

1. Introduction

The U.S. Securities and Exchange Commission (SEC), Financial Accounting Standards Board (FASB), and academic research acknowledge the importance of understanding financial reporting complexity (SEC 2006; FASB 2013; Ciesielski and Weirich 2006; Dzinkowski 2007) and document an increase in complexity over time (Guay et al. 2016; Dyer et al. 2017; Chychyla et al. 2019). The increase in financial reporting complexity is due, in part, to firms engaging in more complex transactions, which led standard setters to develop increasingly complicated and voluminous accounting guidance in a piecemeal fashion (SEC 2006, 2008; FASB 2014a). As accounting guidance becomes more complex, it becomes more difficult and costly for firms to prepare financial reports (SEC 2008). These costs are ultimately born by investors in the form of reduced returns (FASB 2010, QC 36). Further, complex financial reports can make it difficult to communicate performance to investors (Lehavy et al. 2011; Filzen and Peterson 2015; Guay et al. 2016; Chakraborty et al. 2021); induce investors to rationally ignore information that is costly to process (Sims 2003; Veldkamp 2011; Blankespoor et al. 2020); and lead to restatements, internal control weaknesses, audit delays, and higher audit fees (Hoitash and Hoitash 2018; Chychyla et al. 2019). This paper tests whether the FASB can improve financial reporting quality by reducing complexity. Specifically, we examine the effects of the FASB Codification, which was designed to reduce financial reporting complexity by organizing over 2,000 existing pronouncements into a single, cohesive structure (McEwen et al. 2006; FASB 2014a).

To guide our empirical analysis, we organize the financial reporting process, and the associated costs, into five steps: managers must 1) locate and identify all relevant accounting guidance (awareness costs); 2) collect information on transactions (collection costs); 3) apply the guidance to the transactions to determine the appropriate recognition, measurement, classification,

and disclosure (processing cost); 4) incur costs related to financial statement audits (verification costs); and 5) communicate information to investors (dissemination costs).¹ The SEC's Advisory Committee on Improvements to Financial Reporting (ACIFR) defines financial reporting complexity as the difficulty in applying U.S. GAAP and communicating performance to investors, suggesting that complexity can arise during any step of the process (SEC 2008). In the mid-2000s, ACIFR noted that the volume of accounting pronouncements made it difficult to find the appropriate guidance, suggesting significant complexity in the first step of the process (SEC 2008).

In 2009, the FASB released the Codification with the goal of reducing the cost of researching accounting issues and mitigating the risk of unintentional misreporting (FASB 2008, 2014a). To achieve these objectives, the Codification organized thousands of historical pronouncements into condensed topical areas (FASB 2014a). While the Codification changed the organization of U.S. GAAP, it did not change the underlying accounting guidance. That is, the Codification was designed to make it easier to find the right guidance, but it was not designed to simplify the judgements that preparers make when applying the guidance. Thus, we hypothesize that the Codification reduced preparer's awareness costs, while holding the other four costs (collection, processing, verification, and dissemination) constant.

To test whether the Codification improved financial reporting quality by reducing complexity, we must identify aspects of the financial reporting environment that were, or were not, affected by the Codification. Previous standard setting research generally measures effects at the firm level, relying on variation in the level of treatment across firms (Li 2010; Christensen et al. 2013; Khan et al. 2018). The Codification applies to all firms using U.S. GAAP, making it difficult to identify treatment and control groups at the firm level. To circumvent this issue, we

¹ We use the FASB (2010) Conceptual framework and the Blankespoor et al. (2020) disclosure processing cost framework as a foundation for outlining the financial reporting process.

measure treatment at the accounting-topic level. For certain topics, the pre-Codification guidance was more dispersed and voluminous. For example, in the pre-Codification period, a firm issuing convertible debt would need to consider over 20 pieces of accounting guidance. In the post-Codification period, that same firm would only need to review Accounting Standard Codification (ASC) 470-10, *Overall* and ASC 470-20, *Debt with Conversion and Other Options*. For other topics, pre-Codification accounting guidance was concentrated in one or two pronouncements, making the identification of relevant guidance straightforward. For example, much of the guidance on the statement of cash flows was contained within FAS 95, *Statement of Cash Flows* and then moved to ASC 230, *Statement of Cash Flows*. We posit that the organization of pre-Codification guidance in a cohesive framework reduced awareness costs preparers face in locating the appropriate guidance. Due to pre-Codification differences in both the dispersion and amount of guidance across topics, we do not expect the Codification to have a homogenous effect across all topics. Instead, we expect that the Codification had a greater effect for topics with more dispersed or voluminous pre-Codification guidance, such as convertible debt, relative to topics with concentrated pre-Codification guidance, such as the statement of cash flows.

We use a novel approach to measure the complexity of pre-Codification accounting guidance. Using the Codification cross-reference tool, we measure pre-Codification complexity as the dispersion and volume of guidance related to 20 different accounting topics. We find that the dispersion and volume of pre-Codification guidance are highly correlated, suggesting that topics with voluminous guidance also have disperse guidance. We investigate whether the Codification reduced complexity arising from awareness costs by examining the relation between the amount and dispersion of pre-Codification guidance and two measures of financial reporting quality.

First, we examine whether the Codification reduced unintentional misreporting due to the inability to locate the relevant guidance, a stated goal of the Codification (FASB 2008, 2014a). To do so, we obtain a sample of restatements from 2005 to 2013 and map each restatement to Codification topics. Using a difference-in-differences design with the dispersion and volume of pre-Codification guidance as treatment variables, we find a greater decrease in restatements following the Codification for topics with more disperse and voluminous pre-Codification guidance. Restatements decrease by 0.13% (0.21%) for each 1% increase in pre-Codification dispersion (volume). The results are robust to controlling for time, industry, and topic fixed effects. We analyze the parallel trends assumption underlying our difference-in-differences design and find no evidence that our results are due to pre-codification differences correlated with our complexity measures.

Second, we examine whether the Codification reduced the frequency of comment letter references to U.S. GAAP, an alternative measure of financial reporting quality. The comment letter setting has strengths and limitations. Regarding strengths, SEC comment letters are available for both accounting topics and other reporting issues outside the scope of the Codification (e.g., risk factor disclosures). This allows us to conduct two sets of tests: 1) comparing accounting questions to non-accounting questions, and 2) comparing accounting topics with more disperse and voluminous guidance to accounting topics with more concentrated guidance. Moreover, comment letter questions and responses often include explicit references to U.S. GAAP, which allows us to closely link the discussion in the comment letter to codification topics. The main drawback is that the existence of a SEC comment reflects the joint outcome of unclear financial reporting and the SEC's decision to comment, making it unclear whether a decrease in comments is due to changes in firms' reporting quality or changes associated with the SEC's review process.

The comment letter analysis yields three results all consistent with the hypothesis that the Codification reduced awareness costs. First, relative to non-accounting comments, the frequency of accounting comments declined after the Codification. Second, the frequency of comment letters pertaining to accounting topics with more disperse pre-Codification guidance declined more than the frequency of comment letters pertaining to accounting topics with less disperse pre-Codification guidance. Third, the frequency of comment letters related to accounting topics with more voluminous pre-Codification guidance declined more than the frequency of comment letters related to accounting topics with less voluminous pre-Codification guidance. These results are robust to numerous design choices and fixed effects structures, and we find evidence that the parallel trends assumption underlying our tests holds in the pre-Codification period.

We conduct three sets of additional analyses to ensure that our restatement and comment letter results are robust to alternative research design choices. First, it is possible that a changing composition of firms included in our sample drives our results, so we restrict the analysis to a constant sample of firms. Second, to ensure that the results are not driven by our decision to conduct analysis at the industry level, we examine whether our results hold at the firm-topic level. Finally, to ensure that our results are a general phenomenon across all Codification topics, and not driven by a single topic, we repeat our main analysis twenty times, dropping a different topic each time. Across all robustness tests, our inferences remain unchanged.

Our results suggest that preparers face difficulty in identifying the appropriate accounting guidance which results in lower quality financial reports and that the Codification reduced these awareness costs. However, our analysis is subject to several caveats. First, while we employ a difference-in-difference design, we acknowledge that there are time trends in restatements and SEC comments. Although our parallel trends analysis suggests that there is no significant

difference in trends before the Codification, we acknowledge that it is impossible to establish a true counterfactual without knowing the true structural model underlying the restatement and comment letter processes. Second, our analysis requires us to choose a methodology to quantify disperse and voluminous pre-Codification guidance. While such a choice is inherently subjective, we examine the robustness of our results to several alternative methodologies to mitigate concerns that our results sensitive to variable measurement.

With these caveats in mind, we make the following four contributions. First, our paper adds to the literature on whether the actions of the FASB benefit shareholders (Kothari et al. 2010; Khan et al. 2018). While many studies document benefits to specific standards, Khan et al. (2018) find that most FASB standards do not add value, and the number of standards that decrease shareholder value exceeds the number of standards that increase shareholder value. Kothari et al. (2010) and Khan et al. (2018) suggests that grassroots standards developed over time may be more beneficial than standards imposed by the FASB. We add to this literature by showing that 1) dispersed accounting guidance, a byproduct of grassroots standard setting, is associated with financial reporting complexity and misreporting, and that 2) the FASB's Codification reduced complexity which enhances financial reporting quality.

Second, our research contributes to the broader literature on financial reporting complexity (Miller 2010; Dyer et al. 2017; Hoitash and Hoitash 2018; Kubic 2021). We combine insights from the FASB conceptual framework with recent research on investor processing costs (e.g., Blankespoor et al. 2020) to provide a framework that assesses the types of information costs faced by preparers. While prior research largely focuses on actions firms take to mitigate the negative consequences associated with financial reporting complexity (Guay et al. 2016; Chychyla et al.

2019), we use our framework to examine whether standard setters can take actions to reduce financial reporting complexity.

Third, our results contribute to the literatures on financial reporting quality and misreporting. While early literature assumes managers intentionally obfuscate the truth in an attempt to mislead investors or achieve a desired outcome (Schipper 1989; Healy and Wahlen 1999; Dechow et al. 2010), more recent studies examine how complexity influences financial reporting quality (Plumlee and Yohn 2010; Peterson 2012; Hoitash and Hoitash 2018; Chychyla et al. 2019). These studies frequently measure financial reporting complexity based on the accounting policy footnote and the length of the related guidance, which suggests that firms locate the relevant guidance but fail to apply it correctly. To our knowledge, we are the first to examine how difficulty in locating the appropriate guidance affects financial reporting quality.

Finally, our research has practical implications for standard setters, regulators, and oversight bodies. Prior to the Codification, the FASB and SEC expressed concern regarding the structure of U.S. GAAP and anticipated that the Codification would benefit preparers (SEC 2006; FASB 2014a). Since then, the FASB has maintained an ongoing Codification project and started additional simplification initiatives (FASB 2014c). Despite a belief that the Codification would reduce complexity, we are not aware of any study that tests whether the Codification achieved its objectives.² Our study fills this void by providing evidence that the Codification is associated with improved financial reporting quality due to a reduction in preparers' awareness costs.

² The most related study is Plumlee and Yohn (2010) who analyze the source of restatements that are filed from 2003 to 2006 and find that restatement due to accounting errors primarily result from of a lack of clarity on the appropriate guidance and the proliferation of the accounting literature. They suggest future research explore whether the FASB Codification reduces the number of restatements.

2. Background

There is a long history of accounting standard-setting in the U.S with guidance issued by several, now-defunct, standard-setting bodies is still in effect today, resulting in a maze of complex accounting guidance. Below we provide a brief history of accounting standard setting in the U.S. For a more complete overview see Zeff (1971, 1984, 2005).

Before the Great Depression, no single standard-setting body existed in the U.S. The Securities and Exchange Act of 1934 created the Securities and Exchange Commission (SEC) and equipped it with the responsibility to prescribe appropriate accounting methods. In 1939, the SEC transferred standard-setting responsibility to the Committee on Accounting Procedure (CAP). The CAP issued 51 Accounting Research Bulletins (ARBs) on specific accounting topics, with some still in effect today. However, the CAP was criticized for the lack of a conceptual framework, succumbing to industry pressure, and a failure to reduce diversity in practice (Ely and Waymire 1999). These criticisms eventually led to the reorganization of the CAP into the Accounting Principles Board (APB). The 21 members of the APB issued 31 Opinions (APBs) over its 13-year tenure. In 1973, concerns over the APB's inability to resist lobbying pressures led the dissolution of the APB and the creation of the FASB.

Unlike the CAP and APB, which were committees formed by the American Institute of Certified Public Accountants (AICPA), the FASB was the first standard setter independent from the AICPA. The primary standards issued by the FASB are called Statements of Financial Accounting Standards (FAS). FASB support groups, such as the Emerging Issues Task Force (EITF) and Derivate Implementation Group (DIG), propose guidance on specialized topics and this guidance becomes authoritative when approved by the FASB Board.

In the early 2000s, the FASB solicited feedback on financial reporting areas in need of improvement. A key area of concern was the structure of U.S. GAAP, which was characterized as

“unwieldy, difficult to understand, and difficult to use” (FASB 2014a, pg. 35). At the Codification’s release date, relevant sources of authoritative literature included pronouncements issued by the CAP, the APB, the AICPA, the SEC, the FASB, the EITF, and the DIG. Each organization issued different types of guidance. For example, the FASB released standards (FAS), interpretations (FIN), technical bulletins (FTB), staff positions (FSP), and implementation guides (Q&As). The AICPA issued accounting interpretations, statements of position (SOP), practice bulletins, and audit and accounting guides. The SEC has issued formal rules, interpretative guidance, and staff accounting bulletins (SABs). The SEC has also expressed its views through oral statements or speeches, such as SEC Observer comments at EITF meetings. This resulted in a structure of accounting guidance succinctly summarized by former SEC commissioner Cynthia Glassman in a 2006 speech:

“accounting standards ... flow from a vast array of standard setters, regulators and other sources. The financial reporting landscape is littered with pronouncements from the FASB, the AICPA, the EITF, the APB, the SEC and the PCAOB. We have pronouncements, rules, regulations, guides, bulletins, audit standards, interpretations and practice aids in the form of SOPs, FAQs, SABs, Q&As and FSPs. This has been going on for decades. The result is that today, US GAAP is made up of over 2,000 pronouncements. That’s a lot ABCs, even for a CEO or CFO with a CPA.” (SEC 2006)

Similarly, preparers expressed concerns that they may have misapplied U.S. GAAP because they were unaware of the relevant guidance, despite significant levels of research. A FASB survey of over 1,400 professionals yielded the following insights:

- 80% believed U.S. GAAP is confusing.
- 85% believed the required level of research is excessive.
- 87% believed a codification would make U.S. GAAP more understandable.
- 96% believed a codification would simplify research. (FASB 2014a)

Overall, 95% of respondents encouraged the FASB to pursue the Codification project. In response to this positive feedback, the FASB began the Codification project with a goal of creating a single

source of authoritative accounting guidance.³ In June 2009, the FASB released Statement 168, which established the Codification as the source of authoritative GAAP (FASB 2009c). On July 1, 2009, the FASB released the Codification. The Codification created a classification structure based on topical areas. References are structured as a series of numbers separated by dashes, such as XXX-YY-ZZ-PP, where XXX refers to the ASC Topic, YY is the subtopic, ZZ is the Section and PP is the Paragraph. For example, Classification Code 840-20-25-1 refers to Leases (Topic 840), Operating Leases (Subtopic 20), Recognition (Section 25), Paragraph 1.

The FASB designed the Codification to reorganize the thousands of U.S. GAAP pronouncements into relevant topical areas with the intent of reducing “the amount of time and effort required to solve an accounting research issue” and mitigating “the risk of noncompliance through improved usability of the literature” (FASB 2014a, pg. 5). When released, Bob Herz, then Chairman of the FASB, stated that the Codification:

“will vastly improve the ease of researching U.S. GAAP issues ... The FASB is confident that preparers, auditors, and users of financial statements—who for years have had to wade through hundreds of pieces of dispersed GAAP literature to resolve an accounting issue—will find the Codification provides a much more efficient, user-friendly method of researching up-to-date solutions” (FASB 2009b).

3. Hypothesis Development

The process of preparing financial reports and communicating performance to investors is complex (SEC 2008; Dyer et al. 2017; Chychyla et al. 2019). We draw on two sources to develop a framework for understanding the financial reporting process and the related costs: the FASB conceptual framework and the academic literature on investor processing costs. The FASB’s conceptual framework defines information costs as the “effort involved in collecting, processing, verifying, and disseminating financial information” (FASB 2010, QC 36). We use this as a starting

³ See McEwen et al. (2006) for detailed overview of the codification project and the intended benefits.

point for understanding the costs preparers incur to comply with U.S. GAAP. The investors processing costs literature adds another cost to consider, the awareness costs (Blankespoor et al. 2020).⁴ We add awareness cost to the FASB conceptual framework to develop a comprehensive framework for assessing the costs of complying with U.S. GAAP.

As illustrated by Figure 1, we propose a five-step model of the financial reporting process. First, managers must be aware of existing accounting guidance and able to access this information in a timely manner (awareness cost). Suppose a manager issues a convertible debt instrument. The awareness costs associated with applying U.S. GAAP would include the cost of identifying the roughly 20 relevant pre-Codification pronouncements.⁵ Second, managers must collect transaction information (collection costs). In the convertible debt example, the manager must obtain the underlying transaction documents and key terms (e.g., who holds conversion rights, what is the conversion price, etc.). Third, managers must apply the guidance to the transactions to determine the appropriate recognition, measurement, classification, and disclosure (processing costs). In the convertible debt example, this would include determining whether any conversion rights require separation, how to determine initial proceeds, how to recognize interest, and how to classify the instrument. Fourth, managers must be able to explain and support their accounting positions to outside parties such as auditors or regulators (verification costs). Fifth, managers incur costs in explaining the information to capital market participants (dissemination costs).

[INSERT FIGURE 1]

⁴ The framework focuses on three investor-related disclosure processing costs: 1) awareness costs (does the disclosure exist?), 2) acquisition costs (reading and extracting information from the disclosure), and 3) integration cost (analyzing the implications for firm value).

⁵ Prior to the Codification, the firm would likely need to consider the following pre-Codification guidance (full standard names are omitted for brevity): (i) APB 14, (ii) FSP APB14-1, (iii) ARB 43, (iv) FAS 06, (v) FAS 47, (vi) FAS 78, (vii) FAS 84, (viii) FAS 129, (ix) FAS 159, (x) FASB Technical Bulletin 79-3, (xi) EITF 85-17, (xii) EITF 86-05, (xiii) EITF 86-15, (xiv) EITF 86-30, (xv) EITF 98-05, (xvi) EITF 00-27, 00-27, (xvii) EITF 05-01, (xviii) FIN 08, (xix) SAB Topic 6.H, (xx) Regulation S-X Part 210. In the post-Codification period, all of relevant guidance from these standards is located in ASC 470-10, *Overall* and ASC 470-20, *Debt with Conversion and Other Options*.

We posit that the Codification reduces awareness costs by making it easier to locate the relevant guidance.⁶ We expect a reduction in awareness costs to decrease financial reporting complexity and increase financial reporting quality. This prediction is consistent with the Codification's stated objective of mitigating inadvertent accounting errors due to the inability to locate the relevant guidance (FASB 2014a). We state our main hypothesis as follows:

H1: The Codification improves financial reporting quality by reducing preparers' awareness costs associated with applying U.S. GAAP.

Although the FASB predicted that the Codification would improve reporting quality by reducing financial reporting complexity, there are several reasons why the Codification may fail to achieve its stated objective. First, it is unclear whether awareness costs are a first-order determinant of low-quality financial reporting. Prior research often assumes that misstatements are a function of managerial incentives and oversight, not the complexity of the guidance (Schipper 1989; Healy and Wahlen 1999; Dechow et al. 2010). Second, after the release of the Codification many preparers and auditors expressed a preference for the old guidance structure, suggesting that few may have used the Codification (Widelski and Schweitzer 2010). If adoption of the Codification was limited, then the Codification likely had little, if any, effect on complexity. Third, Khan et al. (2018) find that most FASB standards do not increase shareholder value, suggesting many FASB projects do not achieve their objective. Finally, managers always had significant incentives to appropriately apply U.S. GAAP. Prior research shows that restatements are associated with negative market outcomes and damage managers' reputation (Hribar and Jenkins 2004; Palmrose et al. 2004; Srinivasan 2005; Desai et al. 2006; Kravet and Shevlin 2010). Thus,

⁶ We acknowledge that arguments could be made that the Codification indirectly affects all five types of costs. For example, one could argue that if a manager knows that guidance is complex and could potentially lead to inadvertent mistakes, the manager would invest more in the firm's investor relations department to help explain any future restatement. However, such effects on collection, processing, verification, and dissemination costs are at most indirect. Thus, this paper focuses on awareness cost, which are directly affected by the Codification.

even if the Codification reduced reporting complexity, we may fail to find evidence that the Codification improved financial reporting quality if managers invested sufficient resources to avoid misstatements in the pre-Codification period.

4. Research Design

While the Codification applies to all firms, the benefits likely depend on the structure of pre-Codification guidance. The Codification simplifies the structure of the guidance most for topics with disperse and voluminous pre-Codification guidance. Based on the premise that Codification benefits vary by topic, we conduct analysis at the topic level.

For each topic, we aggregate data at the industry-quarter level. We classify firms into industries grouping based on SEC industry offices.⁷ We test H1 using the following design:

$$Outcome_{i,j,t} = \beta_1 Post_t + \beta_2 Complex_j + \beta_3 Post_t \times Complex_j \quad (1)$$

$$+ Controls + \Gamma_i + \delta_t + \phi_j + \varepsilon_{i,j,t}$$

where *Outcome* is either the number of restatements or number of SEC comment-response pairings related to a specific topic in a quarter for all firms in an industry. *Post* is an indicator for quarters after the launch of the Codification. We drop 2009, the year of the Codification release, because an online version of the Codification was available prior to the official release, making the pre/post classification of these quarters challenging.⁸

Our treatment variable, *Complex*, is one of two complexity measures computed using the FASB Codification Cross Reference Tool that links original accounting standards to the Codification. Our first measure, *Dispersion*, identifies the number of unique pre-Codification

⁷ Our industry assignments are based on the 11 SEC Branch Offices (Accounting and Disclosure Offices) that existed throughout our sample period. We map a firm to a SEC Branch using the firm's SIC Code (see <https://web.archive.org/web/20160206164926/https://www.sec.gov/info/edgar/siccodes.htm>).

⁸ We ensure that all results are robust to including the adoption year in the analysis.

pronouncements associated with a given ASC Topic.⁹ The second measure, *Volume*, measures the number of unique sequences from original accounting standards that are associated with a given ASC Topic at the time the Codification was released. A sequence is a unit of guidance, typically a paragraph, in a pre-Codification standard.¹⁰ All else equal, a higher number of sequences suggests more voluminous accounting guidance for a given topic.

Our design includes a number of controls that can be measured at the industry level (*Controls*) and different types of fixed effects. Specifically, we control for the average size of firms in an industry using total assets (*Size*), average returns over the previous four quarters (*Returns*), average return volatility (*Return Volatility*), and the number of firms in an industry (*NFirms*). In addition, we use three different fixed effect structures. Our baseline specification includes industry fixed effects (Γ), which allows us to hold constant restatement trends across industries (Gleason et al. 2008; Scholz 2014). In a second specification, we include industry and year fixed effects (ϕ) to control for both industry and time trends. In this specification, *Post* drops from the estimation as it is colinear with the year fixed effects. In a third specification, we include industry, year, and topic (δ) fixed effects. In this specification, both *Post* and *Complex* drop from the specification, and the coefficient of interest remains the interaction term ($Post \times Complex$).

5. Sample Selection and Descriptive Statistics

We begin our sample on January 1, 2005, and end the sample of December 31, 2013. The FASB released the Codification on July 1, 2009. We exclude the year of the Codification launch from our analysis, which results in four pre- and post-treatment years (32 total quarters). We obtain

⁹ To ensure that each pronouncement is a meaningful source of guidance included in an ASC Topic, we require that a pronouncement has at least four sequences linked to a given ASC Topic. Results are robust to dropping this criterion.

¹⁰ The FASB Codification team assigned sequence numbers to each block of text in pre-Codification standards. In some cases, the Codification team split content into small sequences. The Codification team used sequence numbers to track pre-Codification guidance and to ensure that nothing was inadvertently left out of the Codification.

restatement and comment letter data from Audit Analytics (AA). We identify a quarter as having a restatement (comment letter question) if the restatement (comment letter) period overlaps with a fiscal quarter. We assign restatements and comment letter questions to industries based on the SEC's industry organization for filing reviews (11 industries).¹¹

We aggregate information by accounting topics based on the structure of the Codification.

The Codification was organized into the following 6 topical areas:

1. General Principles: Topics 105-199
2. Presentation: Topics 205-299
3. Assets, Liabilities and Equity: Topics 305-399, 405-499, and 505-599, respectively
4. Revenue and Expenses: Topics 605-699 and 705-799, respectively
5. Broad Transactions: Topics 805-899
6. Industries: Topics 905-999 (FASB 2014a, pg. 12)

We identify all topics related to presentation, balance sheet accounts, income statement accounts or broad transactions (Items 2 through 5 above). We exclude general principles as that topic only includes the text from FAS 168, which establishes the Codification as the Authoritative source of U.S. GAAP. We exclude industry specific guidance that is not applicable to all firms.¹² We exclude topics with a significant change in standards occurring at the same time as the codification (3 topics), topics related to uncommon areas (3 topics), topics without substantive guidance (8 topics), topics with few restatements or comments (9 topics) and topics without a clear mapping to restatements (14 topics). This results in 20 topics in our primary analysis. Table 1 summarizes the sample selection.

[INSERT TABLE 1]

¹¹ Throughout our sample period, the SEC's Division of Corporation Finance (DCF) maintained 11 industry-oriented offices. In 2019, the SEC realigned these offices, resulting in a reduction of the number of offices from 11 to 7.

¹² The industry topics only include incremental industry-specific guidance and firms must still follow all other relevant guidance.

We conduct our analysis at the topic, industry, quarter level. This results in a sample of 7,040 observations stemming from 20 topics, 11 industries, and 32 quarters. Table 2 Panel A provides summary statistics for key variables. Our two outcome measures are restatements (*Restatements*) and SEC comment letter threads referencing authoritative accounting guidance (*Comments*). We find the average industry-topic-quarter has 9.2 *Restatements* and 8.6 *Comments*. As in prior studies, there is substantial variation around these averages with interquartile ranges of 11.0 (= 13.0 – 2.0) and 10.0 (= 11.0 – 1.0), and standard deviations of 10.0 and 12.9 for restatements and comment letters (e.g., Gleason et al. 2008; Kedia et al. 2015; Scholz 2014). We examine how the Codification affected different aspects of this variation by including different combinations of time, industry, and topic fixed effects in our main analysis.

[INSERT TABLE 2 PANEL A AND B]

Table 2 Panel B presents the Pearson and Spearman correlations for our main variables. We find that our two outcome variables, *Restatements* and *Comments*, have a Pearson (Spearman) correlation of 0.23 (0.16) suggesting that they capture a similar underlying construct. We also find that our two measures of pre-Codification guidance, *Dispersion* and *Volume*, have a Pearson (Spearman) correlation of 0.81 (0.84) suggesting that topics with a large volume of guidance also tend to have more dispersed guidance. Further, we find that restatements are positively correlated with both the dispersion (Pearson correlation equal to 0.07) and the volume of guidance (Pearson correlation equal to 0.16). Similarly, the Pearson correlation between *Comments* and *Dispersion* (*Volume*) is 0.16 (0.18). Collectively, these correlations suggest that more complex guidance is associated with lower financial reporting quality.

Our research design requires linking accounting topics in the Codification to pre-Codification guidance, accounting restatement topics, and SEC comment letter discussions. Table

3 Panel A (Panel B) shows our mapping of accounting topics to restatements (SEC comments), the *Dispersion* and *Volume* score for each topic, and the incidence of restatements (SEC comments) in both the pre- and post-Codification period.

[INSERT TABLE 3 PANEL A AND PANEL B]

Table 3 Panel A displays the number of restatements by ASC topic. There are 20 unique topics which map into 46 different restatement codes provided by Audit Analytics. We manually review a random subsample of restatements to ensure that the reason for the restatement relates to the relevant guidance. For each of the 20 topics, we count the number of pre-Codification standards (sequences) using the FASB cross-reference tool, and then compute *Dispersion (Volume)* as the natural log of one plus the number of pre-Codification standards (sequences) associated with an ASC Topic. *Dispersion* scores range from a low of 1.1 (Statement of Cash Flows, Segment reporting, and Leases) to a high of 5.0 (Stock Compensation). *Volume* scores range from a low of 4.5 (Leases) to a high of 8.3 (Stock Compensation). The topics with the most disperse and voluminous pre-Codification guidance are Stock Compensation, Business Combinations, Receivables, Equity and Revenue Recognition. These top five areas appear to align with areas of concern commonly raised by practitioners.¹³ The columns *Pre* and *Post* show average restatement frequency for an industry-quarter by topical area in the pre- and post-Codification period, respectively. For most topics, there is a decrease in restatements in the post-Codification period.

Table 3 Panel B displays the number of SEC comment letters by ASC topic. We assign the same complexity treatment score to each of the 20 Codification topics. We conduct our analysis using a SEC-question and firm-response pairing as the unit of observation. We focus on references

¹³ For example, the 2005 AICPA conference focused on complexity in the accounting for debt instruments (Ciesielski and Weirich 2006), while the FASB referenced the complex guidance related to revenue throughout the course of its revenue recognition project (FASB 2014b).

to GAAP in a SEC question or a firm response because the SEC sometimes asks the firm how it applied a certain piece of guidance or which guidance it applied.¹⁴ Question-response pairings without a reference to U.S. GAAP are excluded from the analysis. To determine whether a comment-response pairing relates to a Codification topic, we conduct a text-based search of SEC comments and firm responses in the Audit Analytics Comment Threading database. If a topic references the related Codification topic in the post-period or one of the related pre-Codification standards in the pre-period, then we count that question as being related to that topic.¹⁵ The columns *Pre* and *Post* show the average frequency of comments for an industry-quarter by topical area in the pre- and post-Codification period, respectively. Similar to the restatement analysis, we see a decline in comments across most topics in the post-period.

6. Main Analysis

This section presents the results of estimating Equation (1). In all specifications, the independent variables (*Dispersion* or *Volume*) and the outcome variables (*Restatements* or *Comments*) are transformed using natural logs. We cluster standard errors by industry.

Restatement Analysis

Our first set of empirical tests examine whether the Codification reduced restatements by reducing preparers' awareness costs. Table 4 presents the results.

[INSERT TABLE 4]

¹⁴ For example, in a question to Analog Devices Inc. in 2006, the SEC stated "You could consider summarizing your evaluation of the factors listed in Questions 2 and 3 of SAB Topic 14.D.1". SAB Topic 14 maps to ASC Topic 718 – Stock Compensation, so we assign this question to ASC 718 for the pre-Codification period. In a different case, the SEC states "Please tell us and explain in the notes to your financial statements how you have determined the portion of the aircraft costs related to fractional share sales that have been classified as current versus long-term assets in your consolidated balance sheets as of each period presented." The firm, Avantair Inc. responded, "Aircraft costs related to fractional share sales are associated with fractional shares sold before July 1, 2010 in accordance with ASC 605-25." Although, the question did not specifically reference authoritative guidance the response did. These examples show the importance of using both questions and responses to measure GAAP references.

¹⁵ The search terms associated with each accounting topic are reported in Appendix B.

Column 1 shows a decrease in restatements for the post-Codification period, suggesting a general improvement in the financial reporting environment. However, the pre-Codification period is shortly after the issuance of the Sarbanes-Oxley Act which led to an increase in restatements. Other contemporaneous events (e.g., the financial crisis, improvements in auditing, or changes in the litigation environment) may also play a role in explaining the decreasing trend in restatements.

We address this concern via a differences-in-differences analysis by incorporating both the main effect of our complexity measures (*Dispersion* or *Volume*) and interaction of these complexity measures with *Post*. Column 2 reports the results when examining the relation between *Dispersion* and restatements. We find the coefficient on $Post \times Dispersion$ is negative and significant at the 0.01 level. Consistent with H1, this suggests restatements decreased more following the Codification for accounting topics with more dispersed pre-Codification guidance. In Column 3 (Column 4), we add year (year and topic) fixed effects and continue to find a negative coefficient on $Post \times Dispersion$, significant at the 0.01 level. Since the dependent variable is the log of restatements, we can interpret economic magnitude as an elasticity. The coefficient estimate of -0.129 suggests that a topic with a 1% greater *Dispersion* score experiences a 0.129% decrease in restatements in the post-Codification period.

Columns 5 to 7 repeat the analysis in Columns 2 to 4 but replace *Dispersion* with *Volume* as the complexity measure. In Column 4, the coefficient on the interaction term is negative and significant at the 0.01 level. The coefficient magnitude of -0.147 suggests that a topic with 1% more voluminous pre-Codification guidance experiences a 0.147% decrease in restatements in the post-Codification period. Column 6 (Column 7) shows similar inferences when using industry and year (industry, year, and topic) fixed effects. In both cases, the coefficient estimate on the

interaction term is -0.147 and statistically significant at the 0.01 level. Overall, the coefficient estimates in Table 4 maintain nearly identical magnitudes across all fixed effect structures.

Our design assumes that the dispersion of pre-Codification is not correlated with changes in other contemporaneous economic events, such as Sarbanes-Oxley. This assumption appears valid, as there is no obvious reason to believe that Sarbanes-Oxley or the Financial Crisis had a greater or lesser effect on accounting topics with relatively more dispersed guidance in the pre-Codification period. However, the validity of our inferences still rests on validity of the parallel trends assumption (Atanasov and Black 2016; Christensen et al. 2016).

Figure 2 tests the underlying parallel trends assumption of by re-estimating Equation (1) after replacing *Post* with calendar-year indicators (with 2008 as the base year) and using *Dispersion* as the complexity measure. Consistent with the parallel trends assumption, we find little evidence that restatements differ significantly prior to the Codification for topics that were more affected by the Codification relative to topics less affected by the Codification. In addition, we find no evidence of a pre-Codification trend. The by-year treatment effect turns significantly negative in 2010, indicating that treatment topics experience a relative decrease in restatements after the Codification release. The coefficient remains relatively constant in each of the 4 post-years. Overall, Figure 2 Panel A suggests that our parallel trend assumption is appropriate and provides support for the hypothesis that the Codification reduces complexity.

[INSERT FIGURE 2]

Comment Letter Analysis

In our second set of analyses, we examine whether the Codification reduced SEC comment letter comments about the application of U.S. GAAP. As discussed above, we restrict our analysis to questions or answers which reference specific authoritative accounting guidance. We map each question-answer pair to the related accounting topic, and then examine how the number of

comments pertaining to a particular accounting topic changes after the release of the Codification. Table 5 presents the results.

[INSERT TABLE 5]

Column 1 shows a decrease in comments for the post-Codification period. This finding, along with the decrease in restatements in the post period, is consistent with an improvement in financial reporting quality in the post-Codification period. In Column 2, we move to our main specification by adding *Dispersion* and $Post \times Dispersion$ and find a positive coefficient on *Dispersion*, significant at the 0.01 level, which suggests that there are more comments when guidance is more dispersed. Consistent with Codification reducing complexity for the accounting topics with the most dispersed pre-Codification guidance, we find that the coefficient on $Post \times Dispersion$ is significantly negative at the 0.01 level. Columns 3 and 4 show identical coefficient estimates when including year or year and topic fixed effects, respectively. The coefficient magnitude suggests that a topic with 50% more dispersed guidance in the pre-Codification period will experience a 18% ($= 0.50 \times 0.36$) decrease in SEC questions referencing the application of U.S. GAAP in the post-Codification period.

Columns 5 to 7 replace *Dispersion* with *Volume*. Consistent with prior results, we find a positive coefficient on *Volume* ($p < 0.01$) and a negative coefficient on $Post \times Dispersion$ ($p < 0.01$) in Column 5. Columns 6 and 7 show similar results for different fixed effect structures. In all columns, the coefficient on the interaction term is negative and significant at the 0.01 level. In terms of economic magnitude, the coefficient magnitude suggests that a topic with 50% more voluminous guidance in the pre-Codification period will experience a 10% ($= 0.50 \times 0.20$) decrease in SEC questions referencing the application of U.S. GAAP. Similar to the restatement

analysis in Table 4, Table 5 shows that coefficient estimates are nearly identical across different fixed effect structures.

Figure 3 provides the parallel trends analysis for the comment letter sample. We find no evidence that comments differed based on our treatment variable (i.e., *Volume*) in pre-period. The treatment effect turns significantly negative in 2010, indicating that treatment topics experience a relative decrease in restatements after the Codification release. Consistent with the restatement analysis, our parallel trend assumption appears justified for the comment letter analysis.

[INSERT FIGURE 3]

Another benefit to the comment letter sample is that the SEC provides comments on both the application of U.S. GAAP (e.g., accounting comments) and other areas, such as risk factors or internal controls, that were unaffected by the Codification. This allows us to investigate whether the release of the codification is associated with a general decrease in accounting-related comments relative to non-accounting comments. To do this, we classify SEC comment-response pairings as accounting comments (*Accounting*) if they include a specific reference to U.S. GAAP and all other comments, such as those on risk factors or internal controls, as general comments (*General*). We aggregate *Accounting* and *General* comments at the SEC Branch-Quarter level, which results in 704 observations (2 question types, 11 industries and 32 quarters). *Accounting* comments represent the treatment group, while *General* comments represent the control group. Equation (2) shows the research design. We include the same controls as Equation (1), and either industry or industry and year fixed effects:

$$\begin{aligned}
 Comments_{i,j,t} = & \beta_1 Post_t + \beta_2 Accounting_j + \beta_3 Post_t \times Accounting_j & (2) \\
 & + Controls + \Gamma_i + \delta_t + \varepsilon_{i,j,t}.
 \end{aligned}$$

Table 6 presents the results from estimating Equation (2). Column 1 includes industry fixed effects and displays a negative coefficient on $Post \times Accounting$ that is significant at the 0.01 level. Column 2 adds year fixed effects. The coefficient on $Post \times Accounting$ remains negative and significant at the 0.01 level. The coefficient magnitude suggests that, when compared to non-accounting questions, the number of accounting-specific questions decreased by 29% in the post-Codification period.

[INSERT TABLE 6]

In sum, Tables 4, 5, and 6 provide support for our hypothesis that the Codification improved financial reporting quality by making it easier to find the appropriate accounting guidance (H1). We document a post-Codification decrease in restatements and SEC questions for topics with the most complex pre-Codification guidance. In the section below, we conduct a number of robustness and cross-sectional tests to ensure that our main findings are not sensitive to alternative research design choices and to better understand how our results vary across firms.

7. Robustness Tests and Cross-Sectional Analysis

This section presents our robustness tests and cross-sectional analysis. First, we conduct three robustness tests to ensure that results are not sensitive to research design choices used in the main analysis. These robustness tests include 1) a constant sample analysis, 2) a firm-level analysis, and 3) a topic-sensitivity analysis. Then, we conduct two cross-sectional tests to see if results vary based on firms' underlying operational complexity and the amount of time firms spend to prepare financial reports.

Robustness Tests

Our primary analysis uses all firm-quarter observations with available data. One potential concern is that changes in the types of firms with available data for our sample period drive our results. If firms entering and leaving our sample engage in economically similar transactions, then

this would not be a concern. However, if firms engaging in more complex transaction with highly dispersed guidance systematically drop out of our sample while new firms engaging in relatively simple transactions systematically enter our sample, the changing sample composition would be correlated with our treatment variable and potentially bias our coefficient estimates. To address this concern, we restrict our analysis to a constant sample of firms with available data throughout our sample period. Table 7 Panel A (Panel B) presents the results with *Restatements (Comment)* as the outcome variable.

[INSERT TABLE 7 PANELS A AND B]

Column 2 in Table 7, Panel A presents the restatement results for a constant firm sample when employing industry fixed effects. We continue to document a negative coefficient on the interaction term of *Post* \times *Dispersion*, significant at the 0.01 level. Column 3 (Column 4) shows results for the constant sample when including year (year and topic) fixed effects. Again, the coefficient on the interaction term is negative and significant at the 0.01 level. The results in Columns 5 to 7 yield similar inferences when using *Volume* as the complexity measure. Table 7 Panel B reports the results for the number of comments when using the constant firm sample. We see that the coefficient on the interaction term is negative and significant at the 0.01 level across all specifications for both complexity score measures. Overall, the results in Table 7 suggest our main inferences do not change when restricting the analysis to a constant sample.

In our second robustness test, we conduct our analysis at the firm-topic level rather than the industry-topic level, which is more similar to the approach used in most prior research on restatements and comment letters. Conducting analysis at the firm-topic level significantly increases our sample size, as each firm-quarter leads to 20 different firm-quarter-topic observations, and allows for the control variable to be defined at the firm-level and the inclusion

of firm fixed effects.¹⁶ Table 8 Panel A (Panel B) presents the results with *Restatements (Comments)* as the outcome variable.

[INSERT TABLE 8 PANELS A AND B]

In Table 8 Panel A, we report the results when estimating the effect of the proposed changes in awareness costs associated with the Codification on restatements at the firm-topic level. Columns 1 to 3 (4 to 6) report the restatement results at the firm-topic level when *Dispersion (Volume)* is used as the complexity measure. All columns include firm fixed effects. In Column 2 and 5 (Column 3 and 6) we also include year (year and topic) fixed effects. Across all six columns in Table 8 Panel A the coefficient on the interaction term is negative and statistically significant at the 0.01 level, suggesting the reduction in awareness costs brought on by the Codification is associated with a decrease in restatements. Table 8 Panel B yields similar inferences for the comment letter analysis. Overall, inferences are unchanged when conducting analysis at the firm-topic level instead of the industry-topic level.

Our third robustness test is designed to address the concern that our results are driven by a single, or relatively few topics. For example, if the Codification made it easier to locate guidance related to revenue or convertible debt but did not affect other topics, we may incorrectly attribute the Codification benefits to all topics with dispersed and voluminous guidance, rather than these specific topics. To address these concerns, we re-estimate Equation (1) while dropping one topic at a time. We conduct this analysis for all 20 topics for both outcome measures, using *Dispersion*

¹⁶ For analyses at the firm-topic level we include the following controls that are defined at the firm-quarter level: 1) *Size* defined as the natural log of one plus total assets, 2) *Leverage* defined as the sum of long-term debt and the current portion of long-term debt scaled by total assets, 3) *Market-to-Book* defined as the market value of equity scaled by the book value of equity, 4) *ROA* defined as pretax income scaled by total assets, and 5) *Tangibility* defined as net property, plant and equipment scaled by total assets.

to measure complexity, resulting in 40 estimations.¹⁷ All estimations include industry, year, and topic fixed effects, along with all control variables. Table 9 presents the results.

[INSERT TABLE 9]

Columns 1 and 2 (Columns 3 and 4) present results when the outcome variable is *Restatements (Comments)*. In all 40 columns, the coefficient estimates remain statistically significant at conventional levels. For the restatement analysis, the coefficient estimates (t-statistics) range from -0.09 to -0.14 (-2.23 to -4.82). For the comment letter analysis, the coefficient estimates (t-statistics) range from -0.31 to -0.40 (-9.24 to -21.67). Based on these results, we conclude that the main results are not sensitive to dropping any given topic.

Cross-Sectional Tests

Finally, we conduct two sets of cross-sectional analyses to examine whether the benefits of the Codification are concentrated in certain types of firms. First, we split the analysis by the time that the firm takes to prepare financial reports. One stated objective of the Codification was to reduce the time and effort that a registrant must spend to research an accounting issue. Unfortunately, it is not possible to observe the time and effort spent by firms researching accounting issues. However, prior literature uses reporting lag to measure the time that a firm has to prepare financial reports (Gallemore and Labro 2015; Heitzman and Huang 2019; Kubic 2021). Firms with shorter reporting lags are more likely to face time constraints, and thus more likely to benefit from the Codification. Thus, we first split our sample by reporting lag.

Second, we split the sample based on the operational complexity of a firm. Firms with more complex operations likely face greater awareness costs when trying to appropriately account for firm transaction. We expect firms with more complex operations to benefit more from the

¹⁷ For presentation purposes, we only report specifications using *Dispersion* as the complexity measure. In untabulated results, we verify that inferences are identical when using *Volume* instead of *Dispersion*.

Codification relative to firms with less complex operations. Following Loughran and McDonald (2020) we use a textual-based measure to capture a firm's operational complexity.

[INSERT TABLE 10 PANELS A AND B]

Table 10 Panel A (Panel B) presents the cross-sectional results for the Restatement (SEC comment) sample. Consistent with our expectations, Panel A shows that the restatement results are concentrated in firms with a shorter reporting lags and greater operational complexity. Panel B shows a larger coefficient estimate for firms with a small reporting lag when *Comments* is the outcome variable, but the coefficients are not statistically different at convention levels. Columns 3 and 4 show a greater decrease in *Comments* for firms with greater operational complexity, with the difference in coefficient estimates significant at the 0.01 level.

8. Conclusion

Beginning in the early 2000s, practitioners began to express concerns regarding the complexity of U.S. GAAP, claiming that the complex structure of standards led to unintentional errors when preparing financial statements (SEC 2006; FASB 2014a). In response, the FASB began a Codification project to organize the over 2,000 U.S. GAAP pronouncements into a logical, topic oriented framework (McEwen et al. 2006; FASB 2009c). The objective of the Codification was to reduce complexity in applying U.S. GAAP by making it easier for managers to locate relevant accounting guidance (FASB 2009a, 2014a).

Despite the practical importance of the Codification, we are unaware of academic research examining whether the complex structure of pre-Codification guidance contributed to errors in applying U.S. GAAP or whether the Codification reduced reporting complexity. We test whether the codification improves financial reporting quality by reducing the awareness costs. Using a novel approach, we measure the dispersion and amount of pre-Codification guidance related to 20 different accounting topics. We find that restatements and SEC comments are decreasing in the

post-Codification period for the areas of U.S. GAAP with the greatest volume and dispersion of pre-Codification guidance. We analyze parallel trends in the pre-adoption period and conduct a series of robustness tests to address alternative explanations. Overall, our findings support two key inferences. First, some historical financial misreporting was due to complexity in applying U.S. GAAP, especially prior to the release of the Codification. Second, the Codification improved financial reporting quality by reducing the awareness costs preparers face in locating relevant guidance. This suggests that the FASB can take actions to reduce complexity, which in turn reduces unintentional misapplications of U.S. GAAP. We hope that our research is useful to the SEC and FASB as they consider whether the Codification achieved its goal and whether to pursue simplification projects in the future (FASB 2014c).

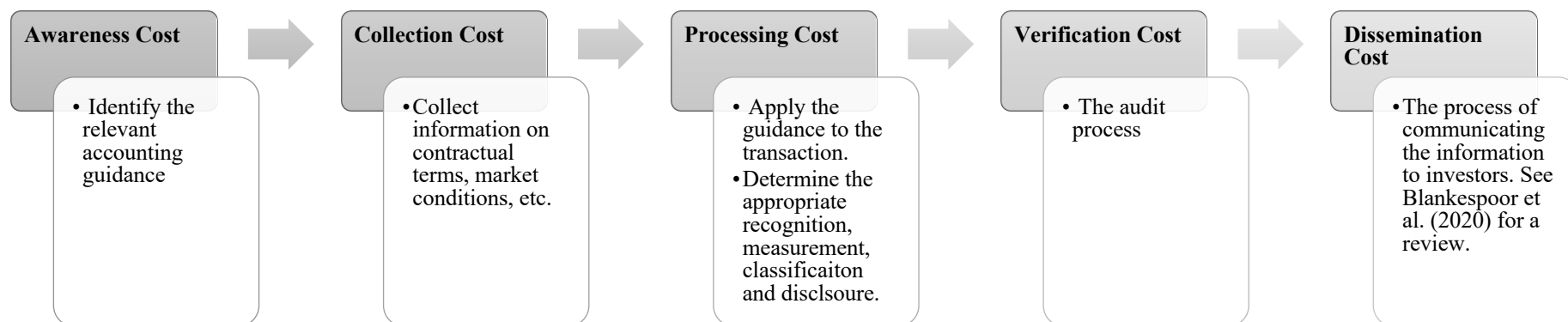
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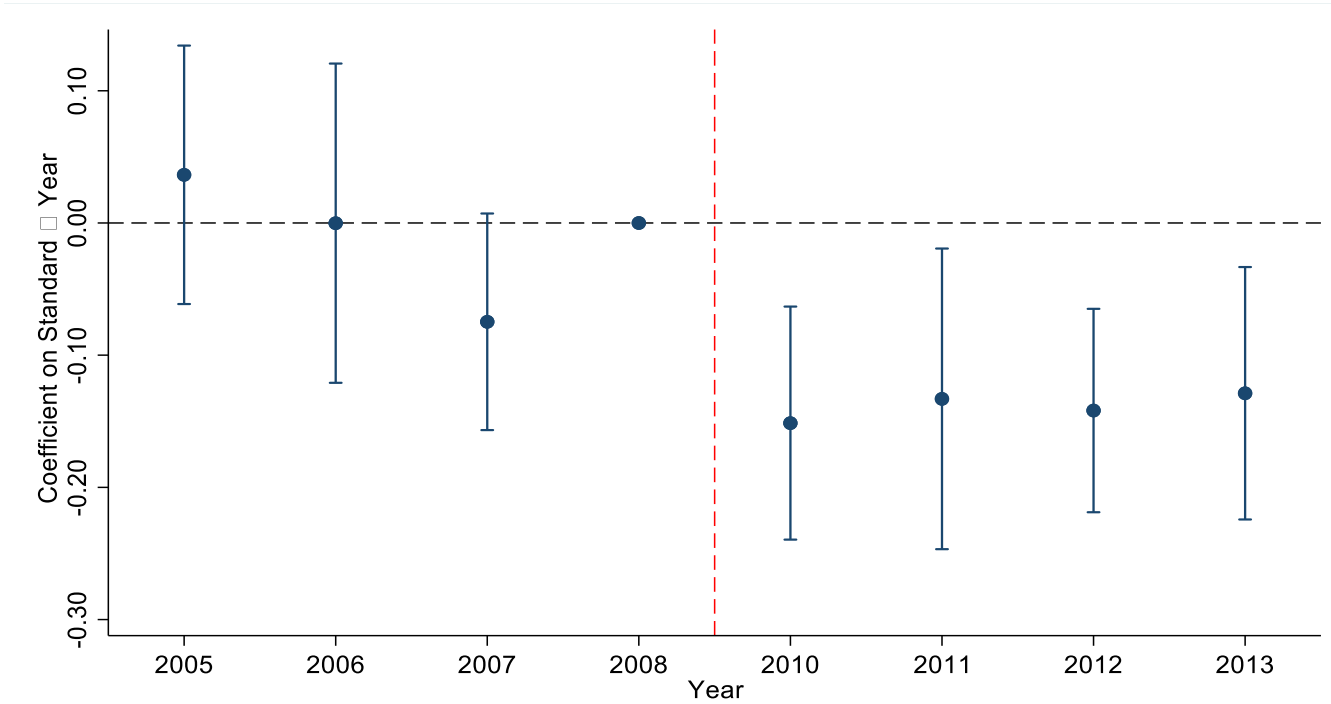
Figure 1 – The Financial Reporting Process



Illustrative Example: A firm issues the two convertible debt instruments. The first instrument is issued with detachable warrants (based off example 2 in ASC 470-20-55-10). The second convertible instrument becomes mandatorily redeemable at a premium in two-years (based off example 6 in ASC 470-20-55-25). In the post-Codification period, the firm would need to reference the guidance in ASC 470 *Debt* with a particular focus on ASC 470-10 *Overall* and ASC 470-20 *Debt with Conversion and Other Options*.

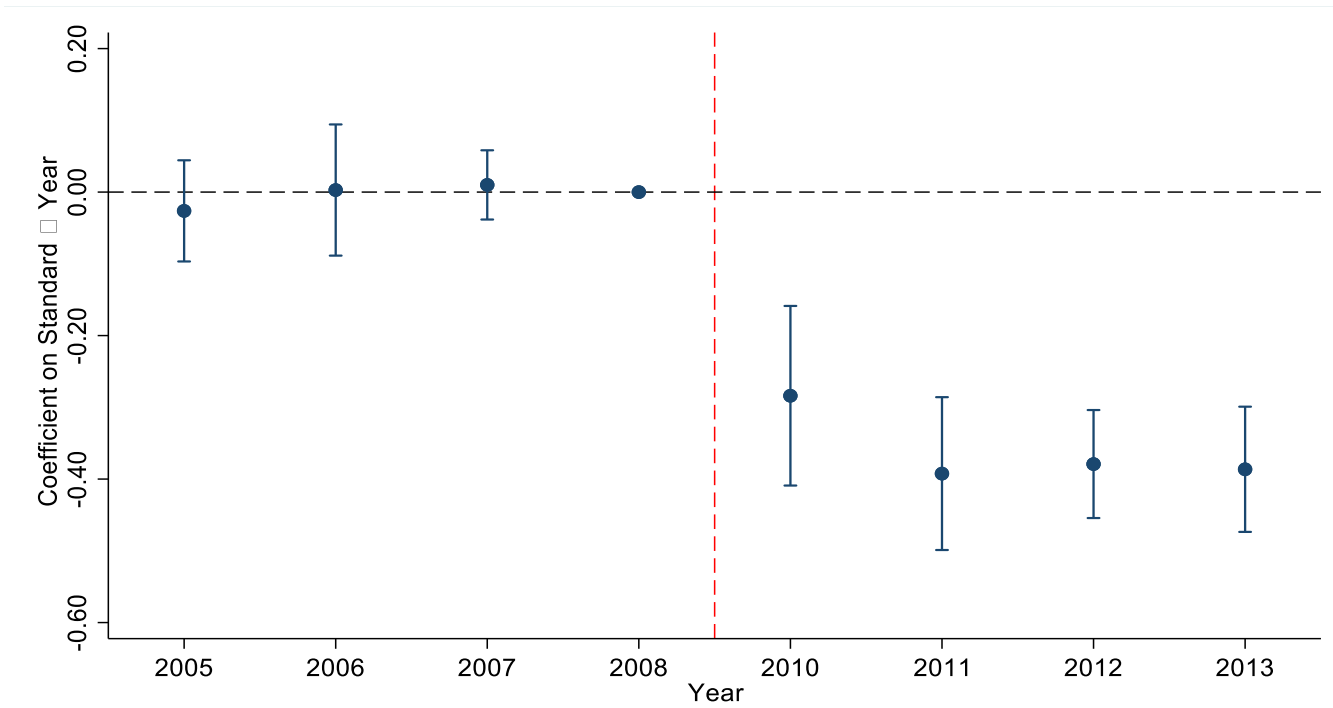
Prior to the Codification, the firm would likely need to consider the following pre-Codifications: (i) APB 14, *Accounting for Convertible Debt and Debt Issued with Stock Purchase Warrants*, (ii) FSP APB14-1, *Accounting for Convertible Debt Instruments That May Be Settled in Cash upon Conversion*, (iii) ARB 43, *Restatement and Revision of Accounting Research Bulletins*, (iv) FAS 06, *Classification of Short-Term Obligations Expected to Be Refinanced*, (v) FAS 47, *Disclosure of Long-Term Obligations*, (vi) FAS 78, *Classification of Obligations That Are Callable by the Creditor*, (vii) FAS 84, *Induced Conversions of Convertible Debt*, (viii) FAS 129, *Disclosure of Information about Capital Structure*, (ix) FAS 159, *The Fair Value Option for Financial Assets and Financial Liabilities*, (x) FASB Technical Bulletin 79-3, *Subjective Acceleration Clauses in Long-Term Debt Agreements*, (xi) EITF 85-17, *Accrued Interest upon Conversion of Convertible Debt*, (xii) EITF 86-05, *Classifying Demand Notes with Repayment Terms*, (xiii) EITF 86-15, *Increasing-Rate Debt*, (xiv) EITF 86-30, *Classification of Obligations When a Violation Is Waived by the Creditor*, (xv) EITF 98-05, *Accounting for Convertible Securities with Beneficial Conversion Features or Contingently Adjustable Conversion Ratios*, (xvi) EITF 00-27, *Application of Issue No. 98-5 to Certain Convertible Instruments*, (xvii) EITF 05-01, *The Accounting for the Conversion of an Instrument That Becomes Convertible upon the Issuer's Exercise of a Call Option That Otherwise Is Not Convertible or Not Currently Convertible Based on a Contingency*, (xviii) FIN 08, *Classification of a Short-Term Obligation Repaid Prior to Being Replaced by a Long-Term Security*, (xix) SAB Topic 6.H *Disclosure Of Compensating Balances And Short-Term Borrowing Arrangements*, (xx) Regulation S-X Part 210 – *Form and Content of and Requirements for Financial Statements*.

Figure 2 – Parallel Trends for the Restatement Sample



Note: This figure presents parallel trends for the restatement sample. We re-estimate Equation (1) after replacing *Post* with fiscal year indicators, with a base year of 2008, and plot the coefficient estimates and confidence intervals.

Figure 3 – Parallel Trends for the Comment Letter Sample



Note: This figure presents parallel trends for the SEC comment sample. We re-estimate Equation (1) after replacing *Post* with fiscal year indicators, with a base year of 2008, and plot the coefficient estimates and confidence intervals.

Table 1 – Sample Selection

Sample Selection and Exclusions	Count	Topics
Number of Non-Industry Specific Topics	57	
Less topics with a contemporaneous change in accounting	-3	Topic 810, <i>Consolidation</i> ; Topic 820, <i>Fair Value Measurement</i> ; Topic 860, <i>Transfers and Servicing</i>
Less topics related to uncommon areas	-3	Topic 272, <i>Limited Liability Entities</i> ; Topic 274, <i>Personal Financial Statements</i> ; Topic 852, <i>Reorganizations</i>
Less topics without substantive guidance	-8	Topic 215, <i>Statement of Shareholder Equity</i> ; Topic 225, <i>Income Statement</i> ; Topic 235, <i>Notes to Financial Statements</i> ; Topic 275, <i>Risks and Uncertainties</i> ; Topic 305, <i>Cash and Cash Equivalents</i> ; Topic 430, <i>Deferred Revenue</i> ; Topic 808, <i>Collaborative Arrangements</i> ; Topic 850, <i>Related Party Disclosures</i>
Less topics without significant Restatements or Comments	-9	Topic 255, <i>Changing Prices</i> ; Topic 340, <i>Other Assets and Deferred Costs</i> ; Topic 410, <i>Asset Retirement and Environmental Obligations</i> ; Topic 440, <i>Commitments</i> ; Topic 705, <i>Cost of Sales and Services</i> ; Topic 710, <i>Compensation—General</i> ; Topic 712, <i>Compensation—Nonretirement Postemployment Benefits</i> ; Topic 720, <i>Other Expenses</i> ; Topic 845, <i>Nonmonetary Transactions</i> ;
Less topics without a clear mapping to restatements	-14	Topic 205, <i>Presentation of Financial Statements</i> ; Topic 250, <i>Accounting Changes and Error Corrections</i> ; Topic 270, <i>Interim Reporting</i> ; Topic 320, <i>Investments—Debt and Equity Securities</i> ; Topic 323, <i>Investments—Equity Method and Joint Ventures</i> ; Topic 325, <i>Investments—Other Topic</i> ; Topic 405, <i>Liabilities</i> ; Topic 420, <i>Exit or Disposal Cost Obligations</i> ; Topic 450, <i>Contingencies</i> ; Topic 460, <i>Guarantees</i> ; Topic 730, <i>Research and Development Topic</i> ; Topic 825, <i>Financial Instruments</i> ; Topic 830, <i>Foreign Currency Matters</i> ; Topic 855, <i>Subsequent Events</i> ;
Topics used in the Primary Analysis	20	See Table 3 for a listing of all topics included in the analysis.

This table shows the Codification topics included in the sample. The sample selection procedure begins with non-Industry specific topics included in the original version of the codification released in mid-2009. This excludes Topics, such as ASC 606, *Revenue from Contracts with Customers* and ASC 610, *Other Income* which were created in the post-codification period. We exclude topics that 1) experienced a contemporaneous, substantive change in accounting, 2) are not common for public companies, 3) lack substantive guidance pertaining to recognition, measurement or presentation (Sections 25, 30, 35 and 45) , 4) lack significant restatements or comments (i.e., fewer than 100 comments or fewer than 50 restatements throughout the sample period) and 5) do not clearly relate to an Audit Analytic's restatement category.

Table 2 – Descriptive Statistics and Correlations**Panel A – Descriptive Statistics**

	N	MEAN	STD	P25	P50	P75
<i>Restatements</i>	7,040	9.16	9.97	2.00	6.00	13.00
<i>Comments</i>	7,040	8.62	12.89	1.00	4.00	11.00
<i>Volume</i>	7,040	6.32	0.92	5.47	6.33	7.04
<i>Dispersion</i>	7,040	2.67	0.89	2.08	2.67	3.17
<i>Size</i>	7,040	5.58	0.85	4.95	5.67	6.08
<i>Returns</i>	7,040	0.29	0.39	0.07	0.25	0.45
<i>Return Volatility</i>	7,040	0.80	0.54	0.47	0.65	0.89
<i>NFirms</i>	7,040	6.55	0.25	6.40	6.61	6.73

This table reports the summary statistics for the main variables used in the analyses. The observation level is the ASC-SEC Branch-Quarter level. All variables are defined in Appendix A.

Panel B – Pearson and Spearman Correlations

	1	2	3	4	5	6	7	8
1 <i>Restatements</i>		0.16***	0.14***	0.02	-0.03***	0.05***	0.17***	0.09***
2 <i>Comments</i>	0.23***		0.19***	0.17***	-0.06***	-0.06***	0.08***	0.17***
3 <i>Volume</i>	0.16***	0.18***		0.84***	0.00	0.00	0.00	0.00
4 <i>Dispersion</i>	0.07***	0.16***	0.81***		0.00	0.00	0.00	0.00
5 <i>Size</i>	-0.02	-0.10***	0.00	0.00		-0.15***	-0.29***	-0.74***
6 <i>Returns</i>	0.07***	-0.08***	0.00	0.00	-0.16***		0.32***	0.10***
7 <i>Return Volatility</i>	0.15***	0.10***	0.00	0.00	-0.45***	0.39***		0.29***
8 <i>NFirms</i>	0.05***	0.21***	0.00	0.00	-0.82***	0.09***	0.40***	

This table reports the correlations for the main variables used in the restatement analysis. Pearson (Spearman) correlations are shown below (above) the diagonal. All variables are defined in Appendix A. *, **, *** denote statistical significance at the 10%, 5%, or 1% level using a two-tailed *t*-test.

Table 3 – Restatements and Comments by Topic

Panel A – Restatements by Topic

ASC Topic	Topic Name	<i>Dispersion</i>	<i>Volume</i>	AA Codes	Pre	Post	Change
210	Balance sheet	2.1	5.5	29	3.0	2.5	-0.5
220	Comprehensive Income	2.6	5.3	35	1.1	1.0	-0.1
230	Statement of Cash Flows	1.1	5.2	19	15.4	18.1	2.8
260	Earnings Per Share	2.3	6.0	31;38;40;49;50;52	4.6	3.1	-1.5
280	Segment Reporting	1.1	5.3	9	3.4	3.0	-0.4
310	Receivables	3.4	7.0	14	10.3	9.6	-0.7
330	Inventory	1.9	4.5	20	7.5	9.3	1.7
350	Intangibles, Goodwill and Other	2.1	6.3	1; if both 3 and 46	10.3	6.3	-4.0
360	PPE	2.7	6.4	if 3 and not 46	11.6	8.5	-3.1
470	Debt	2.3	5.9	4;26;27	24.3	17.2	-7.0
480	Distinguishing Liabilities from Equity	3.1	5.9	4;26	14.8	7.4	-7.4
505	Equity	3.3	7.1	16	2.2	0.2	-2.0
605	Revenue Recognition	2.9	7.4	6	16.9	15.4	-1.5
715	Compensation - Retirement Benefits	2.4	6.5	69	2.1	1.4	-0.7
718	Compensation - Stock Compensation	5.0	8.3	17;39;48	25.7	5.9	-19.9
740	Income Taxes	1.8	5.4	18;53;55-68;70	17.6	17.6	0.1
805	Business Combinations	3.7	7.0	5;10;45	26.1	14.3	-11.8
815	Derivatives and Hedging	2.1	5.5	8	4.8	1.7	-3.0
835	Interest	2.6	5.3	23	4.9	3.5	-1.4
840	Leases	1.1	5.2	21;42	8.1	5.5	-2.6
Average		2.7	6.3		10.7	7.6	-3.2
Correlation (<i>Dispersion, Change</i>)			-0.74				
Correlation (<i>Volume, Change</i>)			-0.66				

This table shows the mapping of accounting topics to restatements, the *Dispersion* and *Volume* score for each topic, and the average incidence of restatements in both the pre- and post-codification period at the branch-quarter level. Variable definitions are provided in Appendix A.

Panel B – Comments by Topic

ASC Topic	Topic Name	<i>Dispersion</i>	<i>Volume</i>	Pre	Post	Change
210	Balance sheet	2.1	5.5	5.2	0.9	-4.3
220	Comprehensive Income	2.6	5.3	7.0	1.1	-5.9
230	Statement of Cash Flows	1.1	5.2	6.6	2.7	-4.0
260	Earnings Per Share	2.3	6.0	6.2	2.3	-3.9
280	Segment Reporting	1.1	5.3	23.3	10.1	-13.3
310	Receivables	3.4	7.0	30.4	4.6	-25.8
330	Inventory	1.9	4.5	3.4	0.9	-2.5
350	Intangibles, Goodwill and Other	2.1	6.3	10.6	6.0	-4.5
360	PPE	2.7	6.4	16.7	5.3	-11.4
470	Debt	2.3	5.9	14.4	2.8	-11.6
480	Distinguishing Liabilities from Equity	3.1	5.9	5.7	1.3	-4.4
505	Equity	3.3	7.1	22.8	2.7	-20.1
605	Revenue Recognition	2.9	7.4	19.5	10.7	-8.8
715	Compensation - Retirement Benefits	2.4	6.5	7.1	1.6	-5.5
718	Compensation - Stock Compensation	5.0	8.3	13.7	3.1	-10.7
740	Income Taxes	1.8	5.4	6.2	5.8	-0.4
805	Business Combinations	3.7	7.0	13.6	6.6	-7.0
815	Derivatives and Hedging	2.1	5.5	29.5	3.4	-26.1
835	Interest	2.6	5.3	8.7	0.8	-7.9
840	Leases	1.1	5.2	19.7	1.6	-18.0
Average		2.7	6.3	13.5	3.7	-9.8
Correlation (<i>Dispersion</i>, <i>Change</i>)						-0.14
Correlation (<i>Volume</i>, <i>Change</i>)						-0.25

This table shows the *Dispersion* and *Volume* scores for each topic, and the average incidence of restatements in both the pre- and post- codification period at branch-quarter level. The number of comment-response observations in the pre-period is based on references to a standard which maps into a specific topic. The number of comment-response observations in the post-period is based on references to that section of the FASB codification. Variable definitions are provided in Appendix A.

Table 4 – Restatement Results

	1	2	3	4	5	6	7
	DV = LN(1+Restatements)						
<i>Post</i>	-0.240*** (-4.794)	0.104 (1.090)			0.690*** (4.277)		
<i>Dispersion</i>		0.024 (0.666)	0.024 (0.666)				
<i>Post × Dispersion</i>		-0.129*** (-3.666)	-0.129*** (-3.664)	-0.129*** (-3.660)			
<i>Volume</i>					0.209*** (6.106)	0.209*** (6.103)	
<i>Post × Volume</i>					-0.147*** (-5.149)	-0.147*** (-5.147)	-0.147*** (-5.140)
<i>Size</i>	-0.869*** (-3.230)	-0.869*** (-3.230)	-0.366* (-1.850)	-0.366* (-1.848)	-0.869*** (-3.230)	-0.366* (-1.850)	-0.366* (-1.848)
<i>Returns</i>	0.073 (1.248)	0.073 (1.248)	0.019 (0.617)	0.019 (0.616)	0.073 (1.248)	0.019 (0.617)	0.019 (0.616)
<i>Return Volatility</i>	0.202** (2.426)	0.202** (2.425)	0.080 (1.702)	0.080 (1.700)	0.202** (2.425)	0.080 (1.702)	0.080 (1.700)
<i>NFirms</i>	2.001*** (79.910)	1.937*** (20.100)	1.990*** (36.010)	2.053*** (43.630)	0.683*** (3.198)	1.028*** (6.724)	2.346*** (25.930)
N	7,040	7,040	7,040	7,040	7,040	7,040	7,040
Adjusted R ²	0.160	0.069	0.074	0.102	0.707	0.090	0.118
Fixed Effects	Industry	Industry	Industry & Year	Industry, Year & Topic	Industry	Industry & Year	Industry, Year & Topic

This table reports results of estimating Equation 1 when the outcome variable is the natural log of restatements (*Restatements*). We regress aggregate restatements at the ASC Topic-SEC Branch-Quarter level on measures of accounting guidance complexity for 2005-2013, excluding four transition quarters (3/31/2009-12/31/2009). All variables are defined in Appendix A. Standard errors are clustered at the SEC Branch level. *T*-statistics are reported below coefficient estimates. *, **, *** indicates significance at the 10%, 5%, and 1% level using a two-tailed t-test.

Table 5 – SEC Comment Analysis

	1	2	3	4	5	6	7
	DV = LN(1+Comments)						
<i>Post</i>	-1.178*** (-13.350)	-0.226** (-2.430)			0.106 (0.830)		
<i>Dispersion</i>		0.362*** (14.960)	0.362*** (14.950)				
<i>Post × Dispersion</i>		-0.357*** (-14.560)	-0.357*** (-14.560)	-0.357*** (-14.540)			
<i>Volume</i>					0.356*** (19.670)	0.356*** (19.660)	
<i>Post × Volume</i>					-0.203*** (-16.240)	-0.203*** (-16.240)	-0.203*** (-16.220)
<i>Size</i>	0.067 (0.376)	0.067 (0.376)	0.137 (0.422)	0.137 (0.421)	0.067 (0.376)	0.137 (0.422)	0.137 (0.421)
<i>Returns</i>	0.230* (2.023)	0.230* (2.023)	0.213** (3.130)	0.213** (3.126)	0.230* (2.023)	0.213** (3.130)	0.213** (3.126)
<i>Return Volatility</i>	-0.046 (-1.517)	-0.046 (-1.517)	-0.102** (-3.082)	-0.102** (-3.079)	-0.046 (-1.517)	-0.102** (-3.082)	-0.102** (-3.079)
<i>NFirms</i>	2.199*** (49.860)	1.233*** (13.560)	1.120*** (14.650)	2.086*** (63.710)	-0.052 (-0.384)	0.001 (0.011)	2.252*** (56.890)
N	7,040	7,040	7,040	7,040	7,040	7,040	7,040
Adjusted R ²	0.364	0.402	0.429	0.559	0.412	0.438	0.546
Fixed Effects	Industry	Industry	Industry & Year	Industry, Year & Topic	Industry	Industry & Year	Industry, Year & Topic

This table reports results of estimating Equation 1 when the outcome variable is the natural log of SEC comment-response pairing that reference US GAAP (*Comments*). We regress aggregate comment-response pairings at the ASC Topic-SEC Branch-Quarter level on measures of accounting guidance complexity for 2005-2013, excluding four transition quarters (3/31/2009-12/31/2009). All variables are defined in Appendix A. Standard errors are clustered at the SEC Branch level. *T*-statistics are reported below coefficient estimates. *, **, *** indicates significance at the 10%, 5%, and 1% level using a two-tailed t-test.

Table 6 – Accounting and Non-Accounting SEC Comments

	DV = LN(1+Comments)	
	1	2
<i>Post</i>	-0.333** (-2.893)	
<i>Accounting</i>	0.093 (1.360)	0.093 (1.354)
<i>Post × Accounting</i>	-0.290*** (-4.530)	-0.290*** (-4.510)
N	704	704
Adjusted R ²	0.278	0.467
Controls	Yes	Yes
Fixed Effects	Industry	Industry & Year

This table reports results of estimating Equation 2. We classify as SEC comment-response pairings as *Accounting* comments if they include a specific reference to US GAAP and all comments not referencing GAAP as *General*. We aggregate *Accounting* and *General* comments at the SEC Branch-Quarter level. *Accounting* comments represent the treatment group, while *General* comment represent the control group. All variables are defined in Appendix A. Standard errors are clustered at the SEC Branch level. T-statistics are reported below coefficient estimates. *, **, *** indicates significance at the 10%, 5%, and 1% level using a two-tailed t-test.

Table 7 – Constant Sample Robustness Tests

Panel A – Restatement Constant Sample Robustness Test

	1	2	3	4	5	6	7
	DV = LN(1+Restatements)						
<i>Post</i>	0.123*** (3.551)	0.532*** (5.461)			1.190*** (7.233)		
<i>Dispersion</i>		0.063* (1.873)	0.063* (1.872)				
<i>Post × Dispersion</i>		-0.153*** (-3.862)	-0.153*** (-3.860)	-0.153*** (-3.855)			
<i>Volume</i>					0.183*** (5.727)	0.183*** (5.725)	
<i>Post × Volume</i>					-0.169*** (-6.281)	-0.169*** (-6.279)	-0.169*** (-6.271)
N	7,040	7,040	7,040	7,040	7,040	7,040	7,040
Adjusted R ²	0.046	0.053	0.076	0.538	0.066	0.089	0.540
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Industry	Industry	Industry & Year	Industry, Year & Topic	Industry	Industry & Year	Industry, Year & Topic

This table reports results of estimating Equation 1 when restricting the sample to firms with available data in all periods (i.e., a constant sample of firms). We regress aggregate restatements (*Restatements*) at the ASC Topic-SEC Branch-Quarter level on measures of accounting guidance complexity for 2005-2013, excluding four transition quarters (3/31/2009-12/31/2009). All variables are defined in Appendix A. Standard errors are clustered at the SEC Branch level. T-statistics are reported below coefficient estimates. *, **, *** indicates significance at the 10%, 5%, and 1% level using a two-tailed t-test.

Panel B – SEC Comment Constant Sample Robustness Test

	1	2	3	4	5	6	7
	DV = LN(1+Comments)						
<i>Post</i>	-0.967*** (-10.190)	-0.074 (-0.830)			0.231* (1.960)		
<i>Dispersion</i>		0.338*** (14.480)	0.338*** (14.480)				
<i>Post × Dispersion</i>		-0.335*** (-11.120)	-0.335*** (-11.110)	-0.335*** (-11.100)			
<i>Volume</i>					0.314*** (15.790)	0.314*** (15.780)	
<i>Post × Volume</i>					-0.190*** (-10.360)	-0.190*** (-10.350)	-0.190*** (-10.340)
N	7,040	7,040	7,040	7,040	7,040	7,040	7,040
Adjusted R ²	0.324	0.364	0.386	0.502	0.367	0.389	0.489
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Industry	Industry	Industry & Year	Industry, Year & Topic	Industry	Industry & Year	Industry, Year & Topic

This table reports results of estimating Equation 1 when restricting the sample to firms with available data in all periods (i.e., a constant sample of firms). We regress aggregate comment-response pairings (*Comments*) at the ASC Topic-SEC Branch-Quarter level on measures of accounting guidance complexity for 2005-2013, excluding four transition quarters (3/31/2009-12/31/2009). All variables are defined in Appendix A. Standard errors are clustered at the SEC Branch level. T-statistics are reported below coefficient estimates. *, **, *** indicates significance at the 10%, 5%, and 1% level using a two-tailed t-test.

Table 8 – Firm-Level Robustness Tests

Panel A – Restatement Firm-Level Robustness Test

	1	2	3	4	5	6
	DV = Restatement (0,1)					
<i>Post</i>	0.002*** (3.682)			0.007*** (6.427)		
<i>Dispersion</i>	0.000*** (3.805)	0.000*** (3.805)				
<i>Post × Dispersion</i>	-0.001*** (-5.490)	-0.001*** (-5.490)	-0.001*** (-5.490)			
<i>Volume</i>				0.001*** (10.280)	0.001*** (10.280)	
<i>Post × Volume</i>				-0.001*** (-6.985)	-0.001*** (-6.985)	-0.001*** (-6.985)
N	4,863,160	4,863,160	4,863,160	4,863,160	4,863,160	4,863,160
Adjusted R ²	0.035	0.036	0.039	0.035	0.036	0.039
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Firm	Firm & Year	Firm, Year & Topic	Firm	Firm & Year	Firm, Year & Topic

This table reports results of estimating equation 1 at the ASC Topic-Firm-Quarter when the outcome variable is the natural log of restatements (*Restatements*). We regress aggregate comment-response pairings at the ASC Topic-Firm-Quarter level on measures of accounting guidance complexity for 2005-2013, excluding four transition quarters (3/31/2009-12/31/2009). All variables are defined in Appendix A. Standard errors are clustered at the SEC Branch level. T-statistics are reported below coefficient estimates. *, **, *** indicates significance at the 10%, 5%, and 1% level using a two-tailed t-test.

Panel B – SEC Comment Firm-Level Robustness Test

	1	2	3	4	5	6
	DV = Comment (0,1)					
<i>Post</i>	0.004*** (4.718)			0.018*** (12.870)		
<i>Dispersion</i>	0.007*** (20.560)	0.007*** (20.560)				
<i>Post × Dispersion</i>	-0.007*** (-19.250)	-0.007*** (-19.250)	-0.007*** (-19.350)			
<i>Volume</i>				0.006*** (25.520)	0.006*** (25.520)	
<i>Post × Volume</i>				-0.005*** (-19.350)	-0.005*** (-19.350)	-0.005*** (-19.440)
N	4,889,019	4,889,019	4,889,019	4,889,019	4,889,019	4,889,019
Adjusted R ²	0.087	0.087	0.091	0.087	0.087	0.090
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Firm	Firm & Year	Firm, Year & Topic	Firm	Firm & Year	Firm, Year & Topic

This table reports results of estimating equation 1 at the Topic-Firm-Quarter level when the outcome variable is the natural log of SEC comment-response pairing that reference US GAAP (*Comments*). We regress aggregate comment-response pairings at the ASC Topic-SEC Branch-Quarter level on measures of accounting guidance complexity for 2005-2013, excluding four transition quarters (3/31/2009-12/31/2009). All variables are defined in Appendix A. Standard errors are clustered at the SEC Branch level. T-statistics are reported below coefficient estimates. *, **, *** indicates significance at the 10%, 5%, and 1% level using a two-tailed t-test.

Table 9 – Topic Sensitivity Robustness Test

ASC Topic Dropped		Restatement Analysis		Comment Letter Analysis	
		1	2	3	4
		Coefficient	T-Stat	Coefficient	T-Stat
210	Balance sheet	-0.12	-3.74	-0.35	-11.84
220	Comprehensive Income	-0.13	-3.63	-0.36	-14.58
230	Statement of Cash Flows	-0.09	-2.23	-0.38	-14.89
260	Earnings Per Share	-0.13	-3.80	-0.35	-14.89
280	Segment Reporting	-0.13	-4.10	-0.39	-21.67
310	Receivables	-0.14	-3.97	-0.31	-13.46
330	Inventory	-0.11	-2.98	-0.35	-12.62
350	Intangibles, Goodwill and Other	-0.13	-3.60	-0.34	-14.42
360	PPE	-0.13	-3.67	-0.36	-14.53
470	Debt	-0.14	-3.37	-0.36	-12.55
480	Distinguishing Liabilities from Equity	-0.14	-3.99	-0.36	-14.27
505	Equity	-0.12	-3.26	-0.34	-14.73
605	Revenue Recognition	-0.14	-3.90	-0.39	-16.22
715	Compensation - Retirement Benefits	-0.13	-3.71	-0.36	-14.31
718	Compensation - Stock Compensation	-0.11	-2.94	-0.36	-15.14
740	Income Taxes	-0.14	-3.87	-0.38	-14.65
805	Business Combinations	-0.13	-3.79	-0.35	-14.68
815	Derivatives and Hedging	-0.14	-4.82	-0.35	-9.24
835	Interest	-0.14	-3.35	-0.40	-15.76
840	Leases	-0.14	-3.78	-0.31	-12.81
Controls		Yes		Yes	
Fixed Effects		Industry, Year & Topic		Industry, Year & Topic	

This table reports results of estimating Equation 1 when dropping one topic at a time. In Columns 1 and 2, the outcome variable is the natural log of restatements (*Restatements*). In Columns 3 and 4, the outcome variable is the natural log of SEC comment-response pairing that reference US GAAP (*Comments*). We regress aggregate outcome variables at the ASC Topic-SEC Branch-Quarter level on measures of accounting guidance complexity for 2005-2013, excluding four transition quarters (3/31/2009-12/31/2009). All variables are defined in Appendix A. Standard errors are clustered at the SEC Branch level. T-statistics are reported to the right of the coefficient estimates.

Table 10 – Cross-Sectional Tests

Panel A – Restatement Cross-Sectional Tests

	Reporting Lag		Operational Complexity	
	1	2	3	4
	Short	Long	High	Low
<i>Post × Dispersion</i>	-0.150*** (-4.743)	-0.025 (-0.812)	-0.137*** (-3.585)	-0.029 (-0.869)
N	7,040	7,040	7,040	7,040
Adjusted R ²	0.519	0.532	0.562	0.555
Controls	Yes	Yes	Yes	Yes
Fixed Effects	SEC Branch, Year & Topic	SEC Branch, Year & Topic	SEC Branch, Year & Topic	SEC Branch, Year & Topic
Test of Coefficients (P-value)	0.000		0.015	

This table reports results of estimating equation 1 when splitting the sample by reporting lag (columns 1 and 2) and Big 4 Auditor (columns 3 and 4). The outcome variable is the natural log of restatements (*Restatement*). We regress aggregate restatements at the ASC Topic-SEC Branch-Quarter level on measures of accounting guidance complexity for 2005-2013, excluding four transition quarters (3/31/2009-12/31/2009). All variables are defined in Appendix A. Standard errors are clustered at the SEC Branch level. T-statistics are reported below coefficient estimates.

*, **, *** indicates significance at the 10%, 5%, and 1% level using a two-tailed t-test.

Panel B – SEC Comment Cross-Sectional Tests

	Reporting Lag		Operational Complexity	
	1	2	3	4
	Short	Long	High	Low
<i>Post × Dispersion</i>	-0.339*** (-11.760)	-0.298*** (-15.840)	-0.366*** (-13.160)	-0.239*** (-13.450)
N	7,040	7,040	7,040	7,040
Adjusted R ²	0.492	0.470	0.514	0.379
Controls	Yes	Yes	Yes	Yes
Fixed Effects	SEC Branch, Year & Topic	SEC Branch, Year & Topic	SEC Branch, Year & Topic	SEC Branch, Year & Topic
Test of Coefficients (P-value)	0.203		0.000	

This table reports results of estimating Equation 1 when splitting the sample by reporting lag (Columns 1 and 2) and Operational Complexity (Columns 3 and 4). The outcome variable is the natural log of SEC comment-response pairing that reference US GAAP (*Comment*). We regress aggregate comments at the ASC Topic-SEC Branch-Quarter level on measures of accounting guidance complexity for 2005-2013, excluding four transition quarters (3/31/2009-12/31/2009). All variables are defined in Appendix A. Standard errors are clustered at the SEC Branch level. T-statistics are reported below coefficient estimates. *, **, *** indicates significance at the 10%, 5%, and 1% level using a two-

Appendix A – Variable Definitions

Variable	Description	Source*
Main Outcome and Complexity Variables		
<i>Restatements</i>	Aggregate number of restatements for a given ASC Topic-SEC Branch-Quarter	AA
<i>Comments</i>	Aggregate number of restatements for a given ASC Topic-SEC Branch-Quarter	AA
<i>Volume</i>	The natural log of one plus the number of sequences that are associated with a given ASC Topic (post-Codification)	FASB Codification
<i>Dispersion</i>	The natural log of one plus the number of unique standards (standard type and number) associated with a given ASC Topic based on the FASB Codification. For a standard to be included in this measure it must have at least four unique sequences that are included in an ASC Topic based on the FASB Codification.	FASB Codification
Control Variables		
<i>Size</i>	The average natural log of total assets for all firms within an SEC Branch-Quarter	Compustat
<i>Returns</i>	The average return for the previous four quarters at the SEC Branch-Quarter level	Compustat
<i>Return Volatility</i>	The average standard deviation of quarterly returns for the previous 12 quarters for all firms at the SEC Branch-Quarter level	Compustat
<i>NFirms</i>	The natural log of one plus the number of unique firms associated with an SEC Branch-Quarter	Compustat
Cross-Sectional Variables		
<i>Reporting Lag</i>	We designate firms with reporting lags greater than (less than or equal to) 60 days as having a large (small) reporting lag, where reporting lag is the difference, in days, between the end of the fiscal period and the earnings announcement date.	Compustat
<i>Operational Complexity</i>	We designate firms with complexity scores great than (less than or equal to) the median annual complexity score as having high (low) operational complexity. Complexity scores are from Loughran and McDonald (2020)	Loughran and McDonald (2020)

Appendix B – SEC Comment Letter Question Mapping

ASC Topic	Search Terms to Identify Pre-Codification Guidance
210	FAS 6 APB 10 APB 43 FIN 39 FIN 41 EITF D-43 SAB TOPIC 1.B SAB TOPIC 6 SOP 81-1 SOP 90-7 SOP 00-2
220	FAS 130 FAS 133
230	FAS 95 FAS 102 FAS 132 EITF 95-13 EITF 02-06
260	APB 18 FAS 128 FAS 150 EITF 97-14 EITF 99-07 EITF 00-27 EITF 03-06 EITF 04-08 EITF 07-04 EITF D-42 EITF D-53 EITF D-62 EITF D-72 EITF D-82 SAB TOPIC 3 SAB TOPIC 4.D SAB TOPIC 4C SAB TOPIC 6.B
280	FAS 131 FAS 142 FAS 146 EITF 04-10 EITF D-07 EITF D-7 QA 131 FTB 79
310	APB 12 APB 21 ARB 43 FAS 5 FAS 15 FAS 65 FAS 91 FAS 95 FAS 102 FAS 107 FAS 114 FAS 118 FAS 133 FAS 140 EITF 84-19 EITF 84-19 EITF 85-01 EITF 85-20 EITF 86-21 EITF 87-1(89) EITF 88-20 EITF 89-14 EITF 92-05 EITF 93-01 EITF 94-08 EITF 96-22 EITF 97-03 EITF 99-20 EITF 01-7 EITF D-08 DIG C13 DIG F04 SOP 97-1 SOP 97-2 SOP 97-3 SOP 01-6 SOP 03-3 SAB TOPIC 4.E SAB TOPIC 4.G SAB TOPIC 6.L
330	ARB 43 FIN 1 FIN 01 SOP 94-6 EITF 86-13 EITF 86-46 EITF 96-09 EITF 01-9 SAB TOPIC 5.L
350	FAS 142 SOP 98-1 QA 86 EITF 00-02 EITF 02-07 EITF 02-13 EITF 08-07 EITF D-101 -- EITF D-108
360	ARB 43 APB 12 FAS 5 FAS 13 FAS 34 FAS 66 FAS 92 FAS 143 FAS 144 FIN 43 EITF 84-17 EITF 86-06 EITF 87-09 EITF 88-12 EITF 88-24 EITF 95-23 EITF 98-08 EITF 00-13 EITF 06-08 EITF 07-06 FTB 86-02 SAB TOPIC 5.CC SAB TOPIC 5.B
470	FAS 006 FAS 6 FAS 13 APB 14 APB 43 ARB 21 ARB 26 FAS 15 FAS 47 FAS 49 FAS 78 FAS 84 FAS 129 FAS 140 FAS 145 FAS 159 FIN 8 FIN 08 EITF 85-09 EITF 85-17 EITF 86-05 EITF 86-15 EITF 86-30 EITF 88-15 EITF 88-18 EITF 95-22 EITF 96-19 EITF 98-05 EITF 98-14 EITF 00-27 EITF 01-01 EITF 02-04 EITF 02-15 EITF 05-01 EITF 06-06 EITF 06-07 EITF D-023 EITF D-061 FTB 79-03 FTB 80-01 FTB 80-02 FTB 81-06 SAB TOPIC 4.a SAB TOPIC 6.H
480	FAS 150 SAB TOPIC 14.E SAB TOPIC 3.C CFRR 211 EITF 89-11 EITF 00-04 EITF 00-19 EITF D-98
505	SAB TOPIC 1.B SAB TOPIC 1.D SAB TOPIC 4.A APB 09 APB 12 APB 14 ARB 43 ARB 51 EITF 85-01 EITF 86-32 EITF 96-18 EITF 98-05 EITF 99-07 EITF 00-08 EITF 00-12 EITF 00-18 EITF 00-19 EITF 00-27 EITF 02-11 EITF D-090 EITF D-110 FAS 005 FAS 5 FAS 123 FAS 129 FAS 130 FTB 85-06 SAB TOPIC 4.B SAB TOPIC 4.C SAB TOPIC 4.E SAB TOPIC 4.F SAB TOPIC 4.G SAB TOPIC 5.A SAB TOPIC 5.H SAB TOPIC 5.Q SAB TOPIC 5.Z
605	SAB TOPIC 13.A SAB TOPIC 13.B APB 10 APB 29 ARB 43 ARB 45 EITF 85-20 EITF 91-09 EITF 95-01 EITF 95-04 EITF 99-17 EITF 99-19 EITF 00-10 EITF 00-21 EITF 01-09 EITF 01-14 EITF 02-16 EITF 03-10 EITF 06-01 EITF 06-03 EITF D-096 FAS 048 FAS 066 FAS 116 FIN 30 FTB 90-01 IR 33-8642 SAB TOPIC 5.B SAB TOPIC 5.E SOP 81-1 SOP 94-6 SOP 97-2 SOP 01-6 SAB TOPIC 5.H SAB TOPIC 5.U SAB TOPIC 8.A SAB TOPIC 8.B
715	APB 12 EITF 86-27 EITF 88-01 EITF 90-03 EITF 91-07 EITF 92-12 EITF 92-13 EITF 93-03 EITF 96-05 EITF 03-02 EITF 03-04 EITF 05-05 EITF 06-04 EITF 06-10 EITF D-027 EITF D-036 FAS 87 FAS 88 FAS 106 FAS 130 FAS 132 FAS 146 FAS 158 FIN 46 QA 087 QA 088 QA 106
718	SAB TOPIC 14 EITF 90-04 EITF 96-05 EITF 97-02 EITF 00-12 EITF 00-16 EITF 06-11 EITF 07-05 EITF D-083 EITF D-110 FAS 109 FAS 123 FTB 97-01 SOP 93-6
740	FAS 109 FAS 164 FIN 30 FIN 18 FIN 48 APB 2 APB 4 APB 10 APB 21 APB 28 APB 23 EITF D-32 EITF D-31 SAB TOPIC 6. EITF 87-08 EITF 88-04 EITF 91-08 EITF 93-13 EITF 93-16 EITF 93-17 EITF 94-10 EITF 95-09 EITF 95-10 EITF 95-20 EITF 98-11 EITF 05-08 SOP 94-6 QA 109 QA 088 QA 087
805	SAB TOPIC 2.A SAB TOPIC 5.J EITF 85-21 EITF 86-09 EITF 87-21 EITF 96-05 EITF 98-04 EITF 05-06 EITF D-097 EITF D-108 FAS 087 FAS 106 FAS 109 FAS 141 FAS 164 FIN 48
815	FAS 52 FAS 95 FAS 123 FAS 133 FAS 138 FAS 140 FAS 155 FAS 157 FAS 161 FIN 39 DIG A DIG B DIG C DIG E DIG F DIG I EITF 84-04 EITF 84-20 EITF 86-21 EITF 86-25 EITF 96-11 EITF 99-02 EITF 99-08 EITF 99-09 EITF 00-06 EITF 00-09 EITF 00-19 EITF 01-08 EITF 01-12 EITF 02-03 EITF 02-08 EITF 03-11 EITF 05-02 EITF 06-07 EITF 07-05 EITF 08-08 EITF D-102 EITF D-109 SAB TOPIC 5.DD
835	APB 12 APB 21 EITF 85-17 EITF 86-15 EITF 96-12 EITF 99-20 EITF D-010 FAS 034 FAS 042 FAS 058 FAS 062 FAS 087 FAS 116 FAS 143 FAS 150 FAS 154 FIN 48 QA 091 SOP 97-1 SOP 98-7 SOP 01-6 SOP 03-3
840	EITF 84-37 EITF 85-16 EITF 86-17 EITF 86-33 EITF 86-43 EITF 87-08 EITF 88-21 EITF 89-16 EITF 89-20 EITF 90-14 EITF 90-20 EITF 92-01 EITF 93-08 EITF 95-01 EITF 95-04 EITF 95-17 EITF 96-21 EITF 97-01 EITF 97-10 EITF 98-09 EITF 99-13 EITF 00-11 EITF 01-08 EITF 01-12 EITF 05-06 EITF 08-03 EITF D-024 EITF D-107 FAS 13 FAS 22 FAS 23 FAS 28 FAS 29 FAS 66 FAS 71 FAS 91 FAS 94 FAS 98 FAS 109 FAS 140 FAS 143 FAS 144 FAS 146 FIN 19 FIN 21 FIN 23 FIN 24 FIN 26 FIN 45 FTB 79 FTB 85-03 FTB 86-02 FTB 88-01

Appendix B provides details on the research design for the comment letter question analysis. It shows the pre-codification US GAAP references matched into each ASC Topic. We obtain a list of all GAAP references from the Audit Analytics Comment Threading database and then using the FASB cross-reference tool to identify the related ASC Topics. Pre-Codification standards not referenced in a comment letter are not presented in the table above.