Another Piece of the “Expectations Gap”: What Do Investors Know About Auditor Involvement with Information in the Annual Report?

Jean C. Bedard, Steve G. Sutton, Vicky Arnold, and Jillian R. Phillips

SUMMARY: The “expectations gap” refers to differences in views of auditors and users regarding the extent of assurance obtained from auditing procedures. One aspect of the expectations gap considered by prior research is whether users differentiate the level of assurance provided by different audit procedures. We extend that research by studying whether investors understand that information outside of the financial statements, in the 10-K as well as on corporate websites, is not audited. This research is important, as the Public Companies Accounting Oversight Board currently is considering proposals aimed at clarifying or expanding the auditor’s responsibility for that information. We surveyed professional and nonprofessional investors, and find that professionals are more likely than nonprofessionals to correctly identify which 10-K components are audited. However, many investors in both groups believe that information outside of the financial statements is audited when in fact it is not. We also find some evidence that investors use certain information categories more often when they believe that the information is audited. Also, for both investor groups, responses concerning whether currently unaudited information categories should be audited suggest an unmet demand for greater assurance on information outside of the financial statements. Our results support proposals for greater clarity in the audit opinion concerning the nature of procedures performed on information outside of the financial statements. Further, our findings imply that additional assurance on that information might be considered useful.

Keywords: financial reporting; auditing; assurance; nonfinancial information; management discussion and analysis; MD&A.

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INTRODUCTION

Investors, regulators, and the auditing profession have long debated the nature and extent of auditor involvement with information provided along with audited financial statements. Currently, the U.S. Public Company Accounting Oversight Board (PCAOB) is considering possible changes to the auditor’s report. While changes to the auditor’s report have been considered over the years, the Advisory Committee on the Auditing Profession (ACAP) (2008) recently recommended that the PCAOB undertake a standard-setting initiative on this topic, and the PCAOB added the topic to its agenda.1 To inform this initiative, the PCAOB’s Investor Advisory Group (PCAOB/IAG) (2011) recently surveyed investment firm personnel regarding the current audit reporting model. Respondents expressed concern that the current format of the auditor’s report is not sufficiently informative. To address this topic, the PCAOB recently issued Concept Release No. 2011-003 (PCAOB 2011a), seeking public comment on possible changes to the auditor’s reporting model. Among the options under consideration are two that relate to information outside of the financial statements, which were identified as important by participants in the PCAOB’s outreach efforts: (1) clarifying the auditor’s current responsibilities with respect to that information, and (2) expanding the auditor’s current responsibilities for that information (PCAOB 2011b, 8).2

Our study provides information relevant to these policy options by investigating whether investors differentiate the level of assurance in the audited financial statements and related footnotes from other information presented alongside audited information in the 10-K (e.g., Management’s Discussion and Analysis [MD&A]) and on corporate websites.3 We address the concern that investors may not distinguish between the positive assurance provided by auditors from a full audit of the financial statements and footnotes, and the limited procedures performed on information outside of the financial statements, which provide less assurance than either an audit or a review.4 If investors fail to recognize variation in the level of assurance, then they could over-rely on unaudited information (i.e., weight that information more heavily in their decision

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1 ACAP was a high-level committee composed of representatives of audit firms, preparers, and investors, formed by the U.S. Treasury Department in 2008 to examine issues relating to competition and quality in the audit markets. Further information on the PCAOB’s agenda project can be obtained from Concept Release 2011-003 (PCAOB 2011a) and the related Briefing Paper (PCAOB 2011b).

2 The Concept Release (PCAOB 2011a) provides several examples of “information outside of the financial statements,” including the MD&A, earnings releases, and non-GAAP information. In this study, we focus on information presented in the 10-K, as well as information on corporate websites.

3 A requirement to audit the MD&A was considered in the U.S. in the 1980s; U.S. standards currently allow an opinion on the MD&A on a voluntarily basis (AICPA 2002; PCAOB 2003). The Institute of Chartered Accountants of Scotland recently recommended to the U.K.’s Financial Reporting Council that auditors provide an opinion as to whether the nonfinancial information presented by management is “balanced and reasonable” (Reed 2010).

4 AU 550 provides guidance on procedures for information conveyed with audited financial statements. Section 550.04 states that “the auditor’s responsibility with respect to information in a document does not extend beyond the financial information identified in his report, and the auditor has no obligation to perform any procedures to corroborate other information contained in a document.” The auditor “should read the other information and consider whether such information, or the manner of its presentation, is materially inconsistent with information, or the manner of its presentation, appearing in the financial statements.” If the auditor concludes that a material inconsistency exists with the audited financial statements, several options are available, including: (1) requesting that the client revise the other information, (2) including an explanatory paragraph in the auditor’s report, (3) withholding the use of the report, or (4) withdrawing from the engagement. The particular action is based on the significance of the discrepancy, which involves the auditor’s judgment (AICPA 2010).
models). If that information contains undetected management bias or error, then investment decision quality would be reduced. This specific concern relates to the overall issue of the “expectations gap” in auditing. While prior studies address other aspects of the expectations gap (e.g., investors’ perceptions of auditor reviews of quarterly financial reports [Pany and Smith 1982]), research has not yet investigated investors’ knowledge of which parts of the annual report are audited.

We investigate this issue using survey responses from 152 professional and nonprofessional investors. We investigate and compare professional and nonprofessional investors for two reasons. First, nonprofessional investors are an important, yet understudied, investor group (Frederickson and Miller 2004; Elliott et al. 2008; Cohen et al. 2011). Second, recent research shows that nonprofessional investors make investment decisions using less information than professionals (e.g., Sutton et al. 2010), and approach investment decisions in a less structured manner (e.g., Hunton and McEwen 1997). Several studies also indicate that, relative to professional investors, nonprofessionals show a stronger preference for MD&A information (Hodge and Pronk 2006; Sutton et al. 2010; Arnold et al. 2011b), which is organized and presented by management and is not audited. This preference is likely attributable to less understanding of the relative importance of various financial statement items, and less ability to integrate that information into an overall view of company performance (Hodge and Pronk 2006). We build on these studies by investigating whether, relative to professional investors, nonprofessionals have less appreciation for the potential difference in the reliability of information outside of the financial statements, resulting from the lower level of assurance provided on that information.

Our findings support this concern. Nonprofessional investors are significantly less knowledgeable about variation in levels of assurance than are professionals. In terms of the direction of error in responses, both groups are more likely to believe that information that is actually unaudited is audited, rather than believing that information that is actually audited is unaudited—this pattern is consistent with over-reliance on unaudited information. However, nonprofessionals make significantly more errors, which is especially troubling given their preference for using the unaudited portions of the 10-K. Because our research is part of a larger study investigating information use, we also are able to track whether belief in the audited status of specific information items is associated with the extent to which investors use the items in making investment decisions. We find several relationships between investors’ beliefs that certain categories of information are audited and the extent to which they access those categories. To the extent that unaudited information is less reliable than audited information, nonprofessional investors may be at a disadvantage when they fail to distinguish the difference. Taken together, our results reinforce the existence of an expectations gap with regard to annual report components.

**BACKGROUND**

Concepts Statement No. 8, *Conceptual Framework for Financial Reporting* (Financial Accounting Standards Board [FASB] 2010), defines faithful representation as one of the two primary characteristics that make financial information useful. SFAC No. 8 (FASB 2010) notes that a primary characteristic of information usefulness is verifiability, which is facilitated by the independent auditor’s examination. The auditor’s role is to verify that information is fairly presented according to GAAP. This suggests that if investors believe that an audit has been performed on specific information items, they would be more likely to incorporate that information into their
investment decision-making. To the extent that investors or other information users believe that audit procedures have been applied, when in fact they have not, over-reliance on nonaudited information may occur.

Current U.S. auditing standards require that some information in 10-K annual reports of public companies (i.e., the financial statements and associated footnotes) is subject to full external audit. A financial statement audit report expresses positive assurance (i.e., reasonable assurance that the financial statements are free from material misstatements). In contrast, the auditor’s responsibility with regard to information provided by management along with the audited financial statements is to read that information to ensure that it is consistent with his or her understanding of the client (AICPA 2010). While auditors must read these items for consistency with information directly related to the audited financial statements, there is no requirement to ensure consistency with respect to the other commentary statements made by management, or to ensure that such statements in the discussion and analyses are complete.

According to the PCAOB’s (2011) Concept Release on the Auditor’s Reporting Model, the Board’s Standing Advisory Group and Investor Advisory Group noted that information provided by management outside of the financial statements is potentially valuable to users. However, these groups note that the “quality, completeness, and credibility of such information” (PCAOB/IAG 2011, C-17) could be improved if the auditor provided some level of assurance on it. While these expert advisory groups recognize that there are concerns over the current level of quality of this information, research has not specifically examined whether users differentiate the level of assurance provided on it.

Some studies have addressed the general issue of whether users understand the difference between an audit and procedures that provide lower levels of assurance. Such research predominantly concerns quarterly reports, which, in contrast to annual reports, are subject only to auditor review (e.g., Carmichael 1974; Milburn 1980; Pany and Smith 1982; Pillsbury 1985; Bandyopadhyay and Francis 1995). These studies generally find that users have difficulty differentiating audits from reviews. Also, Ettredge et al. (2001) investigate the quality of financial information on company websites, which is not audited, reviewed, or read for consistency. They find that some corporate websites exclude certain important investor information, include inappropriate information (e.g., “hyping” the company’s stock or failing to update information), and/or present selective disclosures. Consequently, investors who believe that financial information on corporate websites is audited may be overestimating the reliability of that information.

Differentiating between professional and nonprofessional investors is important in considering how users make investment decisions. Prior research shows that these two groups acquire and integrate financial information differently (Maines and McDaniel 2000; Frederickson and Miller 2004; Arnold et al. 2011a). These studies also show that nonprofessional investors are less knowledgeable about the importance of financial statement items and the relationship of those items to each other. Professional investors are more likely to have well-defined models for investment valuation, allowing them to efficiently search for and use information (e.g., Hunton and McEwen 1997). However, nonprofessional investors lack well-defined valuation models; thus, they have more difficulty acquiring and integrating information. The differences between

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5 Other research examines the clarity with which different levels of assurance are communicated to users (e.g., Gay et al. 1998; Roebuck et al. 2000).
professional and nonprofessional investors have economic consequences. Empirical studies show that nonprofessional investors are disadvantaged in the market. For example, Barber et al. (2009) find that stocks with stronger nonprofessional investor interest in a given year perform less well in the following year, an effect termed by Barber in the business press as “perversely forecasting returns” (as quoted in Steverman 2010). Our study is important because variation in knowledge about the relative reliability of information in financial reports and on company websites could be a factor associated with nonprofessionals’ less structured use of information in making investment decisions, and their susceptibility to over-optimism expressed by management.

In sum, prior research suggests that investors who fail to appreciate the difference in reliability of evidence based on the level of auditor involvement, particularly nonprofessional investors, may be at a disadvantage. However, research has not yet examined whether investors sufficiently understand which parts of annual reports are audited. This study assesses investors’ knowledge of which portions of the 10-K are audited, and also assesses investors’ demand for assurance by asking whether those items should be audited. Additionally, because of the frequency with which investors, especially nonprofessional investors, are likely to access information via company websites, we also include questions regarding whether that information is audited. Based on prior research on the expectations gap, we expect that investors will tend to believe that greater assurance is being provided than actually is the case (i.e., the proportion of investors believing that unaudited information is audited will be higher than the proportion of investors believing that audited information is not audited). Further, we expect that nonprofessional investors will be less accurate in their beliefs than professionals.

**METHOD**

**Sample and Data Collection**

We report the results of a survey of 63 professional and 89 nonprofessional investors (152 total investors). We obtained professional investor respondents from financial services firms through personal contacts, and through a private survey company specializing in providing professionals for research. Our criterion for inclusion of professionals was that they be currently employed in a position requiring evaluation of information for investment valuation (e.g., venture capitalist, fund manager, financial analyst). Table 1 shows that professional participants average 8.7 years of professional investing experience, 25.4 percent are CFAs, and 20.6 percent are CPAs. All professional participants completed an undergraduate degree, with 72.6 percent having obtained a graduate degree. Professional participants’ major fields of study are accounting (17.5 percent), finance (19.0 percent), or other business fields (42.9 percent).

We solicited nonprofessional participants with a different survey company experienced in providing nonprofessional investors for research. As we sought a broad cross-section of nonprofessional investors, we placed no restrictions on current professional role for this group.

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6 Data reported for a related larger study include 67 professional and 100 nonprofessional investors. This paper reports lower numbers because some investors in each category did not answer the final set of questions related to perceptions of audited portions of corporate 10-Ks.
Criteria for inclusion of nonprofessional participants were income greater than $75,000, readily available assets of over $50,000 (i.e., currently invested or could be invested), and a current investment portfolio that includes self-purchased corporate securities. Table 1 shows that nonprofessional participants average 12.1 years of experience in analyzing financial reports for making their own investment decisions, 10 percent are CFAs, and 15.7 percent are CPAs. Regarding educational background, 16.9 percent of nonprofessional participants indicated that their maximum level of educational achievement is high school or less, 34.8 percent received an undergraduate degree, and 48.3 percent obtained a graduate degree. Some nonprofessional participants noted that their major fields were accounting (5.6 percent), finance (5.6 percent), or other business fields (18 percent).

This study concerns investors’ beliefs regarding the audited status of 10-K components, and the association of those beliefs with use of those components in investment decisions. To place participants in a realistic context, we first asked them to make investment judgments and decisions using case materials developed by adapting the 10-K of an actual public company, with identifying information changed. The company on which the case is based is a high-tech manufacturing firm with global operations, domiciled in the U.S. Information about the case company is balanced in that some information suggests positive future performance (e.g., a prior increasing trend in income and growth in market share), while other information suggests risks (e.g., competitive threats and patent litigation).

### Table 1

<table>
<thead>
<tr>
<th></th>
<th>Nonprofessional Investors</th>
<th>Professional Investors</th>
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<tbody>
<tr>
<td></td>
<td>(n = 89)</td>
<td>(n = 63)</td>
</tr>
<tr>
<td>Mean years of personal (professional) investing experience</td>
<td>12.1</td>
<td>8.7</td>
</tr>
<tr>
<td>CPA</td>
<td>15.7%</td>
<td>20.6%</td>
</tr>
<tr>
<td>CFA</td>
<td>10.0%</td>
<td>25.4%</td>
</tr>
<tr>
<td>Major Field</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounting</td>
<td>5.6%</td>
<td>17.5%</td>
</tr>
<tr>
<td>Finance</td>
<td>5.6%</td>
<td>19.0%</td>
</tr>
<tr>
<td>Business—other</td>
<td>18.0%</td>
<td>42.9%</td>
</tr>
<tr>
<td>Highest degree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school or less</td>
<td>16.9%</td>
<td></td>
</tr>
<tr>
<td>Undergraduate</td>
<td>34.8%</td>
<td>27.4%</td>
</tr>
<tr>
<td>Graduate</td>
<td>48.3%</td>
<td>72.6%</td>
</tr>
</tbody>
</table>

7 Those who logged on to the website but did not meet the criteria were directed away from the experiment.
8 While some of the nonprofessional investors have professional certifications, those individuals are certainly representative of the population of nonprofessional investors that meet our asset and income criteria. They may currently be retired or no longer working in roles requiring analysis of financial reports, as are our professional investors. We investigated whether CFA or CPA designations affect our reported results for both groups (see footnote 13).
9 Information about the case company is balanced in that some information suggests positive future performance (e.g., a prior increasing trend in income and growth in market share), while other information suggests risks (e.g., competitive threats and patent litigation).
footnotes, auditor and management reports (including the financial statement audit report, as well as Section 404 internal control reports provided by auditor and management), MD&A, business data and risk factors, other required information in the 10-K (including executive compensation, Section 302 certifications, etc.), and financial information from the company’s website. All categories (except for website information) comprise multiple individual items, with 70 individual items in total. When participants clicked on a specific category heading, component items under that heading then became available. Investors’ access to individual category items was tracked by computerized process tracing.

To collect information about investors’ views about auditor involvement, we asked whether the participant believes that each specific category of information contained in the case is audited, and whether it should be audited. Participants could respond “Yes,” “No,” or “Unsure” to each question.

RESULTS

We examine ten information categories: nine components of the 10-K, as well as information presented on the company’s website. Table 2 shows the percentage of nonprofessional and professional investors who indicate that they believe that each information item is audited, not audited, or are uncertain (cells with the correct answer are shaded). We test differences between professional and nonprofessional participants in the percent of correct responses. Results show that more than 90 percent of professional participants are aware that all four financial statements are audited, with 100 percent answering correctly for the balance sheet and income statement. Among nonprofessionals, 83.1 percent correctly responded that the balance sheet is audited, 66.3 percent for the income statement, 78.7 percent for the statement of cash flows, and 68.5 percent for the statement of shareholder’s equity. These statistics indicate that fewer nonprofessionals are aware of the audited status of the financial statements.

Table 2 shows greater variation in responses on financial statement footnotes, which are part of the audited financial statements. Results show that 52.8 (82.5) percent of nonprofessional (professional) participants answered this question correctly. The difference between groups is significant (p < 0.01), indicating greater awareness of the audited status of footnotes among professionals. Regarding the status of internal controls that is disclosed by management in the 10-K (i.e., the results of Section 404 testing), 41.6 (60.3) percent of nonprofessionals (professionals) correctly indicated awareness that this information is audited; responses are significantly different across groups (p < 0.05).

10 The company is an accelerated filer under rules of the Securities and Exchange Commission (SEC) and, thus, required to report on internal control over financial reporting under Section 404. According to PCAOB standards, these controls must be audited by the company’s independent auditor.

11 We chose not to define the meaning of “audited” within the context of the survey. To do so would have involved a recitation of auditing standards, which could have guided participants toward answers that are beyond the scope of their existing knowledge. Rather, we wanted to assess the natural state of their knowledge of the audited status of 10-K components, without providing guidance that they would not have in their real-world decisions.

12 Libby et al. (2006) investigate whether footnote information might be less reliable than financial statement information due to lower audit standards for accuracy in disclosed versus recognized numbers. Consistent with this expectation, they find that audit partners require greater correction of misstatements in recognized amounts than in the equivalent disclosed amounts.
Table 2 also reports percentages of participants indicating awareness that certain items contained in the 10-K are not audited. Among nonprofessionals, 34.8 percent responded that the MD&A is not audited, compared to 49.2 percent of professionals, significantly different at $p < 0.05$. Importantly, even among professional investors, over 30 percent believe that the MD&A is audited; i.e., that this information might have greater reliability than it actually does. Awareness of the unaudited status of Business Data and Risk Factor items is lower, with 15.7 (41.3) percent of nonprofessionals (professionals) aware that this information is unaudited. Thus, while there is greater awareness of the audited status of this category among professionals compared to nonprofessionals ($p < 0.01$), fewer than half of both groups are aware that information in that category is not audited.

Regarding the summary of previously reported quarterly information in the 10-K, 11.2 (34.9) percent of nonprofessionals (professionals) answer correctly that quarterly financial results are unaudited (different at $p < 0.01$). Regarding summary financial information provided on corporate websites, 24.7 percent of nonprofessionals are aware that this information is unaudited, versus 73.0 percent of professionals. The difference between groups on this question is again highly significant ($p < 0.01$). Overall, the mean number of correct answers on the audited status of these items is 7.0 for professionals (ranging from 4 to 9). For nonprofessionals, the mean number of

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Investors’ Beliefs Regarding Whether Specific Information Categories Are Audited</th>
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<tbody>
<tr>
<td></td>
<td>Nonprofessional Investors (n = 89)</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Balance Sheet</td>
<td>83.1</td>
</tr>
<tr>
<td>Income Statement</td>
<td>66.3</td>
</tr>
<tr>
<td>Statement of Cash Flows</td>
<td>78.7</td>
</tr>
<tr>
<td>Statement of Equity</td>
<td>68.5</td>
</tr>
<tr>
<td>Financial Statement Footnotes</td>
<td>52.8</td>
</tr>
<tr>
<td>Management’s Report on Internal Controls</td>
<td>41.6</td>
</tr>
<tr>
<td>MD&amp;A</td>
<td>40.4</td>
</tr>
<tr>
<td>Business Data and Risk Factors</td>
<td>55.1</td>
</tr>
<tr>
<td>Quarterly Summary in the 10-K</td>
<td>64.0</td>
</tr>
<tr>
<td>Financial Information at the Corporate Website</td>
<td>47.2</td>
</tr>
</tbody>
</table>

**, *** Indicate that a higher proportion of professional than nonprofessional investors are correct, as expected, at $p < 0.05$ and 0.01, respectively.

This table reports percentages of participants who believe that the information category is audited. “Categories Audited” shows participant beliefs relative to information categories that are audited, while “Categories Not Audited” show beliefs regarding categories that are not audited. We test differences in beliefs on financial statements using the Mann-Whitney U-test, and the remaining items using the Chi-square test. While the percentage of professional investors with correct responses is also numerically higher than nonprofessionals for the financial statements (top four lines), statistical comparisons are not valid due to the very high percentages of professional investors correctly answering those questions.
correct responses is 4.7 (ranging from 0 to 8). The overall number of correct answers is significantly lower for nonprofessionals ($p < 0.01$).

In sum, results in Table 2 show that professionals are more aware of which categories are audited than are nonprofessionals. The data in Table 2 also show that, as expected, errors attributing greater reliability to information (i.e., responses indicating a belief that unaudited information is audited) are more frequent than errors attributing lower reliability to information (responses indicating a belief that audited information is unaudited). These results, thus, suggest over-reliance on some information provided by companies, consistent with the expectations gap. While this tendency is greater for nonprofessional investors, we also observe it to some degree for financial professionals.

We next investigate whether investors’ views about whether specific information categories are/are not audited are associated with their use of those categories. We anticipate that investors believing that information is (is not) audited will use that information more (less) extensively. We investigate this issue by focusing on three key information categories. First, given that we find that some nonprofessionals do not believe that financial statements are audited, we examine whether those investors use financial statements less than those who indicate that they are audited. Second, because prior research (Sutton et al. 2010) implies that financial statement footnotes and the MD&A are used differently by professional and nonprofessional investors, we also examine the linkage of information use for those categories. We measure information use by the number of times participants clicked on individual component items in these categories while making investment decisions for the case company.

Table 3 provides comparisons, for nonprofessional and professional participants, of the number of times these categories of information were accessed by individuals who believe that the category is audited, versus those who responded “no” or “unsure.” First, nonprofessional investors who believe that all financial statements are audited average 3.06 visits to that information, versus 2.24 visits for those who believe that the information is not audited (significant at $p < 0.10$). Among professional investors, only six believe that at least one statement is not audited. Their average visits to financial statements (5.33) did not differ from professionals who correctly answered that all financial statements are audited (5.52). Next, the mean number of footnote items accessed by professionals who believe that the footnotes are audited is 4.43, versus 0.78 for those who do not

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13 We also investigated whether CFA or CPA qualifications, years of investing experience, level of education, and major field affect knowledge of the audited status of 10-K information categories. For nonprofessional investors, we find very few associations with these measures, with two exceptions. Nonprofessionals with accounting majors (only five individuals) are more likely to correctly report the unaudited status of several categories, including the MD&A. Also, nonprofessionals with fewer years of experience are more likely to realize that the financial statements and related footnotes are audited. For professional investors, accounting majors are more likely to correctly respond to several categories, including the MD&A. CPAs are more likely to correctly report that financial statement footnotes are audited ($p < 0.10$), and that Business Data and Risk Factors and corporate website information are not audited ($p < 0.01$ and $p < 0.10$, respectively). In contrast, those with CFAs are more likely to believe that the MD&A and quarterly information are audited, when in fact they are not ($p < 0.10$ and $p < 0.01$, respectively). More years of experience provide no greater likelihood of accuracy for professional investors.

14 The Financial Statement Footnote category contains 20 components (e.g., Summary of Significant Accounting Policies, Acquisitions, Supplemental Cash Flow Information). There also is a footnote on Quarterly Results of Operations; however, because quarterly results are unaudited, we consider that information item separately. The MD&A category contains ten components (e.g., Overview, Results of Operations, Liquidity and Capital Resources, Off Balance Sheet Items, Impact of Recently Issued Standards).
or are uncertain (significant at p < 0.01). Nonprofessionals’ use of footnotes is lower overall than that of professionals. The mean number of footnote items accessed by nonprofessionals does not differ between those who believe that the footnotes are audited (mean = 1.89) and those who do not or are uncertain (mean = 1.48).

Table 3 also shows that nonprofessionals who believe that the MD&A is audited use more MD&A information (mean = 3.47) than those who do not or are uncertain (mean = 1.98, p < 0.05). Use of MD&A information by professional investors is again higher overall, with means of 5.44 items accessed by those who believe that the information is audited, versus 7.10 for those who do not or are uncertain (this difference is not significant). Taken together, these comparisons generally show a linkage between the extent of information used by investors and their belief about whether that information is audited, although patterns differ for professional and nonprofessional investors.

### Supplemental Analysis of the Demand for Auditing

To provide insights about investors’ preferences with regard to auditing, we asked participants whether they believe that the information categories should be (as opposed to already are) audited. Within each investor group, Column (1) of Table 4 represents the percentage of participants indicating that the categories should be audited, Column (2) indicates the percentage believing that the category is currently audited (carried forward from Table 2), and Column (3) is the difference between the two, with positive numbers suggesting unmet demand for greater assurance. Results in Table 4 show that the percentage of participants responding that categories should be audited is high; very few categories fall below 50 percent for either professional or nonprofessional participants.15

To assess whether there is an unmet demand for assurance, we focus on information that currently is not audited (the last four categories in Table 4). These data show that for nonprofessionals, the category with the greatest difference between “should be” and “is” audited responses is corporate website information, at 22.8 percent (indicating an unmet demand for

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15 We also investigated whether use of information in the three categories of Table 3 (financial statements, footnotes, and the MD&A) differs by whether investors think that the information should or should not be audited; we find no differences.
CONCLUSIONS

This study provides three main insights regarding investors’ beliefs about whether certain categories of information used in investment decisions are audited. First, we find that nonprofessionals are less knowledgeable than professionals in this regard. While this conclusion is not surprising, prior research has not documented this effect. The business press often notes that nonprofessional investors trade “behind the market” (i.e., miss opportunities to buy on the upside, and hold stocks too long on the downside [e.g., Steverman 2010]). Nonprofessionals’ use of less relevant information in making investment decisions (as documented by prior research), and failure to appreciate distinctions in information reliability (as we find here), may partially explain this tendency.

Second, we find that more investors assume that unaudited information is audited, rather than the reverse. This finding is consistent with prior research in other contexts on the expectations gap with respect to auditor activities. Even among professional investors in this study, a considerable percentage of respondents either assume that unaudited information is audited, or are unsure of auditing). Among professionals, all differences between “should be” and “is” audited responses are higher than the corresponding figures for nonprofessionals, suggesting greater unmet demand in that investor group. The greatest difference for professionals is, again, corporate website information, with an excess of “should be” over “is” of 34.8 percent.

TABLE 4

<table>
<thead>
<tr>
<th>Categories</th>
<th>Audited</th>
<th>Not Audited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance Sheet</td>
<td>87.8</td>
<td>83.1</td>
</tr>
<tr>
<td>Income Statement</td>
<td>76.8</td>
<td>66.3</td>
</tr>
<tr>
<td>Statement of Cash Flows</td>
<td>84.1</td>
<td>78.7</td>
</tr>
<tr>
<td>Statement of Equity</td>
<td>78.0</td>
<td>68.5</td>
</tr>
<tr>
<td>Financial Statement Footnotes</td>
<td>69.1</td>
<td>52.8</td>
</tr>
<tr>
<td>Report on Internal Controls</td>
<td>59.8</td>
<td>41.6</td>
</tr>
<tr>
<td>MD&amp;A</td>
<td>48.7</td>
<td>40.4</td>
</tr>
<tr>
<td>Business Data and Risk Factors</td>
<td>61.7</td>
<td>55.1</td>
</tr>
<tr>
<td>Quarterly Summary in the 10-K</td>
<td>68.3</td>
<td>64.0</td>
</tr>
<tr>
<td>Financial Information at the Corporate Website</td>
<td>70.0</td>
<td>47.2</td>
</tr>
</tbody>
</table>

*, **, *** Indicate higher percentages of “should be audited” relative to “is audited” responses at p < 0.10, 0.05, and 0.01, respectively, suggesting unmet demand for greater assurance.

This table compares the percentage of investors who believe that an information category should be audited, relative to those who believe that the information is audited. “Categories Audited” shows participant beliefs relative to information categories that are audited, while “Categories Not Audited” shows participant beliefs relative to information categories that are not audited.
the correct answer. We also provide some evidence that investors’ beliefs affect their use of information provided outside of the financial statements. In particular, nonprofessional investors, who generally tend to favor using the MD&A over footnote information (Sutton et al. 2010; Arnold et al. 2011b), are more likely to use MD&A information if they think that it is audited. Additional research is needed on the potential costs to investors of greater use of the MD&A relative to footnotes. For instance, studies could compare the content or tone of these sources of information for topics common to both (e.g., significant accounting policies, commitments, subsequent events).

Third, we find evidence of unmet demand for audits of information that is currently unaudited. This is especially the case among professional investors, who have more accurate perceptions of the differences in the audited status of 10-K components.

The generalizability of our findings is limited by the nature of our sample. Specifically, our nonprofessional participants all have personal investment experience, with certain levels of income and assets. We applied these filters in order to increase the likelihood that nonprofessional participants have the capability to use and interest in using financial reports in making investment decisions, but we recognize that individuals with low levels of resources are not represented. Despite this limitation, our findings should be useful to the PCAOB as it considers possible changes to the auditor’s reporting model. Our understanding is that the Board is first focused on changes to the wording of the audit opinion, rather than changes in the auditor’s responsibility. Adding information to the auditor’s report is essentially a form of investor education, aimed at increasing understanding of the audit procedures performed (or not performed) and the limitations thereof. With regard to changing the wording of the audit report, our results imply that it would be useful to clarify which components of the 10-K actually are audited and, for unaudited components, what procedures were performed. In terms of supporting future changes to auditor responsibilities, our research design is also limited in that investors did not specifically assess the relative costs of increased assurance. Further research should investigate whether responses might differ when additional costs of greater assurance are considered.

While this study sheds some light on a particular aspect of the expectations gap that has not previously been examined, several key issues arise that we do not address. Further research should examine how auditors perform the currently prescribed procedure of “reading for consistency” the information presented outside of the financial statements. To what extent does this procedure make a difference in information presented? For instance, is the quality of information resulting from this procedure essentially the same in substance as unaudited information, or more like that of information subjected to auditor review? In addition, research has not addressed what specific wording, if included in the auditor’s report, would best convey to users an understanding of the level of assurance currently provided, and how investors perceive that level of assurance.

REFERENCES


