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Does Auditor Explanatory Language in Unqualified Audit Reports Indicate Increased Financial Misstatement Risk?

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ABSTRACT: According to auditing standards, explanatory language added at the auditor's discretion to unqualified audit reports should not indicate increased financial misstatement risk. However, an auditor is unlikely to add language that would strain the auditor-client relationship absent concerns about the client's financial statements. Using a sample of 30,825 financial statements issued with unqualified audit opinions during 2000–2009, we find that financial statements with audit reports containing explanatory language are significantly more likely to be subsequently restated than financial statements without such language. We find that this positive association is driven by language that references the division of responsibility for performance of the audit, adoption of new accounting principles, and previous restatements. In addition, we find that (1) "emphasis of matter" language that discusses mergers, related-party transactions, and management's use of estimates predicts restatements related to these matters, and that (2) the financial statement accounts noted in the explanatory language typically correspond to the accounts subsequently restated. In sum, our results suggest that present-day audit reports communicate some information about financial reporting quality.

Keywords: *explanatory language; audit opinions; financial misstatements*.

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I. INTRODUCTION

Investor advocates believe the present-day auditor's report is boilerplate and uninformative (Rapoport 2013). However, auditors often follow professional standards and add explanatory language to standard audit report language to emphasize matters that may be informative to financial statement users. Additional explanatory language typically refers to the adoption of new accounting standards, changes in accounting methods, restatement of prior financial statements, reliance on other auditors to complete the audit engagement, or any other matters the auditor wishes to "emphasize." In this study, we examine the information content of the present-day auditor's report by investigating whether auditor explanatory language included in unqualified audit reports indicates increased financial misstatement risk.

While explanatory language could provide investors with greater insight into the financial statements, it should not affect the auditor's unqualified opinion on the financial statements (Public Company Accounting Oversight Board [PCAOB] 2003, AU 508). For example, AU Section 508 states that auditor explanatory language should not change the overall conclusion that the financial statements are fairly stated, but rather highlight information management has already disclosed. Similarly, AU Section 543, ¶ 1 (PCAOB 2004), specifically instructs auditors not to state or imply that an unqualified report with explanatory language is "inferior in professional standing" to a report without such language. Thus, it is not surprising that prior research has been largely unable to document an association between audit opinion modifications (including explanatory language) and financial reporting quality (e.g., Bradshaw, Richardson, and Sloan 2001; Butler, Leone, and Willenborg 2004).

However, the auditor's inclusion of explanatory language in an unqualified report could indicate heightened risk of financial statement misstatement due to constraints in the auditor's reporting environment. In particular, because the Securities and Exchange Commission (SEC) precludes publicly traded companies from releasing financial statements with any audit opinion except unqualified, adding explanatory language is the auditor's only practical mechanism to communicate risk, and often is the only distinguishing feature among audit reports. In circumstances where there is uncertainty, but no known misstatement, the auditor may wish to include explanatory language to attract the attention of financial statement users. However, auditors also have incentives to maintain amiable relationships with their clients, who are unlikely to view explanatory language favorably. Therefore, to the extent that explanatory language strains the auditor-client relationship, it is likely to be indicative of misstatement risk.

Prior studies do not document an association between explanatory language and poor financial reporting quality. However, these studies examine audit opinions prior to the Sarbanes-Oxley Act (SOX), which significantly changed the legal and regulatory audit environment.[1] In addition, most of these studies use less-refined measures of auditor explanatory language based on Compustat opinion classifications, as discussed in Butler et al. (2004). Further, these studies examine discretionary accruals, which are primarily intended to proxy for earnings quality and within-GAAP earnings management and are, therefore, only indirectly influenced by the auditor (DeFond and Zhang 2014). For these reasons, the absence of findings in the prior literature may be due, in part, to the time period and choice of variable measurement rather than a lack of association between explanatory language and financial reporting quality.

In our study, we use a text-parsing procedure to identify explanatory language in unqualified reports issued for SEC registrants from 2000–2009. We first examine whether financial statements

[1] Butler et al. (2004) document an explanatory language inclusion rate of less than 25 percent. We document an explanatory language inclusion rate of greater than 60 percent. The increased explanatory language inclusion rate suggests that auditors' use of explanatory language has fundamentally shifted post-2000.

accompanied by unqualified audit reports with explanatory language are more likely to be subsequently restated than financial statements accompanied by unqualified audit reports without explanatory language. We then investigate whether the likelihood of subsequent restatement differs based on the type of explanatory language. We classify explanatory language, when present, according to Auditing Standard AU Section 508 (AU 508), *Reports on Audited Financial Statements,* and group the AU 508 explanatory language into four categories: (1) *Inconsistency* with previously issued financial statements, including adoption of new accounting principles, changes in accounting methods, and references to previous restatements, (2) "*Emphasis of matters*" in financial reports, such as significant transactions, estimates, or litigation, (3) *Audit-related* information, including division of auditor responsibility, scope limitations, and other audit-related disclosures, and (4) *Other* language that references supplemental information, going concern, and/or financial distress. Finally, because investors have expressed a desire for a "roadmap" to the most important areas of the financial statements, we conduct an additional analysis to investigate whether the financial statement accounts referenced in auditor explanatory language are the financial statement accounts subsequently restated.

We find that financial statements accompanied by unqualified audit reports *with* explanatory language are more likely to be subsequently restated than financial statements accompanied by unqualified audit reports *without* explanatory language, but that the association is limited to certain types of explanatory language. Specifically, we find that a subsequent restatement is more likely if the auditor emphasizes *inconsistency* with previously issued financial statements by referencing changes in accounting principles and previous restatements (after controlling for the company's recent restatement history) in the accompanying audit report. However, we find that financial statements whose audit reports include other types of *inconsistencies,* such as references to fresh-start accounting or use of a non-GAAP accounting basis, are less likely to be subsequently restated. We find that the likelihood of subsequent restatement is higher for financial statements with audit reports that include "*emphasis of matter*" language referencing mergers, related-party transactions, and management's use of estimates, but only when the sample is limited to restatements in the same accounts as referenced in the explanatory language. We find that subsequent restatement is more likely if the auditor divides responsibility for the opinion, but not for any other type of *audit-related* explanatory language. Finally, we find no association between subsequent restatements and explanatory language that references supplemental information, going concern, and/or financial distress.

With respect to our "roadmap" analysis, we find that the financial statement accounts discussed in the explanatory language correspond to the financial statement accounts subsequently restated. For example, we find that explanatory language that references Statements of Financial Accounting Standards (SFAS) 142/144, 143, 158, and 133 is associated with a higher likelihood of subsequent restatement of property, plant, and equipment or intangibles, asset retirement obligations, pension or other post-retirement benefits, and derivatives, respectively. We also find that explanatory language discussing revenue is associated with a higher likelihood that the client will later restate for revenue recognition reasons. These findings are robust to the exclusion of companies not affected by the underlying financial statement matter discussed in explanatory language and after controlling for the materiality of the matter reported in the financial statements. Overall, similar to prior studies examining the information content of going concern opinions for bankruptcy prediction, our study indicates that several, but not all, types of explanatory language are informative for predicting a restatement of the current-year financial statements.

Our findings have implications for investors, standard-setters, and academics. Gray, Turner, Coram, and Mock (2011) find that investors do not attend to explanatory language and limit their attention to whether the audit opinion is unqualified and the auditor's identity. Our findings suggest that explanatory language modifications, although less apparent than opinion qualifications, are informative of misstatement risk. Because we provide evidence that auditors convey some

risk-related information in the present-day audit report, our findings should also be useful to standard-setters who are currently considering revising the audit reporting model to make future audit reports more informative.[2] Finally, our results contribute to the academic literature by showing that auditors communicate risk beyond that previously documented. In particular, while prior research finds that auditors signal bankruptcy through going concern-related explanatory language and are more likely to issue opinion qualifications when companies release financial statements with high abnormal accruals, we show that non-going concern explanatory language in unqualified audit reports can also indicate heightened risk.

Section II next develops the hypotheses and discusses prior research. Section III describes the research design and sample selection process. Section IV presents the results, while Section V concludes and discusses limitations and avenues for future research.

II. BACKGROUND INFORMATION AND HYPOTHESIS DEVELOPMENT

After significant stakeholder outreach through public consultation and roundtables, standard-setters are considering expanding the audit reporting model by mandating the inclusion of language that discusses "critical" or "key" audit matters (Cohn 2013; Tysiac 2013). The PCAOB and the International Auditing and Assurance Standards Board's (IAASB) proposed changes are intended to address investor advocates' concerns that the current audit reporting model provides boilerplate opinions with limited relevance and informational value. Similarly, the academic literature generally concludes that the auditor's report "has symbolic value (i.e., it represents the auditor's work), but . . . provides little communicative value" (Church, Davis, and McCracken 2008, 70). In comments to the IAASB, the Auditing Standards Committee of the Auditing Section of the American Accounting Association states "that the auditor's report in its current form is not particularly informative" because the majority of audit opinions are unqualified and only going concern audit opinions have been shown to have an impact on company valuation and cost of capital (Brazel et al. 2011, C2).

However, while nearly all audit opinions that accompany public company financial statements are unqualified, current auditing standards *do* enable auditors to provide audit reports that are *not entirely* boilerplate. Effective for reports issued on or after January 1, 1989, AU Section 508 provides auditors with guidance on seven circumstances that may require explanatory language (EL) and discretion to add EL to emphasize *any* financial statement matters the auditor wishes to emphasize. First, if the audit report is partially based on the work of another auditor, the primary auditor can disclose division of responsibility. Second, auditors can highlight unusual client circumstances that justify a departure from generally accepted accounting principles in the client's financial statements. Third, auditors should add EL if substantial doubt exists as to the client's ability to continue as a going concern unless the auditor's substantial doubt is mitigated by management's plans to address the going concern matter. Fourth, an auditor can emphasize a change in accounting principles or the client's application of accounting principles. Fifth, an auditor can note other circumstances that affect the comparability of the financial statements across reported time periods, such as the existence of a restatement or change in audit opinion from one period to the next.[3] Sixth, auditors should provide EL if the client has omitted information required under Regulation S-K or if such information has not been reviewed. Seventh, EL can notify investors that other standard-setters have required the inclusion of additional unaudited information with the basic

[2] We acknowledge that investors' demand for more information about an audited entity extends beyond misstatement risk. However, we believe our findings are informative because misstatement risk is a primary concern of investors.

[3] Effective November 15, 2008, Auditing Standard (AS) No. 6 states, "The correction of a material misstatement in previously issued financial statements should be recognized in the auditor's report on the audited financial statements through the addition of an explanatory paragraph" (PCAOB 2008).

financial statements or that unaudited information is inconsistent with the financial statements (AU Section 550). Finally, in addition to the seven circumstances that may require explanatory language, auditors have discretion to add an "emphasis of matter" paragraph to draw users' attention to *any* matter disclosed in the financial statements.[4]

While current professional standards direct auditors to add explanatory language in certain circumstances, the standards also indicate that EL should not be related to misstatement risk. For example, AU Section 508 states that auditor EL should not change the overall conclusion that the financial statements are fairly stated, and AU Section 543 specifically instructs auditors *not* to state or imply that an unqualified report with EL is "inferior in professional standing" to a report without such language (PCAOB 2004, ¶ 1). Further, standards state that management should be the primary source of information, and any additional auditor language should simply highlight information management already discloses (PCAOB 2003). As Butler et al. (2004, 143) note, "[A]uditors do not have the latitude to comment or elaborate on the overall quality of earnings as long as the financial statements materially conform to GAAP." Thus, auditor EL could be additional "boilerplate" language that is only added because AU 508 recommends including EL for the circumstances encountered. In these cases, EL is unlikely related to misstatement risk.

Consistent with the professional standards, the majority of prior research also suggests that EL is unlikely to signal heightened misstatement risk. For example, Bradshaw et al. (2001) are unable to provide evidence that, from 1988 to 1998, auditors modify their opinions, such as by issuing adverse, qualified, or unqualified opinions with EL, on a timely basis to alert investors to the increased incidence of GAAP violations associated with accruals. Rather, they find that opinion modifications are more likely once the subsequent earnings reversals and allegations of GAAP violations appear to materialize. While Francis and Krishnan (1999) document that prior to 1988, audit reports modified to discuss asset realization and going concern matters were more likely for high-accrual companies, Butler et al. (2004) attribute these relationships to financial distress rather than earnings management.[5]

However, EL could signal auditors' private information about financial misstatement risk. The SEC prohibits public companies from issuing financial statements with any audit opinion except unqualified, leaving EL as the only distinguishing feature among public company audit reports. As a result, clients are likely to view departures from the standard report negatively. Because the auditor's report is negotiated between management and the auditor (Antle and Nalebuff 1991) and auditors have incentives to maintain amiable relationships with their clients, auditors are unlikely to insist upon EL that would strain the auditor-client relationship without significant concerns about the financial statements. Consistent with these arguments, Lennox (2005) finds that auditors are less likely to issue audit reports containing "unfavorable" EL when client management has a prior affiliation with the audit firm. Further, while an auditor should issue a modified opinion in the presence of a known misstatement, auditors are often faced with uncertainty, but no known

[4] Some types of explanatory language outlined by AU 508 occur infrequently among public companies. Only four opinions in the sample note that required information under Regulation S-K has been omitted, six opinions note that the predecessor auditor was unable or unwilling to reissue their audit report, and no opinions state that the management discussion and analysis is materially inconsistent with the financial statements. Due to the very small number of these observations, we do not develop hypotheses or perform analysis on these EL categories.

[5] Prior to Statement of Auditing Standards (SAS) No. 58, auditors reported material uncertainties (such as asset realization matters) as "subject-to" opinion qualifications and inconsistencies in the comparability of financial statements with prior periods as "except-for" opinion qualifications. Standard-setters eliminated "subject-to" qualifications in 1988 because they were redundant, "confusing to users," and management footnote disclosures should be the *primary* source of uncertainty disclosure (Abdel-khalik, Graul, and Newton 1986; Davis 2004). Similarly, SAS No. 58 changed the reporting of inconsistencies from "except-for" qualifications to EL in unqualified audit reports.

misstatement. Therefore, adding EL might be the only practical mechanism to communicate risk-related information to financial statement users.

Taken together, EL included in unqualified audit reports could be related to financial misstatement risk when auditors negotiate for the inclusion of EL related to financial statement concerns, or could be unrelated to financial misstatement risk if the EL simply represents boilerplate wording that is recommended by the standards. For these reasons, and because prior research does *not* document an association between EL and financial reporting quality, we state H1 in the null form, as follows:

H1: Financial statements receiving unqualified audit reports *with* explanatory language are equally likely to be subsequently restated as financial statements receiving unqualified audit reports *without* explanatory language.

Because EL can relate to attributes of the client, the client's accounting, and/or the audit engagement, any association between EL and misstatement risk may vary based on the type of EL. To examine the EL types and make the analysis tractable, we group individual EL types as described in AU 508 based on the subject matter and potential for disclosure about financial misstatement risk into four main categories: (1) *Inconsistency* with previously issued financial statements, (2) "*Emphasis of matters*" in the financial reports, (3) *Audit-related* information, such as division of auditor responsibility or scope limitations, and (4) *Other* EL that references supplemental information, going concern, and/or financial distress. Our second set of hypotheses is based on these four main categories.

We first examine EL that emphasizes *inconsistency* with the previously issued financial statements, namely adoption of new accounting standards, auditors' emphasis of prior restatements,[6] and other consistency concerns.[7] Because these types of EL directly relate to changes in the client's financial statements relative to prior periods, *inconsistency*-related EL could indicate heightened misstatement risk. In addition, prior to 1988, when SAS No. 58 became effective, auditors reported inconsistencies with the previously issued financial statements as "except-for" qualified opinions. Thus, while EL does not constitute a change to the nature of the unqualified opinion according to the present-day standards, standard-setters have historically held the opposite view for *inconsistency*-related EL. Documenting an association between present-day *inconsistency*-related EL and misstatement risk would indicate that eliminating the qualified "except-for" opinion changed the label, but not the underlying information content inherent in consistency qualifications.

Although *inconsistency*-related EL could be "boilerplate" and simply included because the circumstances of the engagement met the requirements outlined in professional guidance for EL inclusion, early studies, such as Morris and Nichols (1988) and Chewning, Pany, and Wheeler (1989), document that *inconsistency* qualifications involved significant auditor judgment and that decisions to issue these qualifications were discretionary rather than based on strict quantitative materiality thresholds. Further, while the association is not as statistically or economically significant as the going concern and discretionary accruals relation, Butler et al. (2004) document an association between *inconsistency* modifications and discretionary accruals. In sum, we expect

[6] Companies are required to disclose restatements when a material misstatement becomes known. However, auditors reference restatements in the next audit report in only 24 percent of restatement cases (11 percent during the post-AS No. 6 period).

[7] The other consistency concerns we identified in our sample of audit reports reference financial statements prepared under a different basis of accounting, fresh-start accounting, and current-period accounting adjustments or revisions that did not result in a prior-period restatement.

that audit reports with *inconsistency* EL are associated with increased financial misstatement risk, and present our next hypothesis in the alternative form:

H2a: Financial statements receiving unqualified audit reports *with* explanatory language that emphasizes inconsistency with prior financial statements are more likely to be subsequently restated than financial statements receiving unqualified audit reports *without* explanatory language.

Second, we examine "*emphasis of matter*" EL separately because, in contrast to other types of EL that are prescribed by professional standards under specific circumstances, "*emphasis of matter*" EL "may be added solely at the auditor's discretion" (AU 508.19). Thus, "*emphasis of matter*" EL is likely added only for significant auditor concerns and could potentially be more informative of misstatement risk than other types of EL. Although "*emphasis of matter*" EL does not provide new information beyond management's disclosures in the financial statements, it could be informative because it often relates to impending or ongoing litigation, significant or related-party transactions, mergers or acquisitions, and/or management's estimates. Regulators have attended to these accounting matters as areas of concern (PCAOB 2009, 2010a, 2010b), and standard-setters have recently proposed standards to assist practitioners with providing assurance on related-party transactions and significant unusual transactions (PCAOB 2012). Further, some matters that are reported under current standards as "*emphasis of matter*" EL, such as legal issues and issues surrounding the valuation and realization of assets, were reported as "subject-to" qualified opinions in the pre-SAS No. 58 period (Davis 2004). Thus, similar to *inconsistency*-related EL, the historical classification of some types of "*emphasis of matter*" EL as opinion qualifications suggests a positive association between "*emphasis of matter*" EL and restatements. For these reasons, we expect that audit reports that include "*emphasis of matter*" EL are associated with increased financial misstatement risk.[8] We present our hypothesis in the alternative form:

H2b: Financial statements receiving unqualified audit reports *with* "emphasis of matter" explanatory language are more likely to be subsequently restated than financial statements receiving unqualified audit reports *without* explanatory language.

Third, we examine *audit-related* EL, which is distinct from the other categories because the auditor is the original source of information regarding these matters, whereas management should be the original source of information for other types of EL. *Audit-related* EL consists primarily of division of responsibility, where the principal auditor (the firm signing the opinion) states that another auditor (a component auditor) performed a portion of the audit engagement, and scope limitations in which the auditor notes that the firm was not engaged to audit certain aspects of the client's business, such as subsidiaries and/or internal controls.

It is not clear whether divided responsibility opinions indicate increased misstatement risk. Principal auditors may divide responsibility due to discomfort with quality of the component auditor's work, suggesting a positive association between division of responsibility and misstatement risk. PCAOB inspection findings conclude that some principal auditors have inadequately reviewed the work of component auditors (PCAOB 2010c), indicating that audit quality may be lower among at least some audits that involve multiple auditors. However, the PCAOB (2010a, 2) also notes that auditors may divide responsibility "when it is impractical for the principal auditor to review the other auditor's work" or when the financial statements audited by the component auditor are material to the consolidated entity "regardless of other considerations." Further, because professional standards

[8] In general, "*emphasis of matter*" explanatory language occurs infrequently and tends to reference matters that are non-representative of the population of public companies. Thus, while some types of "*emphasis of matter*" paragraphs are likely useful to identifying heightened misstatement risk, the absence of "*emphasis of matter*" paragraphs is not likely to be informative in the broader cross-section of firms.

require the principal auditor to take full responsibility for the audit, adding division of responsibility EL should not provide an auditor with legal liability protection in the event of an audit failure. Thus, divided responsibility may not imply increased misstatement risk.

Because professional standards require auditors to qualify or disclaim an audit opinion when they encounter material scope limitations, scope limitation references in unqualified opinions should not be material or relate to misstatement risk. Further, many scope limitations disclosed during our sample time period are *not* traditional scope limitations in which the auditor was unable to obtain appropriate and sufficient evidence for the audit. Rather, nearly all scope limitations in our sample discuss aspects of the client that the auditor was not engaged to audit, such as internal control over financial reporting (ICFR) among companies exempt from Section 404 of the Sarbanes-Oxley Act.[9] However, scope limitations could indicate increased misstatement risk if the auditor believes that performing procedures beyond the scope of the engagement are important for reducing uncertainty. Thus, it is unclear whether scope limitations are associated with increased misstatement risk.

Because *audit-related* EL may or may not reflect misstatement risk, we present our next hypothesis in the null form:

H2c: Financial statements receiving unqualified audit reports *with* explanatory language that emphasizes division of responsibility or scope limitations are equally likely to be subsequently restated as financial statements receiving unqualified audit reports *without* explanatory language.

Finally, we group *other* EL that references supplemental information, going concern, and financial distress together, because these types of EL are unlikely to be related to misstatement risk. First, supplemental information typically relates to additional schedules appended to the annual report that are unlikely to require restatement. Second, going concern and financial distress are more representative of business risk (Hopwood, McKeown, and Mutchler 1989) than financial misstatement risk.[10] Thus, we present our final hypothesis for *other* EL in the null form:

H2d: Financial statements receiving unqualified audit reports *with* explanatory language that references supplemental information, going concern, and financial distress are equally likely to be subsequently restated as financial statements receiving unqualified audit reports *without* explanatory language.

III. RESEARCH DESIGN

Sample Selection

We construct our sample from the intersection of the Audit Analytics (AA), Compustat, and CRSP databases for the period 2000–2009. We require companies to have data for at least two years following the audit report date to allow sufficient time for the company or its auditor to identify issues that would require a restatement.[11] This requirement eliminates 4,990 company-year

[9] We include year indicators and control for the existence and type of ICFR opinion in our analyses to isolate the association between ICFR-related scope limitations and misstatement risk.

[10] As discussed in Section III, our research design requires firms to be publicly traded for at least two years past the audit opinion date. This choice excludes many going concern opinions issued to firms that ultimately fail and provides an additional rationale for expecting no association between going concern EL and misstatement risk.

[11] Of the 12,019 restatements in Audit Analytics with disclosure dates between 2000 through June 2012, 97 percent of restatements are disclosed within two years following the end of the last misstated period. Files, Sharp, and Thompson (2014) also use a two-year cut-off period to identify future restatements. Therefore, we believe our two-year requirement provides sufficient time to determine whether the financial statements were materially misstated. Our inferences are similar using longer cut-off periods.

TABLE 1

Sample Selection

Company-year observations with requisite data in Audit Analytics, Compustat, and CRSP for 2000 through 2009	37,302
Less observations for which two years' subsequent financial statement data are not available	(4,990)
Less observations missing audit fee data	(1,466)
Less observations in industries without any restatements	(21)
Final Sample	30,825

observations missing Compustat data. We also exclude 1,466 company-year observations missing Audit Analytics audit fee data. Finally, we exclude 21 company-year observations in industries with no restatements in the two-digit SIC code because the industry indicator variable for these companies is a perfect predictor of the dependent variable. The final sample size for the primary analysis is 30,825 company-year observations, as summarized in Table 1.

Multivariate Model

We use text-parsing software to identify whether the unqualified audit reports in our sample contain EL and categorize the EL, based on the guidance provided in AU Section 508. We validate the accuracy of the coding using manual validation tests as described in Appendix A. Appendix B contains examples of auditor EL by type.[12] We test H1 and H2 using a logistic regression model where *RESTATEMENT* is the dependent variable and EL is the independent variable of interest, as follows:

$$RESTATEMENT = \alpha + EL + Controls + \varepsilon. \quad (1)$$

We measure financial misstatement risk as the subsequent restatement of the current-year financial statements, indicating that the financial statements were materially misstated at the time the auditor issued the unqualified audit report. We set an indicator variable equal to 1 if the company subsequently restated the current-year financial statements as reported in AA as of June 2012, and equal to 0 otherwise (*RESTATEMENT*).[13] We define *EL* in several different ways to test our hypotheses. To test H1, which posits that financial statements with EL are equally likely to be restated as financial statements without EL, we define *EL* as *ANY_EL,* an indicator variable equal to 1 if the audit report contains any explanatory language, and equal to 0 otherwise. To test H2a–H2d, we redefine *EL* using the respective categories of EL: *inconsistency* with previously issued financial statements, "*emphasis of matter*" in financial reports, *audit-related* information, and *other*. We discuss the types of EL included in each category below.

To test H2a, we investigate whether *inconsistency*-related EL that discusses non-comparability with previously issued financial statements is associated with subsequent restatements, using three indicator variables for different consistency issues. *ACCTGPRIN* is an indicator variable equal to 1 if the audit report contains EL that identifies adoption of a new accounting standard or a change in

[12] Some audit reports in our sample include multiple EL references. However, no type of EL included in any of our audit reports falls under more than one category, because the matters underlying each of these four categories—*inconsistency, emphasis of matter, audit-related,* and *other*—are unique to that category.

[13] We exclude quarterly restatements because the auditor does not issue an audit report for interim periods. For example, if a December 31 year-end firm announces a restatement for the period beginning January 1, 2007 and ending June 30, 2008, we treat only fiscal year 2007 as restated.

accounting methods. *EMPHASIZE_RESTATE* is an indicator variable equal to 1 if the audit report includes EL stating that comparative period financial statement information has been restated. *OTHER_CONSISTENCY* is an indicator variable equal to 1 if the audit report contains EL for other consistency matters that occur infrequently in our sample; specifically, the application of fresh-start accounting, presentation on a basis of accounting other than U.S. GAAP, and amendment or adjustment of the financial statements other than a restatement.[14]

To test H2b, we investigate whether "*emphasis of matter*" EL is associated with subsequent restatements. In our sample, "emphasis of matter" EL primarily relates to mergers or acquisitions, impending or ongoing litigation, significant transactions with related parties, management's use of estimates in preparation of the financial statements, or the translation of financial statement amounts from a foreign currency to U.S. dollars. *EMPHASIS_OF_MATTER* is an indicator variable equal to 1 if the audit report includes "emphasis of matter" EL, and equal to 0 otherwise.

Third, we examine *audit-related* EL to test H2c. *DIVISION* is an indicator variable equal to 1 if the auditor divided responsibility for the current-year audit report, and equal to 0 otherwise. *SCOPE_REVIEW* is an indicator variable equal to 1 if the audit report limits the scope of the auditor's work or discusses the performance or absence of review procedures in prior quarterly periods, and equal to 0 otherwise. Finally, H2d examines the relation between *other* EL and subsequent restatement. *SUPPINFO* is an indicator variable equal to 1 if the audit report contains EL referencing additional schedules to be read in conjunction with, or included in, the financial statements, and 0 otherwise. *FINDISTRESS* is an indicator variable equal to 1 if the audit report contains EL that expresses substantial doubt about the client's ability to continue as a going concern, provides distress-related concerns without giving a going concern modification, or mentions bankruptcy or reorganization, and 0 otherwise.

Following prior research (Aier, Comprix, Gunlock, and Lee 2005; Romanus, Maher, and Fleming 2008; Scholz 2008; Carcello, Neal, Palmrose, and Scholz 2011), we control for other factors associated with the incidence of restatements. *BIGN* is an indicator variable equal to 1 if the company's auditor is a Big N auditor. Because restatements and fraud are more likely in the early years of audit firm tenure (Carcello and Nagy 2004; Stanley and DeZoort 2007), we include the natural log of the number of consecutive years the company has engaged the auditor according to the Compustat database (*TENURE*). We control for recent auditor changes by including an indicator variable equal to 1 if the company-year's audit report contains references to a predecessor auditor (*REF_PRED*).[15] We control for potential economic bonding between the auditor and client using the ratio of audit fees paid by the client to all audit fees earned by the auditor from U.S. public company audits during the fiscal year (*IMPORTANCE*).[16]

Because large accelerated filers are subject to the reporting provisions of the Sarbanes-Oxley Act Section 404 during the later years of our sample time period, we include an indicator variable equal to 1 if the audit report includes an opinion on internal control over financial reporting (*CONTROL_OPINION*), and an indicator variable equal to 1 if the company's audit report identifies material weaknesses in internal controls over financial reporting (*ICMW*). We control for

[14] Companies apply fresh-start accounting in compliance with ASC Topic 852, *Reorganizations,* when emerging from bankruptcy. Under fresh-start accounting, asset and liability values are adjusted to fair value, causing the historical financial statements of the predecessor company not to be comparable to the current-period financial statements of the successor company.

[15] The existence of a predecessor auditor is included as a control variable rather than a test variable because prior research documents that a restatement is more likely following an auditor change, and these references are not designated as EL in AU 508.

[16] We control for client importance at the national level rather than metropolitan statistical area (MSA) level to include firms located outside U.S. MSAs and foreign clients. We interpret this variable as indicating the client's importance to the auditor's U.S. public company practice.

audit report lag (*REPORTLAG*), which equals the natural log of the number of days between the balance sheet date and the company's 10-K filing date.

We also control for company financial characteristics that can influence the likelihood of a restatement (Aier et al. 2005; Romanus et al. 2008; Scholz 2008). *SIZE* equals the natural log of the company's market value of equity as of fiscal year-end. We include the company's return on assets (*ROA*), the ratio of a company's long-term debt to total assets (*LEVERAGE*), the price to earnings ratio as of fiscal year-end (*PERATIO*), and the natural log of intangible assets (*INTANGIBLES*). We include an indicator variable equal to 1 if the company reported net income greater than net cash flows from operating activities (*POS_ACCRUALS*). Company age equals the natural log of the number of years the company has appeared in Compustat (*AGE*). We also control for non-busy season clients (*NON_BUSYSEASON*) and foreign companies whose country of incorporation is outside the United States (*FOREIGN*). We control for other company-specific information that may affect the probability of a future restatement using cumulative abnormal returns during the three-day window (−1, 1) surrounding the annual report filing date (*CAR*) and the 90-day period preceding the annual report filing (−92, −2) (*CAR90D*).

We control for the company's recent restatement history because prior research indicates that more than 30 percent of companies that issue a restatement announce a second restatement within a few years (Scholz 2008; Files et al. 2014). We include an indicator variable equal to 1 if the company announced a previous restatement within the three years preceding the filing date of the current-year financial statements (*PRIORRSMT*) as reported in Audit Analytics or, for our earlier sample years, in the Government Accountability Office (GAO) Restatement Database. This variable differs from the EL independent variable regarding a previous restatement because *EMPHASIZE_RESTATE* equals 1 *only* if the auditor discusses a previous restatement in the current-year audit report, whereas *PRIORRSMT* equals 1 if the company announced a previous restatement regardless of whether the auditor mentions the restatement in the audit report. Finally, we include year and industry (two-digit SIC code) indicator variables, winsorize all continuous variables at 1 percent and 99 percent, and cluster the standard errors by company.

IV. EMPIRICAL RESULTS

Descriptive Statistics

Table 2 presents descriptive statistics for each category of EL. With respect to *inconsistency*-related EL, *ACCTGPRIN* occurs frequently during the sample period (11,619 instances). The most common *ACCTGPRIN* modifications pertain to adoption of SFAS No. 123(R) and SFAS Nos. 142 and 144 (both 12 percent of total opinions). *EMPHASIZE_RESTATE* and *OTHER_CONSISTENCY* both occur infrequently, representing 2 percent and 1 percent of total opinions, respectively. The sample includes 775 instances (2.5 percent overall) of *EMPHASIS_OF_MATTER,* which typically mention mergers, acquisitions, or divestitures. With respect to *audit-related* EL, 1 percent of sample opinions disclose division of responsibility (*DIVISION*) and 11 percent disclose scope limitations (*SCOPE_REVIEW*). With respect to *other* EL, references to supplemental information in the financial statements (*SUPPINFO*) are the most common type of EL (39 percent of opinions). Finally, of the 1,008 instances of *FINDISTRESS,* 91 percent (921 out of 1,008 opinions) express substantial doubt about the company's ability to continue as a going concern.

Table 3 presents descriptive statistics for the EL variables by year and industry. Table 3, Panel A displays the frequency of each EL type by year. In all years except 2000, greater than 50 percent of audit reports contain some type of EL. With respect to *inconsistency* EL, the timing of new accounting standards leads to year-to-year variation in the frequency of *ACCTGPRIN* during our sample period. Both *EMPHASIZE_RESTATE* and *OTHER_CONSISTENCY* occur more frequently

TABLE 2

Explanatory Language Variables

		Obs.	Percent
ACCTGPRIN	*SAB_101*	165	0.54%
	SFAS_142/144	3,599	11.68%
	SFAS_143	698	2.26%
	SFAS_158	1,713	5.56%
	SFAS_123	3,800	12.33%
	SFAS_133	764	2.48%
	FIN_48	1,953	6.34%
	SFAS_157/159	523	1.70%
	OTHER_STANDARD	1,594	5.17%
	Less: multiple references within category	(3,190)	(10.35%)
	Total *ACCTGPRIN*	11,619	37.69%
EMPHASIZE_RESTATE	Total *EMPHASIZE_RESTATE*	726	2.36%
OTHER_CONSISTENCY	*FRESH_START*	64	0.21%
	DIFF_GAAP	137	0.44%
	REVISION	141	0.46%
	Less: multiple references within category	(1)	(0.00%)
	Total *OTHER_CONSISTENCY*	341	1.11%
EMPHASIS_OF_MATTER	*MERGER*	631	2.05%
	LAWSUIT	45	0.15%
	REL_PARTY	20	0.06%
	ESTIMATES	35	0.11%
	TRANSLATE	17	0.06%
	OTHER_EOM	44	0.14%
	Less: multiple references within category	(17)	(0.06%)
	Total *EMPHASIS_OF_MATTER*	775	2.51%
AUDITRELATED	*DIVISION*	345	1.12%
	SCOPE_LIMIT	3,342	10.84%
	REVIEW	8	0.03%
	Less: multiple references within category	(352)	(1.14%)
	Total *AUDITRELATED*	3,343	10.85%
SUPPINFO	Total *SUPPINFO*	11,917	38.66%
FINDISTRESS	*GC*	921	2.99%
	DISTRESS	85	0.28%
	REORG	5	0.02%
	Less: multiple references within category	(3)	(0.01%)
	Total *FINDISTRESS*	1,008	3.27%
Sum of explanatory language modifications by category		29,729	
Less: multiple classifications between categories		(9,152)	
Total unqualified opinions with explanatory language		20,577	66.75%

The number of observations in Table 2 refers to the number of unique instances of a type of EL within the sample. Audit reports may include more than one type of EL within categories of EL or between categories. Multiple references within category are

(continued on next page)

TABLE 2 (continued)

deducted to arrive at the subtotals for each type of EL. Multiple references between categories are deductedto reconcile the number of EL modifications by category to the total number of audit reports containing EL in the sample. Percent of total is presented in relation to the 30,825 opinions in our final sample over the period 2000–2009.

during the years immediately following the passage of the Sarbanes-Oxley Act. *EMPHASIS_OF_MATTER* occurs more frequently in the middle years of the sample (2004–2007). With respect to *audit-related* EL, *DIVISION* exhibits a generally decreasing trend from 2001 through 2009, whereas *SCOPE_REVIEW* occurs more frequently from 2005 onward, primarily due to scope limitations on internal control over financial reporting. With respect to *other* EL, the frequency of *SUPPINFO* remains stable throughout the sample period, whereas *FINDISTRESS* is highest in the early sample years and in 2008. Table 3, Panel B presents EL by category and industry. The frequency of EL varies across industries, with EL occurring most frequently in manufacturing and EL occurring least frequently in construction.

Table 4 shows descriptive statistics for the dependent and independent variables. Table 4, Panel A presents descriptive statistics for the dependent variable, *RESTATEMENT,* by EL category. Twelve percent of audit reports containing EL are subsequently restated, as compared to 10 percent of audit reports containing no EL. This difference is statistically significant ($p < 0.01$) and indicates that, on a univariate basis, the restatement rate among financial statements whose audit reports contain explanatory language is 18 percent higher than the restatement rate among financial statements whose audit reports do not contain EL. Audit reports with EL emphasizing prior restatements (*EMPHASIZE_RESTATE*) have the highest proportion of subsequent restatements at 31 percent. This proportion is significantly higher than the base restatement rate in our sample ($p < 0.01$). The frequency of subsequent restatements is also higher than the sample mean for *ACCTGPRIN* (13 percent, $p < 0.01$), *EMPHASIS_OF_MATTER* (14 percent, $p < 0.05$), and *DIVISION* (18 percent, $p < 0.01$). The frequency of subsequent restatements is significantly lower for *OTHER_CONSISTENCY* (9 percent, $p < 0.10$) and *SCOPE_REVIEW* (11 percent, $p < 0.05$). The frequency of subsequent restatements is not significantly different from the sample mean for other types of EL. Table 4, Panel B presents descriptive statistics for the control variables in Model 1.

Multivariate Analysis

Table 5 presents coefficient estimates for Model 1, which examines the association between EL in the current-year audit report and the subsequent restatement of the current-year financial statements. Our results for the test of H1 appear in Column (1).[17] The coefficient for *ANY_EL* is positive and statistically significant ($p < 0.05$), indicating that financial statements associated with unqualified audit reports that include EL are more likely to be subsequently restated than those without such language.

The results for the tests of H2a–H2d appear in Column (2). With respect to *inconsistency*-related EL (H2a), the coefficients for *ACCTGPRIN* and *EMPHASIZE_RESTATE* are positive and significant ($p < 0.01$), indicating that EL that discusses changes in accounting principles and methods, and EL emphasizing restatement of comparative period financial statements, are positively associated with the likelihood that the current-year financial statements will be

[17] The area under the ROC curve in Columns (1) and (2) is greater than or equal to 0.70, indicating that the model discrimination is adequate. We also performed the Hosmer-Lemeshow goodness of fit test and confirmed no issues with model fit. We perform multicollinearity diagnostics (Belsley, Kuh, and Welsch 1980) and obtain a maximum eigenvalue of 9.32, indicating that multicollinearity is not a concern in our multivariate model.

TABLE 3

Year and Industry Distribution of Explanatory Language Variables

Panel A: Explanatory Language Categories by Fiscal Year

Year	n	ANY_EL n	ANY_EL %	ACCTG-PRIN	EMPHA-SIZE_RESTATE	OTHER_CONSIST-ENCY	EMPHASIS_OF_MATTER	DIVI-SION	SCOPE_REVIEW	SUPP-INFO	FIN-DISTRESS	Sum EL	Avg. EL Items
2000	2,754	1,249	45.35	295	23	8	58	45	5	921	105	1,460	1.169
2001	3,413	1,760	51.57	586	24	14	67	50	2	1,247	144	2,134	1.213
2002	3,304	2,386	72.22	1,650	117	58	48	42	254	1,315	176	3,660	1.534
2003	3,562	2,428	68.16	1,839	128	69	32	43	262	1,245	103	3,721	1.533
2004	3,466	2,070	59.72	870	128	42	102	31	363	1,364	81	2,981	1.440
2005	3,274	1,958	59.80	428	119	32	129	36	519	1,308	87	2,658	1.357
2006	3,045	2,515	82.59	1,947	99	33	109	33	460	1,248	56	3,985	1.584
2007	2,877	2,402	83.49	1,883	55	33	95	28	503	1,169	67	3,833	1.596
2008	2,637	2,016	76.45	1,218	17	22	77	22	504	1,078	104	3,042	1.509
2009	2,493	1,793	71.92	903	16	30	58	15	471	1,022	85	2,600	1.450
Total	30,825	20,577	66.75	11,619	726	341	775	345	3,343	11,917	1,008	30,074	1.462

Panel B: Explanatory Language Categories by Industry

Industry	n	ANY_EL n	ANY_EL %	ACCTG-PRIN	EMPHA-SIZE_RESTATE	OTHER_CONSIST-ENCY	EMPHASIS_OF_MATTER	DIVI-SION	SCOPE_REVIEW	SUPP-INFO	FIN-DISTRESS	Sum EL	Avg. EL Items
Agriculture	76	45	59.21	30	1	3	5	0	2	17	0	58	1.289
Construction	337	176	52.22	110	11	4	5	0	18	82	7	237	1.347
Financials	6,481	3,449	53.22	1,766	100	127	118	55	578	1,737	89	4,570	1.325
Manufacturing	2,825	2,200	77.88	1,498	92	46	94	73	233	1,335	76	3,447	1.567
Mining	1,188	816	68.69	605	39	7	14	21	113	231	50	1,080	1.324
Retail	898	575	64.03	367	27	4	6	11	70	305	16	806	1.402
Services	5,547	3,876	69.88	2,079	172	49	125	41	660	2,413	200	5,739	1.481
Trans./Utilities	12,476	8,704	69.77	4,766	255	95	360	126	1,529	5,329	530	12,990	1.492

(continued on next page)

TABLE 3 (continued)

Industry	n	*ANY_EL* n	*ANY_EL* %	*ACCTG-PRIN*	*EMPHA-SIZE_RESTATE*	*OTHER_CONSIST-ENCY*	*EMPHASIS_OF_MATTER*	*DIVI-SION*	*SCOPE_REVIEW*	*SUPP-INFO*	*FIN-DISTRESS*	Sum EL	Avg. EL Items
Unclassified	148	103	69.59	57	2	0	4	4	17	55	19	158	1.534
Wholesale	849	633	74.56	341	27	6	44	14	123	413	21	989	1.562
Total	30,825	20,577	66.75	11,619	726	341	775	345	3,343	11,917	1,008	30,074	1.462

Percent EL is calculated as the number of observations where EL = 1 divided by total opinions. Sum EL is calculated as the row sum of *ACCTGPRIN* through *FINDISTRESS*. Average EL items is calculated as Sum EL divided by the number of opinions where EL = 1. For the year 2000, the percentage of EL equals 45.35% (1,249/2,754), Sum EL equals 1,460 (295 + 23 + 8 + 58 + 45 + 5 + 921 + 105), and average EL items equals 1.169 (1,460/1,249).

TABLE 4

Descriptive Statistics for Dependent and Independent Variables

Panel A: Restatements by Explanatory Language Type

	n Audit Reports	n Restated	Percent Restated
ANY_EL = 0	10,248	1,067	10.41%
ANY_EL = 1	20,577	2,538	12.33%
Total	30,825	3,605	11.70%
Difference			1.92%***

Panel B: Restatements by Explanatory Language Category

	n Audit Reports	n Restated	Percent Restated
ACCTGPRIN	11,619	1,493	12.85%###
EMPHASIZE_RESTATE	726	224	30.85%###
OTHER_CONSISTENCY	341	30	8.80%#
EMPHASIS_OF_MATTER	775	110	14.19%##
DIVISION	345	61	17.68%###
SCOPE_REVIEW	3,343	354	10.59%##
SUPPINFO	11,917	1,440	12.08%
FINDISTRESS	1,008	115	11.41%

Panel C: Descriptive Statistics for Control Variables

	Mean	Std. Dev.	5%	25%	Median	75%	95%
REF_PRED	0.047	0.212	0.000	0.000	0.000	0.000	0.000
BIGN	0.766	0.423	0.000	1.000	1.000	1.000	1.000
TENURE[a]	8.145	7.346	1.000	3.000	6.000	11.000	27.000
IMPORTANCE	0.027	0.120	0.000	0.000	0.000	0.002	0.118
CONTROL_OPINION	0.423	0.494	0.000	0.000	0.000	1.000	1.000
ICMW	0.034	0.180	0.000	0.000	0.000	0.000	0.000
REPORTLAG[a]	76.871	15.585	54.000	66.000	75.000	88.000	93.000
SIZE[a]	2,320.212	6,717.100	11.700	72.900	307.300	1,292.572	11,176.260
LEVERAGE	0.171	0.200	0.000	0.002	0.097	0.277	0.578
PERATIO	11.272	43.919	−37.400	−2.676	12.555	21.250	63.529
ROA	−0.061	0.292	−0.613	−0.439	0.017	0.061	0.153
POS_ACCRUALS	0.198	0.398	0.000	0.000	0.000	0.000	1.000
INTANGIBLES[a]	349.600	1,136.800	0.000	0.000	10.500	126.000	1,806.390
PRIORRSMT	0.135	0.341	0.000	0.000	0.000	0.000	1.000
AGE[a]	19.178	14.154	5.000	9.000	14.000	25.000	52.000
NON_BUSYSEASON	0.241	0.428	0.000	0.000	0.000	0.000	1.000
FOREIGN	0.010	0.098	0.000	0.000	0.000	0.000	0.000
CAR	−0.001	0.068	−0.108	−0.027	−0.001	0.025	0.105
CAR90D	0.064	0.291	−0.388	−0.086	0.042	0.194	0.567

*** $p < 0.01$ denotes that the difference in the percentage of audit reports restated is significantly different between reports containing versus not containing EL.

###, ##, # $p < 0.01$, $p < 0.05$, $p < 0.10$ denote levels of statistical significance of the percent of audit reports restated to

(continued on next page)

TABLE 4 (continued)

the overall sample percent restated (11.70 percent), respectively.
[a] *TENURE, REPORTLAG, SIZE, INTANGIBLES,* and *AGE* not logged for ease of interpretation. *SIZE* and *INTANGIBLES* are reported in millions.

subsequently restated. The coefficient for *OTHER_CONSISTENCY* is negative and significant ($p < 0.05$), indicating that EL discussing fresh-start accounting and non-U.S. GAAP accounting principles is associated with a lower likelihood of restatement. The likelihood of subsequent restatement may be lower for companies that apply fresh-start accounting because they can re-measure their assets and liabilities and reconsider the appropriateness of accounting policies. Overall, these results lend some support to H2a's prediction that EL discussing the inconsistency of financial statements with prior periods is associated with the likelihood of subsequent restatement.

The coefficient for *EMPHASIS_OF_MATTER* (H2b) is not statistically significant, indicating that, as a general category of EL, "emphasis of matter" EL is not associated with higher likelihood that the financial statements are subsequently restated. With respect to *audit-related* EL (H2c), the coefficient for *DIVISION* is positive and marginally statistically significant ($p < 0.10$), indicating that EL that divides responsibility for the audit opinion between the principal signing auditor and component auditor(s) is associated with an increased likelihood of subsequent restatement. This result is consistent with PCAOB inspection findings indicating lower audit quality among some audits that involve multiple auditors. However, the coefficient for *SCOPE_REVIEW* (H2c) is not significant. Finally, with respect to *other* EL (H2d), *SUPP_INFO* and *FINDISTRESS* are not significant.

With respect to the control variables, larger clients are more likely to report a subsequent restatement (*BIGN* and *SIZE,* both $p < 0.05$). Both auditor tenure and client importance are associated with higher likelihood of subsequent restatement (both $p < 0.05$). In addition, measures of lower financial reporting quality (*ICMW, REPORTLAG, POS_ACCRUALS*) are associated with higher likelihood of subsequent restatement ($p < 0.05$). Finally, leverage, non-busy season clients, and foreign firms are associated with higher likelihood of subsequent restatement (all $p < 0.05$), and internal control opinions ($p < 0.01$) and firm age ($p < 0.10$) are associated with lower likelihood of subsequent restatement. Overall, our results indicate that the likelihood of restatement is higher for financial statements with audit reports that contain certain types of EL, specifically, EL discussing the inconsistency of financial statements with prior periods and auditor division of responsibility.[18]

While the analysis in Table 5 indicates that certain types of EL are associated with higher misstatement risk, the higher likelihood of subsequent restatement for these types of EL could result from the underlying matter rather than the EL itself. For example, the auditor may highlight the company's adoption of SFAS 133 only when the company's use of derivatives is material to the consolidated financial statements. To address this concern, we test whether EL is informative of misstatement risk incremental to the event or transaction in the financial statements that warranted the EL. Specifically, we re-estimate Model 1 from Table 5 on subsets of firms that experience the

[18] Although explanatory language is issue-specific and, therefore, the inferences shown in Table 5 may not hold in a given year, the inferences are generally consistent when estimated by year. *ACCTGPRIN* is positive and significant in five of the seven sample years that new Financial Accounting Standards Board (FASB) accounting pronouncements were effective. The coefficient for *EMPHASIZE_RESTATE* is positive and significant in six of the ten years, and *EOM* is positive and significant in 2003 and 2008. The statistical significance of coefficients for the other EL varies year by year, consistent with the issue-specific nature of EL. These results suggest that EL emphasizing changes in accounting principles and prior restatements is a consistent indicator of misstatement risk.

TABLE 5

Association between Explanatory Language and Restatements

	Hypothesis (Sign)	Dependent Variable = *RESTATEMENT*	
		(1)	(2)
ANY_EL	H1	0.118**	
		(2.095)	
ACCTGPRIN	H2a (+)		0.158***
			(3.019)
EMPHASIZE_RESTATE	H2a (+)		0.582***
			(5.511)
OTHER_CONSISTENCY	H2a (+)		−0.527**
			(−2.149)
EMPHASIS_OF_MATTER	H2b (+)		0.127
			(0.902)
DIVISION	H2c (?)		0.388*
			(1.811)
SCOPE_REVIEW	H2c (?)		0.075
			(0.823)
SUPPINFO	H2d (?)		−0.063
			(−1.033)
FINDISTRESS	H2d (?)		−0.093
			(−0.711)
REF_PRED		0.031	−0.021
		(0.302)	(−0.198)
BIGN		0.230**	0.226**
		(2.478)	(2.449)
TENURE		0.081**	0.080**
		(2.294)	(2.249)
IMPORTANCE		0.567***	0.574***
		(2.770)	(2.793)
CONTROL_OPINION		−0.403***	−0.381***
		(−4.840)	(−4.384)
ICMW		1.394***	1.331***
		(14.542)	(13.577)
REPORTLAG		0.566***	0.466***
		(5.880)	(4.730)
SIZE		0.075***	0.068***
		(3.556)	(3.221)
LEVERAGE		0.553***	0.536***
		(3.559)	(3.454)
PERATIO		0.001	0.001
		(1.518)	(1.601)
ROA		0.006	−0.013
		(0.067)	(−0.138)
POS_ACCRUALS		0.111**	0.117**
		(2.089)	(2.210)
INTANGIBLES		0.011	0.007
		(0.699)	(0.480)

(continued on next page)

TABLE 5 (continued)

	Hypothesis (Sign)	Dependent Variable = *RESTATEMENT* (1)	(2)
PRIORRSMT		0.034	−0.033
		(0.481)	(−0.457)
AGE		−0.085*	−0.086*
		(−1.719)	(−1.751)
NON_BUSYSEASON		0.228***	0.241***
		(3.063)	(3.251)
FOREIGN		0.926***	0.941***
		(3.916)	(4.008)
CAR		−0.331	−0.404
		(−1.116)	(−1.353)
CAR90D		−0.047	−0.044
		(−0.691)	(−0.647)
Constant		−5.915***	−5.338***
		(−9.428)	(−8.478)
Year Dummies		Included	Included
Industry Dummies		Included	Included
Observations		30,825	30,825
Pseudo R^2		0.078	0.080
ROC		0.70	0.71

*, **, *** Denote $p < 0.10$, $p < 0.05$, and $p < 0.01$, respectively.
Robust z-statistics in parentheses. Standard errors are clustered by company. Year and industry (two-digit SIC) indicators are included in the model but omitted for brevity.
See Appendix C for all variable definitions not shown below.

Variable Definitions:
RESTATEMENT = indicator variable that is equal to 1 if the company *i*'s fiscal year *t* financial statements are subsequently restated, and 0 otherwise.

underlying matter and control for the magnitude of the underlying matter.[19] Table 6, Panel A describes in detail our approach and rationale for the sample restrictions and magnitude controls for each type of EL. We exclude *other* EL from this analysis (*SUPPINFO* and *FINDISTRESS*) because, consistent with our expectations and H2d, these types of EL are not indicative of misstatement risk.

For *ACCTGPRIN,* we restrict our analysis to the three-year window surrounding the effective date of the new accounting pronouncements issued during our sample period.[20] We use the balance of accounts affected by, or related to, these standards to control for the magnitude of the adoption of new accounting standards.[21] For *EMPHASIZE_RESTATE,* we restrict our analysis to companies

[19] We perform the Durbin-Wu-Hausman test for endogeneity on Model 1. The untabulated Chi-square statistic equals 0.25 ($p = 0.62$), indicating that endogeneity is not a likely concern in this setting.

[20] For all standards except SFAS 143, we use a three-year window to capture early, timely, and late adoptions, because EL references to specific accounting standards suggest that new accounting standards are usually adopted over a three-year window. We use a four-year window for the adoption of SFAS 143 because descriptive statistics indicate that disclosed adoption was slower for this standard. Our sample for tests of *ACCTGPRIN* in Table 6 is 30,358 observations rather than 30,825 observations due to some companies missing data for total revenue.

[21] We scale magnitude controls (except the natural log of total revenue) by revenue for consistency. Our inferences are consistent when scaling the magnitude controls (other than revenue) by total assets.

TABLE 6

Association between Explanatory Language and Restatements by Explanatory Language Category

Panel A: Controlling for the Existence and Magnitude of the Event Underlying the Explanatory Language

EL of Interest	Sample Restriction	Magnitude Control(s) (Variable Names and Description)
ACCTGPRIN	All sample years are included because the three-year window surrounding the effective date of each new accounting standard includes all sample years. We use the three-year window to capture early, timely, and late adoptions.	• SAB No. 101 updated revenue recognition criteria; therefore, we include the natural log of total revenue for the current fiscal year (*REVENUE*). • SFAS No. 142 ceased amortization of goodwill and requires annual impairment test of goodwill balances. We include goodwill scaled by total revenue for the current fiscal year (*GOODWILL*). • SFAS No. 143 addresses accounting for asset retirement obligations (AROs). We control for AROs using the natural log of the number of times the phrase "asset retirement obligation" appears in the current-year financial statements. We use this measure because the magnitude of AROs is not reported in Compustat. • SFAS No. 144 standardizes accounting for impairment of non-goodwill long-lived assets. We control for the magnitude of SFAS No. 144 adoptions using non-current assets scaled by total revenue (*LONGLIVED*). • SFAS No. 158 requires firms to recognize over- or under-funded pension plans and to recognize the change in funding status in other comprehensive income. We include pension and retirement expense per the income statement for the current fiscal year, scaled by total revenue for the current fiscal year (*PENSION_EXP*). • SFAS 123(R) revised accounting for stock-based compensation. We include basic earnings per share less diluted earnings per share, scaled by the absolute value of diluted earnings per share (*STOCKOPTION*). We use this measure because ExecuComp coverage includes only the S&P 1500. • SFAS No. 133 addresses accounting for derivative activity. We include the absolute value of unrealized gains and losses from derivatives in accumulated other comprehensive income scaled by total revenue for the current fiscal year (*DERIVATIVE_GL*). We use an equity-based measure of derivative activity because the effective portion of cash flow hedges is reported in accumulated other comprehensive income until the anticipated transaction occurs, representing a reasonable measure of company effective derivative activity.

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TABLE 6 (continued)

EL of Interest	Sample Restriction	Magnitude Control(s) (Variable Names and Description)
		• FIN No. 48 provides updated guidance for accounting for uncertain tax positions. We include the uncertain tax benefit accrual as of fiscal year-end scaled by total revenue for the current fiscal year (*UTB*). • SFAS No. 157 and SFAS No. 159 establish a framework for fair value measurement and reporting. We include the sum of Level 2 and 3 assets scaled by total revenue for the current fiscal year (*FVDISCLOSE*).
EMPHASIZE_RESTATE	Observations where the firm announced a restatement within one year prior to filing the current year financial statements	• *CAR3D_RSMT* = three-day cumulative abnormal return surrounding the announcement date of the restatement. We do not use the net income effect of the previous restatement because this field is not included in the GAO database and because this field is not well populated in Audit Analytics prior to 2002.
OTHER_CONSISTENCY	Observations where the company either: 1. filed for bankruptcy within the three years prior to fiscal year-end for fresh-start accounting, or 2. disclosed a cash, modified-cash, statutory, or tax basis of accounting in the financial statements.	• Not applicable because the magnitude of the effects of using fresh-start accounting or a non-GAAP basis of accounting are not quantifiable using publically available data.
EMPHASIS_OF_MATTER	Observations where any of the following apply:	• Merger: *ACQUISITIONS* = total acquisitions per the cash flow statement scaled by total revenue for the current fiscal year.
	1. Merger: Observations reporting acquisitions, discontinued operations, or minority interest in the current year	• Merger: *DIVESTITURES* = discontinued operations per the income statement for the current fiscal year, scaled by total revenue for the current fiscal year.
	2. RPTs: Firms reporting related-party transactions in the financial statements	• RPTs: *DISCLOSE_RPT* = the natural log of 1 plus the number of times related-party transactions are discussed in the financial statements.
	3. Litigation Risk: Observations in industries with high litigation risk per Ashbaugh, LaFond, and Mayhew (2003)	• Litigation: No magnitude control because the financial impact of pending litigation typically is not recognized or disclosed until the lawsuit is settled.
	4. Estimates: Observations in the financial services industry (i.e., four-digit SIC in the 6000s)	• Estimates: No magnitude control because traditional accrual-based measures of use of estimates are not applicable for financial companies.

(continued on next page)

TABLE 6 (continued)

EL of Interest	Sample Restriction	Magnitude Control(s) (Variable Names and Description)
DIVISION	Observations where the company either: 1. reported acquisitions in the past two years, 2. reported a minority interest in the past two years, or 3. has foreign operations that generate 20 percent or more of the company's total revenue (non-Big N only)	• *ACQUISITIONS* • *MINORITY_INT* = minority interest as of fiscal year-end, scaled by total revenue for the current fiscal year. • *PRIMARY_OPS* = revenue attributable to the company's primary geographic segment in the current fiscal year, scaled by total revenue for the current fiscal year.
SCOPE_REVIEW	Observations in fiscal years 2002 or later where the independent auditor did not opine on the effectiveness of internal controls over financial reporting	Not Applicable—the financial statement impact of attesting to the effectiveness of internal control over financial reporting cannot be determined from public data.

Panel B: Results after Controlling For the Existence and Magnitude of the Event Underlying the EL

		Dependent Variable = *RESTATEMENT*					
	Hypothesis (Sign)	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
ACCTGPRIN	H2a (+)	0.150*** (2.823)					
EMPHASIZE_RESTATE	H2a (+)		0.411*** (3.060)				
OTHER_CONSISTENCY	H2a (+)			−1.899** (−2.462)			
EMPHASIS_OF_MATTER	H2b (+)				0.028 (0.175)		
DIVISION	H2c (?)					0.587** (2.312)	
SCOPE_REVIEW	H2c (?)						0.165 (1.511)
Constant		−5.106*** (−9.851)	−5.461*** (−5.561)	−8.007** (−2.315)	−5.605*** (−9.190)	−4.745*** (−6.482)	−6.469*** (−8.830)

(continued on next page)

TABLE 6 (continued)

	Hypothesis (Sign)	Dependent Variable = *RESTATEMENT* (1)	(2)	(3)	(4)	(5)	(6)
Controls		Included	Included	Included	Included	Included	Included
Magnitude Control(s)		Included	Included	Excluded	Included	Included	Excluded
Year Dummies		Included	Included	Included	Included	Included	Included
Industry Dummies		Included	Included	Included	Included	Included	Included
Observations		30,358	1,846	768	22,712	15,328	11,617
Pseudo R^2		0.075	0.0886	0.130	0.081	0.076	0.068
ROC		0.70	0.70	0.77	0.71	0.70	0.69

*, **, *** Denotes $p < 0.10$, $p < 0.05$, and $p < 0.01$, respectively, based on one-tailed tests.
To reduce of the number of observations lost as a result of industry indicators being perfect predictors of success or failure, this table controls for industry based on the Fama-French 12 industry classification. Robust z-statistics in parentheses. Standard errors are clustered by company. Sample size varies in each column due to the sample restrictions indicated in the corresponding panel.
Similar to Table 5, the dependent variable across all models above is *RESTATEMENT,* an indicator variable that is equal to 1 if the company *i*'s fiscal year *t* financial statements are subsequently restated, and 0 otherwise.
See Appendix C for all variable definitions.

that announced a restatement within one year prior to the audit opinion filing date.[22] We control for the magnitude of the restatement using the three-day cumulative abnormal return surrounding the restatement announcement (*CAR3D_RSMT*). For *OTHER_CONSISTENCY,* we restrict the analysis to companies that filed for bankruptcy within the three years prior to the audit opinion date or disclosed the use of cash, modified cash, statutory, or tax basis accounting. We do not include a magnitude control for *OTHER_CONSISTENCY* because the financial statement impact of these accounting choices cannot be quantified using publicly available data.

Because "emphasis of matter" EL in our sample pertains predominantly to mergers and acquisitions, litigation, related-party transactions, and management's use of estimates to prepare the financial statements, we restrict our analysis to observations that report these four matters and control for the magnitude of these matters when possible. To test H2c, we restrict our analysis for *DIVISION* situations, where auditors are likely to divide responsibility and control for the magnitude of the financial statements audited by the component auditor.[23] Because most instances of *SCOPE_REVIEW* EL are scope limitations indicating the auditor was not engaged to audit internal control over financial reporting, we restrict our analysis for *SCOPE_REVIEW* to audit reports issued during 2002–2009 that did not include an opinion on internal control over financial reporting.

Table 6, Panel B presents the results after controlling for the existence and magnitude of the event underlying the EL.[24] The coefficients for *ACCTGPRIN, EMPHASIZE_RESTATE, OTHER_CONSISTENCY,* and *DIVISION* are statistically significant and consistent with the results in Table 5, Column (2). Also consistent with the results in Table 5, the coefficients for *EMPHASIS_OF_MATTER* and *SCOPE_REVIEW* are not significant. Overall, these results strengthen our inferences from Tables 5 that certain types of EL are associated with a higher likelihood of restatement by demonstrating that the inferences are robust to including controls for the magnitude of the underlying event and restricting the sample to observations affected by the underlying matters discussed in EL.

Finally, financial statement users have expressed a desire for additional information that would provide a "roadmap" to the most important areas of complex financial statements (IAASB 2012). For this reason, we examine whether the specific accounting areas discussed in EL correspond to the accounts subsequently restated. Because account-level EL typically occurs in *ACCTGPRIN* and *EMPHASIS_OF_MATTER* EL, we restrict the account-level analysis to these two types of EL. With respect to *ACCTGPRIN,* we examine whether auditor commentary pertaining to revenue recognition or the adoption of SFAS 142/144, 143, 158, 123(R), and 133 is associated with the subsequent restatement for reasons related to revenue recognition, fixed assets and intangibles, depreciation and amortization, asset retirement obligations, pension and post-retirement accounts, stock compensation, and derivatives, respectively. With respect to "emphasis of matter" EL, we examine whether EL highlighting a company merger, acquisition, and divestiture activity, related-

[22] Our inferences in Table 6 are consistent when we include observations with a restatement announced in the prior three years, rather than prior one year. In addition, our inferences in Tables 5–7 are not sensitive to measuring *PRIOR_RSMT* using one-, two-, and three-year windows or the inclusion of quarterly restatements.

[23] Based on our conversations with partners at two of the Big N firms and a large second-tier firm, the Big N very rarely require use of a non-network firm to audit a foreign subsidiary. Thus, equity investments and recent mergers are the only circumstances under which a Big N firm would likely divide responsibility. The second-tier firm considers dividing responsibility when a non-network firm audits a material international subsidiary, in addition to cases of equity investments and recent mergers. Due to practical difficulties identifying material international subsidiaries and matching these locations to their auditor's global network, we consider a non-Big N client to have material international subsidiaries if the percentage of foreign revenue to total revenue is 20 percent or more.

[24] We re-estimate the model in Column (1) of Table 5 after including all of the magnitude controls included in our Table 6 analysis, with the exception of *CAR3D_RSMT*. The coefficient for *ANY_EL* is positive and significant in this specification.

party transactions, litigation, or management's use of estimates is associated with an increased likelihood of subsequent restatement for these matters.[25]

Table 7, Panel A presents the dependent and independent variables of interest for this analysis, as well as the sample restrictions and magnitude controls. Table 7, Panels B and C presents the results of this "roadmap" analysis. The dependent variables are indicator variables that take the value of 1 if the financial statements are subsequently restated due to improper accounting in the financial statement account reference in the EL, and 0 otherwise. The first six columns pertain to accounts discussed in *ACCTGPRIN* EL. We find positive and statistically significant associations between EL discussing revenue recognition ($p < 0.10$), adoptions of SFAS 142 and 144 ($p < 0.05$), SFAS 143 ($p < 0.05$), SFAS 158 ($p < 0.10$), and SFAS 133 ($p < 0.01$) and the likelihood of subsequent restatement in the related accounts.[26] The association between adoptions of SFAS 123(R) and subsequent restatement of stock compensation is negative and statistically significant ($p < 0.10$), consistent with preemptive restatements of stock-based compensation prior to the adoption of SFAS 123(R) (Turner and Weirich 2006).

The four right-most columns in Table 7, Panels B and C present the results for the different matters disclosed in *EMPHASIS_OF_MATTER* language. We find that EL emphasizing merger transactions ($p < 0.10$), related-party transactions ($p < 0.01$), and management's use of estimates ($p < 0.05$) is associated with higher likelihood of restatement in the corresponding financial statement accounts. In addition, EL concerning litigation is associated with higher likelihood of a subsequent restatement ($p < 0.05$). These results indicate that while "emphasis of matter" as a general category is not associated with the likelihood of subsequent restatement, as shown in Tables 5 and 6, several types of "emphasis of matter" EL are associated with higher misstatement risk in the corresponding accounts. These results are also consistent with the characterization of several types of "emphasis of matter" EL as "subject-to" opinion *qualifications* prior to SAS No. 58. Overall, these results suggest that account-level inconsistency-related EL and account-level "emphasis of matter" EL are associated with subsequent restatement in the corresponding financial statement accounts. Based on these findings, it is possible that EL could provide financial statement users with a subtle roadmap to the riskier areas in the financial statements.

Robustness Tests

In additional sensitivity tests, we alternately cluster standard errors by industry and by audit firm and find consistent inferences. We examine financial institutions separately from industrial firms and find consistent inferences except that *OTHER_CONSISTENCY* is not significant for nonfinancial firms. We examine clients of Big N auditors (77 percent of sample observations) separately from clients of other auditors. Our results for Big N clients are consistent with Table 5. Among non-Big N clients, *ACCTGPRIN* and *OTHER_CONSISTENCY* are not significant and the coefficient for *DIVISION* is negative and statistically significant ($p < 0.05$). These results suggest that financial statements audited by Big N auditors largely drive the main results for *ACCTGPRIN,*

[25] In some cases, we cannot match the account or matter discussed in EL to a restatement category in Audit Analytics. For example, no company in our sample restated due to FIN 48; therefore, we do not match FIN 48 to a specific restatement category. We do not match EL relating to adoptions of fair value accounting (SFAS 157/159) to restated accounts because no single Audit Analytics restatement category corresponds to these matters. Likewise, no Audit Analytics restatement category corresponds directly to restatements of litigation reserves. For completeness, we estimate the association between litigation "emphasis of matter" with *RESTATE* as the dependent variable.

[26] To identify restatements due to revenue recognition, as opposed to pervasive restatements that include revenue restatements, the dependent variable for revenue recognition equals 1 if revenue is one of five or fewer accounts restated. The association between revenue recognition EL and a subsequent restatement for revenue recognition is not statistically significant when revenue is one of more than five accounts subsequently restated.

TABLE 7

Association between EL and Restatements at the Account/Transaction Level after Controlling for the Existence and Magnitude of the Event Underlying the EL

Panel A: Summary of Dependent and Independent Variables, Sample Restrictions, and Magnitude Controls

Dependent Variable	EL of Interest	Sample Restriction	Magnitude Control(s) (Variable Names)
R_REV	*SAB_101*	2000–2002	*REVENUE*
R_PPEINTAN	*SFAS_142/144*	2002–2004	*GOODWILL, LONGLIVED*
R_SFAS143	*SFAS_143*	2003–2007	*ARO*
R_SFAS158	*SFAS_158*	2006–2008	*PENSION_EXP*
R_SFAS123	*SFAS_123*	2006–2008	*STOCKOPTION*
R_SFAS133	*SFAS_133*	2001–2003	*DERIVATIVE_GL*
R_MERGER	*MERGER*	*ACQUISITIONS* $>$ 0 or *DIVESTITURES* $>$ 0	*ACQUISITIONS, DIVESTITURES*
RESTATEMENT#	*LAWSUIT*	Companies in litigious industries following Ashbaugh et al. (2003)	NA (see Table 6, Panel A)
R_INTERCO	*REL_PARTY*	*DISCLOSERPT* $>$ 0	*DISCLOSERPT*
R_ESTIMATES	*ESTIMATES*	Companies in financials industries (i.e., four-digit Standard Industry Classification Code in the 6000s) because the majority of estimates arise out of this industry.	NA (see Table 6, Panel A)

Panel B: Association between Explanatory Language and Accounts Misstated, Controlling for the Existence and Magnitude of the Event, Part 1

		ACCTGPRIN				
Dependent Variable:		***R_REV*** **(1)**	***R_PPEINTAN*** **(2)**	***R_SFAS143*** **(3)**	***R_SFAS158*** **(4)**	***R_SFAS123*** **(5)**
SAB_101	+	0.914*				
		(1.640)				
SFAS_142/144	+		0.332**			
			(1.672)			
SFAS_143	+			7.635**		
				(1.955)		
SFAS_158	+				2.188*	
					(1.468)	
SFAS_123	+					−0.365*
						(−1.500)
Constant		−6.610***	−8.092***	−20.846***	−26.239**	−5.897**
		(−4.387)	(−6.197)	(−7.170)	(−2.219)	(−2.518)
Other EL Variables		Included	Included	Included	Included	Included
Magnitude Control(s)		Included	Included	Included	Included	Included

(continued on next page)

TABLE 7 (continued)

Dependent Variable:	*ACCTGPRIN*				
	R_REV **(1)**	***R_PPEINTAN*** **(2)**	***R_SFAS143*** **(3)**	***R_SFAS158*** **(4)**	***R_SFAS123*** **(5)**
Other Controls	Included	Included	Included	Included	Included
Year Dummies	Included	Included	Included	Included	Included
Industry Dummies	Included	Included	Included	Included	Included
Observations	9,470	9,325	1,465	1,645	8,210
Pseudo R^2	0.073	0.094	0.507	0.483	0.155
ROC	0.72	0.75	0.98	0.96	0.81

Panel C: Association between Explanatory Language and Accounts Misstated, Controlling for the Existence and Magnitude of the Event, Part 2

Dependent Variable:		*ACCTGPRIN*	*EMPHASIS_OF_MATTER*			
		R_SFAS133 **(6)**	***R_MERGER*** **(7)**	***RESTATEMENT*** **(8)**	***R_INTERCO*** **(9)**	***R_ESTIMATES*** **(10)**
SFAS_133	+	1.172***				
		(3.377)				
MERGER	+		0.606*			
			(1.410)			
LAWSUIT	+			2.716**		
				(1.921)		
REL_PARTY	+				2.364***	
					(2.934)	
ESTIMATES	+					1.921**
						(2.052)
Constant		−7.951***	−8.879***	−4.761***	−9.036***	−8.187**
		(−3.148)	(−7.696)	(−3.734)	(−3.043)	(−2.055)
Other EL Variables		Included	Included	Included	Included	Included
Magnitude Control(s)		Included	Included	Excluded	Included	Excluded
Other Controls		Included	Included	Included	Included	Included
Year Dummies		Included	Included	Included	Included	Included
Industry Dummies		Included	Included	Included	Included	Included
Observations		10,169	11,636	6,291	4,512	6,395
Pseudo R^2		0.165	0.100	0.089	0.145	0.214
ROC		0.82	0.76	0.71	0.80	0.87

*, **, *** Denotes $p < 0.10$, $p < 0.05$, and $p < 0.01$, respectively, based on one-tailed tests.
Robust z-statistics in parentheses. Standard errors are clustered by company.
To reduce of the number of observations lost as a result of industry indicators, we control for industry based on the Fama-French 12 industry classification. The dependent variable for each model is indicated at the top of each column.
See Appendix C for all variable definitions.

OTHER_CONSISTENCY, and *DIVISION*. When we examine the pre-SOX and post-SOX periods separately, our findings in the post-SOX period are consistent with those shown in Table 5. In the pre-SOX period, only *ACCTGPRIN* and *SCOPE_REVIEW* are significantly associated with subsequent restatements (both positive, $p < 0.05$). Finally, our inferences are unchanged when we

include the company-year observations originally omitted from the sample because Compustat did not report at least two additional years of data following the audit report date.

V. CONCLUSION

This study explores the information content of the auditor's report by investigating whether the existence and type of auditor-provided explanatory language is associated with financial misstatement risk, as measured by the subsequent restatement of the current-year financial statements. In general, standard-setters view unqualified audit reports *with* explanatory language to be equivalent in risk-related content to unqualified audit reports *without* explanatory language, and investor advocates have expressed concern that the current audit reporting model lacks informational value. However, examining unqualified audit reports issued during 2000–2009, we find that financial statements with unqualified audit reports that include some types of explanatory language are more likely to be subsequently restated than unqualified audit reports without such language. This significant association is attributed to explanatory language that discusses changes in accounting principles, emphasizes a previous restatement, and the auditor's division of responsibility for the opinion. In addition, we find that the financial statement accounts discussed in the explanatory language correspond to the financial statement accounts subsequently restated. This relation persists after controlling for the existence and materiality of the underlying matter discussed in explanatory language.

Our study is subject to several limitations. First, because our research design uses subsequent restatements as our measure of the information content of present-day audit reports, our findings cannot inform policy-makers about any other dimension of information content. In addition, we are only able to document relationships existing under current standards and cannot inform policy-makers on whether a change to the auditor's reporting model would benefit financial statement users. Second, our study does not make any conclusions regarding audit quality. While the inclusion of EL in "riskier" situations or when the standards recommend its inclusion could be interpreted as evidence of higher audit quality, others may interpret this finding as lower audit quality if they believe the auditor inappropriately issued an unqualified opinion for materially misstated financial statements. As a result, we are intentionally silent about audit quality and leave future research to explore why auditors fail to include EL when standards recommend or require inclusion. Overall, this study extends the prior literature that documents that auditors signal business risk with going concern-related EL by documenting evidence to suggest that auditors signal misstatement risk with *non*-going concern-related EL.

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APPENDIX A

Explanatory Language Categorization Procedure and Validation

Audit Report Categorization Procedure

We use text-parsing procedures to categorize the explanatory language, if any, included in public company unqualified audit reports filed in EDGAR between 2000 and 2009. After manually reviewing a sample of audit reports to identify key words indicative of explanatory language, we categorize audit reports into 25 types of explanatory language following the guidance in AU 508.11.

For example, *ACCTGPRIN* reflects the maximum value of eight coding categories in which we identify company-year audit reports mentioning a change in accounting methods or adoption of a new accounting standard. Explanatory language pertaining to the adoption of SFAS 123, SFAS 142 or 144, FIN 48, SFAS 158, SFAS 133, SFAS 143, and SFAS 157 or 159 are the most prevalent, but we also allow for mention of other accounting method or standard changes. To identify audit reports that discuss adoption of SFAS 143 and FIN 47, which address accounting for asset retirement obligations, we search audit reports for language containing variations on the phrases "Standard No. 143," "Interpretation No. 47," or "asset retirement obligation" as a 1, and 0 otherwise. An analogous mapping is completed for the remainder of our categories to generate the summary AU 508 section categories (*ACCTGPRIN, EMPHASIZE_RESTATE, OTHER_CONSISTENCY, DIVISION, EMPHASIS_OF_MATTER, SUPPINFO, SCOPE_REVIEW,* and *FINDISTRESS*). Audit reports containing no explanatory language are categorized as including no explanatory language.

Validation Procedures

We tested the accuracy of our coding on a random sample of 825 audit reports initially categorized as including explanatory language and 500 audit reports initially categorized as not including EL. Our tests on this random sample of opinions indicate agreement exceeding 95 percent

for all categories of explanatory language except supplemental information. After revising our text-parsing routines for supplemental information, we randomly selected an additional 335 audit reports and determined that our revised text procedures correctly classified references to supplemental information for 96 percent of audit reports tested.

Additional Consideration of Integrated Opinions in the Post-SOX Period

The discussion of material weaknesses in integrated opinions introduces an opportunity to misclassify the existence of explanatory language in an unqualified audit report. We reviewed our key phrases and determined that due to the open-ended nature of "emphasis of matter" language, this type of EL could be subject to misclassification due to integrated opinions. We manually reviewed all "emphasis of matter" EL appearing in the same year as an adverse internal control opinion and reclassified 27 opinions from *OTHER_EOM* = 1 to *OTHER_EOM* = 0. None of these opinions were included in our initial data-validation tests. We concluded that misclassification of other types of explanatory language due to adverse internal control opinions was remote due to the standardized nature of other EL types. Our tests of H1 and H2 in Tables 5 and 6 are consistent when excluding financial statements accompanied by an adverse internal control opinion. The results in Table 7 are consistent with the exception of *SFAS_158* and *LAWSUIT*.

APPENDIX B
Examples of Explanatory Language

ACCTGPRIN (FIN_48 and SFAS_157/159): "As discussed in Note 3 to the consolidated financial statements, on January 1, 2008, the Corporation adopted the provisions of Statement of Financial Accounting Standards No. 157, Fair Value Measurements, for its financial assets and liabilities. Also, as discussed in Note 16 to the consolidated financial statements, on January 1, 2007, the Corporation adopted the provisions of Financial Accounting Standards Board Interpretation No. 48, Accounting for Uncertainty in Income Taxes—an interpretation of FASB Statement No. 109." (Kimberly-Clark Corporation)

EMPHASIZE_RESTATE: "As discussed in Note 2, the Company has restated its financial statements for the years ended January 31, 1999 and 1998." (Computer Learning Centers, Inc.)

OTHER_CONSISTENCY

FRESH_START: "As a result, the consolidated balance sheet as of December 31, 2000, and the related statements of consolidated operations and cash flows for the period December 19 to December 31, 2000, are presented on a different basis than that for the periods before fresh start, and therefore, are not comparable." (Dynacore Holdings Corporation)

DIFF_GAAP: "Accounting principles generally accepted in The Netherlands vary in certain respects from those, generally accepted in the United States. Application of accounting principles generally accepted in the United States would have required the adjustments described under Note 28 to the consolidated financial statements of KLM Royal Dutch Airlines and in our opinion are fairly reflected in all material respects." (KLM Royal Dutch Airlines)

REVISION: "As described in Note 2, these consolidated financial statements have been revised to reflect the Company's change in reporting of sales and marketing rebates. We audited the adjustments described in Note 2 that were applied to revise the fiscal 2001 consolidated financial statements. In our opinion, such adjustments are appropriate and have been properly applied." (Radnor Holdings Corporation)

EMPHASIS_OF_MATTER

MERGER: "As discussed in Note 25 to the consolidated financial statements, on March 25, 2004, the Company entered into a stock purchase agreement with J Sainsbury plc and JS USA Holdings Inc. to acquire all of the outstanding capital stock of the entities which conduct J Sainsbury plc's U.S. retail grocery business." (Albertson's, Inc.)

LAWSUIT: "As more fully discussed in Notes 10 and 14 to the consolidated financial statements, the Company is involved in substantial litigation as both plaintiff and defendant." (Internet Law Library, Inc.)

REL_PARTY: "As discussed in Note 7, the Company has engaged in significant Related Party transactions." (Global ePoint, Inc.)

ESTIMATES: "As discussed in Note 2, the consolidated financial statements include investments valued at $1,788,001,000 as of December 31, 2000 and $1,228,497,000 as of December 31, 1999 (96 percent and 95 percent, respectively, of total assets) whose values have been estimated by the board of directors in the absence of readily ascertainable market values. We have reviewed the procedures used by the board of directors in arriving at its estimate of value of such investments and have inspected the underlying documentation, and in the circumstances we believe the procedures are reasonable and the documentation appropriate. However, because of the inherent uncertainty of valuation, the board of directors' estimate of values may differ significantly from the values that would have been used had a ready market existed for the investments, and the differences could be material." (Allied Capital Corporation)

TRANSLATE: "Our audits also comprehended the translation of Hong Kong dollar amounts into U.S. dollar amounts and, in our opinion, such translation has been made in conformity with the basis stated in note 2. Such U.S. dollar amounts are presented solely for the convenience of readers in the United States of America." (New China Homes, Ltd.)

OTHER_EOM: "As discussed in Note 1, the Company is an operating subsidiary of Tyco International Ltd. Certain costs and expenses presented in the financial statements represent allocations and management's estimates of the costs of services provided to the Company by Tyco International Ltd. As a result, the financial statements presented may not be indicative of the financial position or results of operations that would have been achieved had the Company operated as a nonaffiliated entity." (Tycom Ltd.)

AUDITRELATED

DIVISION: "We did not audit the financial statements of certain subsidiaries, including those consolidated by the proportionate consolidation method, whose assets constitute 49 percent and 18 percent of the total consolidated assets as at December 31, 2000 and 1999 respectively, and whose revenues constitute 56 percent, 16 percent, and 31 percent of the total consolidated revenues for the years ended December 31, 2000, 1999, and 1998 respectively. The financial statements of those subsidiaries were audited by other auditors whose reports thereon were furnished to us. Our opinion, insofar as it relates to amounts emanating from the financial statements of such subsidiaries, is based solely on the said reports of the other auditors." (Koor Industries Ltd.)

SCOPE_LIMIT: "We were not engaged to examine management's assessment of the effectiveness of Emtec, Inc. and subsidiaries' internal control over financial reporting as of August 31, 2008, included in the accompanying 'Management's Report on Internal Control Over Financial Reporting' and, accordingly, we do not express an opinion thereon." (Emtec, Inc.)

REVIEW: "We did not have an adequate basis to complete reviews of quarterly information in accordance with standards established by the American Institute of Certified Public Accountants. . ." (Xerox Corporation)

SUPPINFO: "In addition, in our opinion, the financial statement schedule listed in the index appearing under Item 15(a)(2) presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements." (Atlantic City Electric Company)

FINDISTRESS

DISTRESS: "The Company incurred substantial losses during 2009 and 2008 due to impairments in the carrying value of loans and certain investment securities. These asset impairments have reduced the Company's, and its subsidiary banks' equity, earnings capacity and regulatory capital ratios, and resulted in a charge off of the Company's goodwill and a full valuation allowance against deferred tax assets. Management has described its plan to improve the Company's and its subsidiary banks' equity, earnings capacity and regulatory capital ratios in Note 2 to the financial statements." (Integra Bank Corporation)

GC: "The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note B to the financial statements . . . These matters raise substantial doubt about the Company's ability to continue as a going concern. Management's plan in regards to these matters is described in Note B. The financial statements do not include any adjustments that might result from the outcome of this uncertainty." (Badger Paper Mills, Inc.)

REORG: "As discussed in Note 1 to the consolidated financial statements, effective December 29, 2003, Magellan received final clearance of significant contingencies related to the implementation of its plan of reorganization, which had been confirmed on October 8, 2003 by the United States Bankruptcy Court for the Southern District of New York. Magellan officially emerged from bankruptcy as of January 5, 2004." (Magellan Health Services)

APPENDIX C

Variable Definitions

Dependent Variables

RESTATEMENT	Equals 1 if company *i*'s fiscal year *t* financial statements are subsequently restated, and 0 otherwise.
R_REV	Equals 1 if revenue is one of at most five reasons for the subsequent restatement of company *i*'s fiscal year *t* financial statements, and 0 otherwise.
*R_*[*ACCOUNT RESTATED*]	Equals 1 if the subsequent restatement of company *i*'s fiscal year *t* financial statements includes restatement of property, plant, and equipment or intangibles (*PPEINTAN*), asset retirement obligations (SFAS 143), pension and other post-retirement benefits (SFAS 158), deferred or stock-based compensation (SFAS 123), or derivatives (SFAS 133), as identified by AA, and 0 otherwise.
R_MERGER	Equals 1 if company *i*'s fiscal year *t* financial statements are subsequently restated due to acquisitions, mergers, or disposals, and 0 otherwise.

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APPENDIX C (continued)

R_INTERCO	Equals 1 if company *i*'s fiscal year *t* financial statements are subsequently restated due to intercompany, investment in subsidiary, or related-party issues, and 0 otherwise.
R_ESTIMATES	Equals 1 if company *i*'s fiscal year *t* financial statements are subsequently restated due to the AA category "liabilities, payables, reserves, or accrual estimate failures," and 0 otherwise.
Explanatory Language Variables	
ANY_EL	Equals 1 if the audit report contains explanatory language, and 0 otherwise.
ACCTGPRIN	Equals 1 if the audit report references adoption of a new accounting standard or a change in accounting methods, and 0 otherwise.
EMPHASIZE_RESTATE	Equals 1 if the audit report states that prior (comparative) period financial statement balances have been restated or otherwise amended, revised, or corrected, and 0 otherwise.
OTHER_CONSISTENCY	Equals 1 if the audit report mentions fresh-start accounting, a basis of presentation other than U.S. GAAP, or reclassifications or adjustments to financial statements amounts or disclosures (without restatement), and 0 otherwise.
EMPHASIS_OF_MATTER	Equals 1 if the audit report includes *MERGER, REL_PARTY, LAWSUIT, ESTIMATES,* the translation of financial statement amounts from a foreign currency to U.S. dollars, or other matter the auditor deemed worthy of highlight, and 0 otherwise.
DIVISION	Equals 1 if the audit report indicates division of responsibility for the current year, and equals 0 otherwise.
SCOPE_REVIEW	Equals 1 if the audit report mentions a scope limitation or the performance or absence of a review in prior quarterly periods, and 0 otherwise.
SUPPINFO	Equals 1 if the audit report mentions supplemental information included in, or to be read in conjunction with, the financial statements, and 0 otherwise.
FINDISTRESS	Equals 1 if the audit report expresses substantial doubt about the auditee's ability to continue as a going concern, uncertainty about the auditee's future prospects (without mentioning going concern), or reorganization or bankruptcy, and 0 otherwise.
SAB_101	Equals 1 if the audit report mentions changes in revenue recognition methods (i.e., SAB No. 101), and 0 otherwise.
SFAS_[###]	Equals 1 if the audit references adoption of SFAS [###], where 123 denotes adoption of SFAS 123(R), 133 denotes adoption SFAS 133, 142/144 denotes adoption of SFAS 142 or SFAS 144, 143 denotes adoption of SFAS 143, 157/159 denotes adoption of SFAS 157 or SFAS 159, and 158 denotes adoption of SFAS 158, and 0 otherwise.
MERGER	Equals 1 if the audit report discusses company merger, acquisition, or divestiture activity, and 0 otherwise.
REL_PARTY	Equals 1 if the audit report discusses significant intercompany activity or related-party transactions, and 0 otherwise.
LAWSUIT	Equals 1 if the audit report discusses significant litigation, and 0 otherwise.

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APPENDIX C (continued)

ESTIMATES	Equals 1 if the audit report discusses significant estimates made by management, and 0 otherwise.

Control Variables

REF_PRED	Equals 1 if the audit report references a predecessor auditor, and 0 otherwise.
BIGN	Equals 1 if the auditor is a Big N firm, and 0 otherwise.
IMPORTANCE	The ratio of audit fees paid by the client during the year to all audit fees earned by the auditor for U.S. public company clients during the year.
CONTROL_OPINION	Equals 1 if the audit report includes an opinion on internal control over financial reporting, and 0 otherwise.
ICMW	Equals 1 if the audit report identifies material weaknesses in internal controls over financial reporting, and 0 otherwise.
REPORTLAG	The natural log of the number of days between the balance sheet date and audit report filing date.
SIZE	The natural log of market value of equity as of the end of fiscal year *t*.
LEVERAGE	The long-term debt scaled by total assets.
PERATIO	The price to earnings ratio for company *i* as of the end of fiscal year *t*.
ROA	The net income scaled by total assets.
POS_ACCRUALS	Equals 1 if company *i*'s fiscal year *t* reported net income is greater than reported net cash flow from operating activities, and 0 otherwise.
INTANGIBLES	The natural log of 1 plus the total amount of intangible assets reported by company *i* in the fiscal year *t* financial statements.
PRIORRSTMT	Equals 1 if company *i* discloses a prior-period annual restatement within the three years preceding the year *t* financial statements, and 0 otherwise.
AGE	The natural log of the number of years since company *i* first appeared in Compustat, up to and including fiscal year *t*.
TENURE	The natural log of auditor tenure calculated from Compustat in year *t*.
FOREIGN	Equals 1 if the company is incorporated outside the United States, and 0 otherwise.
NON_BUSYSEASON	Equals 1 if company *i*'s fiscal year *t* does not end on or about December 31st, and 0 otherwise.
CAR	The cumulative abnormal return over the period (−1, 1) surrounding the audit report release date, calculated as the company return minus the CRSP value-weighted return for the same period.
CAR90D	The cumulative abnormal return over the period (−92, −2) preceding the audit report release date in year *t*.