragraph is appended to the standard footnote disclosure. As such, comparing the CAM paragraph treatment to the traditional audit report treatment measures an *information effect*, and comparing the CAM paragraph treatment to the footnote treatment measures a *source credibility effect*. See Appendix 1 for a summary of our experimental design.

Treatments receiving CAM paragraph information are given the following dialogue (see Appendix 2 for a complete description of treatment-related case materials):
Investment income in the Company’s financial statements is composed of unrealized investment gains based on the application of estimates and assumptions, some of which were highly uncertain at the time of estimation due to estimation uncertainty of valuation inputs. Estimation uncertainty is the susceptibility of an accounting estimate and related disclosures to an inherent lack of precision in its measurement on the reporting date. As a result, the investment income account and affected subtotals in the financial statements, including but not limited to net income, contain high estimation uncertainty, which suggests that the reasonable range of possible values for investment income as of the reporting date exceeds materiality, potentially by multiples of materiality. (See Note 9 to the financial statements.)

The CAM paragraph dialogue follows PCAOB (2013b) guidance by identifying the critical audit matter, describing the considerations that led to the determination of the item as a critical audit matter, and referring to the relevant financial statement account. Specifically, the CAM paragraph dialogue notes the difficulty in auditing the account by indicating “the reasonable range of possible values for investment income as of the reporting date exceeds materiality, potentially by multiples of materiality.”

Two additional treatments contain a resolution paragraph that 1) discusses the general procedures used to audit fair value estimates; 2) indicates that the auditor is not aware of any material modifications that should be made to the reported estimate; and 3) offers explicit assurance on the fairness of the accounts. The assurance in the resolution paragraph can take either a positive or negative form. Christensen et al. (2012) submit that in a number of cases involving significant estimation uncertainty, auditors can only provide negative assurance, indicating nothing has come to their attention disputing the client’s estimate. However, current standards demand that audit reports provide positive assurance that the client’s accounts and net

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6 Christensen et al. (2012) provide public company examples where the range of estimation uncertainty exceeds materiality and Glover et al. (2014) indicate that such situations are relatively common for fair value measurements. While our CAM paragraph does highlight difficulties faced by the auditor, it is by its nature less severe than a qualification paragraph. Qualified audit reports necessarily contain an explicit “except for” qualification of the audit opinion, whereas our CAM paragraph does not contain such language.

7 In a recent survey, the majority of audit partners indicate the need to reconsider the level of assurance provided on accounts with significant estimation uncertainty due to the accounts’ inherent subjectivity (Glover et al. 2014).
income are presented fairly in all material respects. As such, we analyze resolution paragraph treatments containing positive and negative assurance.

Both resolution paragraph treatments differ from the CAM paragraph treatment only by the addition of a resolution paragraph. The positive assurance (negative assurance) resolution paragraph treatment reads as follows:

The audit procedures for investment income consist principally of understanding and evaluating the reasonableness of the Company’s estimation model and assumptions, as well as testing the effectiveness of controls around the estimation process. Based on the audit procedures performed on the investment income account, there is a high level of estimation uncertainty. However, we are not aware of any material modifications that should be made to the reported estimate for investment income and we are able to express an opinion on the fairness of investment income account balance. As such, we do express such an opinion on investment income. (Based on the audit procedures performed on the investment income account, we are not aware of any material modifications that should be made to the reported estimate for investment income. However, due to the high level of estimation uncertainty, the procedures do not allow us to express an opinion on the fairness of the investment income account balance. As such, we do not express such an opinion on investment income.)

To determine the effect of the resolution paragraph, the CAM paragraph treatment is compared to the two resolution paragraph treatments.

Other Analyses

We also analyze two treatments containing a multi-column income statement that recognizes the uncertainty effect of fair value estimates on the face of the income statement. Following Clor-Proell et al. (2013), the multi-column income statement contains a column for values with low estimation uncertainty, a column for values with high estimation uncertainty, and a total column. In our presentation, the only values in the high-estimation-uncertainty column are
investment income values from the level 3 securities. The first treatment, referred to as the recognition-CAM treatment, is identical to the CAM paragraph treatment with the exception of the use of the multi-column income statement instead of the single-column income statement. The second treatment, referred to as the recognition-footnote treatment, is identical to the footnote treatment with the exception of the use of the multi-column income statement instead of the single-column income statement. By comparing the multi-column income statement treatments to the CAM paragraph treatment, we can determine whether a CAM paragraph’s influence on nonprofessional investors approaches the influence of income statement recognition.

**Administration**

We piloted the experimental materials with graduate students and made changes accordingly. Final experimental materials were coded with Qualtrics software and the materials were completed online. Participants were offered a menu to view the case materials, audit report, income statement, and footnotes, allowing them to view the materials in any order that they desired. The instructions and case materials were made available to participants throughout their evaluation and assessment process. Access to case materials was denied only when participants had completed the case and were completing manipulation checks and demographic information. The software randomly assigned participants to one of the seven treatments. The task took an average of 24.0 minutes to complete.

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8 The multi-column income statement studied does not follow generally accepted accounting principles. However, income statements of this type have been considered by standard setters (IASB 2005; FASB 2008) and practitioners (CFA 2007).

9 The menu order was counterbalanced and menu order had no significant difference on dependent variables.
Variables

The manipulated independent factors are coded categorically as CAM paragraph, traditional audit report, footnote, positive assurance resolution, negative assurance resolution, recognition-CAM, and recognition-footnote. Participant responses to the traditional audit report treatment and the CAM paragraph treatment are used to test the information effect of the CAM paragraph (H1), and responses to the footnote treatment and the CAM paragraph treatment are used to test the source credibility effect of the CAM paragraph (H2). We compare responses in the CAM paragraph treatment to the two resolution paragraph treatments to determine the effect of resolving the critical audit matter (H3). As an additional analysis, participant responses to the multi-column financial statement treatments are compared to the CAM paragraph treatment to analyze the effect of financial statement recognition over a CAM paragraph in the audit report.

Our hypothesized dependent variable is captured with the following question: “Would the reported investment income for Trans-Global Exports, Ltd stop you from voluntarily investing in Trans-Global?” Participant responses are measured with an 11-point scale with anchors of ‘No’ (0) and ‘Yes’ (10). For modeling purposes, we capture the responses to the following questions:

- How easily could you assess the importance of reported investment income for Trans-Global Exports, Ltd?
- How well did Trans-Global Exports, Ltd handle financial reporting in regards to the investment income account?
- What is the risk that Trans-Global Exports, Ltd financial statements contain a material misstatement?
- How confident are you in Trans-Global Exports, Ltd as a company?

These responses are measured with scale anchors of zero and ten in which ten corresponds to very easily assessed, very well reported, highly likely a material misstatement, and very confident in the company.
IV. RESULTS

Table 1 contains the participant profile. All 141 participants indicate that they invest in individual stock and that they have analyzed financial data. Our participants have an average of 25.4 years of professional experience. Further, 30.5 percent of our participants indicate that they always refer to the auditor’s report to inform their investment decisions, with an additional 47.5 percent who reference it sometimes. Most of our participants are between 51-60 years old (42.9 percent), male (70.2 percent), and have earned an undergraduate degree as their highest degree (80.1 percent). Our participants indicate employment across eleven different industry categories, and the vast bulk (94.5 percent) has a portfolio of securities valued at more than $50,000. Finally, participants responded to the study’s materials within a three-week window: 46.1 percent responded the first day and the remainder responded thereafter.

***** Insert Table 1 Here *****

Prior to reviewing the case, all participants answered three multiple-choice questions to ensure a base level of knowledge. The first question concerns the level of assurance provided by auditors, with the correct answer that auditors provide reasonable assurance (96.5 percent correct). The second question concerns the precision of values reported in the financial statements, with the correct answer that the values have varying levels of precision (90.1 percent correct). The third question involves defining revenue, gains, and net income (99.3 percent correct).

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10 Inserting these demographics as covariates in an analysis of covariance, and determining the mean contrasts that test our hypotheses, results in statistical inferences identical to those tabulated.

11 We systematically eliminated participants from each industry category and re-performed statistical analyses absent each category’s participants. We find that all statistical inferences hold across the industry-specific eliminations. Participant responses are not significantly affected by any single industry category, including the banking/finance/insurance industry, which is most likely to include professional investors.

12 We observe no significant differences in our dependent or demographic variables between participants responding on day one and those responding thereafter, with the exception of the gender demographic: 13 females responded on day one and 29 thereafter.
correct). We retain all reported statistical inferences when participants who missed quiz questions are dropped from our analyses, therefore in our tabulated results we include participants who missed the quiz questions.

**Manipulation checks**

We ask manipulation check questions on scales ranging from zero to ten. A response of ten represents the presence of a CAM paragraph in the audit report; the presence of CAM paragraph information in the footnotes; the presence of a resolution paragraph; the presence of positive assurance in the resolution paragraph; and the presence of a multi-column income statement. We find that participants receiving a CAM paragraph in the audit report recognized that they had received it, as compared to those participants who did not receive it (8.52 vs. 3.34; t = 6.963, p < 0.001). We find that participants receiving CAM paragraph information in the footnote disclosure recognized that they had received it, as compared to those who did not receive it (5.11 vs. 2.50; t = 3.210; p = 0.002). We find that participants receiving a CAM paragraph, but not assurance on the critical audit matter, recognize this (8.10 vs. 3.21, t = 4.754, p < 0.01), and that participants receiving an assurance paragraph recognized receiving positive versus negative assurance (6.09 vs. 2.00; t = 4.085, p < 0.01). Finally, we find that participants receiving a multi-column income statement recognized that they had received it, as compared to those participants who did not receive it (7.83 vs. 3.04; t = 5.939; p < 0.01).13

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13 We define manipulation check failures as participants at the incorrect scale end for their treatment-related question. We observe the following failure rate: two participants in the CAM paragraph treatment, two participants in the traditional audit report treatment, five participants in the footnote treatment, three participants in the resolution paragraph treatments, and three participants in the multi-column income statement treatments. We retain all reported statistical inferences when these participants are dropped from our analyses, therefore we leave them in our sample.
Hypotheses tests

Hypothesis H1 predicts that investors who receive a CAM paragraph discussing the audit of significant, uncertain fair value estimates and the standard fair value footnote disclosure are more likely to stop considering a firm as an investment than are investors who only receive a standard audit report and the fair value footnote disclosure. In support of H1, we find that participants in the CAM paragraph treatment are more likely than participants in the traditional audit report treatment to stop considering the firm as an investment (6.20 vs. 4.43, \( t = 2.266, p = 0.015 \) one-tailed, Table 2). Holding all else constant, the addition of a CAM paragraph to the audit report creates an actionable response, indicative of an information effect for the CAM paragraph.

***** Insert Table 2 Here *****

Hypothesis H2 predicts that investors who receive a CAM paragraph discussing the audit of significant, uncertain fair value estimates in the audit report are more likely to stop considering a firm as an investment than are investors who receive that same information in management’s fair value footnote disclosures. In support of H2, we find that participants in the CAM paragraph treatment are more likely to stop considering the firm as an investment than are participants who receive the CAM paragraph information in the footnotes to the financial statements (6.20 vs. 4.70, \( t = 1.781, p = 0.042 \) one-tailed, Table 2). Including the CAM paragraph information in the audit report, as opposed to the footnotes, creates an actionable response indicative of a source credibility effect.\(^{14}\)

Hypothesis H3 predicts that investors who receive a CAM paragraph discussing the audit of significant, uncertain fair value estimates in the audit report followed by a resolution paragraph

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\(^{14}\) Investors in our study accessed the audit report, footnotes, income statement, and background from a menu. We had two different menu orders, and our analysis indicates that order of the menus did not influence our results. Investors in our study chose where to place their attention. Our results suggest that auditor source credibility led investors to choose the audit report and then modify their judgment due the CAM paragraph.
are less likely to stop considering a firm as an investment than are investors who only receive a CAM paragraph. In support of H3, we find that participants in the CAM paragraph treatment are more likely to stop considering the firm as an investment than are participants who receive a CAM paragraph followed by a resolution paragraph with positive assurance (6.20 vs. 4.91, t = 1.812, p = 0.039 one-tailed, Table 2) or negative assurance (6.20 vs. 3.62, t = 3.725 p < 0.01 one-tailed, Table 2).\textsuperscript{15} When the CAM paragraph is supplemented by a resolution paragraph, we find that investor desire to stop considering the firm as an investment is significantly lower.

\textbf{Other Findings}

In a recent study, Clor-Proell et al. (2013) found that showing the effect of fair value estimation uncertainty on the face of the income statement facilitates nonprofessional investors’ ability to incorporate reliability into their price-earnings estimates. These authors theorize, as we do, that processing fair value footnote disclosures requires significant cognitive resources, preventing investors from converting the information into a useable form (Payne et al. 1993; Payne 1982). Conversely, fair value uncertainty information separately identified on the face of the income statement readily demonstrates the estimates’ potential effect on income and earnings per share, offering investors a format that draws attention to the uncertainty and is easy to analyze. In sum, financial statement recognition represents a high reporting benchmark (Clor-Proell et al. 2013).

Ex-ante, it is unclear whether a CAM paragraph centered on the difficulty of auditing fair value estimates would influence nonprofessional investors differently than recognizing quantitative estimation uncertainty information directly in the income statement. As such, we

\textsuperscript{15} We note that participants receiving negative assurance are less likely than participants receiving positive assurance to stop considering the firm as an investment (4.91 vs. 3.62, t = 2.007; p = 0.051 two-tailed, untabulated). One possibility for this finding is that negative assurance is more consistent with the assurance auditors can actually provide for the significant, uncertain fair value estimates (Christensen et al. 2012).
compare our CAM paragraph treatment to treatments that contain both financial statement recognition of estimation uncertainty and CAM paragraph information. We find that participants in the CAM paragraph treatment are no more or less likely to stop considering the firm as an investment than are participants who receive both a CAM paragraph in the audit report and income statement recognition of estimation uncertainty (6.20 vs. 5.33, t = 1.020, p = 0.316 two-tailed, Table 3). We also find that participants in the CAM paragraph treatment are no more or less likely to stop considering the firm as an investment than are participants who receive CAM paragraph information in the footnotes and income statement recognition of estimation uncertainty (6.20 vs. 5.95, t = 0.293, p = 0.771 two-tailed, Table 3). Our results indicate that nonprofessional investors attend similarly to CAM paragraphs and income statement recognition, suggesting that the influence of a CAM paragraph approaches the benchmark of financial statement recognition.

***** Insert Table 3 Here *****

Investor decision process

While our results provide evidence in support of our hypotheses, they do not demonstrate investors’ decision process. We theorize that CAM paragraphs in the audit report are easier to analyze and draws more attention than footnote disclosures. Further, Clor-Proell et al. (2013) theorize similarly about the effect of a multi-column income statement that reports estimation uncertainty. To validate this theory, we model investors’ decision process using a structural model. Our model analyzes how perceived reporting quality around estimates and the perceived
ease of analyzing such estimates influence investors’ confidence in the firm, misstatement risk, and the decision to stop considering the firm as an investment.\textsuperscript{16}

As shown in Figure 1, Panel A, when investors receive a CAM paragraph in the audit report or have estimation uncertainty recognized in the income statement, ease of analysis influences perceived misstatement risk ($t = 3.91, p < 0.01$) and perceived reporting quality influences confidence in the firm ($t = 8.21, p < 0.01$). Further, confidence in the firm ($t = 5.73, p < 0.01$) and perceived misstatement risk ($t = 2.59, p = 0.01$) influence the decision to stop considering the firm as an investment, fully mediating the effects of perceived reporting quality and ease of analysis. Conversely, as shown in Figure 1, Panel B, when investors receive fair value information only in footnote disclosures, perceived reporting quality influences confidence in the firm ($t = 3.43, p < 0.01$), but confidence in the firm does not influence the decision to stop considering the firm as an investment ($t = 0.59, p = 0.558$). Further, ease of analysis does not influence perceived misstatement risk ($t = 0.38, p < 0.700$).

When fair value information is communicated through the traditional audit report and standard management footnotes, we do not observe fair value account perceptions influencing investment decisions. When investors receive a CAM paragraph, or have estimate uncertainty recognized in the income statement, it draws their attention and is easier to analyze, ultimately influencing investment decisions.

\*\*\* Insert Figure 1 Here \*\*\*

VI. CONCLUSION

In a synthesis of audit report research, Mock et al. (2013) summarize investor survey findings by noting that investors desire more information in the audit report. In response, the PCAOB and

\textsuperscript{16} To validate the structural model and ensure that results are not affected by sample size, all path coefficients were also calculated with regression analysis. Regression-based path coefficients produce similar coefficients to those of the structural model, and the statistical significances of those coefficients are inferentially identical to those of the structural model.
the IAASB have proposed improvements to the auditor’s report (IAASB 2013; PCAOB 2013b). The key element in these proposals involves adding a CAM paragraph to the audit report that discusses difficult audit issues. Such CAM paragraphs are meant to add value to the audit report, informing financial statement users about difficulties encountered during the audit. We examine how a CAM paragraph centered on the audit of significant fair value estimates influences nonprofessional investors.

We find that investors who receive a CAM paragraph highlighting the audit issues associated with the audit of uncertain fair value estimates are more likely to stop investing in the company than participants who either receive a traditional audit report or receive the information from the CAM paragraph as part of management’s footnote. However, we also find that nonprofessional investors are less likely to react to a CAM paragraph if it is followed by a resolution paragraph containing auditor assurance for the critical audit matter.

Our finding that a resolution paragraph influences investor judgment addresses the PCAOB’s query about offering such resolution in the audit report. However, it is unclear whether offering resolution of the critical audit matter aids investors. Auditors necessarily resolve all audit issues before issuing an audit opinion, regardless of whether resolution of the critical audit matter is offered in the audit report. As such, our finding that communicating resolution of the critical audit matter reduces the effect of a CAM paragraph suggests that a resolution paragraph may be redundant information that only serves to reduce the effect of the CAM paragraph. This finding suggests that regulators need to consider whether the reduction in investor reaction to a CAM paragraph, due to communicating its resolution in the audit report, is a desired outcome.

Our study is subject to limitations. First, we do not precede our CAM paragraph with an introductory paragraph, as proposed by the PCAOB (2013b) and the IAASB (2013). However,
our results indicate that the influence of a CAM paragraph is similar to recognizing estimation uncertainty on the face of the income statement, suggesting that our CAM paragraph is not over-interpreted as a qualification of the financial statements. Additionally, we examine only an initial reaction to a single CAM paragraph in the audit report, and subsequent or continuing reactions to one or multiple CAM paragraphs could be different, particularly if such paragraphs become boilerplate. We study a specific CAM paragraph case, and investors could react differently to CAM paragraphs centered on issues outside of fair value estimates. Additionally, we only examine one wording of the resolution of the CAM paragraph and alternate wordings could elicit different investor responses. Finally, investor resources used to make investment decisions are rich, but they are necessarily restricted in this study to maintain participants’ attentiveness. We encourage future studies to focus on the audit report, potentially addressing these limitations.

The current audit report is over 70 years old, yet it still serves an important purpose. However, both users of the audit report and standard setters call for it to do more (Doty 2013). A CAM paragraph potentially answers this call by tapping into the auditor’s knowledge of critical audit matters and making them transparent in the audit report. We study the effect of a CAM paragraph on an important class of investors, and our results suggest that to nonprofessional investors, communicating critical audit matters in the audit report is influential.
References


Doty, J.R. 2013. Statement on Proposed Auditing Standards Regarding the Auditor’s Report and the Auditor’s Responsibilities Regarding Other Information. PCAOB Open Board Meeting August 13, Washington DC.


## Appendix 1
### Treatments Defined

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CAM Paragraph</td>
<td>Standard audit report + CAM paragraph</td>
<td>Standard audit report</td>
<td>Standard audit report + CAM paragraph + positive assurance</td>
<td>Standard audit report + CAM paragraph + negative assurance</td>
<td>Standard audit report + CAM paragraph</td>
<td>Standard audit report</td>
</tr>
<tr>
<td>Income Statement</td>
<td>One-column</td>
<td>One-column</td>
<td>One-column</td>
<td>One-column</td>
<td>Multi-column</td>
<td>Multi-column</td>
</tr>
<tr>
<td>Footnote</td>
<td>Standard footnote</td>
<td>Standard footnote + CAM paragraph</td>
<td>Standard footnote</td>
<td>Standard footnote</td>
<td>Standard footnote + CAM paragraph</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CAM Paragraph</td>
<td>Standard audit report + CAM paragraph</td>
<td>Standard audit report</td>
<td>Standard audit report + CAM paragraph + positive assurance</td>
<td>Standard audit report + CAM paragraph + negative assurance</td>
<td>Standard audit report + CAM paragraph</td>
<td>Standard audit report</td>
</tr>
<tr>
<td>Income Statement</td>
<td>One-column</td>
<td>One-column</td>
<td>One-column</td>
<td>One-column</td>
<td>Multi-column</td>
<td>Multi-column</td>
</tr>
<tr>
<td>Footnote</td>
<td>Standard footnote</td>
<td>Standard footnote + CAM paragraph</td>
<td>Standard footnote</td>
<td>Standard footnote</td>
<td>Standard footnote + CAM paragraph</td>
<td></td>
</tr>
</tbody>
</table>

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28
INDEPENDENT AUDITOR’S REPORT

Investment income in the Company’s financial statements is composed of unrealized investment gains based on the application of estimates and assumptions, some of which were highly uncertain at the time of estimation due to estimation uncertainty inputs. Estimation uncertainty is the susceptibility of an accounting estimate and related disclosures to an inherent lack of precision in its measurement on the reporting date. As a result, the investment income account and affected subtotals in the financial statements, including but not limited to net income, contain high estimation uncertainty, which suggests that the reasonable range of possible values for investment income as of the reporting date exceeds materiality, potentially by multiples of materiality. (See Note 9 to the financial statements.)

The audit procedures for investment income consist principally of understanding and evaluating the reasonableness of the Company’s estimation model and assumptions, as well as testing the effectiveness of controls around the estimation process. Based on the audit procedures performed on the investment income account, there is a high level of estimation uncertainty. However, we are not aware of any material modifications that should be made to the reported estimate for investment income and we are able to express an opinion on the fairness of investment income account balance. As such, we do express such an opinion on investment income. (Based on the audit procedures performed on the investment income account, we are not aware of any material modifications that should be made to the reported estimate for investment income. However, due to the high level of estimation uncertainty, the procedures do not allow us to express an opinion on the fairness of the investment income account balance. As such, we do not express such an opinion on investment income.)

In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2011, and the results of its operations and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States. Also, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2011, based on criteria established in a widely-accepted internal control framework.

---

*a The CAM paragraph. This paragraph is included in the audit report for the CAM paragraph treatment and the recognition-CAM treatment, and in the footnotes for the footnote treatment and the recognition-footnote treatment. Note: The experimental instrument was designed before the August 2013 PCAOB proposed audit standard on the audit report, as such the terminology used is not identical to that illustrated in Appendices 1 and 5 of the proposed standard (PCAOB 2013b). However, the wording of the experimental instrument highlights the critical audit matter in a manner consistent with the proposed standard.

*b The resolution paragraph. Positive assurance treatment receives the text prior to that underlined and the underlined text. The negative assurance treatment receives the text prior to that underlined and the text in parentheses.

*c The standard audit report’s opinion paragraph that all treatments receive. The negative assurance treatment states, “In our opinion, except as noted in the preceding paragraph, the financial statements present fairly…” The phrase, except as noted in the preceding paragraph, is added for this treatment to acknowledge the negative assurance offered on the critical audit matter.
### Appendix 2 (Continued)
#### Treatment-Related Case Materials

#### INCOME STATEMENT

<table>
<thead>
<tr>
<th></th>
<th>Dec 31, 2011 ('000’s)(^a)</th>
<th>(1)(^b) Low Estimation Uncertainty</th>
<th>Dec 31 2011 ('000’s)</th>
<th>(2)(^b) High Estimation Uncertainty</th>
<th>Dec 31 2011 ('000’s)</th>
<th>(1 +2)(^b)</th>
<th>Total Dec 31 2011 ('000’s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Sales</td>
<td>$2,716,256</td>
<td>$2,716,256</td>
<td></td>
<td>$2,716,256</td>
<td></td>
<td></td>
<td>$2,716,256</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>1,831,250</td>
<td>1,831,250</td>
<td></td>
<td>1,831,250</td>
<td></td>
<td></td>
<td>1,831,250</td>
</tr>
<tr>
<td>Gross profit</td>
<td>885,006</td>
<td>885,006</td>
<td></td>
<td>885,006</td>
<td></td>
<td></td>
<td>885,006</td>
</tr>
<tr>
<td>Selling, general &amp; administrative expenses</td>
<td>402,500</td>
<td>402,500</td>
<td></td>
<td>402,500</td>
<td></td>
<td></td>
<td>402,500</td>
</tr>
<tr>
<td>Income from operations</td>
<td>482,506</td>
<td>482,506</td>
<td></td>
<td>482,506</td>
<td></td>
<td></td>
<td>482,506</td>
</tr>
<tr>
<td>Investment income</td>
<td>60,400</td>
<td></td>
<td>60,400</td>
<td>60,400</td>
<td></td>
<td></td>
<td>60,400</td>
</tr>
<tr>
<td>Interest expense</td>
<td>542,906</td>
<td>482,506</td>
<td>60,400</td>
<td>542,906</td>
<td></td>
<td></td>
<td>542,906</td>
</tr>
<tr>
<td>Income before income taxes</td>
<td>290,528</td>
<td>230,128</td>
<td>60,400</td>
<td>290,528</td>
<td></td>
<td></td>
<td>290,528</td>
</tr>
<tr>
<td>Net income</td>
<td>$181,957</td>
<td>121,557</td>
<td>60,400</td>
<td>$181,957</td>
<td></td>
<td></td>
<td>$181,957</td>
</tr>
</tbody>
</table>

**Earnings Per Share (EPS)**

|                      | $1.82                        | $1.22                                | $0.60                | $1.82                                |

\(^a\) The single column income statement that all treatments receive except the two recognition treatments.

\(^b\) The multicolumn income statement that the two recognition treatments receive.
Note 9. Investments Measured at Fair Value

The Company uses fair value accounting for its investments. Fair value is measured based on observable and unobservable inputs. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect the Company’s assumptions. These two types of inputs create the following fair value hierarchy:

- **Level 1**—Quoted prices for identical instruments in active markets.
- **Level 2**—Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations whose inputs are observable.
- **Level 3**—Model-derived valuations that reflect the Company’s own assumptions and projections.

Level 1 fair values contain low estimation uncertainty, Level 2 and Level 3 fair values contain moderate or high estimation uncertainty, depending on the nature of the model inputs and the value of the instrument. Estimation uncertainty is the susceptibility of an accounting estimate and related disclosures to an inherent lack of precision in its measurement.

The following table presents, for each level of the fair value hierarchy, the Company’s trading securities and available-for-sale securities at fair value as of December 31, 2011 (numbers in thousands):

<table>
<thead>
<tr>
<th>Description</th>
<th>Fair Value at 12/31/2011</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security Assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trading Securities</td>
<td>$147,624</td>
<td></td>
<td></td>
<td>$147,624</td>
</tr>
<tr>
<td>Available for Sale</td>
<td>$63,576</td>
<td>$63,576</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Security Assets</td>
<td>$211,200</td>
<td>$63,576</td>
<td>$0</td>
<td>$147,624</td>
</tr>
</tbody>
</table>

The following table provides a reconciliation of the beginning and ending balances for security assets (numbers in thousands).

<table>
<thead>
<tr>
<th>Description</th>
<th>Level 1</th>
<th>Level 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning balance at December 31, 2010</td>
<td>$63,576</td>
<td>$87,224</td>
</tr>
<tr>
<td>Realized and unrealized gains and losses</td>
<td>0</td>
<td>60,400*</td>
</tr>
<tr>
<td>included in the income statement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ending balance at December 31, 2011</td>
<td>63,576</td>
<td>147,624</td>
</tr>
<tr>
<td>Total Effect on Earnings</td>
<td>0</td>
<td>60,400*</td>
</tr>
<tr>
<td>Total Effect on Earnings per Share (EPS)</td>
<td>$0.00</td>
<td>$0.60*</td>
</tr>
</tbody>
</table>

* Unrealized Level 3 gains

---

*a All treatments receive this footnote. However, the footnote and recognition-footnote treatments receive this footnote with the CAM paragraph appended to it.
Participants 141 100% | Years Professional Experience 25.4
| Mean (std. dev.) (8.7)

Correctly Answered\(^a\)
Quiz Question 1 136 96.5%
Quiz Question 2 127 90.1%
Quiz Question 3 140 99.3%

Age (Years)
31-40 28 19.9%
41-50 44 31.2%
51-60 60 42.9%
61-70 8 5.7%

Education\(^b\)
Undergraduate 113 80.1%
Masters 27 19.1%

Industry\(^c\)
Retail/Wholesale 12 8.5%
Mining/Construction 4 2.8%
Manufacturing 11 7.8%
Transportation/Energy 19 13.5%
Communication/Media 7 5.0%
Technology 9 6.4%
Banking/Finance/Insurance 24 17.0%
Service/Consulting 14 9.9%
Healthcare/Pharmaceutical 8 5.7%
Education 8 5.7%
Retired 6 4.3%
Unemployed 1 0.7%
Other 18 12.8%

Analyze firm financial data
1 – 5 times 64 45.4%
6 or more 77 54.6%

Refer to auditor’s report
Always 43 30.5%
Sometimes 67 47.5%
Never 30 21.3%
Portfolio
< $50K 3 2.0%
> $50K 136 94.5%

All 141 participants indicate that they invest in individual stocks, and all indicate that they have analyzed firm financial data in the last five years.

\(^a\) Prior to reviewing the case all participants answered three multiple choice questions. The first question concerns the level of assurance provided by auditors and its answer is that auditors provide reasonable assurance. The second question concerns values reported in the financial statements and its answer is that the values have varying levels of precision. The third question involves defining revenue, gains, and net income.

\(^b\) Undergraduate degrees consist of accounting (89) and management (24), and master’s degrees consist of accounting (5), finance (16), and other (6). One participant did not report their degree.

\(^c\) We systematically eliminated participants from each industry category and then re-tested our hypotheses absent that category’s participants. We retain all statistical inferences following this process of elimination across industry categories.
### Table 2
Descriptive Statistics and Mean Contrasts

<table>
<thead>
<tr>
<th>Variables</th>
<th>Treatments\textsuperscript{a}</th>
<th>Mean Contrasts (t-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CAM Paragraph 1 (n = 20)</td>
<td>Traditional Audit Rep. 2 (n = 23)</td>
</tr>
<tr>
<td>Stop Investing</td>
<td>6.20 (2.397)</td>
<td>4.43 (2.711)</td>
</tr>
<tr>
<td>Easy to Assess</td>
<td>7.55 (2.139)</td>
<td>7.48 (2.254)</td>
</tr>
<tr>
<td>How Well Reported</td>
<td>5.26 (2.579)</td>
<td>5.35 (2.367)</td>
</tr>
<tr>
<td>Confidence in the Firm</td>
<td>4.55 (1.009)</td>
<td>5.17 (1.337)</td>
</tr>
<tr>
<td>Misstatement Risk</td>
<td>6.25 (2.447)</td>
<td>5.09 (2.712)</td>
</tr>
</tbody>
</table>

Mean (Std. Dev.) reported. *, **, *** denotes one-tailed significance at the 10%, 5%, 1% levels, respectively. Based on Levene’s test, standard errors are adjusted for unequal variances. All contrasts are calculated from a one-way analysis of variance containing all seven experimental treatments.

\textsuperscript{a} Appendix 1 defines the treatments and Appendix 2 illustrates the treatment components.

\textsuperscript{b} The following questions form the basis for the variables. Would the reported investment income for Trans-Global Exports, Ltd STOP YOU FROM VOLUNTARILY INVESTING in Trans-Global? For modeling purposes, we capture the following responses. How EASILY could you assess the IMPORTANCE of reported investment income for Trans-Global Exports, Ltd? How WELL did Trans-Global Exports, Ltd handle financial reporting in regards to the Investment Income account? How CONFIDENT are you in Trans-Global Exports, Ltd as a company? What is the risk that Trans-Global Exports, Ltd financial statements contain a MATERIAL MISSTATEMENT? Responses to these questions are capture on 11-point scales anchored on zero and ten. A response of ten respectively indicates: stop investing, very easily assessed, very well reported, high trust/confidence, and highly likely material misstatement.
### Table 3
Descriptive Statistics and Mean Contrasts – Income Statement Recognition

<table>
<thead>
<tr>
<th>Variables</th>
<th>Treatments</th>
<th>Treatments</th>
<th>Treatments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CAM Paragraph</td>
<td>Recognition CAM</td>
<td>Recognition Footnote</td>
</tr>
<tr>
<td>Stop Investing</td>
<td>CAM 1 n = 20</td>
<td>CAM 2 n = 15</td>
<td>CAM 3 n = 20</td>
</tr>
<tr>
<td></td>
<td>6.20 (2.397)</td>
<td>5.33 (2.554)</td>
<td>5.95 (2.964)</td>
</tr>
<tr>
<td>Easy to Assess</td>
<td>CAM 1 n = 20</td>
<td>CAM 2 n = 15</td>
<td>CAM 3 n = 20</td>
</tr>
<tr>
<td></td>
<td>7.55 (2.139)</td>
<td>7.33 (2.024)</td>
<td>6.70 (2.658)</td>
</tr>
<tr>
<td>How Well Reported</td>
<td>CAM 1 n = 20</td>
<td>CAM 2 n = 15</td>
<td>CAM 3 n = 20</td>
</tr>
<tr>
<td></td>
<td>5.26 (2.579)</td>
<td>5.40 (3.019)</td>
<td>5.20 (3.205)</td>
</tr>
<tr>
<td>Confidence in the Firm</td>
<td>CAM 1 n = 20</td>
<td>CAM 2 n = 15</td>
<td>CAM 3 n = 20</td>
</tr>
<tr>
<td></td>
<td>4.55 (1.009)</td>
<td>4.87 (1.356)</td>
<td>4.32 (2.187)</td>
</tr>
<tr>
<td>Misstatement Risk</td>
<td>CAM 1 n = 20</td>
<td>CAM 2 n = 15</td>
<td>CAM 3 n = 20</td>
</tr>
<tr>
<td></td>
<td>6.25 (2.447)</td>
<td>5.87 (1.727)</td>
<td>6.25 (3.143)</td>
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Mean (Std. Dev.) reported. *, **, *** denotes one-tailed significance at the 10%, 5%, 1% levels, respectively. Based on Levene’s test, standard errors are adjusted for unequal variances. All contrasts are calculated from a one-way analysis of variance containing all seven experimental treatments.

*a Appendix 1 defines the treatments and Appendix 2 illustrates the treatment components.

*b Variables are defined in Table 2.
Figure 1
Structural Models of Investor Cognition

Panel A: CAM paragraph, recognition-CAM, and recognition-footnote treatments

Panel B: Traditional audit report and footnote treatments

Standardized path coefficients (t-values) reported, ***, **, * denote two-tailed significance at the 10%, 5%, and 1% levels. All variables are defined in Table 2.

Models are identified via a multi-group analysis (Kline 2011) and estimated based on covariance matrices. Model fit is measured with the Tucker-Lewis index (TLI) = 0.984, the comparative fit index (CFI) = 0.993, the root mean squared error of approximation (RMSEA) = 0.040, and no statistically significant modification indices. Regression-based path coefficients produce similar coefficients to those reported, and the statistical significances of those coefficients are inferentially identical to those reported.

We expect that information in an audit report’s CAM paragraph or on the face of the income statement is more likely part of the investment decision process. To validate this expectation, we correlate investors’ decision to stop considering the investment with how easily investors could assess the uncertainty in the fair value account and how well they perceive the fair value account is reported, as mediated by the perceived risk of material misstatement and their confidence in the firm.